

Parte Teórica

Supongamos que quieren explicar una variable estadística Y (por ejemplo altura) utilizando la información de p variables X_1, \dots, X_p (peso, ancho de huesos, etc). Si se toma una muestra de N individuos, cada variable está representada por un vector de tamaño N . La información de las variables explicativas se pueden juntar en una matriz

$$X = [X^1 \mid \dots \mid X^p]$$

de tamaño $n \times p$ donde cada columna es una variable y cada fila uno de los individuos de la muestra. Tienen que contestar lo siguiente:

Plantear el problema de regresión lineal como un problema de mínimos cuadrados, encontrar el vector beta que resuelva

$$\hat{\beta} = \operatorname{argmin}_{\beta \in \mathbb{R}^p} \|Y - X\beta\|^2$$

$$\nabla \|Y - X\beta\|^2 = \nabla (Y^T Y - 2\beta^T X^T Y + \beta^T X^T X \beta)$$

$$\frac{\delta SSE}{\delta \beta} = \frac{\delta}{\delta \beta} (Y^T Y - 2\beta^T X^T Y + \beta^T X^T X \beta)$$

$$0 = 2X^T X \beta - 2X^T Y$$

$$2X^T Y = 2X^T X \beta$$

$$X^T Y = X^T X \beta$$

$$\beta_{OLS} = (X^T X)^{-1} X^T Y$$

y encontrar la solución teórica. ¿Por qué este planteamiento nos da un ajuste lineal a nuestros datos?

Este planteamiento da un ajuste lineal a nuestros datos debido a que el vector β es lineal. Como indica su nombre, la interpretación de la variable Y a partir de X será lineal. Con esto observaremos la ecuación de la recta $\hat{Y} = B_0 + B_1 X$, donde la B_0 es el punto donde la línea cruza el eje Y y la B_1 representa la pendiente

de la misma.

¿Podríamos usarlo para ajustar polinomios (ej $y = x^2$)?

Podríamos realizar este mismo método para el ajuste de los polinomios $y = x^2$ utilizando las β s. Cabe resaltar que a pesar de que este método realiza una regresión sobre un sistema “no lineal”, la aproximación estadística sí es lineal; esto se puede observar claramente en las β s (no en las X 's). Este comportamiento se debe a que $E(Y|X)$ es lineal en las β s estimadas.

- Argumentar la relación entre la solución encontrada y un problema de proyección en subespacios vectoriales de álgebra lineal ¿Cuál es la relación particular con el teorema de Pitágoras?

La solución encontrada se puede decir que es una matriz de proyección, que proyecta un vector en un subespacio vectorial, tal como se realiza en álgebra lineal. Los errores se pueden interpretar como la distancia más corta a la descripción real. Creando una relación entre la varianza de la predicción y la varianza de los residuos que se cumple tanto para regresión lineal simple y múltiple. El teorema de Pitágoras está descrito como la descomposición de estas dos varianzas. Finalmente podemos decir que la varianza de la observación es igual a la varianza de las predicciones, más la varianza de los residuos.

- ¿Que logramos al agregar una columna de unos en la matriz X ? es decir, definir mejor

$$X = [1_n \mid X^1 \mid \dots \mid X^p]$$

con $1_n = [1, 1, \dots, 1]^T$

Lo que se logra al agregar una columna de unos en la matriz X es a incluir datos o información que no estaba presente en las variables de nuestro modelo. Con esto incorporamos β_0 , permitiendo que nuestra aproximación ya no cruce forzosamente por el origen, sino que cruce por algún otro punto del eje y , logrando que tengamos una mejor predicción reduciendo los errores en nuestro resultado.

- Plantear el problema de regresión ahora como un problema de estadística

donde los errores son no correlacionados con distribución

- ¿Cual es la función de verosimilitud del problema anterior? Hint: empiecen por escribir el problema como

Sea

$$Y = X\beta + \epsilon$$

con

$$\epsilon \sim N(0, \sigma^2 I_n)$$

con I_n la matriz identidad. Y concluyan entonces que

$$Y \sim N(X\beta, \sigma^2 I_n)$$

Escriban entonces la verosimilitud como

$$\begin{aligned} L(\beta, \sigma^2; Y, X) &= \prod_{i=1}^p f_y(y_i | X; \beta, \sigma^2) \\ &= \prod_{i=1}^p (2\pi\sigma^2)^{-1/2} \exp\left(-\frac{1}{2} \frac{(y_i - x_i\beta)^2}{\sigma^2}\right) \\ &= (2\pi\sigma^2)^{-N/2} \exp\left(-\frac{1}{2\sigma^2} \sum_{i=1}^p (y_i - x_i\beta)^2\right) \end{aligned}$$

- Mostrar que la solución de máxima verosimilitud es la misma que la del problema de mínimos cuadrados.

Máxima verosimilitud:

$$l(\beta, \sigma^2; Y, X) = -\frac{N}{2} \ln(2\pi) - \frac{N}{2} \ln(\sigma^2) - \frac{1}{2\sigma^2} \sum_{i=1}^N (y_i - x_i\beta)^2$$

Derivar con respecto a cada una de las β s:

$$\begin{aligned} &\nabla_{\beta} l(\beta, \sigma^2; Y, X) \\ &\nabla_{\beta} \left(-\frac{N}{2} \ln(2\pi) - \frac{N}{2} \ln(\sigma^2) - \frac{1}{2\sigma^2} \sum_{i=1}^N (y_i - x_i\beta)^2 \right) \\ &= \frac{1}{\sigma^2} \sum_{i=1}^N x_i^T (y_i - x_i\beta) \end{aligned}$$

$$= \frac{1}{\sigma^2} \left(\sum_{i=1}^N x_i^T y_i - \sum_{i=1}^N x_i^T x_i \beta \right)$$

Que es igual a cero solo si

$$\sum_{i=1}^N x_i^T y_i - \sum_{i=1}^N x_i^T x_i \beta = 0$$

Esto se satisface si:

$$\beta = \left(\sum_{i=1}^N x_i^T x_i \right)^{-1} \sum_{i=1}^N x_i^T y_i = (X^T X)^{-1} X^T y$$

- Investiga el contenido del Teorema de Gauss-Markov sobre mínimos cuadrados.

El Teorema de Gauss-Markov establece distintos supuestos que se cumplen en un modelo de regresión. El primer de estos supuestos es que la Esperanza de los errores es cero $E(u_i | X_i') = 0$ y que la varianza del error condicional a las variables explicativas es constante a lo largo de las observaciones $Var(U|X) = \alpha^2 I$.

El estimador MCO de β es el estimador lineal con insesgado óptimo; por lo tanto el estimador MCO es el estimador eficiente dentro de la clase de estimadores lineales e insesgados.

Por otro lado, también se pueden observar las siguientes características:

- Correcta especificación: El MLG podría ser una combinación lineal de los parámetros β s y no necesariamente de las variables: $Y = X\beta + u$
- Muestreo aleatorio simple: La muestra de observaciones del vector $(y_i, x_{2i}, x_{3i}, \dots, x_{ki})$ es una muestra aleatoria simple. Como consecuencia, el vector (y_i, X_i') es independiente del vector (y_j, X_j')
- Correcta identificación: La matriz de regresoras (X) tiene rango completo: $rg(X) = K \leq N$

Parte aplicada

Para esta parte pueden usar la base de datos diamonds que sugirieron, aunque hay puntos adicionales si usan alguna base original interesante.

Cargar la base que se encuentra en el paquete ggplot2. Los comandos que pueden usar para cargar la base diamonds a su ambiente de trabajo en R son:

A continuación se cargarán las librerías de `ggplot2` las cuales tienen diferentes utilidades y el `dataset` de `diamonds` incluido. Por otro lado, se guardan dentro del dataframe `diamonds` únicamente las columnas numéricas que nos servirán para este análisis

```
#install.packages("ggplot2")
library(ggplot2)
diamonds_data = data(diamonds)
diamonds <- diamonds[,c(1,5,6,7,8,9,10)]
head(diamonds)
```

```
## # A tibble: 6 x 7
##   carat depth table price      x      y      z
##   <dbl> <dbl> <dbl> <int> <dbl> <dbl> <dbl>
## 1  0.23  61.5    55   326  3.95  3.98  2.43
## 2  0.21  59.8    61   326  3.89  3.84  2.31
## 3  0.23  56.9    65   327  4.05  4.07  2.31
## 4  0.29  62.4    58   334  4.20  4.23  2.63
## 5  0.31  63.3    58   335  4.34  4.35  2.75
## 6  0.24  62.8    57   336  3.94  3.96  2.48
```

Ahora podremos observar el dataframe que tenemos para analizar:

```
diamonds
```

```
## # A tibble: 53,940 x 7
##   carat depth table price      x      y      z
##   <dbl> <dbl> <dbl> <int> <dbl> <dbl> <dbl>
## 1  0.23  61.5    55   326  3.95  3.98  2.43
## 2  0.21  59.8    61   326  3.89  3.84  2.31
## 3  0.23  56.9    65   327  4.05  4.07  2.31
## 4  0.29  62.4    58   334  4.20  4.23  2.63
## 5  0.31  63.3    58   335  4.34  4.35  2.75
## 6  0.24  62.8    57   336  3.94  3.96  2.48
## 7  0.24  62.3    57   336  3.95  3.98  2.47
## 8  0.26  61.9    55   337  4.07  4.11  2.53
## 9  0.22  65.1    61   337  3.87  3.78  2.49
## 10 0.23  59.4    61   338  4.00  4.05  2.39
## # ... with 53,930 more rows
```

Posteriormente deben hacer una regresión lineal. Su objetivo es explicar la variable price usando las demás variables. Noten que algunas variables no son numéricas, por lo que no pueden incluirse en un análisis crudo de regresión lineal. Para este proyecto NO es necesario saber transformar las variables no numéricas para poder usarlas en la regresión; hacerlo es optativo, de hecho, las paqueterías lo hacen por ustedes pero deben ser cuidadosos. Pueden usar la función lm de R para su análisis de regresión.

Ahora obtenemos un resumen de cada una de las variables para verificar que se está interpretando de forma correcta:

```
summary(diamonds)
```

```
##      carat      depth      table      price
##  Min.   :0.2000   Min.   :43.00   Min.   :43.00   Min.    : 326
## 1st Qu.:0.4000   1st Qu.:61.00   1st Qu.:56.00   1st Qu.: 950
## Median :0.7000   Median :61.80   Median :57.00   Median : 2401
## Mean   :0.7979   Mean   :61.75   Mean   :57.46   Mean    : 3933
## 3rd Qu.:1.0400   3rd Qu.:62.50   3rd Qu.:59.00   3rd Qu.: 5324
## Max.   :5.0100   Max.   :79.00   Max.   :95.00   Max.   :18823
##
##      x      y      z
##  Min.   : 0.000   Min.   : 0.000   Min.   : 0.000
## 1st Qu.: 4.710   1st Qu.: 4.720   1st Qu.: 2.910
## Median : 5.700   Median : 5.710   Median : 3.530
## Mean   : 5.731   Mean   : 5.735   Mean   : 3.539
## 3rd Qu.: 6.540   3rd Qu.: 6.540   3rd Qu.: 4.040
## Max.   :10.740   Max.   :58.900   Max.   :31.800
```

A continuación veremos la correlación que tiene cada una de las variables numéricas en el resultado de price

```
cor(diamonds$price,diamonds$depth)
```

```
## [1] -0.0106474
```

```
cor(diamonds$price,diamonds$table)
```

```
## [1] 0.1271339
```

```
cor(diamonds$price,diamonds$carat)
```

```
## [1] 0.9215913
```

```
cor(diamonds$price,diamonds$x)
```

```
## [1] 0.8844352
```

```
cor(diamonds$price,diamonds$y)
```

```
## [1] 0.8654209
```

```
cor(diamonds$price,diamonds$z)
```

```
## [1] 0.8612494
```

Con estos resultados, podemos observar que los datos que tienen mayor correlación con la variable `price` son: `carat`, `x`, `y` & `z`

Ahora realizaremos la regresión lineal utilizando las variables numéricas a pesar de que no tengan mucha correlación. También podremos observar la gráfica de residuales vs. nuestra curva de regresión:

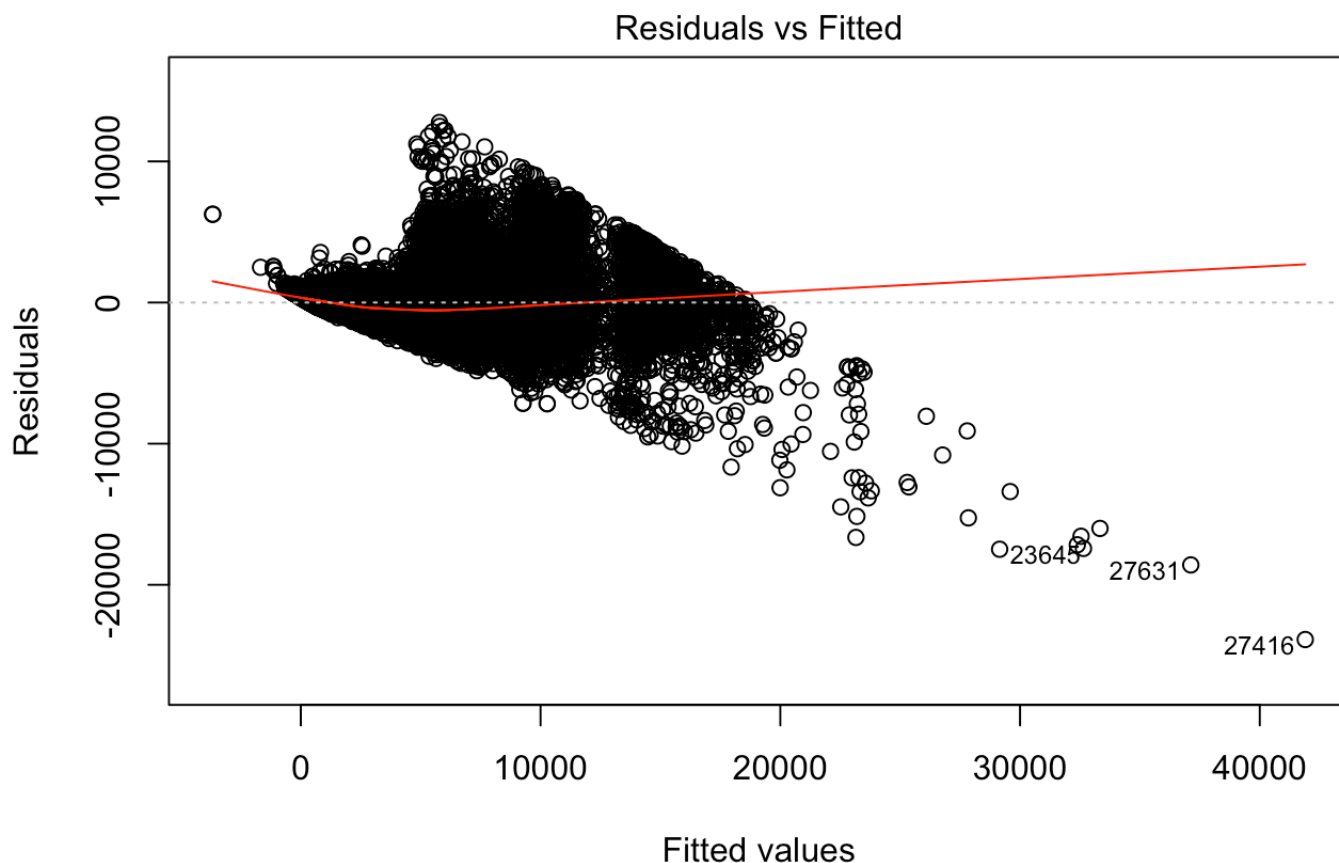
```
mod <- lm(formula = diamonds$price ~ diamonds$carat + diamonds$x + diamonds$y + diamonds$z + diamonds$depth + diamonds$table)
summary(mod)
```

```
##
## Call:
## lm(formula = diamonds$price ~ diamonds$carat + diamonds$x + diamonds$y +
##      diamonds$z + diamonds$depth + diamonds$table)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -23878.2  -615.0   -50.7    347.9  12759.2
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   20849.316     447.562   46.584 < 2e-16 ***
## diamonds$carat 10686.309      63.201  169.085 < 2e-16 ***
## diamonds$x    -1315.668      43.070  -30.547 < 2e-16 ***
## diamonds$y       66.322      25.523    2.599  0.00937 **
## diamonds$z      41.628      44.305    0.940  0.34744
## diamonds$depth -203.154       5.504  -36.910 < 2e-16 ***
## diamonds$table -102.446       3.084  -33.216 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1497 on 53933 degrees of freedom
## Multiple R-squared:  0.8592, Adjusted R-squared:  0.8592
## F-statistic: 5.486e+04 on 6 and 53933 DF,  p-value: < 2.2e-16
```

- ¿Qué tan bueno fue el ajuste?

Con el `summary` podemos observar la siguiente información - Residuales: son todas las diferencias entre el precio estimado y el precio real. A lo que nos tenemos que acercar es a una media próxima a cero. Esto se puede observar en la siguiente gráfica (valores predichos contra los residuales) donde la media de los residuales se aproxima a 0 y la línea roja tiende a ir a lo largo del eje 0:

```
plot(mod, which =1)
```

`lm(diamonds$price ~ diamonds$carat + diamonds$x + diamonds$y + diamonds$z + ...`

- Con los valores en la columna “Pr(>|t|)” confirmamos que las variables “z” y “y” son las más importantes, esto se debe a que nos indica que la probabilidad de que sean relevantes al modelo.

- ¿Qué medida puede ayudarnos a saber la calidad del ajuste? ¿Cuál fue el valor de R^2 que ajustó su modelo y que relación tienen con la calidad del ajuste?

La medida `Multiple R-squared`: Aproximadamente 85.63% de la variación en el precio del diamante puede ser explicada por nuestro modelo de Carat, X, Y, Z y Depth

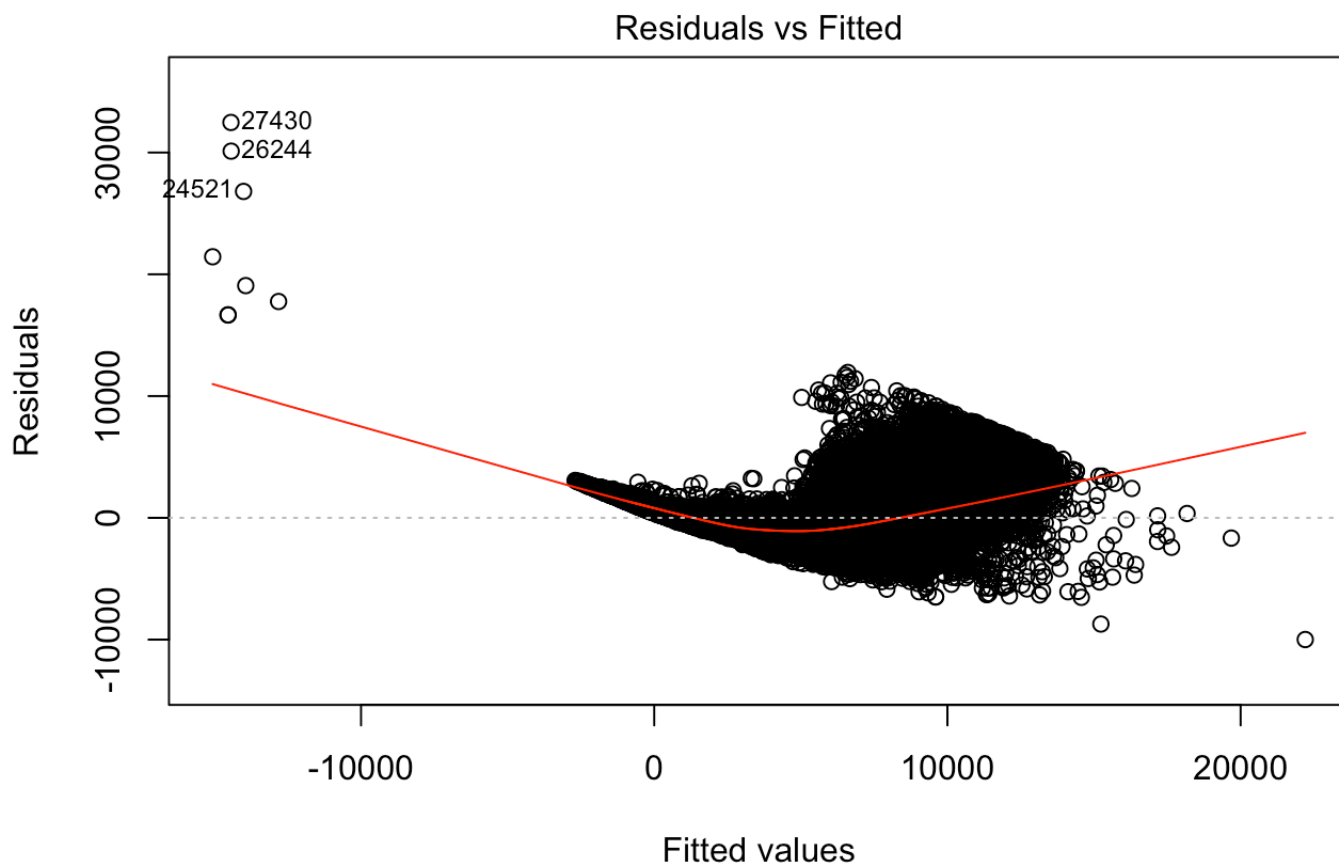
En el caso en que se elimine la variable `carat` disminuye el valor de la R cuadrada, la cuál es la que mayor valor aporta al modelo.

```
mod2 <- lm(formula = diamonds$price ~ diamonds$x + diamonds$y + diamonds$z + diamonds$depth + diamonds$table)
summary(mod2)
```

```
##
## Call:
## lm(formula = diamonds$price ~ diamonds$x + diamonds$y + diamonds$z +
##     diamonds$depth + diamonds$table)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -9994   -1256    -197     945   32470
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   -8770.608     509.448  -17.216 < 2e-16 ***
## diamonds$x      2918.492      43.346   67.330 < 2e-16 ***
## diamonds$y       205.086      31.555    6.499 8.13e-11 ***
## diamonds$z        91.814      54.802    1.675  0.0939 .
## diamonds$depth  -10.501        6.661   -1.576  0.1149
## diamonds$table  -84.855        3.813  -22.255 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1852 on 53934 degrees of freedom
## Multiple R-squared:  0.7846, Adjusted R-squared:  0.7846
## F-statistic: 3.929e+04 on 5 and 53934 DF,  p-value: < 2.2e-16
```

También podemos observar esto en la gráfica de valores residuales

```
plot(mod2, which =1)
```



`lm(diamonds$price ~ diamonds$x + diamonds$y + diamonds$z + diamonds$depth + ...`

Esto nos indica que la medida `Multiple R-squared` es un buen indicador de la calidad de ajuste de nuestro modelo.

- ¿Cuál es el ángulo entre Y y \hat{Y} estimada? Hint: usen la R^2 cuadrada y el arcocoseno

```
R_sq <- 0.8563
R <- sqrt(R_sq)
ArcCos_R <- acos(R)
deg_angle = (ArcCos_R*180)/pi
deg_angle
```

```
## [1] 22.27657
```

- Definan una función que calcule la logverosimilitud de unos parámetros β y σ^2 .

```
#Importar librerías y definir dataframes y matrices
```

```
library(ggplot2)
diamonds_data = data(diamonds)
head(diamonds)
```

```
## # A tibble: 6 x 10
```

```
##   carat      cut color clarity depth table price      x      y      z
##   <dbl>    <ord> <ord>   <ord> <dbl> <dbl> <int> <dbl> <dbl> <dbl>
## 1  0.23     Ideal   E      SI2   61.5   55   326   3.95   3.98   2.43
## 2  0.21     Premium E      SI1   59.8   61   326   3.89   3.84   2.31
## 3  0.23      Good   E      VS1   56.9   65   327   4.05   4.07   2.31
## 4  0.29     Premium I      VS2   62.4   58   334   4.20   4.23   2.63
## 5  0.31      Good   J      SI2   63.3   58   335   4.34   4.35   2.75
## 6  0.24 Very Good J      VVS2   62.8   57   336   3.94   3.96   2.48
```

```
diam_x <- diamonds[,c(5,6,7,8,9,10)]
diam_mat <- data.matrix(diam_x)
```

```
#Establecer variables
```

```
n <- length(diam_x)
Beta <- c(12196.7, 10615.5, -1369.7, 97.6, 64.2, -156.6)
sigma_sq <- 0.8563
```

```
#Calcular LogVerosimilitud
```

```
funcVerosim <- function(beta, sigma){
  -(n/2)*(log(2*pi))-(n/2)*log(sigma)-((1/(2*sigma))*((diamonds$price-(diam_mat*beta))*(diamonds$price-(diam_mat*beta))))
}
```

```
#Asignar valores a la función
```

```
funcVerosim(Beta,sigma_sq)
```

```
##           depth           table           price           x
## [1,] -3.282475e+11 -2.625016e+11 -9.229809e+12 -1.336982e+09
## [2,] -2.350613e+11 -2.445948e+11 -6.991628e+12 -9.800311e+08
## [3,] -3.576484e+09 -4.662363e+09 -1.173071e+11 -2.014903e+07
## [4,] -1.934737e+07 -1.656826e+07 -6.078428e+08 -3.370601e+03
## [5,] -8.118887e+06 -6.704787e+06 -2.617386e+08 -1.860591e+03
## [6,] -6.039862e+07 -5.009247e+07 -1.637326e+09 -5.303196e+05
## [7,] -3.368377e+11 -2.819412e+11 -9.804740e+12 -1.336423e+09
## [8,] -2.518609e+11 -1.988149e+11 -7.471416e+12 -1.073031e+09
## [9,] -4.677712e+09 -4.109140e+09 -1.245916e+11 -1.855898e+07
## [10,] -1.740365e+07 -1.841351e+07 -6.224891e+08 -1.608318e+03
## [11,] -8.298144e+06 -5.949359e+06 -2.680264e+08 -2.560124e+03
```

```

## [12,] -6.044614e+07 -4.845546e+07 -1.676542e+09 -5.330319e+05
## [13,] -3.165915e+11 -3.229156e+11 -1.015804e+13 -1.288820e+09
## [14,] -2.543039e+11 -1.916422e+11 -7.785025e+12 -1.226616e+09
## [15,] -4.003267e+09 -4.245217e+09 -1.305771e+11 -1.789625e+07
## [16,] -1.830376e+07 -1.649991e+07 -6.485396e+08 -3.978113e+03
## [17,] -7.704273e+06 -5.679623e+06 -2.824468e+08 -2.973286e+03
## [18,] -6.169969e+07 -4.529388e+07 -1.786779e+09 -5.996874e+05
## [19,] -3.532468e+11 -2.721187e+11 -1.069970e+13 -1.533133e+09
## [20,] -2.584056e+11 -2.287927e+11 -8.105081e+12 -1.147996e+09
## [21,] -4.424983e+09 -3.466863e+09 -1.351584e+11 -2.234359e+07
## [22,] -2.015311e+07 -1.469127e+07 -6.751241e+08 -3.346860e+02
## [23,] -7.413525e+06 -6.383446e+06 -2.906214e+08 -5.850198e+03
## [24,] -5.443174e+07 -5.911940e+07 -1.807199e+09 -6.321352e+05
## [25,] -2.929195e+11 -3.335850e+11 -1.082199e+13 -1.690107e+09
## [26,] -2.397834e+11 -2.210963e+11 -8.244222e+12 -1.019716e+09
## [27,] -4.314689e+09 -3.591577e+09 -1.382565e+11 -1.959330e+07
## [28,] -1.906260e+07 -1.582654e+07 -6.944400e+08 -2.158435e+03
## [29,] -7.264068e+06 -7.396890e+06 -2.972451e+08 -6.171848e+03
## [30,] -5.715874e+07 -5.031987e+07 -1.848387e+09 -5.575169e+05
## [31,] -3.123590e+11 -2.818877e+11 -1.403491e+13 -1.366979e+09
## [32,] -2.350050e+11 -2.134998e+11 -1.063152e+13 -1.053920e+09
## [33,] -4.075323e+09 -3.851315e+09 -1.772887e+11 -1.991254e+07
## [34,] -1.705956e+07 -1.614795e+07 -8.805427e+08 -7.095350e+01
## [35,] -7.450105e+06 -6.442272e+06 -3.769036e+08 -1.320189e+04
## [36,] -5.287665e+07 -5.427806e+07 -2.343735e+09 -6.288854e+05
## [37,] -3.565316e+11 -3.020281e+11 -1.403491e+13 -1.252331e+09
## [38,] -2.691974e+11 -1.916034e+11 -1.063152e+13 -1.189702e+09
## [39,] -4.088795e+09 -3.851410e+09 -1.781718e+11 -2.144221e+07
## [40,] -1.849939e+07 -1.439404e+07 -8.849290e+08 -7.295199e+02
## [41,] -7.259703e+06 -5.950105e+06 -3.787811e+08 -7.692615e+03
## [42,] -5.805561e+07 -4.912799e+07 -2.355410e+09 -7.144348e+05
## [43,] -3.688788e+11 -2.720772e+11 -1.410482e+13 -1.360040e+09
## [44,] -2.241227e+11 -2.608450e+11 -1.068448e+13 -1.134351e+09
## [45,] -4.402449e+09 -3.471544e+09 -1.781718e+11 -2.352607e+07
## [46,] -1.888632e+07 -1.614181e+07 -8.849290e+08 -7.345823e+01
## [47,] -7.419185e+06 -5.713180e+06 -3.787811e+08 -8.944154e+03
## [48,] -6.308356e+07 -4.912799e+07 -2.355410e+09 -6.883792e+05
## [49,] -3.476815e+11 -3.123573e+11 -1.417491e+13 -1.366866e+09
## [50,] -2.421350e+11 -2.365791e+11 -1.073757e+13 -1.212084e+09
## [51,] -4.102289e+09 -4.115707e+09 -1.790571e+11 -2.039612e+07
## [52,] -1.855701e+07 -1.382801e+07 -8.893261e+08 -2.488101e+02
## [53,] -7.176516e+06 -5.709528e+06 -3.806633e+08 -8.178151e+03
## [54,] -5.898270e+07 -5.255132e+07 -2.367114e+09 -6.068332e+05
## [55,] -3.051075e+11 -3.335400e+11 -1.417491e+13 -1.305547e+09
## [56,] -2.445351e+11 -2.287532e+11 -1.079079e+13 -1.195146e+09
## [57,] -3.890672e+09 -4.115805e+09 -1.799446e+11 -2.446384e+07
## [58,] -1.900286e+07 -1.553605e+07 -8.937342e+08 -6.112670e+01

```

```

## [59,] -7.734846e+06 -6.184239e+06 -3.825501e+08 -9.907121e+03
## [60,] -6.197226e+07 -4.748589e+07 -2.378847e+09 -6.692082e+05
## [61,] -3.216752e+11 -2.817660e+11 -2.646279e+13 -1.754843e+09
## [62,] -2.574257e+11 -2.286457e+11 -2.004570e+13 -1.148582e+09
## [63,] -4.334488e+09 -3.609643e+09 -3.342774e+11 -2.412668e+07
## [64,] -1.772080e+07 -1.409756e+07 -1.660261e+09 -1.022844e+04
## [65,] -6.735293e+06 -6.113751e+06 -7.106510e+08 -3.508958e+04
## [66,] -6.037202e+07 -5.074792e+07 -4.435134e+09 -8.537090e+05
## [67,] -3.334085e+11 -2.651958e+11 -2.655876e+13 -1.639609e+09
## [68,] -2.632190e+11 -2.133932e+11 -2.011840e+13 -1.204169e+09
## [69,] -4.238654e+09 -3.736597e+09 -3.354897e+11 -2.475515e+07
## [70,] -1.684637e+07 -1.523393e+07 -1.666282e+09 -1.525807e+04
## [71,] -6.731327e+06 -6.354905e+06 -7.132282e+08 -5.190223e+04
## [72,] -6.358685e+07 -5.075880e+07 -4.451189e+09 -8.773961e+05
## [73,] -3.431647e+11 -3.019005e+11 -2.665490e+13 -1.557575e+09
## [74,] -2.566016e+11 -2.133925e+11 -2.019123e+13 -1.181703e+09
## [75,] -4.501648e+09 -3.609827e+09 -3.367041e+11 -2.403896e+07
## [76,] -1.593446e+07 -1.641435e+07 -1.672314e+09 -1.229119e+04
## [77,] -6.326350e+06 -5.866153e+06 -7.158100e+08 -4.829216e+04
## [78,] -6.225796e+07 -4.740588e+07 -4.451189e+09 -8.309505e+05
## [79,] -3.420736e+11 -3.122291e+11 -2.665490e+13 -1.365283e+09
## [80,] -2.574241e+11 -2.286443e+11 -2.019123e+13 -1.056914e+09
## [81,] -4.459613e+09 -3.865745e+09 -3.367041e+11 -2.125113e+07
## [82,] -1.770794e+07 -1.641435e+07 -1.672314e+09 -1.507891e+04
## [83,] -7.088356e+06 -5.866153e+06 -7.158100e+08 -5.113566e+04
## [84,] -6.075641e+07 -5.075880e+07 -4.451189e+09 -9.599555e+05
## [85,] -2.907396e+11 -3.122291e+11 -2.665490e+13 -1.513749e+09
## [86,] -2.549606e+11 -2.286443e+11 -2.019123e+13 -9.996933e+08
## [87,] -4.157377e+09 -3.736690e+09 -3.367041e+11 -2.134774e+07
## [88,] -1.690136e+07 -1.581560e+07 -1.672314e+09 -1.526260e+04
## [89,] -6.525316e+06 -5.866153e+06 -7.158100e+08 -5.003238e+04
## [90,] -6.320573e+07 -5.422628e+07 -4.451189e+09 -8.908983e+05
## [91,] -3.368539e+11 -2.799800e+11 -6.601324e+14 -2.602743e+09
## [92,] -1.978902e+11 -3.109193e+11 -5.000537e+14 -2.521427e+09
## [93,] -4.432867e+09 -3.686747e+09 -8.338778e+12 -6.516655e+07
## [94,] -6.479720e+06 -4.591584e+06 -4.147646e+10 -2.838030e+06
## [95,] -1.043718e+06 -4.082910e+05 -1.775340e+10 -3.324183e+06
## [96,] -8.080109e+07 -8.188032e+07 -1.103977e+11 -7.886513e+06
## [97,] -3.041498e+11 -3.314647e+11 -6.610905e+14 -2.612105e+09
## [98,] -2.869726e+11 -2.508185e+11 -5.007795e+14 -2.376774e+09
## [99,] -4.433172e+09 -4.078202e+09 -8.356935e+12 -6.639214e+07
## [100,] -6.138717e+06 -4.913377e+06 -4.150653e+10 -2.768169e+06
## [101,] -9.829261e+05 -4.073150e+05 -1.776628e+10 -3.328759e+06
## [102,] -8.606088e+07 -7.346002e+07 -1.104777e+11 -7.991971e+06
## [103,] -3.271851e+11 -2.605992e+11 -6.615698e+14 -2.698469e+09
## [104,] -2.483862e+11 -2.193707e+11 -5.011426e+14 -2.056123e+09
## [105,] -4.616211e+09 -3.687026e+09 -8.356935e+12 -6.932338e+07

```

```

## [106,] -6.400138e+06 -3.971548e+06 -4.150653e+10 -2.793041e+06
## [107,] -9.635676e+05 -6.168291e+05 -1.776628e+10 -3.310882e+06
## [108,] -9.148651e+07 -7.553888e+07 -1.105578e+11 -7.841393e+06
## [109,] -2.980115e+11 -2.799768e+11 -6.620493e+14 -3.037642e+09
## [110,] -2.508170e+11 -1.971665e+11 -5.015058e+14 -1.724842e+09
## [111,] -4.405442e+09 -3.815321e+09 -8.362992e+12 -6.968515e+07
## [112,] -6.396272e+06 -4.271207e+06 -4.153662e+10 -2.813081e+06
## [113,] -9.620680e+05 -5.410530e+05 -1.777915e+10 -3.267390e+06
## [114,] -9.127234e+07 -8.410231e+07 -1.106379e+11 -7.818882e+06
## [115,] -3.379322e+11 -2.701999e+11 -6.625290e+14 -2.669340e+09
## [116,] -2.565359e+11 -1.830215e+11 -5.018691e+14 -2.019368e+09
## [117,] -4.447324e+09 -3.945811e+09 -8.369051e+12 -7.004786e+07
## [118,] -6.468055e+06 -3.673992e+06 -4.156671e+10 -2.835703e+06
## [119,] -7.521298e+05 -5.399295e+05 -1.779203e+10 -3.346891e+06
## [120,] -8.608924e+07 -8.410231e+07 -1.106379e+11 -8.007385e+06
## [121,] -3.346893e+11 -2.701999e+11 -6.625290e+14 -2.630958e+09
## [122,] -2.532596e+11 -1.900279e+11 -5.018691e+14 -2.019368e+09
## [123,] -4.447324e+09 -4.630652e+09 -8.369051e+12 -6.421782e+07
## [124,] -7.289216e+06 -4.581765e+06 -4.156671e+10 -2.873505e+06
## [125,] -1.194472e+06 -3.453052e+05 -1.779203e+10 -3.364865e+06
## [126,] -8.990562e+07 -8.631144e+07 -1.106379e+11 -7.765436e+06
## [127,] -3.250535e+11 -2.701991e+11 -6.630088e+14 -2.986326e+09
## [128,] -2.316946e+11 -2.118358e+11 -5.022326e+14 -1.848123e+09
## [129,] -4.832329e+09 -3.815510e+09 -8.375113e+12 -7.235693e+07
## [130,] -7.776215e+06 -5.586043e+06 -4.159682e+10 -2.760912e+06
## [131,] -8.653926e+05 -4.043942e+05 -1.780492e+10 -3.321018e+06
## [132,] -9.453117e+07 -8.194948e+07 -1.107982e+11 -7.767285e+06
## [133,] -3.303880e+11 -3.000476e+11 -6.634888e+14 -2.592697e+09
## [134,] -2.557125e+11 -2.348273e+11 -5.029600e+14 -1.890073e+09
## [135,] -4.391964e+09 -4.213472e+09 -8.387242e+12 -6.834475e+07
## [136,] -5.900404e+06 -5.578821e+06 -4.165706e+10 -2.893956e+06
## [137,] -6.981058e+05 -8.625516e+05 -1.783070e+10 -3.353487e+06
## [138,] -9.040364e+07 -8.414436e+07 -1.108784e+11 -7.804940e+06
## [139,] -3.229298e+11 -2.799736e+11 -6.639690e+14 -2.776085e+09
## [140,] -2.500013e+11 -2.044326e+11 -5.033238e+14 -1.827063e+09
## [141,] -4.336750e+09 -3.815793e+09 -8.393309e+12 -6.663765e+07
## [142,] -5.504996e+06 -4.255430e+06 -4.168719e+10 -2.803390e+06
## [143,] -8.416168e+05 -3.408295e+05 -1.785651e+10 -3.369885e+06
## [144,] -8.638245e+07 -7.983822e+07 -1.110388e+11 -7.887243e+06
## [145,] -3.271790e+11 -2.605937e+11 -6.649299e+14 -2.640135e+09
## [146,] -2.516255e+11 -2.673253e+11 -5.036878e+14 -1.889941e+09
## [147,] -4.674111e+09 -4.078983e+09 -8.405452e+12 -6.229298e+07
## [148,] -5.638613e+06 -4.249127e+06 -4.174750e+10 -2.823528e+06
## [149,] -7.784398e+05 -5.332127e+05 -1.786942e+10 -3.376296e+06
## [150,] -8.841035e+07 -7.985188e+07 -1.111191e+11 -7.844543e+06
## [151,] -3.282451e+11 -3.000442e+11 -6.654106e+14 -2.611402e+09
## [152,] -2.451557e+11 -2.044305e+11 -5.044162e+14 -2.033492e+09

```

```

## [153,] -4.560529e+09 -4.213968e+09 -8.417603e+12 -6.448382e+07
## [154,] -6.064123e+06 -5.214611e+06 -4.180785e+10 -2.828667e+06
## [155,] -9.390921e+05 -4.618948e+05 -1.789525e+10 -3.358499e+06
## [156,] -9.184734e+07 -7.987919e+07 -1.112797e+11 -7.886676e+06
## [157,] -3.176510e+11 -2.701936e+11 -6.663725e+14 -2.668709e+09
## [158,] -2.403590e+11 -2.193635e+11 -5.047806e+14 -2.070166e+09
## [159,] -4.420261e+09 -3.946579e+09 -8.417603e+12 -6.685861e+07
## [160,] -5.525669e+06 -4.555632e+06 -4.180785e+10 -2.806134e+06
## [161,] -6.202426e+05 -6.048847e+05 -1.789525e+10 -3.335165e+06
## [162,] -8.710809e+07 -7.776799e+07 -1.113601e+11 -7.911150e+06
## [163,] -3.282425e+11 -3.103388e+11 -6.668537e+14 -2.687923e+09
## [164,] -2.499975e+11 -2.118302e+11 -5.051452e+14 -1.968047e+09
## [165,] -4.476208e+09 -3.562019e+09 -8.423681e+12 -6.998780e+07
## [166,] -5.695076e+06 -5.207634e+06 -4.186825e+10 -2.833810e+06
## [167,] -7.644530e+05 -4.598198e+05 -1.792110e+10 -3.324628e+06
## [168,] -8.982362e+07 -7.568506e+07 -1.114405e+11 -7.635174e+06
## [169,] -3.282416e+11 -2.701920e+11 -6.673351e+14 -2.261690e+09
## [170,] -2.285749e+11 -2.427495e+11 -5.055098e+14 -2.018681e+09
## [171,] -4.392775e+09 -3.688232e+09 -8.435846e+12 -6.792731e+07
## [172,] -4.869437e+06 -6.275023e+06 -4.189846e+10 -2.826343e+06
## [173,] -6.948152e+05 -7.617830e+05 -1.794697e+10 -3.185002e+06
## [174,] -9.030689e+07 -7.571165e+07 -1.116013e+11 -7.656862e+06
## [175,] -3.390060e+11 -2.605883e+11 -6.682984e+14 -2.582438e+09
## [176,] -2.723763e+11 -1.900199e+11 -5.062395e+14 -2.055153e+09
## [177,] -4.392977e+09 -4.351453e+09 -8.448019e+12 -6.709246e+07
## [178,] -6.914233e+06 -4.347475e+06 -4.198916e+10 -2.897181e+06
## [179,] -9.113973e+05 -5.243223e+05 -1.797286e+10 -3.384343e+06
## [180,] -9.147687e+07 -7.996117e+07 -1.117623e+11 -7.919182e+06
## [181,] -3.271711e+11 -2.701888e+11 -6.692624e+14 -2.191043e+09
## [182,] -2.467596e+11 -2.118267e+11 -5.069698e+14 -1.630877e+09
## [183,] -4.462724e+09 -3.688511e+09 -8.454108e+12 -6.574017e+07
## [184,] -5.787649e+06 -4.223962e+06 -4.198916e+10 -2.854181e+06
## [185,] -6.520542e+05 -7.169767e+05 -1.797286e+10 -3.373522e+06
## [186,] -8.762692e+07 -7.783539e+07 -1.117623e+11 -7.925918e+06
## [187,] -3.390033e+11 -2.899134e+11 -6.697447e+14 -2.563296e+09
## [188,] -2.516179e+11 -2.193585e+11 -5.073351e+14 -1.924699e+09
## [189,] -4.603762e+09 -3.816832e+09 -8.460200e+12 -6.440166e+07
## [190,] -6.949481e+06 -4.855956e+06 -4.201942e+10 -2.902323e+06
## [191,] -5.091185e+05 -6.747832e+05 -1.798581e+10 -3.363722e+06
## [192,] -9.126271e+07 -7.575155e+07 -1.118429e+11 -7.862968e+06
## [193,] -3.218610e+11 -3.103337e+11 -6.697447e+14 -2.610699e+09
## [194,] -2.348184e+11 -2.270227e+11 -5.073351e+14 -2.011056e+09
## [195,] -4.379316e+09 -3.816832e+09 -8.460200e+12 -6.592242e+07
## [196,] -6.523677e+06 -5.190211e+06 -4.201942e+10 -2.887096e+06
## [197,] -7.577866e+05 -4.546528e+05 -1.798581e+10 -3.388961e+06
## [198,] -8.876506e+07 -8.212943e+07 -1.118429e+11 -7.916748e+06
## [199,] -3.250413e+11 -2.799639e+11 -6.697447e+14 -2.658536e+09

```



```

## [200,] -2.491824e+11 -2.427458e+11 -5.073351e+14 -2.032941e+09
## [201,] -4.201084e+09 -4.632212e+09 -8.460200e+12 -6.643328e+07
## [202,] -6.001212e+06 -4.855956e+06 -4.201942e+10 -2.876967e+06
## [203,] -7.156832e+05 -5.232163e+05 -1.798581e+10 -3.381740e+06
## [204,] -9.589266e+07 -8.431267e+07 -1.118429e+11 -7.822754e+06
## [205,] -3.977872e+11 -3.103337e+11 -6.697447e+14 -2.944559e+09
## [206,] -2.540652e+11 -2.193585e+11 -5.073351e+14 -2.040262e+09
## [207,] -4.660750e+09 -4.214663e+09 -8.460200e+12 -6.373146e+07
## [208,] -5.997468e+06 -3.916915e+06 -4.204969e+10 -3.012683e+06
## [209,] -7.381724e+05 -3.889940e+05 -1.801173e+10 -3.378341e+06
## [210,] -9.037952e+07 -7.787584e+07 -1.120040e+11 -7.965827e+06
## [211,] -3.488386e+11 -2.799614e+11 -6.711925e+14 -2.516097e+09
## [212,] -2.443448e+11 -2.193564e+11 -5.084318e+14 -2.091671e+09
## [213,] -4.505185e+09 -3.438988e+09 -8.478489e+12 -6.511235e+07
## [214,] -6.063220e+06 -3.910868e+06 -4.211026e+10 -2.859471e+06
## [215,] -7.882598e+05 -5.930570e+05 -1.802469e+10 -3.413703e+06
## [216,] -9.063628e+07 -8.658142e+07 -1.121653e+11 -8.350500e+06
## [217,] -3.335950e+11 -2.701848e+11 -6.716755e+14 -2.725919e+09
## [218,] -2.443440e+11 -2.044222e+11 -5.087977e+14 -2.106467e+09
## [219,] -4.297096e+09 -4.632732e+09 -8.490693e+12 -6.769582e+07
## [220,] -4.676462e+06 -7.008102e+06 -4.217087e+10 -2.984525e+06
## [221,] -7.768765e+05 -3.861397e+05 -1.805063e+10 -3.372343e+06
## [222,] -8.047199e+07 -9.110714e+07 -1.122460e+11 -7.958505e+06
## [223,] -3.411729e+11 -3.103294e+11 -6.721586e+14 -2.525302e+09
## [224,] -2.598177e+11 -2.193549e+11 -5.091637e+14 -2.003445e+09
## [225,] -4.324584e+09 -3.817304e+09 -8.490693e+12 -6.649558e+07
## [226,] -6.504174e+06 -5.172817e+06 -4.217087e+10 -2.884874e+06
## [227,] -9.120102e+05 -6.685208e+05 -1.805063e+10 -3.412099e+06
## [228,] -7.602661e+07 -1.028871e+08 -1.122460e+11 -8.354917e+06
## [229,] -3.250370e+11 -3.000325e+11 -6.721586e+14 -2.774716e+09
## [230,] -2.524277e+11 -1.971516e+11 -5.095298e+14 -1.565595e+09
## [231,] -4.632940e+09 -3.439346e+09 -8.502905e+12 -6.533077e+07
## [232,] -6.882122e+06 -4.198871e+06 -4.223153e+10 -2.859719e+06
## [233,] -9.809271e+05 -5.122201e+05 -1.811558e+10 -3.429862e+06
## [234,] -9.118009e+07 -8.011156e+07 -1.126498e+11 -7.513838e+06
## [235,] -3.260962e+11 -2.701801e+11 -6.745769e+14 -2.450543e+09
## [236,] -2.387574e+11 -2.348103e+11 -5.113623e+14 -1.974096e+09
## [237,] -4.366586e+09 -4.215754e+09 -8.527357e+12 -7.197020e+07
## [238,] -6.143565e+06 -4.186354e+06 -4.235297e+10 -2.870066e+06
## [239,] -9.505006e+05 -3.804627e+05 -1.812858e+10 -3.436329e+06
## [240,] -8.534922e+07 -9.582293e+07 -1.127307e+11 -8.092963e+06
## [241,] -3.368265e+11 -2.605773e+11 -6.750611e+14 -2.609840e+09
## [242,] -2.715191e+11 -2.193506e+11 -5.113623e+14 -2.390452e+09
## [243,] -4.590709e+09 -4.080936e+09 -8.527357e+12 -7.629532e+07
## [244,] -7.058847e+06 -3.051921e+06 -4.238336e+10 -2.882777e+06
## [245,] -9.876287e+05 -2.682597e+05 -1.814159e+10 -3.417363e+06
## [246,] -8.758887e+07 -8.229572e+07 -1.128115e+11 -8.063295e+06

```

```

## [247,] -3.292955e+11 -2.899035e+11 -6.755454e+14 -2.715559e+09
## [248,] -2.606398e+11 -2.044167e+11 -5.117292e+14 -2.551646e+09
## [249,] -4.436123e+09 -3.689717e+09 -8.533475e+12 -7.021812e+07
## [250,] -6.066080e+06 -4.183228e+06 -4.238336e+10 -2.905615e+06
## [251,] -7.334792e+05 -4.423711e+05 -1.814159e+10 -3.504979e+06
## [252,] -8.893793e+07 -8.893793e+07 -1.128115e+11 -8.076893e+06
## [253,] -3.325123e+11 -2.799541e+11 -6.755454e+14 -2.395343e+09
## [254,] -2.419381e+11 -2.348095e+11 -5.117292e+14 -1.839451e+09
## [255,] -4.394396e+09 -4.215854e+09 -8.533475e+12 -6.899563e+07
## [256,] -7.707158e+06 -5.148514e+06 -4.238336e+10 -2.732827e+06
## [257,] -7.661376e+05 -3.785798e+05 -1.815460e+10 -3.460225e+06
## [258,] -8.405578e+07 -8.449520e+07 -1.128924e+11 -8.122110e+06
## [259,] -3.346646e+11 -2.605758e+11 -6.760299e+14 -2.913220e+09
## [260,] -2.355956e+11 -2.507948e+11 -5.120962e+14 -1.995644e+09
## [261,] -4.464154e+09 -4.081131e+09 -8.539595e+12 -6.608383e+07
## [262,] -6.815091e+06 -4.116232e+06 -4.244416e+10 -2.822440e+06
## [263,] -8.439739e+05 -3.776400e+05 -1.816761e+10 -3.426647e+06
## [264,] -8.496393e+07 -8.452329e+07 -1.130544e+11 -8.015223e+06
## [265,] -3.292929e+11 -3.000241e+11 -6.769995e+14 -2.600014e+09
## [266,] -2.451383e+11 -1.971455e+11 -5.128306e+14 -1.959436e+09
## [267,] -4.506416e+09 -4.216151e+09 -8.551843e+12 -6.576872e+07
## [268,] -5.728972e+06 -5.481785e+06 -4.247458e+10 -2.898180e+06
## [269,] -6.246797e+05 -4.393270e+05 -1.818063e+10 -3.398658e+06
## [270,] -9.171089e+07 -7.805127e+07 -1.130544e+11 -7.947609e+06
## [271,] -3.165815e+11 -2.799509e+11 -6.774846e+14 -2.872870e+09
## [272,] -2.581579e+11 -2.118147e+11 -5.131981e+14 -1.916517e+09
## [273,] -4.791947e+09 -3.564025e+09 -8.557970e+12 -6.392682e+07
## [274,] -5.941459e+06 -4.170734e+06 -4.250502e+10 -2.877963e+06
## [275,] -8.867631e+05 -3.180268e+05 -1.819366e+10 -3.435944e+06
## [276,] -9.404679e+07 -7.807827e+07 -1.132164e+11 -8.078205e+06
## [277,] -3.176294e+11 -2.701737e+11 -6.784552e+14 -2.705377e+09
## [278,] -2.499792e+11 -2.348051e+11 -5.139333e+14 -2.098047e+09
## [279,] -4.577261e+09 -3.564208e+09 -8.570231e+12 -6.942019e+07
## [280,] -5.718003e+06 -5.471055e+06 -4.256591e+10 -2.916170e+06
## [281,] -8.204962e+05 -6.523751e+05 -1.821973e+10 -3.439792e+06
## [282,] -9.359796e+07 -8.022103e+07 -1.132974e+11 -7.953789e+06
## [283,] -2.898986e+11 -3.000216e+11 -6.784552e+14 -3.065663e+09
## [284,] -2.581563e+11 -2.118133e+11 -5.139333e+14 -1.966420e+09
## [285,] -3.975332e+09 -4.216449e+09 -8.570231e+12 -8.197600e+07
## [286,] -6.640518e+06 -4.792180e+06 -4.259638e+10 -2.928982e+06
## [287,] -7.568024e+05 -5.732181e+05 -1.824581e+10 -3.407324e+06
## [288,] -8.747934e+07 -8.680910e+07 -1.134596e+11 -8.200531e+06
## [289,] -3.389855e+11 -3.103166e+11 -6.794265e+14 -2.571191e+09
## [290,] -2.451345e+11 -2.193442e+11 -5.146691e+14 -1.966285e+09
## [291,] -4.436938e+09 -4.216647e+09 -8.582500e+12 -6.634121e+07
## [292,] -6.146444e+06 -3.859658e+06 -4.262685e+10 -3.024260e+06
## [293,] -7.913293e+05 -3.720261e+05 -1.824581e+10 -3.557453e+06

```

```

## [294,] -9.109751e+07 -8.240667e+07 -1.134596e+11 -7.962412e+06
## [295,] -3.292885e+11 -2.898969e+11 -6.794265e+14 -2.666577e+09
## [296,] -2.475502e+11 -2.044112e+11 -5.146691e+14 -2.024257e+09
## [297,] -4.055110e+09 -5.071656e+09 -8.582500e+12 -6.754006e+07
## [298,] -5.818132e+06 -4.467985e+06 -4.262685e+10 -2.847926e+06
## [299,] -1.367017e+06 -6.499087e+05 -1.824581e+10 -3.362197e+06
## [300,] -9.455613e+07 -8.680910e+07 -1.134596e+11 -8.098050e+06
## [301,] -3.260866e+11 -3.000191e+11 -6.799124e+14 -2.763620e+09
## [302,] -2.193428e+11 -2.507879e+11 -5.154054e+14 -2.310982e+09
## [303,] -4.549392e+09 -3.440691e+09 -8.594778e+12 -7.034624e+07
## [304,] -6.138868e+06 -4.461527e+06 -4.268783e+10 -2.883400e+06
## [305,] -7.785746e+05 -3.692349e+05 -1.828497e+10 -3.508899e+06
## [306,] -9.182801e+07 -8.463574e+07 -1.137032e+11 -8.213666e+06
## [307,] -3.335783e+11 -2.898945e+11 -6.808847e+14 -2.505225e+09
## [308,] -2.451322e+11 -2.044091e+11 -5.157737e+14 -2.295337e+09
## [309,] -4.535387e+09 -3.819004e+09 -8.600921e+12 -7.071067e+07
## [310,] -6.098192e+06 -4.458299e+06 -4.271834e+10 -2.855668e+06
## [311,] -8.584403e+05 -5.697521e+05 -1.828497e+10 -3.413979e+06
## [312,] -9.344041e+07 -8.685182e+07 -1.137032e+11 -7.988877e+06
## [313,] -3.292859e+11 -3.000174e+11 -6.808847e+14 -2.812671e+09
## [314,] -2.532304e+11 -2.044091e+11 -5.157737e+14 -1.756197e+09
## [315,] -4.082107e+09 -5.685826e+09 -8.600921e+12 -6.896139e+07
## [316,] -5.696097e+06 -3.847657e+06 -4.274886e+10 -2.773155e+06
## [317,] -8.570249e+05 -3.111694e+05 -1.829803e+10 -3.444062e+06
## [318,] -9.299303e+07 -8.246217e+07 -1.137844e+11 -8.006736e+06
## [319,] -3.144805e+11 -2.799444e+11 -6.813712e+14 -2.822484e+09
## [320,] -2.515995e+11 -2.193413e+11 -5.161422e+14 -1.944493e+09
## [321,] -3.923289e+09 -4.217044e+09 -8.607065e+12 -6.914804e+07
## [322,] -6.853125e+06 -4.775467e+06 -4.274886e+10 -2.957445e+06
## [323,] -8.844907e+05 -4.302576e+05 -1.829803e+10 -3.464121e+06
## [324,] -9.184266e+07 -8.246217e+07 -1.137844e+11 -8.487797e+06
## [325,] -3.346548e+11 -2.898937e+11 -6.813712e+14 -3.360919e+09
## [326,] -2.340144e+11 -2.193406e+11 -5.165108e+14 -2.310761e+09
## [327,] -4.479378e+09 -3.440960e+09 -8.613212e+12 -5.782962e+07
## [328,] -6.540394e+06 -3.844660e+06 -4.277939e+10 -2.921705e+06
## [329,] -8.465592e+05 -4.959449e+05 -1.831110e+10 -3.441436e+06
## [330,] -9.348474e+07 -8.248993e+07 -1.139469e+11 -7.927545e+06
## [331,] -3.477178e+11 -2.701674e+11 -6.823445e+14 -2.637308e+09
## [332,] -2.451300e+11 -2.044070e+11 -5.168795e+14 -1.980291e+09
## [333,] -4.299200e+09 -3.441050e+09 -8.619361e+12 -6.813281e+07
## [334,] -7.361851e+06 -4.768790e+06 -4.280993e+10 -2.983279e+06
## [335,] -8.632898e+05 -4.948692e+05 -1.832417e+10 -3.467984e+06
## [336,] -8.248993e+07 -9.141373e+07 -1.139469e+11 -8.076485e+06
## [337,] -3.357322e+11 -3.207819e+11 -6.823445e+14 -2.599157e+09
## [338,] -2.451300e+11 -2.118077e+11 -5.168795e+14 -2.112374e+09
## [339,] -4.203660e+09 -4.217243e+09 -8.619361e+12 -6.761544e+07
## [340,] -5.724437e+06 -4.768790e+06 -4.280993e+10 -2.863421e+06

```

```

## [341,] -9.472850e+05 -3.094667e+05 -1.832417e+10 -3.475297e+06
## [342,] -9.187195e+07 -8.033057e+07 -1.139469e+11 -8.323195e+06
## [343,] -3.510222e+11 -2.898912e+11 -6.828315e+14 -2.523613e+09
## [344,] -2.672961e+11 -2.118070e+11 -5.172484e+14 -1.915782e+09
## [345,] -4.564038e+09 -3.691110e+09 -8.625512e+12 -6.883838e+07
## [346,] -6.268440e+06 -4.765453e+06 -4.284048e+10 -2.952506e+06
## [347,] -7.818414e+05 -4.272555e+05 -1.833725e+10 -3.463523e+06
## [348,] -9.188660e+07 -8.250381e+07 -1.140283e+11 -8.012938e+06
## [349,] -3.260813e+11 -2.701666e+11 -6.828315e+14 -2.902015e+09
## [350,] -2.427254e+11 -2.270030e+11 -5.172484e+14 -1.930010e+09
## [351,] -4.521712e+09 -3.691110e+09 -8.625512e+12 -6.642837e+07
## [352,] -5.973240e+06 -3.551990e+06 -4.284048e+10 -2.932038e+06
## [353,] -1.343143e+06 -5.651472e+05 -1.833725e+10 -3.428917e+06
## [354,] -9.075767e+07 -8.251769e+07 -1.141096e+11 -8.085174e+06
## [355,] -3.303520e+11 -2.701658e+11 -6.833186e+14 -2.694897e+09
## [356,] -2.491611e+11 -2.193385e+11 -5.176174e+14 -1.994620e+09
## [357,] -4.042569e+09 -5.072527e+09 -8.631666e+12 -5.979106e+07
## [358,] -6.339503e+06 -4.442179e+06 -4.287104e+10 -2.939768e+06
## [359,] -8.787509e+05 -3.646063e+05 -1.835033e+10 -3.466368e+06
## [360,] -8.939482e+07 -1.056900e+08 -1.141096e+11 -8.064771e+06
## [361,] -3.532335e+11 -2.799412e+11 -6.833186e+14 -2.812265e+09
## [362,] -2.548612e+11 -2.347969e+11 -5.179865e+14 -2.082444e+09
## [363,] -4.299501e+09 -3.950036e+09 -8.637821e+12 -6.834360e+07
## [364,] -6.002260e+06 -3.832683e+06 -4.290162e+10 -2.950070e+06
## [365,] -8.216595e+05 -4.905782e+05 -1.837651e+10 -3.486702e+06
## [366,] -8.695155e+07 -8.038537e+07 -1.142724e+11 -8.087060e+06
## [367,] -3.303502e+11 -2.799396e+11 -6.842934e+14 -3.106062e+09
## [368,] -2.573226e+11 -2.118041e+11 -5.187252e+14 -2.067525e+09
## [369,] -4.494014e+09 -3.819759e+09 -8.650139e+12 -6.478242e+07
## [370,] -7.875916e+06 -5.082838e+06 -4.296279e+10 -2.843574e+06
## [371,] -9.303745e+05 -3.618431e+05 -1.838961e+10 -3.467597e+06
## [372,] -8.898608e+07 -7.826745e+07 -1.143538e+11 -7.801319e+06
## [373,] -3.433306e+11 -2.799388e+11 -6.847810e+14 -2.636916e+09
## [374,] -2.597967e+11 -2.269994e+11 -5.190947e+14 -2.052728e+09
## [375,] -4.109781e+09 -3.819854e+09 -8.656301e+12 -7.367310e+07
## [376,] -5.666955e+06 -3.537603e+06 -4.299340e+10 -2.927246e+06
## [377,] -1.045842e+06 -3.609244e+05 -1.840271e+10 -3.298975e+06
## [378,] -9.105872e+07 -7.829449e+07 -1.145168e+11 -7.957694e+06
## [379,] -3.092681e+11 -3.103056e+11 -6.857569e+14 -2.665552e+09
## [380,] -2.483481e+11 -1.971332e+11 -5.194644e+14 -2.023364e+09
## [381,] -4.607185e+09 -4.354983e+09 -8.662466e+12 -6.363279e+07
## [382,] -6.395499e+06 -4.426088e+06 -4.302402e+10 -2.929861e+06
## [383,] -9.259575e+05 -4.863059e+05 -1.842892e+10 -3.487125e+06
## [384,] -9.499742e+07 -7.412958e+07 -1.145983e+11 -8.200120e+06
## [385,] -3.723121e+11 -3.000082e+11 -6.862450e+14 -3.033432e+09
## [386,] -3.027856e+11 -2.044015e+11 -5.198342e+14 -2.325721e+09
## [387,] -4.635853e+09 -4.218136e+09 -8.674801e+12 -6.365717e+07

```

```

## [388,] -5.238370e+06 -4.738801e+06 -4.308528e+10 -2.958139e+06
## [389,] -9.339453e+05 -5.559934e+05 -1.844204e+10 -3.532264e+06
## [390,] -9.085961e+07 -8.261490e+07 -1.146799e+11 -7.966319e+06
## [391,] -3.409843e+11 -2.917455e+11 -2.665490e+13 -1.624487e+09
## [392,] -2.590730e+11 -2.209526e+11 -2.019123e+13 -1.238131e+09
## [393,] -4.320918e+09 -3.609827e+09 -3.367041e+11 -2.497152e+07
## [394,] -1.702423e+07 -1.581560e+07 -1.672314e+09 -9.207014e+03
## [395,] -7.140697e+06 -5.400506e+06 -7.158100e+08 -4.325634e+04
## [396,] -5.908908e+07 -5.247822e+07 -4.451189e+09 -9.182119e+05
## [397,] -3.216735e+11 -3.019005e+11 -2.665490e+13 -1.579723e+09
## [398,] -2.372572e+11 -1.986670e+11 -2.019123e+13 -1.249574e+09
## [399,] -4.389992e+09 -3.736690e+09 -3.367041e+11 -2.403896e+07
## [400,] -1.846916e+07 -1.408608e+07 -1.672314e+09 -1.069348e+04
## [401,] -7.325405e+06 -5.174902e+06 -7.158100e+08 -4.594966e+04
## [402,] -6.320573e+07 -5.247822e+07 -4.451189e+09 -8.729183e+05
## [403,] -3.486460e+11 -3.122291e+11 -2.665490e+13 -1.535584e+09
## [404,] -2.682360e+11 -1.986670e+11 -2.019123e+13 -1.221064e+09
## [405,] -4.184415e+09 -3.485154e+09 -3.367041e+11 -3.024493e+07
## [406,] -1.757622e+07 -1.352620e+07 -1.678357e+09 -1.100797e+04
## [407,] -6.954316e+06 -5.171426e+06 -7.183965e+08 -4.755283e+04
## [408,] -6.114203e+07 -5.423753e+07 -4.467273e+09 -8.855719e+05
## [409,] -3.280470e+11 -2.719560e+11 -2.675121e+13 -1.700421e+09
## [410,] -2.396330e+11 -2.133917e+11 -2.026418e+13 -1.325184e+09
## [411,] -4.238853e+09 -3.362761e+09 -3.379207e+11 -2.614324e+07
## [412,] -1.763881e+07 -1.408035e+07 -1.678357e+09 -7.835038e+03
## [413,] -6.928466e+06 -5.396955e+06 -7.183965e+08 -4.564682e+04
## [414,] -6.076833e+07 -5.076969e+07 -4.467273e+09 -8.721103e+05
## [415,] -3.185089e+11 -2.719560e+11 -2.675121e+13 -1.770302e+09
## [416,] -2.240127e+11 -2.525083e+11 -2.026418e+13 -1.571945e+09
## [417,] -4.184612e+09 -3.736877e+09 -3.391396e+11 -2.498680e+07
## [418,] -1.756981e+07 -1.407461e+07 -1.684410e+09 -7.447245e+03
## [419,] -6.847205e+06 -5.393405e+06 -7.209876e+08 -4.618451e+04
## [420,] -6.059380e+07 -5.250037e+07 -4.483385e+09 -8.359258e+05
## [421,] -3.346451e+11 -2.898846e+11 -6.867334e+14 -2.541759e+09
## [422,] -2.419208e+11 -2.427194e+11 -5.202041e+14 -1.915246e+09
## [423,] -4.550732e+09 -3.820137e+09 -8.674801e+12 -6.567711e+07
## [424,] -3.814752e+06 -5.762968e+06 -4.308528e+10 -2.714526e+06
## [425,] -5.271147e+05 -6.315594e+05 -1.844204e+10 -3.453417e+06
## [426,] -9.154529e+07 -8.045390e+07 -1.146799e+11 -7.645380e+06
## [427,] -3.082298e+11 -2.898838e+11 -6.872219e+14 -3.199743e+09
## [428,] -2.622802e+11 -1.971312e+11 -5.205742e+14 -2.164180e+09
## [429,] -4.823094e+09 -3.950709e+09 -8.680972e+12 -7.265110e+07
## [430,] -6.193060e+06 -5.062186e+06 -4.314659e+10 -2.935221e+06
## [431,] -7.683866e+05 -4.173244e+05 -1.846828e+10 -3.466402e+06
## [432,] -8.952492e+07 -8.483269e+07 -1.148430e+11 -8.131154e+06
## [433,] -3.260717e+11 -2.701578e+11 -6.881995e+14 -2.170850e+09
## [434,] -2.231467e+11 -2.507757e+11 -5.213147e+14 -2.111531e+09

```

```

## [435,] -4.452728e+09 -3.950901e+09 -8.693320e+12 -6.742213e+07
## [436,] -5.539329e+06 -4.102353e+06 -4.317726e+10 -2.966030e+06
## [437,] -7.414850e+05 -3.554366e+05 -1.848141e+10 -3.502221e+06
## [438,] -9.044753e+07 -7.625785e+07 -1.149247e+11 -8.047012e+06
## [439,] -3.250082e+11 -2.701578e+11 -6.881995e+14 -2.617260e+09
## [440,] -2.757407e+11 -2.043987e+11 -5.213147e+14 -2.224835e+09
## [441,] -3.692131e+09 -4.218434e+09 -8.693320e+12 -8.244294e+07
## [442,] -5.469340e+06 -5.058748e+06 -4.317726e+10 -2.836465e+06
## [443,] -5.027051e+05 -4.820522e+05 -1.848141e+10 -3.449175e+06
## [444,] -7.233864e+07 -9.389390e+07 -1.149247e+11 -8.740240e+06
## [445,] -3.134241e+11 -2.898821e+11 -6.881995e+14 -3.468590e+09
## [446,] -2.459240e+11 -2.043980e+11 -5.216851e+14 -2.096578e+09
## [447,] -4.232140e+09 -3.820515e+09 -8.699498e+12 -6.287331e+07
## [448,] -6.638628e+06 -3.802822e+06 -4.320795e+10 -3.004752e+06
## [449,] -7.486348e+05 -5.514445e+05 -1.849454e+10 -3.457485e+06
## [450,] -9.321423e+07 -7.837565e+07 -1.150063e+11 -8.346005e+06
## [451,] -3.368016e+11 -2.605555e+11 -6.886885e+14 -2.931225e+09
## [452,] -2.451194e+11 -2.043974e+11 -5.220557e+14 -2.001051e+09
## [453,] -4.245868e+09 -3.692317e+09 -8.705678e+12 -6.830953e+07
## [454,] -6.368473e+06 -4.403610e+06 -4.323864e+10 -2.994482e+06
## [455,] -8.167075e+05 -4.799324e+05 -1.850768e+10 -3.509781e+06
## [456,] -9.047660e+07 -7.838918e+07 -1.150880e+11 -7.886762e+06
## [457,] -3.020486e+11 -3.000032e+11 -6.891777e+14 -2.752306e+09
## [458,] -2.491519e+11 -2.269935e+11 -5.220557e+14 -1.979339e+09
## [459,] -4.397233e+09 -3.566215e+09 -8.705678e+12 -6.710384e+07
## [460,] -5.888531e+06 -4.722181e+06 -4.323864e+10 -2.966156e+06
## [461,] -8.616434e+05 -2.976788e+05 -1.850768e+10 -3.416662e+06
## [462,] -9.346021e+07 -9.625727e+07 -1.150880e+11 -7.967622e+06
## [463,] -3.357190e+11 -3.207689e+11 -6.896671e+14 -2.560124e+09
## [464,] -2.293176e+11 -2.347881e+11 -5.224264e+14 -2.000983e+09
## [465,] -4.636478e+09 -4.218732e+09 -8.711860e+12 -6.490549e+07
## [466,] -5.848694e+06 -5.389147e+06 -4.326934e+10 -2.801589e+06
## [467,] -5.712065e+05 -7.889656e+05 -1.852082e+10 -3.390520e+06
## [468,] -8.935639e+07 -8.053617e+07 -1.151698e+11 -8.292694e+06
## [469,] -3.411408e+11 -2.799307e+11 -6.896671e+14 -2.560124e+09
## [470,] -2.316542e+11 -2.117971e+11 -5.224264e+14 -2.096438e+09
## [471,] -4.467013e+09 -4.218732e+09 -8.711860e+12 -6.575144e+07
## [472,] -6.364617e+06 -4.400404e+06 -4.326934e+10 -2.991965e+06
## [473,] -1.102767e+06 -7.889656e+05 -1.852082e+10 -3.394134e+06
## [474,] -9.581815e+07 -8.271216e+07 -1.152515e+11 -8.003311e+06
## [475,] -3.346389e+11 -2.701547e+11 -6.901567e+14 -2.626491e+09
## [476,] -2.324349e+11 -2.589626e+11 -5.227973e+14 -1.986427e+09
## [477,] -4.823731e+09 -4.218831e+09 -8.718044e+12 -7.060284e+07
## [478,] -6.432346e+06 -4.712223e+06 -4.333078e+10 -3.002421e+06
## [479,] -7.848984e+05 -4.104421e+05 -1.856027e+10 -3.501020e+06
## [480,] -9.076262e+07 -8.493125e+07 -1.154151e+11 -8.100268e+06
## [481,] -3.303379e+11 -2.605516e+11 -6.911363e+14 -2.144449e+09

```

```

## [482,] -2.451164e+11 -2.193270e+11 -5.235393e+14 -2.037226e+09
## [483,] -4.722708e+09 -3.820987e+09 -8.730418e+12 -6.629897e+07
## [484,] -5.241028e+06 -5.729996e+06 -4.336152e+10 -2.938217e+06
## [485,] -8.023796e+05 -5.457847e+05 -1.856027e+10 -3.506529e+06
## [486,] -9.099077e+07 -7.633795e+07 -1.154151e+11 -8.148019e+06
## [487,] -3.444120e+11 -2.898772e+11 -6.911363e+14 -2.655070e+09
## [488,] -2.411160e+11 -2.347851e+11 -5.239106e+14 -1.971788e+09
## [489,] -4.260018e+09 -4.084256e+09 -8.736609e+12 -6.837270e+07
## [490,] -5.690700e+06 -5.374965e+06 -4.339227e+10 -2.971613e+06
## [491,] -8.186699e+05 -5.446562e+05 -1.857344e+10 -3.509392e+06
## [492,] -8.761290e+07 -8.716544e+07 -1.154969e+11 -8.077388e+06
## [493,] -3.314092e+11 -2.605508e+11 -6.916264e+14 -2.293627e+09
## [494,] -2.411160e+11 -2.117943e+11 -5.239106e+14 -2.051828e+09
## [495,] -4.509494e+09 -3.566672e+09 -8.736609e+12 -6.682378e+07
## [496,] -6.349204e+06 -5.374965e+06 -4.339227e+10 -2.994799e+06
## [497,] -7.239296e+05 -4.746533e+05 -1.857344e+10 -3.513069e+06
## [498,] -8.761290e+07 -8.716544e+07 -1.154969e+11 -8.138721e+06
## [499,] -3.176062e+11 -2.701523e+11 -6.916264e+14 -2.645396e+09
## [500,] -2.672819e+11 -2.427119e+11 -5.239106e+14 -2.193830e+09
## [501,] -4.246366e+09 -3.692781e+09 -8.736609e+12 -6.871932e+07
## [502,] -5.906197e+06 -5.034715e+06 -4.339227e+10 -2.989639e+06
## [503,] -8.365212e+05 -3.490873e+05 -1.857344e+10 -3.520429e+06
## [504,] -8.649640e+07 -8.275387e+07 -1.154969e+11 -8.138721e+06
## [505,] -3.250021e+11 -3.532180e+11 -6.916264e+14 -2.607186e+09
## [506,] -2.548488e+11 -2.117943e+11 -5.239106e+14 -1.886288e+09
## [507,] -4.467422e+09 -3.692781e+09 -8.736609e+12 -6.648198e+07
## [508,] -5.619758e+06 -6.088836e+06 -4.339227e+10 -2.992218e+06
## [509,] -6.666727e+05 -4.746533e+05 -1.857344e+10 -3.503880e+06
## [510,] -9.032170e+07 -7.427439e+07 -1.154969e+11 -8.090998e+06
## [511,] -3.400485e+11 -2.999982e+11 -6.921166e+14 -2.751825e+09
## [512,] -2.656063e+11 -2.117936e+11 -5.242819e+14 -2.208982e+09
## [513,] -4.537755e+09 -3.951669e+09 -8.742802e+12 -6.615349e+07
## [514,] -5.830229e+06 -3.497475e+06 -4.342302e+10 -3.049315e+06
## [515,] -1.146688e+06 -2.420221e+05 -1.858660e+10 -3.460958e+06
## [516,] -8.830059e+07 -7.847039e+07 -1.155788e+11 -8.108970e+06
## [517,] -3.228786e+11 -2.999973e+11 -6.926071e+14 -2.635660e+09
## [518,] -2.515818e+11 -2.117929e+11 -5.246534e+14 -2.044348e+09
## [519,] -4.651368e+09 -3.951765e+09 -8.748997e+12 -6.650690e+07
## [520,] -6.229319e+06 -3.494617e+06 -4.345379e+10 -2.920535e+06
## [521,] -6.802678e+05 -6.170692e+05 -1.859977e+10 -3.463802e+06
## [522,] -9.219450e+07 -8.498760e+07 -1.157426e+11 -8.090424e+06
## [523,] -3.102928e+11 -2.999965e+11 -6.930977e+14 -2.970981e+09
## [524,] -2.507680e+11 -2.117922e+11 -5.250251e+14 -1.978795e+09
## [525,] -4.566207e+09 -4.084549e+09 -8.755194e+12 -7.156257e+07
## [526,] -5.433657e+06 -5.715372e+06 -4.348457e+10 -2.703036e+06
## [527,] -7.200339e+05 -1.272782e+06 -1.861295e+10 -3.432025e+06
## [528,] -9.313073e+07 -8.722252e+07 -1.158246e+11 -8.108396e+06

```

```

## [529,] -2.819001e+11 -2.999957e+11 -6.935884e+14 -2.830362e+09
## [530,] -2.523947e+11 -2.269870e+11 -5.253968e+14 -2.247054e+09
## [531,] -4.523973e+09 -3.951958e+09 -8.761394e+12 -6.534200e+07
## [532,] -6.561047e+06 -4.068374e+06 -4.351536e+10 -3.033899e+06
## [533,] -5.693830e+05 -6.940002e+05 -1.862613e+10 -3.519012e+06
## [534,] -9.522099e+07 -7.851101e+07 -1.158246e+11 -8.397148e+06
## [535,] -3.186541e+11 -3.102920e+11 -6.935884e+14 -2.860190e+09
## [536,] -2.403170e+11 -1.971224e+11 -5.253968e+14 -2.483688e+09
## [537,] -4.538167e+09 -4.084744e+09 -8.767595e+12 -6.552369e+07
## [538,] -6.827225e+06 -3.486052e+06 -4.354617e+10 -3.015803e+06
## [539,] -8.295468e+05 -4.694034e+05 -1.863931e+10 -3.488814e+06
## [540,] -9.085000e+07 -8.065965e+07 -1.159066e+11 -8.071899e+06
## [541,] -3.346318e+11 -2.605469e+11 -6.940794e+14 -2.559428e+09
## [542,] -2.395209e+11 -2.117901e+11 -5.261408e+14 -1.971381e+09
## [543,] -4.440094e+09 -4.356798e+09 -8.773799e+12 -7.830508e+07
## [544,] -6.136142e+06 -4.682413e+06 -4.360780e+10 -3.002993e+06
## [545,] -9.278114e+05 -2.375321e+05 -1.866569e+10 -3.503703e+06
## [546,] -9.179404e+07 -7.855164e+07 -1.160706e+11 -7.857638e+06
## [547,] -3.281917e+11 -2.799218e+11 -6.950618e+14 -2.664053e+09
## [548,] -2.499532e+11 -2.117894e+11 -5.265129e+14 -2.073447e+09
## [549,] -4.247064e+09 -3.821743e+09 -8.780005e+12 -7.214671e+07
## [550,] -6.318434e+06 -5.007319e+06 -4.363864e+10 -3.031557e+06
## [551,] -7.471017e+05 -3.419010e+05 -1.867889e+10 -3.519437e+06
## [552,] -8.885176e+07 -7.856518e+07 -1.161527e+11 -8.582318e+06
## [553,] -3.197037e+11 -2.799210e+11 -6.955533e+14 -2.169782e+09
## [554,] -2.491420e+11 -2.117887e+11 -5.268852e+14 -1.575607e+09
## [555,] -4.510315e+09 -3.492780e+09 -8.786214e+12 -7.021696e+07
## [556,] -5.555599e+06 -6.058705e+06 -4.363864e+10 -2.887865e+06
## [557,] -6.714730e+05 -6.086942e+05 -1.869209e+10 -3.513103e+06
## [558,] -9.251262e+07 -8.071456e+07 -1.162348e+11 -8.096085e+06
## [559,] -3.249943e+11 -2.799202e+11 -6.960449e+14 -2.712215e+09
## [560,] -2.515765e+11 -2.193199e+11 -5.272576e+14 -1.963981e+09
## [561,] -4.468341e+09 -3.693617e+09 -8.792424e+12 -7.005445e+07
## [562,] -6.236034e+06 -4.672497e+06 -4.370034e+10 -3.021305e+06
## [563,] -8.404956e+05 -6.863823e+05 -1.870530e+10 -3.468297e+06
## [564,] -9.206747e+07 -8.072829e+07 -1.163169e+11 -8.134527e+06
## [565,] -3.422178e+11 -3.102869e+11 -6.965367e+14 -2.760889e+09
## [566,] -2.548411e+11 -2.117873e+11 -5.276302e+14 -2.095458e+09
## [567,] -4.524590e+09 -3.952534e+09 -8.798637e+12 -6.643592e+07
## [568,] -6.924524e+06 -6.423666e+06 -4.370034e+10 -2.933797e+06
## [569,] -7.687349e+05 -4.631420e+05 -1.871851e+10 -3.524358e+06
## [570,] -8.957322e+07 -8.510034e+07 -1.163991e+11 -7.821147e+06
## [571,] -3.061467e+11 -3.207559e+11 -6.970287e+14 -2.663737e+09
## [572,] -2.427036e+11 -2.117866e+11 -5.280029e+14 -1.971042e+09
## [573,] -4.454563e+09 -3.567676e+09 -8.804851e+12 -6.192107e+07
## [574,] -6.232219e+06 -4.352447e+06 -4.373121e+10 -2.944088e+06
## [575,] -6.609699e+05 -3.987771e+05 -1.871851e+10 -3.548344e+06

```



```

## [576,] -9.232662e+07 -7.861937e+07 -1.164813e+11 -8.273526e+06
## [577,] -3.400387e+11 -2.799178e+11 -6.975209e+14 -2.800043e+09
## [578,] -2.339908e+11 -2.193177e+11 -5.283757e+14 -1.575365e+09
## [579,] -4.412850e+09 -3.822216e+09 -8.811069e+12 -5.788316e+07
## [580,] -5.970551e+06 -3.749366e+06 -4.376208e+10 -2.972371e+06
## [581,] -8.924424e+05 -2.338225e+05 -1.873173e+10 -3.470336e+06
## [582,] -9.959307e+07 -8.511444e+07 -1.164813e+11 -8.363259e+06
## [583,] -3.175958e+11 -2.605415e+11 -6.975209e+14 -2.899546e+09
## [584,] -2.443032e+11 -2.043849e+11 -5.287486e+14 -2.080422e+09
## [585,] -4.482754e+09 -3.822310e+09 -8.817288e+12 -6.227507e+07
## [586,] -5.858012e+06 -3.463262e+06 -4.379297e+10 -3.031876e+06
## [587,] -8.362975e+05 -3.968492e+05 -1.874495e+10 -3.557805e+06
## [588,] -8.960215e+07 -8.076949e+07 -1.165635e+11 -8.168116e+06
## [589,] -3.061450e+11 -2.999881e+11 -6.980132e+14 -2.929653e+09
## [590,] -2.403095e+11 -2.043842e+11 -5.291217e+14 -2.192828e+09
## [591,] -4.609882e+09 -4.220519e+09 -8.823509e+12 -6.445333e+07
## [592,] -6.254214e+06 -4.983409e+06 -4.385478e+10 -3.039801e+06
## [593,] -7.463357e+05 -3.356743e+05 -1.877141e+10 -3.558018e+06
## [594,] -8.694699e+07 -7.243408e+07 -1.168103e+11 -8.236080e+06
## [595,] -3.196968e+11 -2.605383e+11 -6.994913e+14 -2.809591e+09
## [596,] -2.748710e+11 -2.193148e+11 -5.298683e+14 -2.036054e+09
## [597,] -4.059102e+09 -4.220717e+09 -8.835959e+12 -6.979382e+07
## [598,] -6.139020e+06 -4.652697e+06 -4.388571e+10 -3.034666e+06
## [599,] -7.365714e+05 -4.579563e+05 -1.878465e+10 -3.570165e+06
## [600,] -9.330780e+07 -7.656511e+07 -1.168103e+11 -8.147033e+06
## [601,] -3.040832e+11 -3.207516e+11 -6.994913e+14 -2.721373e+09
## [602,] -2.630921e+11 -2.269782e+11 -5.298683e+14 -1.822363e+09
## [603,] -4.343999e+09 -4.357807e+09 -8.835959e+12 -6.634008e+07
## [604,] -5.147820e+06 -4.652697e+06 -4.388571e+10 -3.000980e+06
## [605,] -8.501064e+05 -6.003764e+05 -1.878465e+10 -3.579440e+06
## [606,] -8.740817e+07 -8.082444e+07 -1.168927e+11 -8.233598e+06
## [607,] -3.260508e+11 -2.799137e+11 -6.999843e+14 -2.634484e+09
## [608,] -2.475182e+11 -1.899766e+11 -5.302418e+14 -1.977843e+09
## [609,] -4.511239e+09 -3.568224e+09 -8.842187e+12 -6.824142e+07
## [610,] -5.009919e+06 -5.664336e+06 -4.391664e+10 -3.006214e+06
## [611,] -5.256511e+05 -5.991928e+05 -1.879789e+10 -3.548983e+06
## [612,] -8.853052e+07 -8.299038e+07 -1.168927e+11 -8.165068e+06
## [613,] -3.357004e+11 -2.418563e+11 -6.999843e+14 -2.624925e+09
## [614,] -2.491351e+11 -1.899766e+11 -5.302418e+14 -2.014083e+09
## [615,] -4.511239e+09 -3.444278e+09 -8.842187e+12 -6.601194e+07
## [616,] -5.771336e+06 -4.333338e+06 -4.391664e+10 -3.039929e+06
## [617,] -6.221939e+05 -4.569227e+05 -1.879789e+10 -3.548983e+06
## [618,] -8.562731e+07 -8.299038e+07 -1.168927e+11 -8.247338e+06
## [619,] -3.030554e+11 -3.313943e+11 -6.999843e+14 -2.979982e+09
## [620,] -2.564763e+11 -2.269775e+11 -5.302418e+14 -1.941933e+09
## [621,] -4.358009e+09 -4.220916e+09 -8.848417e+12 -6.964456e+07
## [622,] -5.242848e+06 -4.025332e+06 -4.394758e+10 -3.006278e+06

```

```

## [623,] -6.762905e+05 -3.330233e+05 -1.881113e+10 -3.564819e+06
## [624,] -8.586307e+07 -7.870070e+07 -1.169750e+11 -8.258604e+06
## [625,] -3.303212e+11 -2.701380e+11 -7.004775e+14 -3.165867e+09
## [626,] -2.459058e+11 -2.269768e+11 -5.306154e+14 -2.223033e+09
## [627,] -4.112819e+09 -4.220916e+09 -8.848417e+12 -6.912147e+07
## [628,] -5.411450e+06 -4.969772e+06 -4.397854e+10 -2.996005e+06
## [629,] -8.823648e+05 -2.780034e+05 -1.882438e+10 -3.578833e+06
## [630,] -9.638236e+07 -8.085192e+07 -1.170574e+11 -8.112339e+06
## [631,] -3.281812e+11 -2.418548e+11 -7.009709e+14 -2.888943e+09
## [632,] -2.531989e+11 -2.043808e+11 -5.309891e+14 -2.132120e+09
## [633,] -4.180314e+09 -3.822877e+09 -8.854649e+12 -7.355389e+07
## [634,] -5.728240e+06 -4.022267e+06 -4.397854e+10 -3.182117e+06
## [635,] -5.163630e+05 -5.968292e+05 -1.882438e+10 -3.411918e+06
## [636,] -1.030735e+08 -7.871426e+07 -1.170574e+11 -8.456748e+06
## [637,] -3.249856e+11 -2.799121e+11 -7.009709e+14 -2.653496e+09
## [638,] -2.339856e+11 -2.269761e+11 -5.309891e+14 -2.065232e+09
## [639,] -4.413561e+09 -3.953399e+09 -8.854649e+12 -6.826667e+07
## [640,] -6.235119e+06 -3.443382e+06 -4.400950e+10 -2.993487e+06
## [641,] -5.012758e+05 -6.737792e+05 -1.883763e+10 -3.561328e+06
## [642,] -8.791356e+07 -9.199914e+07 -1.172223e+11 -8.155184e+06
## [643,] -3.389446e+11 -2.898591e+11 -7.019582e+14 -2.548772e+09
## [644,] -2.300768e+11 -2.193113e+11 -5.317370e+14 -1.984793e+09
## [645,] -4.667638e+09 -3.953591e+09 -8.867120e+12 -6.985768e+07
## [646,] -5.828458e+06 -4.636229e+06 -4.404048e+10 -3.045388e+06
## [647,] -6.968805e+05 -3.891846e+05 -1.885089e+10 -3.562361e+06
## [648,] -9.154061e+07 -8.524139e+07 -1.172223e+11 -8.168859e+06
## [649,] -3.313908e+11 -2.799105e+11 -7.019582e+14 -2.605548e+09
## [650,] -2.515673e+11 -2.117795e+11 -5.317370e+14 -2.094689e+09
## [651,] -4.316952e+09 -3.823066e+09 -8.867120e+12 -6.811905e+07
## [652,] -4.537123e+06 -5.646164e+06 -4.407147e+10 -2.998778e+06
## [653,] -7.540661e+05 -5.201256e+05 -1.886416e+10 -3.594949e+06
## [654,] -9.086952e+07 -8.089315e+07 -1.173048e+11 -8.673283e+06
## [655,] -3.432984e+11 -2.799097e+11 -7.024521e+14 -3.249978e+09
## [656,] -2.548319e+11 -2.117788e+11 -5.321111e+14 -2.094619e+09
## [657,] -4.469771e+09 -4.086502e+09 -8.879601e+12 -6.540753e+07
## [658,] -4.923002e+06 -5.293781e+06 -4.410246e+10 -3.024727e+06
## [659,] -8.766319e+05 -5.921159e+05 -1.887743e+10 -3.547774e+06
## [660,] -8.593390e+07 -8.974687e+07 -1.173873e+11 -9.156572e+06
## [661,] -3.260447e+11 -2.701332e+11 -7.034404e+14 -2.848599e+09
## [662,] -2.363421e+11 -2.269724e+11 -5.328598e+14 -2.006330e+09
## [663,] -4.441927e+09 -3.695011e+09 -8.885844e+12 -6.781170e+07
## [664,] -7.305069e+06 -4.952752e+06 -4.413347e+10 -2.906636e+06
## [665,] -9.501729e+05 -6.687707e+05 -1.889070e+10 -3.489905e+06
## [666,] -8.550488e+07 -8.528372e+07 -1.174698e+11 -8.312555e+06
## [667,] -3.271099e+11 -2.799081e+11 -7.034404e+14 -2.605314e+09
## [668,] -2.277460e+11 -2.426938e+11 -5.328598e+14 -1.984588e+09
## [669,] -4.625145e+09 -4.086600e+09 -8.885844e+12 -6.867633e+07

```

```

## [670,] -5.745664e+06 -5.290265e+06 -4.413347e+10 -3.006659e+06
## [671,] -7.012505e+05 -4.497200e+05 -1.889070e+10 -3.546957e+06
## [672,] -9.022993e+07 -8.093440e+07 -1.175524e+11 -8.441662e+06
## [673,] -3.133968e+11 -2.799072e+11 -7.039348e+14 -2.720656e+09
## [674,] -2.434930e+11 -2.269717e+11 -5.332343e+14 -2.109284e+09
## [675,] -4.625353e+09 -4.086795e+09 -8.898337e+12 -6.476900e+07
## [676,] -5.810025e+06 -3.708051e+06 -4.419552e+10 -3.185236e+06
## [677,] -9.857767e+05 -3.844322e+05 -1.891726e+10 -3.589799e+06
## [678,] -9.697321e+07 -7.463043e+07 -1.177176e+11 -8.284396e+06
## [679,] -3.432939e+11 -2.898542e+11 -7.049242e+14 -2.643274e+09
## [680,] -2.426908e+11 -2.347644e+11 -5.343587e+14 -1.969889e+09
## [681,] -4.331421e+09 -4.086991e+09 -8.910839e+12 -6.614859e+07
## [682,] -5.802659e+06 -3.994728e+06 -4.425762e+10 -3.038032e+06
## [683,] -8.422619e+05 -5.862505e+05 -1.894384e+10 -3.410140e+06
## [684,] -9.536033e+07 -8.098940e+07 -1.178829e+11 -8.313885e+06
## [685,] -3.324576e+11 -2.701292e+11 -7.059143e+14 -2.445704e+09
## [686,] -2.426901e+11 -2.589377e+11 -5.347337e+14 -2.330600e+09
## [687,] -4.597235e+09 -4.087089e+09 -8.917094e+12 -7.225454e+07
## [688,] -5.620773e+06 -4.295246e+06 -4.428868e+10 -3.035496e+06
## [689,] -6.297632e+05 -5.113455e+05 -1.897043e+10 -3.670613e+06
## [690,] -9.098610e+07 -8.100316e+07 -1.179656e+11 -8.311391e+06
## [691,] -3.239143e+11 -2.605274e+11 -7.064096e+14 -2.739736e+09
## [692,] -2.564663e+11 -1.971047e+11 -5.351089e+14 -1.941057e+09
## [693,] -4.711585e+09 -3.823917e+09 -8.923350e+12 -7.369814e+07
## [694,] -6.193212e+06 -4.603381e+06 -4.435084e+10 -3.087823e+06
## [695,] -8.743725e+05 -2.684180e+05 -1.898374e+10 -3.622942e+06
## [696,] -9.399285e+07 -8.101691e+07 -1.180484e+11 -8.329607e+06
## [697,] -3.102690e+11 -3.102690e+11 -7.069050e+14 -2.958502e+09
## [698,] -2.564655e+11 -2.193041e+11 -5.354842e+14 -1.962492e+09
## [699,] -4.484596e+09 -3.954552e+09 -8.929609e+12 -7.139343e+07
## [700,] -5.932373e+06 -4.316683e+06 -4.438194e+10 -3.038287e+06
## [701,] -7.750187e+05 -3.207907e+05 -1.899705e+10 -3.625852e+06
## [702,] -8.561797e+07 -8.987722e+07 -1.181311e+11 -8.953107e+06
## [703,] -3.313811e+11 -2.799016e+11 -7.074007e+14 -2.749341e+09
## [704,] -2.706219e+11 -2.507458e+11 -5.358597e+14 -2.206756e+09
## [705,] -4.988757e+09 -4.222306e+09 -8.935870e+12 -7.229351e+07
## [706,] -6.797388e+06 -4.600102e+06 -4.438194e+10 -2.973636e+06
## [707,] -1.096517e+06 -4.415583e+05 -1.899705e+10 -3.551506e+06
## [708,] -8.407484e+07 -8.539667e+07 -1.181311e+11 -8.340929e+06
## [709,] -3.281699e+11 -2.799016e+11 -7.074007e+14 -2.566776e+09
## [710,] -2.548234e+11 -2.117711e+11 -5.362353e+14 -1.940855e+09
## [711,] -4.726280e+09 -3.824200e+09 -8.942133e+12 -7.848509e+07
## [712,] -6.111635e+06 -4.282585e+06 -4.441304e+10 -3.059187e+06
## [713,] -1.876322e+05 -1.221582e+06 -1.901036e+10 -3.411568e+06
## [714,] -7.266839e+07 -9.450205e+07 -1.182968e+11 -9.005295e+06
## [715,] -3.965364e+11 -3.207360e+11 -7.083925e+14 -2.847783e+09
## [716,] -2.475053e+11 -1.971020e+11 -5.366110e+14 -2.546477e+09

```

```

## [717,] -4.332024e+09 -3.824295e+09 -8.948398e+12 -6.203300e+07
## [718,] -5.816510e+06 -3.976422e+06 -4.444416e+10 -3.017651e+06
## [719,] -6.327016e+05 -3.190618e+05 -1.902368e+10 -3.485464e+06
## [720,] -1.062460e+08 -9.218980e+07 -1.182968e+11 -8.544518e+06
## [721,] -3.366426e+11 -2.817627e+11 -2.684770e+13 -1.392857e+09
## [722,] -2.533234e+11 -2.059626e+11 -2.033727e+13 -1.072696e+09
## [723,] -4.252592e+09 -3.362850e+09 -3.391396e+11 -2.712335e+07
## [724,] -1.492651e+07 -1.701162e+07 -1.684410e+09 -6.695204e+03
## [725,] -7.185035e+06 -5.623672e+06 -7.209876e+08 -4.287261e+04
## [726,] -6.437703e+07 -4.908944e+07 -4.483385e+09 -9.142651e+05
## [727,] -3.486442e+11 -2.623215e+11 -2.684770e+13 -1.677377e+09
## [728,] -2.333210e+11 -2.525075e+11 -2.033727e+13 -1.325128e+09
## [729,] -4.293643e+09 -3.242556e+09 -3.391396e+11 -2.604412e+07
## [730,] -1.897223e+07 -1.297768e+07 -1.684410e+09 -1.024328e+04
## [731,] -6.740926e+06 -5.164478e+06 -7.235834e+08 -4.483616e+04
## [732,] -6.023364e+07 -5.079147e+07 -4.499527e+09 -8.974969e+05
## [733,] -3.366417e+11 -2.528607e+11 -2.694436e+13 -1.624302e+09
## [734,] -2.525067e+11 -1.914997e+11 -2.041049e+13 -1.226579e+09
## [735,] -4.362599e+09 -3.124538e+09 -3.403606e+11 -2.457758e+07
## [736,] -1.775144e+07 -1.244051e+07 -1.690475e+09 -1.009660e+04
## [737,] -6.894636e+06 -4.857034e+06 -7.235834e+08 -4.567098e+04
## [738,] -6.079216e+07 -4.876532e+07 -4.499527e+09 -8.952310e+05
## [739,] -3.312559e+11 -2.547388e+11 -2.694436e+13 -1.594391e+09
## [740,] -2.317556e+11 -2.286421e+11 -2.041049e+13 -1.313288e+09
## [741,] -4.307470e+09 -3.736971e+09 -3.403606e+11 -2.562630e+07
## [742,] -1.800371e+07 -1.521008e+07 -1.690475e+09 -9.217573e+03
## [743,] -6.817565e+06 -5.389856e+06 -7.235834e+08 -4.298596e+04
## [744,] -6.343266e+07 -5.426004e+07 -4.499527e+09 -9.111522e+05
## [745,] -3.420709e+11 -2.917431e+11 -2.694436e+13 -1.654491e+09
## [746,] -2.484470e+11 -2.444202e+11 -2.041049e+13 -1.278249e+09
## [747,] -4.280037e+09 -3.362938e+09 -3.403606e+11 -2.573238e+07
## [748,] -1.825776e+07 -1.463392e+07 -1.690475e+09 -9.652078e+03
## [749,] -7.260032e+06 -4.728161e+06 -7.235834e+08 -4.339375e+04
## [750,] -5.857355e+07 -5.603729e+07 -4.499527e+09 -9.387722e+05
## [751,] -3.768332e+11 -2.701253e+11 -7.083925e+14 -3.101890e+09
## [752,] -2.410905e+11 -2.269651e+11 -5.366110e+14 -2.101209e+09
## [753,] -4.359623e+09 -3.954840e+09 -8.948398e+12 -7.055031e+07
## [754,] -5.285908e+06 -6.327196e+06 -4.447529e+10 -3.095949e+06
## [755,] -8.324725e+05 -4.385170e+05 -1.903701e+10 -3.552750e+06
## [756,] -9.289520e+07 -8.107194e+07 -1.183796e+11 -8.250736e+06
## [757,] -3.303063e+11 -2.999697e+11 -7.088886e+14 -3.091432e+09
## [758,] -2.515565e+11 -2.193012e+11 -5.369868e+14 -1.983840e+09
## [759,] -4.513189e+09 -3.696126e+09 -8.960935e+12 -6.522974e+07
## [760,] -5.701789e+06 -4.273103e+06 -4.450643e+10 -3.010010e+06
## [761,] -7.105725e+05 -3.750150e+05 -1.905034e+10 -3.570448e+06
## [762,] -8.993519e+07 -8.767986e+07 -1.184625e+11 -8.255126e+06
## [763,] -3.249708e+11 -2.999689e+11 -7.093850e+14 -2.623437e+09

```

```

## [764,] -2.466973e+11 -2.347584e+11 -5.373628e+14 -1.983771e+09
## [765,] -4.712215e+09 -4.087772e+09 -8.960935e+12 -6.607780e+07
## [766,] -6.285900e+06 -4.587000e+06 -4.450643e+10 -2.958476e+06
## [767,] -7.956857e+05 -2.164230e+05 -1.905034e+10 -3.592730e+06
## [768,] -9.107359e+07 -7.894493e+07 -1.184625e+11 -8.310228e+06
## [769,] -3.144317e+11 -3.313776e+11 -7.093850e+14 -2.632993e+09
## [770,] -2.639092e+11 -2.507427e+11 -5.373628e+14 -1.876864e+09
## [771,] -4.857004e+09 -3.696126e+09 -8.960935e+12 -7.270203e+07
## [772,] -4.242325e+06 -7.095764e+06 -4.450643e+10 -3.043746e+06
## [773,] -6.526220e+05 -3.740796e+05 -1.906367e+10 -3.617987e+06
## [774,] -9.315551e+07 -7.895851e+07 -1.185454e+11 -8.232028e+06
## [775,] -3.196786e+11 -3.102639e+11 -7.098815e+14 -2.798022e+09
## [776,] -2.466966e+11 -2.043683e+11 -5.377389e+14 -1.969278e+09
## [777,] -4.168567e+09 -4.359926e+09 -8.967207e+12 -6.814810e+07
## [778,] -3.908088e+06 -9.216827e+06 -4.453758e+10 -2.994566e+06
## [779,] -5.177476e+05 -5.757665e+05 -1.906367e+10 -3.541876e+06
## [780,] -9.064647e+07 -8.996418e+07 -1.186284e+11 -8.208962e+06
## [781,] -3.487664e+11 -2.898451e+11 -7.103781e+14 -2.957920e+09
## [782,] -2.499295e+11 -1.963797e+11 -5.381151e+14 -1.738800e+09
## [783,] -4.626600e+09 -3.824673e+09 -8.973481e+12 -6.576270e+07
## [784,] -5.730142e+06 -4.266787e+06 -4.456874e+10 -3.223405e+06
## [785,] -6.266381e+05 -4.344782e+05 -1.909035e+10 -3.588403e+06
## [786,] -9.134595e+07 -7.898567e+07 -1.187113e+11 -8.056345e+06
## [787,] -3.270968e+11 -2.701213e+11 -7.108750e+14 -2.389960e+09
## [788,] -2.589300e+11 -2.192984e+11 -5.384915e+14 -2.229173e+09
## [789,] -4.236615e+09 -4.360128e+09 -8.979757e+12 -6.358662e+07
## [790,] -5.834067e+06 -4.901866e+06 -4.459991e+10 -3.020561e+06
## [791,] -6.501551e+05 -4.344782e+05 -1.909035e+10 -3.640633e+06
## [792,] -9.343096e+07 -7.688639e+07 -1.187943e+11 -8.210863e+06
## [793,] -3.378434e+11 -2.898435e+11 -7.113720e+14 -2.787929e+09
## [794,] -2.548180e+11 -2.269608e+11 -5.388680e+14 -2.071151e+09
## [795,] -4.541771e+09 -3.446341e+09 -8.986036e+12 -7.115610e+07
## [796,] -6.383137e+06 -5.234173e+06 -4.463110e+10 -3.117305e+06
## [797,] -6.568512e+05 -3.712807e+05 -1.910370e+10 -3.636062e+06
## [798,] -8.484705e+07 -9.459121e+07 -1.187943e+11 -8.252061e+06
## [799,] -3.102613e+11 -3.102613e+11 -7.113720e+14 -2.957754e+09
## [800,] -2.308417e+11 -2.269608e+11 -5.388680e+14 -2.027088e+09
## [801,] -4.346417e+09 -3.824862e+09 -8.986036e+12 -8.911704e+07
## [802,] -8.148961e+06 -4.260475e+06 -4.463110e+10 -2.971570e+06
## [803,] -7.728944e+05 -6.489234e+05 -1.910370e+10 -3.622977e+06
## [804,] -9.765646e+07 -8.332485e+07 -1.188774e+11 -8.477978e+06
## [805,] -3.186222e+11 -2.701197e+11 -7.118692e+14 -2.690298e+09
## [806,] -2.531819e+11 -2.192970e+11 -5.392446e+14 -2.168174e+09
## [807,] -4.541874e+09 -4.088261e+09 -8.992316e+12 -7.276720e+07
## [808,] -5.577378e+06 -5.577378e+06 -4.466229e+10 -3.075375e+06
## [809,] -5.491091e+05 -4.993949e+05 -1.911705e+10 -3.618418e+06
## [810,] -9.160408e+07 -7.901284e+07 -1.188774e+11 -8.304660e+06

```

```

## [811,] -3.281620e+11 -2.798943e+11 -7.118692e+14 -2.642174e+09
## [812,] -2.458884e+11 -2.192970e+11 -5.392446e+14 -2.005166e+09
## [813,] -4.305215e+09 -3.955513e+09 -8.992316e+12 -6.802582e+07
## [814,] -5.061498e+06 -5.935203e+06 -4.466229e+10 -2.925531e+06
## [815,] -5.564037e+05 -7.290619e+05 -1.911705e+10 -3.540455e+06
## [816,] -9.114653e+07 -9.229255e+07 -1.188774e+11 -8.263331e+06
## [817,] -3.009864e+11 -3.207300e+11 -7.118692e+14 -2.729109e+09
## [818,] -2.308409e+11 -2.117655e+11 -5.392446e+14 -2.093290e+09
## [819,] -4.346518e+09 -4.223200e+09 -8.992316e+12 -6.785328e+07
## [820,] -5.577378e+06 -3.664039e+06 -4.466229e+10 -3.083227e+06
## [821,] -5.924217e+05 -3.694207e+05 -1.913041e+10 -3.574798e+06
## [822,] -9.140438e+07 -8.335276e+07 -1.190435e+11 -8.486880e+06
## [823,] -3.186204e+11 -2.605173e+11 -7.128642e+14 -2.758240e+09
## [824,] -2.507366e+11 -2.043635e+11 -5.403753e+14 -1.631874e+09
## [825,] -4.471917e+09 -3.570689e+09 -9.011172e+12 -5.937960e+07
## [826,] -5.996870e+06 -3.655268e+06 -4.475594e+10 -3.104409e+06
## [827,] -7.504342e+05 -4.294560e+05 -1.915714e+10 -3.657104e+06
## [828,] -9.073379e+07 -8.336671e+07 -1.191266e+11 -8.730104e+06
## [829,] -3.410970e+11 -2.798911e+11 -7.138598e+14 -2.565770e+09
## [830,] -2.539958e+11 -2.117626e+11 -5.407525e+14 -1.925782e+09
## [831,] -4.278189e+09 -3.825334e+09 -9.017461e+12 -6.790364e+07
## [832,] -5.633534e+06 -3.104474e+06 -4.478718e+10 -3.026131e+06
## [833,] -4.545292e+05 -3.666393e+05 -1.917051e+10 -3.505888e+06
## [834,] -9.304256e+07 -7.906719e+07 -1.192098e+11 -8.453984e+06
## [835,] -3.228412e+11 -2.701165e+11 -7.138598e+14 -2.149828e+09
## [836,] -2.483047e+11 -1.829529e+11 -5.407525e+14 -2.251777e+09
## [837,] -4.542286e+09 -3.696962e+09 -9.017461e+12 -7.210659e+07
## [838,] -5.115001e+06 -4.244717e+06 -4.478718e+10 -3.002823e+06
## [839,] -6.665978e+05 -3.666393e+05 -1.917051e+10 -3.603931e+06
## [840,] -1.071613e+08 -9.006567e+07 -1.192098e+11 -8.509744e+06
## [841,] -3.356747e+11 -2.605149e+11 -7.143578e+14 -2.613118e+09
## [842,] -2.386977e+11 -2.117619e+11 -5.411298e+14 -1.813491e+09
## [843,] -4.360834e+09 -3.955994e+09 -9.023753e+12 -7.105691e+07
## [844,] -6.322430e+06 -3.939936e+06 -4.481843e+10 -3.099285e+06
## [845,] -7.129449e+05 -5.642285e+05 -1.919726e+10 -3.500591e+06
## [846,] -8.964092e+07 -7.698022e+07 -1.193762e+11 -8.310396e+06
## [847,] -3.292254e+11 -2.701149e+11 -7.148561e+14 -2.344023e+09
## [848,] -2.450800e+11 -2.117612e+11 -5.415072e+14 -2.041240e+09
## [849,] -4.347123e+09 -3.825523e+09 -9.030046e+12 -6.810147e+07
## [850,] -5.836873e+06 -5.206239e+06 -4.488096e+10 -3.269755e+06
## [851,] -7.367025e+05 -3.638684e+05 -1.921065e+10 -3.605185e+06
## [852,] -9.262554e+07 -8.342254e+07 -1.194594e+11 -8.170510e+06
## [853,] -3.367537e+11 -2.798887e+11 -7.153545e+14 -2.826786e+09
## [854,] -2.515466e+11 -2.043607e+11 -5.418848e+14 -1.990186e+09
## [855,] -4.430428e+09 -3.697241e+09 -9.036342e+12 -6.691012e+07
## [856,] -5.037459e+06 -4.235277e+06 -4.488096e+10 -3.015952e+06
## [857,] -6.628598e+05 -4.918635e+05 -1.921065e+10 -3.640668e+06

```

```

## [858,] -9.147745e+07 -9.010919e+07 -1.194594e+11 -8.804897e+06
## [859,] -3.238977e+11 -2.898361e+11 -7.158531e+14 -2.651134e+09
## [860,] -2.638990e+11 -2.117598e+11 -5.422624e+14 -1.939778e+09
## [861,] -4.613515e+09 -4.089043e+09 -9.042641e+12 -7.412775e+07
## [862,] -5.833182e+06 -3.640674e+06 -4.491224e+10 -3.094229e+06
## [863,] -7.694318e+05 -2.543552e+05 -1.922404e+10 -3.624880e+06
## [864,] -9.357874e+07 -8.063248e+07 -1.196259e+11 -8.199796e+06
## [865,] -3.175631e+11 -2.605118e+11 -7.163519e+14 -2.757678e+09
## [866,] -2.483009e+11 -2.043594e+11 -5.426403e+14 -2.504484e+09
## [867,] -4.089141e+09 -4.500573e+09 -9.048941e+12 -6.813931e+07
## [868,] -5.829491e+06 -3.927811e+06 -4.494353e+10 -3.149638e+06
## [869,] -6.683708e+05 -8.931933e+05 -1.923743e+10 -3.674660e+06
## [870,] -9.104938e+07 -7.493440e+07 -1.196259e+11 -8.282241e+06
## [871,] -3.175631e+11 -2.701126e+11 -7.163519e+14 -2.612805e+09
## [872,] -2.363228e+11 -2.347481e+11 -5.426403e+14 -1.975601e+09
## [873,] -3.995977e+09 -3.825807e+09 -9.048941e+12 -6.987819e+07
## [874,] -6.010950e+06 -4.541290e+06 -4.494353e+10 -3.120587e+06
## [875,] -9.981056e+05 -2.535850e+05 -1.923743e+10 -3.633399e+06
## [876,] -9.243943e+07 -8.346442e+07 -1.197093e+11 -8.348760e+06
## [877,] -3.443654e+11 -2.898344e+11 -7.168508e+14 -2.689505e+09
## [878,] -2.572722e+11 -2.043587e+11 -5.430182e+14 -1.997225e+09
## [879,] -4.458644e+09 -3.697519e+09 -9.055244e+12 -8.003450e+07
## [880,] -7.234031e+06 -5.898029e+06 -4.497483e+10 -3.018734e+06
## [881,] -1.056214e+06 -4.224740e+05 -1.925083e+10 -3.608302e+06
## [882,] -9.197980e+07 -8.346442e+07 -1.197093e+11 -8.599563e+06
## [883,] -3.531717e+11 -3.207213e+11 -7.168508e+14 -2.886315e+09
## [884,] -2.782556e+11 -2.426735e+11 -5.430182e+14 -2.144863e+09
## [885,] -5.050136e+09 -3.697519e+09 -9.055244e+12 -7.200674e+07
## [886,] -5.506287e+06 -5.541344e+06 -4.497483e+10 -2.987715e+06
## [887,] -7.654154e+05 -4.214813e+05 -1.926423e+10 -3.633614e+06
## [888,] -9.062232e+07 -8.567936e+07 -1.197926e+11 -8.277263e+06
## [889,] -2.999555e+11 -2.999555e+11 -7.173499e+14 -2.679768e+09
## [890,] -2.410770e+11 -2.507305e+11 -5.433963e+14 -1.946728e+09
## [891,] -4.472735e+09 -3.956571e+09 -9.061548e+12 -6.610641e+07
## [892,] -5.537747e+06 -3.631931e+06 -4.500615e+10 -3.118082e+06
## [893,] -6.819832e+05 -2.520481e+05 -1.926423e+10 -3.663600e+06
## [894,] -9.337690e+07 -7.916234e+07 -1.197926e+11 -8.277263e+06
## [895,] -3.410908e+11 -2.999555e+11 -7.173499e+14 -2.574677e+09
## [896,] -2.991718e+11 -2.347459e+11 -5.437745e+14 -2.243506e+09
## [897,] -4.557230e+09 -3.697705e+09 -9.067855e+12 -6.904410e+07
## [898,] -7.225812e+06 -3.629019e+06 -4.503747e+10 -2.982688e+06
## [899,] -1.114353e+06 -6.330177e+05 -1.927764e+10 -3.604790e+06
## [900,] -1.105348e+08 -7.706070e+07 -1.198760e+11 -8.615552e+06
## [901,] -3.378309e+11 -3.102494e+11 -7.183487e+14 -2.574522e+09
## [902,] -2.394850e+11 -1.829470e+11 -5.441528e+14 -2.189966e+09
## [903,] -4.529217e+09 -3.447687e+09 -9.080476e+12 -6.734077e+07
## [904,] -6.028798e+06 -3.912682e+06 -4.510016e+10 -3.131460e+06

```

```

## [905,] -7.359419e+05 -2.497516e+05 -1.930447e+10 -3.662986e+06
## [906,] -9.411646e+07 -7.920314e+07 -1.200428e+11 -8.228556e+06
## [907,] -3.009747e+11 -3.313609e+11 -7.188483e+14 -2.708555e+09
## [908,] -2.572684e+11 -2.269491e+11 -5.449099e+14 -2.055302e+09
## [909,] -4.600033e+09 -4.224690e+09 -9.086789e+12 -6.873467e+07
## [910,] -5.077051e+06 -4.521771e+06 -4.513151e+10 -3.068496e+06
## [911,] -6.688957e+05 -2.489885e+05 -1.931789e+10 -3.673430e+06
## [912,] -9.436363e+07 -7.921674e+07 -1.201263e+11 -8.426341e+06
## [913,] -3.249525e+11 -2.701070e+11 -7.198481e+14 -2.698704e+09
## [914,] -2.371069e+11 -2.507267e+11 -5.452887e+14 -1.833556e+09
## [915,] -4.279388e+09 -4.224789e+09 -9.093105e+12 -6.719416e+07
## [916,] -6.131600e+06 -4.518521e+06 -4.516288e+10 -3.147447e+06
## [917,] -6.281633e+05 -2.995160e+05 -1.933132e+10 -3.607083e+06
## [918,] -9.321954e+07 -7.711437e+07 -1.202098e+11 -8.570332e+06
## [919,] -3.133694e+11 -2.510794e+11 -7.198481e+14 -3.440929e+09
## [920,] -2.110083e+11 -3.108153e+11 -5.452887e+14 -2.107039e+09
## [921,] -4.501291e+09 -3.698077e+09 -9.093105e+12 -6.770991e+07
## [922,] -4.739865e+06 -5.516189e+06 -4.519426e+10 -2.985581e+06
## [923,] -8.724872e+05 -3.547080e+05 -1.934475e+10 -3.686822e+06
## [924,] -9.255702e+07 -7.714121e+07 -1.203769e+11 -8.342597e+06
## [925,] -3.102451e+11 -2.999496e+11 -7.208486e+14 -2.727673e+09
## [926,] -2.507251e+11 -2.269469e+11 -5.460465e+14 -2.552739e+09
## [927,] -4.614656e+09 -3.698356e+09 -9.112066e+12 -6.535698e+07
## [928,] -5.792650e+06 -3.897581e+06 -4.525705e+10 -3.284052e+06
## [929,] -5.421552e+05 -4.135812e+05 -1.937163e+10 -3.664466e+06
## [930,] -8.055482e+07 -9.960862e+07 -1.204604e+11 -8.802503e+06
## [931,] -2.968940e+11 -2.798790e+11 -7.213491e+14 -2.855615e+09
## [932,] -2.491016e+11 -2.043518e+11 -5.468049e+14 -1.974854e+09
## [933,] -4.600551e+09 -4.786979e+09 -9.118390e+12 -7.356581e+07
## [934,] -6.994353e+06 -5.505426e+06 -4.528846e+10 -3.079278e+06
## [935,] -9.993886e+05 -2.444340e+05 -1.939853e+10 -3.586221e+06
## [936,] -9.680804e+07 -8.145770e+07 -1.207114e+11 -8.506214e+06
## [937,] -3.389072e+11 -3.102417e+11 -7.228516e+14 -3.257036e+09
## [938,] -2.466768e+11 -1.970824e+11 -5.475639e+14 -2.084339e+09
## [939,] -3.736925e+09 -4.643453e+09 -9.131046e+12 -7.594500e+07
## [940,] -7.755431e+06 -4.188231e+06 -4.535132e+10 -3.082025e+06
## [941,] -6.509934e+05 -2.936899e+05 -1.942544e+10 -3.691243e+06
## [942,] -9.424995e+07 -7.720834e+07 -1.207951e+11 -8.295608e+06
## [943,] -3.356579e+11 -2.510733e+11 -7.238542e+14 -2.602116e+09
## [944,] -2.556183e+11 -2.269426e+11 -5.483233e+14 -1.910234e+09
## [945,] -4.460175e+09 -4.090704e+09 -9.150046e+12 -7.078546e+07
## [946,] -6.020396e+06 -4.486094e+06 -4.547717e+10 -3.182597e+06
## [947,] -8.236833e+05 -1.949442e+05 -1.946585e+10 -3.732210e+06
## [948,] -9.313604e+07 -8.368796e+07 -1.210463e+11 -8.308818e+06
## [949,] -3.476403e+11 -2.898212e+11 -7.248575e+14 -2.975812e+09
## [950,] -2.572598e+11 -2.043476e+11 -5.490833e+14 -1.931430e+09
## [951,] -4.530451e+09 -3.448764e+09 -9.156383e+12 -5.661854e+07

```



```

## [952,] -5.911101e+06 -3.311383e+06 -4.547717e+10 -3.341531e+06
## [953,] -6.316080e+05 -2.912105e+05 -1.946585e+10 -3.692511e+06
## [954,] -9.221446e+07 -7.936644e+07 -1.210463e+11 -8.517066e+06
## [955,] -3.081654e+11 -3.207075e+11 -7.248575e+14 -2.874998e+09
## [956,] -2.466730e+11 -1.899426e+11 -5.494635e+14 -2.211795e+09
## [957,] -4.558778e+09 -3.827509e+09 -9.162723e+12 -7.028372e+07
## [958,] -5.656337e+06 -5.136730e+06 -4.550865e+10 -3.108590e+06
## [959,] -8.492048e+05 -4.706607e+05 -1.947932e+10 -3.687908e+06
## [960,] -9.154090e+07 -7.938005e+07 -1.211301e+11 -8.292536e+06
## [961,] -3.228204e+11 -2.898196e+11 -7.258614e+14 -2.601805e+09
## [962,] -2.442609e+11 -2.043462e+11 -5.498438e+14 -1.959920e+09
## [963,] -4.446512e+09 -3.699192e+09 -9.169065e+12 -6.751646e+07
## [964,] -6.086272e+06 -3.870474e+06 -4.554015e+10 -3.180067e+06
## [965,] -6.214227e+05 -2.895634e+05 -1.949281e+10 -3.707828e+06
## [966,] -9.339669e+07 -9.041410e+07 -1.212140e+11 -8.359097e+06
## [967,] -3.292052e+11 -2.604962e+11 -7.263637e+14 -3.006144e+09
## [968,] -2.765314e+11 -2.269389e+11 -5.502242e+14 -2.651183e+09
## [969,] -4.587399e+09 -3.573155e+09 -9.181756e+12 -6.617232e+07
## [970,] -6.005406e+06 -3.864463e+06 -4.560319e+10 -3.111414e+06
## [971,] -6.502784e+05 -3.429742e+05 -1.951979e+10 -3.723176e+06
## [972,] -9.388946e+07 -8.156808e+07 -1.213817e+11 -8.423413e+06
## [973,] -3.019847e+11 -3.102349e+11 -7.268661e+14 -2.755993e+09
## [974,] -2.547941e+11 -1.970769e+11 -5.506048e+14 -2.076381e+09
## [975,] -4.212583e+09 -4.502726e+09 -9.181756e+12 -7.244440e+07
## [976,] -6.338888e+06 -3.576803e+06 -4.560319e+10 -3.108784e+06
## [977,] -5.298478e+05 -4.675205e+05 -1.951979e+10 -3.655333e+06
## [978,] -9.367249e+07 -8.158189e+07 -1.214657e+11 -8.518413e+06
## [979,] -3.334953e+11 -2.798692e+11 -7.273687e+14 -2.844685e+09
## [980,] -2.458649e+11 -2.043442e+11 -5.509855e+14 -2.068926e+09
## [981,] -4.349743e+09 -3.699564e+09 -9.194456e+12 -6.773888e+07
## [982,] -5.744932e+06 -4.787497e+06 -4.566626e+10 -3.204314e+06
## [983,] -6.960642e+05 -1.504533e+05 -1.954679e+10 -3.732866e+06
## [984,] -8.777548e+07 -8.378586e+07 -1.216336e+11 -8.485456e+06
## [985,] -3.238760e+11 -3.102324e+11 -7.283743e+14 -2.697355e+09
## [986,] -2.215583e+11 -2.589027e+11 -5.517474e+14 -2.158283e+09
## [987,] -4.447022e+09 -3.699657e+09 -9.200809e+12 -5.828624e+07
## [988,] -5.634550e+06 -3.855455e+06 -4.569781e+10 -3.140618e+06
## [989,] -6.465864e+05 -2.354512e+05 -1.956029e+10 -3.714988e+06
## [990,] -9.300836e+07 -7.946177e+07 -1.216336e+11 -8.471518e+06
## [991,] -3.196467e+11 -2.898155e+11 -7.283743e+14 -2.824674e+09
## [992,] -2.597289e+11 -2.117423e+11 -5.517474e+14 -2.462233e+09
## [993,] -4.433073e+09 -3.828076e+09 -9.200809e+12 -8.053702e+07
## [994,] -5.316873e+06 -4.150783e+06 -4.572938e+10 -3.258070e+06
## [995,] -6.142152e+05 -3.989701e+05 -1.957380e+10 -3.700927e+06
## [996,] -9.141432e+07 -7.117017e+07 -1.217176e+11 -8.110702e+06
## [997,] -3.367298e+11 -2.604923e+11 -7.288775e+14 -2.582358e+09
## [998,] -2.300372e+11 -2.426554e+11 -5.521285e+14 -2.024681e+09

```

```

## [999,] -4.475086e+09 -3.958782e+09 -9.207164e+12 -6.880188e+07
## [1000,] -5.313350e+06 -4.777471e+06 -4.576095e+10 -2.945620e+06
## [1001,] -7.086672e+05 -2.339704e+05 -1.958732e+10 -3.718989e+06
## [1002,] -9.419565e+07 -8.163711e+07 -1.218017e+11 -8.543258e+06
## [1003,] -2.888112e+11 -2.700919e+11 -7.293807e+14 -3.417398e+09
## [1004,] -2.434545e+11 -2.117408e+11 -5.525097e+14 -2.143094e+09
## [1005,] -4.545479e+09 -3.828265e+09 -9.213521e+12 -7.038625e+07
## [1006,] -5.913925e+06 -4.147670e+06 -4.576095e+10 -3.148684e+06
## [1007,] -7.086672e+05 -3.385137e+05 -1.958732e+10 -3.705756e+06
## [1008,] -9.350011e+07 -8.163711e+07 -1.218017e+11 -8.529274e+06
## [1009,] -3.345691e+11 -2.798660e+11 -7.293807e+14 -2.785025e+09
## [1010,] -2.339427e+11 -2.426539e+11 -5.528911e+14 -1.973767e+09
## [1011,] -4.489407e+09 -3.959070e+09 -9.226243e+12 -6.711408e+07
## [1012,] -6.052387e+06 -4.450558e+06 -4.582414e+10 -3.212658e+06
## [1013,] -7.381461e+05 -3.951182e+05 -1.962789e+10 -3.712697e+06
## [1014,] -9.517178e+07 -7.952990e+07 -1.220540e+11 -8.577680e+06
## [1015,] -3.367262e+11 -2.999329e+11 -7.308916e+14 -2.854064e+09
## [1016,] -2.498982e+11 -2.117387e+11 -5.536542e+14 -2.017113e+09
## [1017,] -4.503649e+09 -4.227074e+09 -9.238973e+12 -6.799946e+07
## [1018,] -5.577522e+06 -3.550838e+06 -4.588737e+10 -3.180787e+06
## [1019,] -6.471027e+05 -2.310228e+05 -1.964143e+10 -3.732683e+06
## [1020,] -9.895930e+07 -8.607591e+07 -1.221381e+11 -8.352346e+06
## [1021,] -3.060883e+11 -3.102273e+11 -7.313956e+14 -2.735737e+09
## [1022,] -2.572490e+11 -2.347251e+11 -5.544179e+14 -1.995176e+09
## [1023,] -4.545994e+09 -3.828738e+09 -9.245341e+12 -6.922585e+07
## [1024,] -5.751381e+06 -3.547958e+06 -4.591900e+10 -3.194167e+06
## [1025,] -6.301999e+05 -4.571293e+05 -1.965497e+10 -3.741327e+06
## [1026,] -9.081650e+07 -8.609009e+07 -1.222223e+11 -8.481761e+06
## [1027,] -3.421535e+11 -2.510603e+11 -7.324041e+14 -2.794385e+09
## [1028,] -2.572482e+11 -2.117366e+11 -5.547999e+14 -2.046156e+09
## [1029,] -4.012317e+09 -4.092268e+09 -9.251712e+12 -6.923857e+07
## [1030,] -5.783532e+06 -3.831486e+06 -4.595064e+10 -3.277409e+06
## [1031,] -4.751377e+05 -6.752854e+05 -1.968206e+10 -3.749141e+06
## [1032,] -9.616793e+07 -8.611845e+07 -1.223908e+11 -8.365602e+06
## [1033,] -3.454314e+11 -2.999295e+11 -7.329086e+14 -2.487894e+09
## [1034,] -2.515198e+11 -2.192669e+11 -5.551821e+14 -1.901950e+09
## [1035,] -4.392271e+09 -3.959551e+09 -9.258085e+12 -7.403447e+07
## [1036,] -5.960547e+06 -3.267036e+06 -4.598229e+10 -3.367192e+06
## [1037,] -8.016405e+05 -3.912850e+05 -1.968206e+10 -3.675416e+06
## [1038,] -9.710901e+07 -8.173380e+07 -1.223908e+11 -8.793183e+06
## [1039,] -3.399754e+11 -2.999295e+11 -7.329086e+14 -3.077007e+09
## [1040,] -2.539658e+11 -2.117352e+11 -5.555643e+14 -1.966092e+09
## [1041,] -4.532200e+09 -3.959647e+09 -9.264460e+12 -7.084080e+07
## [1042,] -6.066532e+06 -5.423260e+06 -4.601395e+10 -3.213052e+06
## [1043,] -7.053518e+05 -1.788147e+05 -1.970917e+10 -3.823820e+06
## [1044,] -9.386488e+07 -7.456918e+07 -1.225594e+11 -8.236501e+06
## [1045,] -3.324083e+11 -2.529294e+11 -7.339181e+14 -2.341212e+09

```

```

## [1046,] -2.572459e+11 -2.117345e+11 -5.559468e+14 -1.923101e+09
## [1047,] -4.546407e+09 -3.328516e+09 -9.270837e+12 -6.685899e+07
## [1048,] -5.736729e+06 -3.822517e+06 -4.604563e+10 -3.226501e+06
## [1049,] -5.429207e+05 -5.214491e+05 -1.970917e+10 -3.717133e+06
## [1050,] -9.432919e+07 -7.961170e+07 -1.225594e+11 -8.429943e+06
## [1051,] -3.431620e+11 -2.623207e+11 -2.694436e+13 -1.692617e+09
## [1052,] -2.484463e+11 -2.133896e+11 -2.048385e+13 -1.396830e+09
## [1053,] -4.171280e+09 -3.363027e+09 -3.415838e+11 -2.542251e+07
## [1054,] -1.712223e+07 -1.579129e+07 -1.696550e+09 -1.546563e+04
## [1055,] -7.255915e+06 -5.616426e+06 -7.261839e+08 -5.207855e+04
## [1056,] -5.913608e+07 -5.604873e+07 -4.515698e+09 -8.475128e+05
## [1057,] -3.280444e+11 -3.122257e+11 -2.704120e+13 -1.385796e+09
## [1058,] -2.428180e+11 -2.209497e+11 -2.048385e+13 -1.226526e+09
## [1059,] -3.970951e+09 -3.997377e+09 -3.415838e+11 -2.552816e+07
## [1060,] -1.837890e+07 -1.350935e+07 -1.696550e+09 -9.655681e+03
## [1061,] -6.916403e+06 -5.616426e+06 -7.261839e+08 -4.536906e+04
## [1062,] -5.551249e+07 -5.785480e+07 -4.515698e+09 -9.240790e+05
## [1063,] -3.409807e+11 -2.917422e+11 -2.704120e+13 -1.601782e+09
## [1064,] -2.500662e+11 -2.059612e+11 -2.048385e+13 -1.243630e+09
## [1065,] -4.010623e+09 -3.610194e+09 -3.415838e+11 -2.574013e+07
## [1066,] -1.718401e+07 -1.350935e+07 -1.696550e+09 -1.010028e+04
## [1067,] -6.534767e+06 -6.335656e+06 -7.261839e+08 -4.391804e+04
## [1068,] -5.767290e+07 -5.252251e+07 -4.515698e+09 -9.080447e+05
## [1069,] -3.111851e+11 -3.122257e+11 -2.704120e+13 -1.677252e+09
## [1070,] -2.452222e+11 -2.209497e+11 -2.048385e+13 -1.232214e+09
## [1071,] -4.090557e+09 -4.130820e+09 -3.415838e+11 -2.468906e+07
## [1072,] -1.831501e+07 -1.296667e+07 -1.696550e+09 -1.055489e+04
## [1073,] -6.916403e+06 -6.335656e+06 -7.261839e+08 -4.599815e+04
## [1074,] -6.099084e+07 -5.604873e+07 -4.515698e+09 -9.057656e+05
## [1075,] -3.227281e+11 -3.227281e+11 -2.704120e+13 -1.639300e+09
## [1076,] -2.657180e+11 -2.133896e+11 -2.048385e+13 -1.192672e+09
## [1077,] -4.321320e+09 -3.610194e+09 -3.415838e+11 -2.479318e+07
## [1078,] -1.812400e+07 -1.520412e+07 -1.696550e+09 -1.086353e+04
## [1079,] -7.072090e+06 -5.386309e+06 -7.261839e+08 -4.620881e+04
## [1080,] -5.950474e+07 -5.785480e+07 -4.515698e+09 -9.034893e+05
## [1081,] -3.487231e+11 -2.700840e+11 -7.344231e+14 -2.784218e+09
## [1082,] -2.466594e+11 -1.970667e+11 -5.563293e+14 -2.009353e+09
## [1083,] -4.364973e+09 -4.227770e+09 -9.283598e+12 -6.791509e+07
## [1084,] -5.377941e+06 -4.113504e+06 -4.610901e+10 -3.229312e+06
## [1085,] -6.075501e+05 -2.749498e+05 -1.973630e+10 -3.764794e+06
## [1086,] -9.273854e+07 -7.963897e+07 -1.227281e+11 -8.438820e+06
## [1087,] -3.302606e+11 -2.798571e+11 -7.349283e+14 -3.076668e+09
## [1088,] -2.580670e+11 -2.117324e+11 -5.570948e+14 -1.866408e+09
## [1089,] -3.999745e+09 -3.829494e+09 -9.296368e+12 -8.570743e+07
## [1090,] -5.440214e+06 -4.107307e+06 -4.617243e+10 -3.321224e+06
## [1091,] -5.602406e+05 -2.733495e+05 -1.976344e+10 -3.770727e+06
## [1092,] -8.911645e+07 -9.070497e+07 -1.228969e+11 -8.580384e+06

```

```

## [1093,] -3.553551e+11 -2.510542e+11 -7.364449e+14 -2.571731e+09
## [1094,] -2.246118e+11 -2.588903e+11 -5.578609e+14 -1.929886e+09
## [1095,] -4.674846e+09 -3.701145e+09 -9.302756e+12 -6.795288e+07
## [1096,] -5.471484e+06 -5.060811e+06 -4.620416e+10 -3.168152e+06
## [1097,] -9.474933e+05 -1.797336e+05 -1.977702e+10 -3.671473e+06
## [1098,] -1.024751e+08 -7.967989e+07 -1.229813e+11 -8.881903e+06
## [1099,] -3.871485e+11 -2.604806e+11 -7.364449e+14 -3.138758e+09
## [1100,] -2.402519e+11 -2.347177e+11 -5.582441e+14 -1.951259e+09
## [1101,] -4.420874e+09 -3.960320e+09 -9.309146e+12 -6.796548e+07
## [1102,] -5.329285e+06 -4.727496e+06 -4.623590e+10 -3.242993e+06
## [1103,] -5.579552e+05 -3.836745e+05 -1.979061e+10 -3.774758e+06
## [1104,] -9.233690e+07 -7.969354e+07 -1.230658e+11 -8.442674e+06
## [1105,] -3.281182e+11 -2.798539e+11 -7.369508e+14 -2.590594e+09
## [1106,] -2.323657e+11 -2.269236e+11 -5.582441e+14 -2.009011e+09
## [1107,] -4.504777e+09 -4.093148e+09 -9.309146e+12 -7.558864e+07
## [1108,] -5.822261e+06 -4.727496e+06 -4.623590e+10 -3.149660e+06
## [1109,] -6.652758e+05 -3.253075e+05 -1.979061e+10 -3.712114e+06
## [1110,] -9.653786e+07 -7.758481e+07 -1.231503e+11 -8.572784e+06
## [1111,] -3.249220e+11 -2.898007e+11 -7.374569e+14 -2.647752e+09
## [1112,] -2.506991e+11 -1.970620e+11 -5.590109e+14 -2.179597e+09
## [1113,] -4.732586e+09 -3.829873e+09 -9.321934e+12 -6.868285e+07
## [1114,] -5.743174e+06 -3.513499e+06 -4.629941e+10 -3.184298e+06
## [1115,] -6.788568e+05 -2.701627e+05 -1.981780e+10 -3.786424e+06
## [1116,] -9.032228e+07 -8.188585e+07 -1.233194e+11 -8.539721e+06
## [1117,] -3.313257e+11 -2.798507e+11 -7.389761e+14 -3.107082e+09
## [1118,] -2.547756e+11 -2.347148e+11 -5.597782e+14 -1.994221e+09
## [1119,] -4.575713e+09 -3.960705e+09 -9.334730e+12 -6.596002e+07
## [1120,] -5.453625e+06 -3.792696e+06 -4.636296e+10 -3.235203e+06
## [1121,] -4.749692e+05 -3.789560e+05 -1.985861e+10 -3.780075e+06
## [1122,] -9.126358e+07 -7.347836e+07 -1.234887e+11 -8.675074e+06
## [1123,] -3.323986e+11 -2.510496e+11 -7.394828e+14 -2.590205e+09
## [1124,] -2.490749e+11 -1.970600e+11 -5.601621e+14 -1.972478e+09
## [1125,] -4.661170e+09 -3.830156e+09 -9.341131e+12 -7.152536e+07
## [1126,] -5.205541e+06 -4.082566e+06 -4.642656e+10 -3.232653e+06
## [1127,] -6.982079e+05 -2.669947e+05 -1.987222e+10 -3.763987e+06
## [1128,] -9.357903e+07 -7.977542e+07 -1.235733e+11 -8.546127e+06
## [1129,] -3.509181e+11 -2.897966e+11 -7.399898e+14 -2.505452e+09
## [1130,] -2.498844e+11 -1.970593e+11 -5.605461e+14 -2.001335e+09
## [1131,] -4.491353e+09 -3.575531e+09 -9.347534e+12 -6.942945e+07
## [1132,] -4.933452e+06 -4.079479e+06 -4.645838e+10 -3.216648e+06
## [1133,] -5.794833e+05 -2.179900e+05 -1.988584e+10 -3.793660e+06
## [1134,] -8.655383e+07 -8.633132e+07 -1.236580e+11 -8.613695e+06
## [1135,] -3.377919e+11 -2.604744e+11 -7.404969e+14 -2.599544e+09
## [1136,] -2.386581e+11 -2.347118e+11 -5.613145e+14 -2.001199e+09
## [1137,] -4.215360e+09 -4.093931e+09 -9.360348e+12 -6.841215e+07
## [1138,] -5.266811e+06 -5.029916e+06 -4.649020e+10 -3.251585e+06
## [1139,] -5.131174e+05 -5.061133e+05 -1.989946e+10 -3.800462e+06

```

```

## [1140,] -9.153622e+07 -7.980272e+07 -1.237427e+11 -8.408693e+06
## [1141,] -3.542367e+11 -3.756290e+11 -7.410041e+14 -2.922543e+09
## [1142,] -2.646930e+11 -2.192547e+11 -5.616989e+14 -1.865615e+09
## [1143,] -4.690216e+09 -4.094028e+09 -9.366758e+12 -6.585212e+07
## [1144,] -4.926665e+06 -4.073307e+06 -4.652204e+10 -3.243587e+06
## [1145,] -6.227486e+05 -2.646309e+05 -1.991309e+10 -3.903594e+06
## [1146,] -8.995490e+07 -7.981637e+07 -1.238274e+11 -8.671933e+06
## [1147,] -3.421365e+11 -2.798458e+11 -7.420192e+14 -2.580339e+09
## [1148,] -2.605353e+11 -2.192540e+11 -5.620834e+14 -1.914922e+09
## [1149,] -4.477745e+09 -4.094126e+09 -9.373170e+12 -6.603451e+07
## [1150,] -5.821376e+06 -4.376712e+06 -4.655389e+10 -3.249028e+06
## [1151,] -6.138320e+05 -3.742666e+05 -1.992672e+10 -3.794946e+06
## [1152,] -9.433424e+07 -8.198269e+07 -1.239122e+11 -8.803790e+06
## [1153,] -3.356260e+11 -2.510457e+11 -7.420192e+14 -2.599311e+09
## [1154,] -2.362849e+11 -2.043241e+11 -5.620834e+14 -2.141325e+09
## [1155,] -4.380230e+09 -3.702167e+09 -9.373170e+12 -7.141299e+07
## [1156,] -4.470828e+06 -5.023063e+06 -4.655389e+10 -3.206153e+06
## [1157,] -4.174627e+05 -5.039412e+05 -1.992672e+10 -3.694321e+06
## [1158,] -9.203873e+07 -7.984368e+07 -1.239970e+11 -8.512527e+06
## [1159,] -2.918020e+11 -3.421347e+11 -7.430350e+14 -2.952520e+09
## [1160,] -2.714100e+11 -2.192526e+11 -5.628529e+14 -1.830547e+09
## [1161,] -4.690530e+09 -3.961475e+09 -9.386002e+12 -5.624559e+07
## [1162,] -5.529837e+06 -3.768923e+06 -4.661762e+10 -3.265312e+06
## [1163,] -6.268800e+05 -2.622776e+05 -1.995400e+10 -3.673822e+06
## [1164,] -8.977149e+07 -8.419203e+07 -1.240818e+11 -9.368422e+06
## [1165,] -3.487068e+11 -2.604697e+11 -7.435431e+14 -2.792608e+09
## [1166,] -2.442345e+11 -2.043220e+11 -5.632378e+14 -2.178812e+09
## [1167,] -4.408286e+09 -4.229459e+09 -9.392421e+12 -7.251734e+07
## [1168,] -6.171628e+06 -4.057900e+06 -4.668139e+10 -3.257364e+06
## [1169,] -4.588669e+05 -3.705361e+05 -1.998130e+10 -3.759156e+06
## [1170,] -8.754682e+07 -8.867006e+07 -1.242516e+11 -8.957516e+06
## [1171,] -3.238481e+11 -2.510419e+11 -7.445599e+14 -2.608432e+09
## [1172,] -2.410365e+11 -2.269127e+11 -5.640080e+14 -1.914588e+09
## [1173,] -4.366993e+09 -3.961859e+09 -9.411690e+12 -6.938238e+07
## [1174,] -5.376240e+06 -4.051745e+06 -4.674520e+10 -3.203876e+06
## [1175,] -6.298117e+05 -3.115105e+05 -2.000861e+10 -3.839699e+06
## [1176,] -8.892438e+07 -8.206573e+07 -1.244214e+11 -8.583849e+06
## [1177,] -3.238464e+11 -3.102034e+11 -7.455775e+14 -2.627350e+09
## [1178,] -2.370689e+11 -2.192490e+11 -5.647788e+14 -1.935809e+09
## [1179,] -4.548777e+09 -3.452445e+09 -9.418118e+12 -6.680409e+07
## [1180,] -5.795593e+06 -4.048669e+06 -4.677713e+10 -3.292654e+06
## [1181,] -7.005596e+05 -3.106581e+05 -2.002228e+10 -3.840771e+06
## [1182,] -9.467089e+07 -8.207958e+07 -1.245064e+11 -8.511349e+06
## [1183,] -2.968540e+11 -3.421302e+11 -7.455775e+14 -3.116371e+09
## [1184,] -2.756484e+11 -2.192490e+11 -5.647788e+14 -2.216553e+09
## [1185,] -4.464463e+09 -3.831291e+09 -9.418118e+12 -6.817983e+07
## [1186,] -5.265969e+06 -4.045595e+06 -4.680906e+10 -3.287310e+06

```

```

## [1187,] -7.493755e+05 -3.098068e+05 -2.003595e+10 -3.843767e+06
## [1188,] -9.283187e+07 -8.648759e+07 -1.245914e+11 -8.543768e+06
## [1189,] -3.313125e+11 -3.206702e+11 -7.465957e+14 -2.598609e+09
## [1190,] -2.426291e+11 -2.117169e+11 -5.655501e+14 -2.007710e+09
## [1191,] -4.676936e+09 -3.962148e+09 -9.430980e+12 -6.665806e+07
## [1192,] -5.748742e+06 -4.039449e+06 -4.687297e+10 -3.306401e+06
## [1193,] -5.353575e+05 -4.266564e+05 -2.006330e+10 -3.898040e+06
## [1194,] -8.853109e+07 -8.430425e+07 -1.247615e+11 -8.643935e+06
## [1195,] -3.345381e+11 -2.798377e+11 -7.471050e+14 -2.694419e+09
## [1196,] -2.162188e+11 -2.043172e+11 -5.659359e+14 -2.140618e+09
## [1197,] -4.605839e+09 -4.792373e+09 -9.443851e+12 -7.262150e+07
## [1198,] -5.673797e+06 -3.187419e+06 -4.690493e+10 -3.282103e+06
## [1199,] -5.048529e+05 -9.502523e+04 -2.009067e+10 -3.744828e+06
## [1200,] -1.013803e+08 -9.335268e+07 -1.249317e+11 -9.254391e+06
## [1201,] -3.313098e+11 -3.101992e+11 -7.481243e+14 -2.801739e+09
## [1202,] -2.490611e+11 -2.347007e+11 -5.670943e+14 -1.885767e+09
## [1203,] -4.257727e+09 -3.962533e+09 -9.456730e+12 -7.372200e+07
## [1204,] -5.146434e+06 -4.651378e+06 -4.696890e+10 -3.276833e+06
## [1205,] -6.847626e+05 -1.645202e+05 -2.010436e+10 -3.858763e+06
## [1206,] -9.361363e+07 -8.002131e+07 -1.251020e+11 -8.782074e+06
## [1207,] -2.927998e+11 -3.313081e+11 -7.491442e+14 -3.002374e+09
## [1208,] -2.315666e+11 -2.117134e+11 -5.674806e+14 -2.162911e+09
## [1209,] -4.068747e+09 -4.230552e+09 -9.463173e+12 -7.903994e+07
## [1210,] -5.910357e+06 -4.024106e+06 -4.703291e+10 -3.323029e+06
## [1211,] -6.903637e+05 -4.216797e+05 -2.013176e+10 -3.872489e+06
## [1212,] -8.928013e+07 -8.219038e+07 -1.251872e+11 -8.850568e+06
## [1213,] -3.388592e+11 -2.897801e+11 -7.501648e+14 -2.617101e+09
## [1214,] -2.402324e+11 -2.117120e+11 -5.682538e+14 -1.978262e+09
## [1215,] -4.493402e+09 -3.703655e+09 -9.476066e+12 -7.250827e+07
## [1216,] -4.803562e+06 -4.968409e+06 -4.706494e+10 -3.231290e+06
## [1217,] -5.430333e+05 -2.514347e+05 -2.014547e+10 -3.804360e+06
## [1218,] -9.503794e+07 -8.438846e+07 -1.252725e+11 -8.586554e+06
## [1219,] -3.356118e+11 -2.798329e+11 -7.501648e+14 -2.598064e+09
## [1220,] -2.394379e+11 -1.970457e+11 -5.682538e+14 -2.102832e+09
## [1221,] -4.217147e+09 -3.962821e+09 -9.476066e+12 -7.322301e+07
## [1222,] -5.584887e+06 -3.727500e+06 -4.706494e+10 -3.228609e+06
## [1223,] -6.809739e+05 -4.206879e+05 -2.014547e+10 -3.810103e+06
## [1224,] -9.598847e+07 -8.221810e+07 -1.253577e+11 -8.500082e+06
## [1225,] -3.302334e+11 -2.604588e+11 -7.506754e+14 -3.793969e+09
## [1226,] -2.555773e+11 -2.269040e+11 -5.686405e+14 -1.864427e+09
## [1227,] -4.395817e+09 -3.453343e+09 -9.482515e+12 -7.127882e+07
## [1228,] -3.724550e+06 -7.564083e+06 -4.709697e+10 -3.188598e+06
## [1229,] -3.354265e+05 -5.564493e+05 -2.015918e+10 -3.683918e+06
## [1230,] -9.250350e+07 -8.221810e+07 -1.253577e+11 -8.675416e+06
## [1231,] -3.259627e+11 -2.700586e+11 -7.506754e+14 -2.617023e+09
## [1232,] -2.284515e+11 -2.269033e+11 -5.690274e+14 -2.185320e+09
## [1233,] -4.764173e+09 -4.095887e+09 -9.488967e+12 -6.970989e+07

```

```

## [1234,] -5.895505e+06 -4.316175e+06 -4.716107e+10 -3.263744e+06
## [1235,] -5.614996e+05 -3.567133e+05 -2.018662e+10 -3.863285e+06
## [1236,] -1.022126e+08 -8.664400e+07 -1.255284e+11 -9.011882e+06
## [1237,] -3.185540e+11 -2.700570e+11 -7.516971e+14 -2.664760e+09
## [1238,] -2.474399e+11 -2.269025e+11 -5.694144e+14 -2.036202e+09
## [1239,] -5.253012e+09 -4.095984e+09 -9.495421e+12 -7.762545e+07
## [1240,] -5.430522e+06 -3.715707e+06 -4.719314e+10 -3.293520e+06
## [1241,] -6.284056e+05 -2.483788e+05 -2.020034e+10 -3.864361e+06
## [1242,] -9.187283e+07 -8.445868e+07 -1.256991e+11 -8.665228e+06
## [1243,] -3.270242e+11 -2.604557e+11 -7.527194e+14 -2.840611e+09
## [1244,] -2.378483e+11 -2.117078e+11 -5.705763e+14 -1.719905e+09
## [1245,] -4.438061e+09 -3.577907e+09 -9.514796e+12 -7.081390e+07
## [1246,] -5.776330e+06 -4.306656e+06 -4.725730e+10 -3.288241e+06
## [1247,] -8.713455e+05 -2.468578e+05 -2.022781e+10 -3.835705e+06
## [1248,] -9.654807e+07 -8.670091e+07 -1.258699e+11 -8.561815e+06
## [1249,] -3.388530e+11 -2.798272e+11 -7.537425e+14 -2.578554e+09
## [1250,] -2.523026e+11 -2.043082e+11 -5.709639e+14 -1.949031e+09
## [1251,] -4.578711e+09 -3.832805e+09 -9.521259e+12 -6.751913e+07
## [1252,] -5.454624e+06 -3.706874e+06 -4.728940e+10 -3.280198e+06
## [1253,] -6.482588e+05 -1.998328e+05 -2.024155e+10 -3.848317e+06
## [1254,] -9.283688e+07 -8.015808e+07 -1.259554e+11 -8.763542e+06
## [1255,] -3.323730e+11 -2.798264e+11 -7.542543e+14 -2.702990e+09
## [1256,] -2.230514e+11 -2.117064e+11 -5.713516e+14 -2.442305e+09
## [1257,] -4.354986e+09 -4.096473e+09 -9.527724e+12 -6.961171e+07
## [1258,] -5.347081e+06 -3.996561e+06 -4.732151e+10 -3.339967e+06
## [1259,] -5.127672e+05 -3.521641e+05 -2.025529e+10 -3.878319e+06
## [1260,] -9.352996e+07 -8.015808e+07 -1.259554e+11 -8.671681e+06
## [1261,] -3.217136e+11 -2.798264e+11 -7.542543e+14 -2.712690e+09
## [1262,] -2.442186e+11 -2.117064e+11 -5.713516e+14 -1.999422e+09
## [1263,] -4.564661e+09 -3.453971e+09 -9.527724e+12 -7.225611e+07
## [1264,] -5.244108e+06 -3.703932e+06 -4.732151e+10 -3.186393e+06
## [1265,] -5.993585e+05 -1.984688e+05 -2.026904e+10 -3.873602e+06
## [1266,] -9.354474e+07 -8.017176e+07 -1.260409e+11 -8.598810e+06
## [1267,] -3.366846e+11 -2.897727e+11 -7.547663e+14 -3.032167e+09
## [1268,] -2.876874e+11 -2.346918e+11 -5.717394e+14 -2.094769e+09
## [1269,] -4.313742e+09 -4.231646e+09 -9.534191e+12 -7.789090e+07
## [1270,] -5.622947e+06 -3.700992e+06 -4.735363e+10 -3.205124e+06
## [1271,] -9.512458e+05 -3.512577e+05 -2.026904e+10 -3.781466e+06
## [1272,] -9.588877e+07 -8.018545e+07 -1.261264e+11 -8.589259e+06
## [1273,] -3.280867e+11 -2.798248e+11 -7.552784e+14 -2.722248e+09
## [1274,] -2.555704e+11 -2.117050e+11 -5.721273e+14 -2.013819e+09
## [1275,] -4.550736e+09 -3.578273e+09 -9.540660e+12 -6.790135e+07
## [1276,] -4.293979e+06 -7.526302e+06 -4.738576e+10 -3.109776e+06
## [1277,] -6.752101e+05 -3.494486e+05 -2.029655e+10 -3.860318e+06
## [1278,] -9.450264e+07 -8.235673e+07 -1.262120e+11 -8.607776e+06
## [1279,] -3.323704e+11 -3.101864e+11 -7.557907e+14 -2.606715e+09
## [1280,] -2.474331e+11 -1.970376e+11 -5.729036e+14 -1.639743e+09

```

```

## [1281,] -4.607603e+09 -3.963976e+09 -9.553606e+12 -6.672424e+07
## [1282,] -5.718588e+06 -4.287647e+06 -4.745006e+10 -3.280530e+06
## [1283,] -5.882649e+05 -1.964315e+05 -2.031031e+10 -3.888433e+06
## [1284,] -9.128811e+07 -8.021282e+07 -1.262975e+11 -8.725002e+06
## [1285,] -3.356003e+11 -2.897694e+11 -7.568159e+14 -2.549773e+09
## [1286,] -2.621714e+11 -2.268953e+11 -5.732920e+14 -1.884706e+09
## [1287,] -4.480711e+09 -4.096962e+09 -9.560081e+12 -6.639516e+07
## [1288,] -5.363916e+06 -4.924223e+06 -4.748222e+10 -3.356679e+06
## [1289,] -5.795996e+05 -1.957548e+05 -2.032408e+10 -3.893382e+06
## [1290,] -9.221974e+07 -7.809718e+07 -1.263832e+11 -8.673040e+06
## [1291,] -3.302229e+11 -2.897694e+11 -7.568159e+14 -2.587561e+09
## [1292,] -2.555681e+11 -2.117029e+11 -5.732920e+14 -1.884706e+09
## [1293,] -4.522846e+09 -3.578547e+09 -9.560081e+12 -6.776670e+07
## [1294,] -5.643840e+06 -3.112126e+06 -4.748222e+10 -3.326685e+06
## [1295,] -5.428531e+05 -5.428531e+05 -2.032408e+10 -3.906946e+06
## [1296,] -8.702367e+07 -8.680055e+07 -1.264688e+11 -8.861810e+06
## [1297,] -3.421097e+11 -2.998894e+11 -7.573287e+14 -2.721929e+09
## [1298,] -2.705432e+11 -2.268945e+11 -5.736804e+14 -1.912917e+09
## [1299,] -4.177946e+09 -4.232242e+09 -9.573040e+12 -6.935191e+07
## [1300,] -5.565978e+06 -3.402665e+06 -4.754658e+10 -3.343163e+06
## [1301,] -5.478415e+05 -4.059507e+05 -2.035163e+10 -3.901354e+06
## [1302,] -9.224910e+07 -8.681479e+07 -1.265545e+11 -8.646820e+06
## [1303,] -3.345196e+11 -2.798207e+11 -7.578417e+14 -2.683089e+09
## [1304,] -2.596837e+11 -2.192318e+11 -5.740690e+14 -2.131637e+09
## [1305,] -4.466914e+09 -3.454600e+09 -9.573040e+12 -7.075351e+07
## [1306,] -5.668410e+06 -5.597608e+06 -4.757878e+10 -3.240395e+06
## [1307,] -6.438612e+05 -2.889059e+05 -2.037920e+10 -3.922924e+06
## [1308,] -9.227846e+07 -8.028127e+07 -1.267259e+11 -8.726366e+06
## [1309,] -3.345178e+11 -2.700458e+11 -7.588683e+14 -2.634873e+09
## [1310,] -2.655015e+11 -2.117001e+11 -5.748466e+14 -2.253021e+09
## [1311,] -4.622342e+09 -4.097354e+09 -9.586007e+12 -7.543210e+07
## [1312,] -5.178658e+06 -3.969112e+06 -4.761099e+10 -3.348754e+06
## [1313,] -3.556553e+05 -4.687753e+05 -2.037920e+10 -3.880288e+06
## [1314,] -8.999375e+07 -8.462730e+07 -1.267259e+11 -8.705169e+06
## [1315,] -3.377599e+11 -2.700458e+11 -7.588683e+14 -2.634873e+09
## [1316,] -2.522949e+11 -2.043013e+11 -5.748466e+14 -1.969899e+09
## [1317,] -4.509394e+09 -3.579096e+09 -9.598983e+12 -6.836044e+07
## [1318,] -5.657500e+06 -3.963024e+06 -4.767543e+10 -3.316213e+06
## [1319,] -3.422586e+05 -3.308748e+05 -2.040678e+10 -3.894052e+06
## [1320,] -9.276827e+07 -1.031880e+08 -1.268974e+11 -9.201225e+06
## [1321,] -3.112177e+11 -2.897637e+11 -7.604094e+14 -2.274712e+09
## [1322,] -2.354702e+11 -2.192283e+11 -5.760140e+14 -1.955322e+09
## [1323,] -4.551767e+09 -3.964746e+09 -9.605474e+12 -7.152418e+07
## [1324,] -5.512887e+06 -3.388584e+06 -4.770767e+10 -3.289172e+06
## [1325,] -8.788655e+05 -3.413651e+05 -2.042058e+10 -3.926176e+06
## [1326,] -9.325938e+07 -8.033605e+07 -1.270691e+11 -8.666758e+06
## [1327,] -3.421034e+11 -2.700427e+11 -7.609234e+14 -2.502317e+09

```



```

## [1328,] -2.621651e+11 -2.116972e+11 -5.764034e+14 -1.863108e+09
## [1329,] -4.411737e+09 -3.834130e+09 -9.611968e+12 -6.803995e+07
## [1330,] -5.792944e+06 -3.665795e+06 -4.773993e+10 -3.340838e+06
## [1331,] -5.556060e+05 -2.355995e+05 -2.043439e+10 -3.915602e+06
## [1332,] -9.302840e+07 -8.468355e+07 -1.270691e+11 -8.540400e+06
## [1333,] -2.988636e+11 -3.206460e+11 -7.609234e+14 -2.682614e+09
## [1334,] -2.490428e+11 -1.970315e+11 -5.764034e+14 -2.042286e+09
## [1335,] -4.622862e+09 -3.964938e+09 -9.618463e+12 -6.857159e+07
## [1336,] -5.297720e+06 -3.953903e+06 -4.777219e+10 -3.351820e+06
## [1337,] -5.691755e+05 -4.635581e+05 -2.044820e+10 -3.914744e+06
## [1338,] -9.350543e+07 -8.034975e+07 -1.271550e+11 -8.748953e+06
## [1339,] -3.388396e+11 -2.700419e+11 -7.614376e+14 -2.634481e+09
## [1340,] -2.531066e+11 -2.042979e+11 -5.767930e+14 -1.779959e+09
## [1341,] -4.384074e+09 -3.834225e+09 -9.618463e+12 -6.944103e+07
## [1342,] -5.093732e+06 -3.953903e+06 -4.777219e+10 -3.319130e+06
## [1343,] -6.144548e+05 -1.138732e+05 -2.044820e+10 -3.918627e+06
## [1344,] -9.350543e+07 -9.143419e+07 -1.271550e+11 -8.777292e+06
## [1345,] -3.143434e+11 -2.700419e+11 -7.614376e+14 -3.208042e+09
## [1346,] -2.555603e+11 -2.042972e+11 -5.771826e+14 -1.773057e+09
## [1347,] -4.509805e+09 -3.705795e+09 -9.624961e+12 -6.823797e+07
## [1348,] -5.642969e+06 -3.659945e+06 -4.780446e+10 -3.381993e+06
## [1349,] -6.365244e+05 -2.341182e+05 -2.046201e+10 -3.875160e+06
## [1350,] -9.399848e+07 -7.406906e+07 -1.273268e+11 -8.722619e+06
## [1351,] -2.958119e+11 -3.421007e+11 -7.624666e+14 -3.271525e+09
## [1352,] -2.580251e+11 -2.116944e+11 -5.779623e+14 -1.919282e+09
## [1353,] -4.637417e+09 -3.579644e+09 -9.637964e+12 -6.671554e+07
## [1354,] -4.687838e+06 -4.559547e+06 -4.786904e+10 -3.362954e+06
## [1355,] -7.313081e+05 -3.369151e+05 -2.048965e+10 -3.958882e+06
## [1356,] -9.966507e+07 -8.255101e+07 -1.274127e+11 -8.607354e+06
## [1357,] -3.280736e+11 -2.700395e+11 -7.629814e+14 -2.721052e+09
## [1358,] -2.816155e+11 -2.268865e+11 -5.779623e+14 -2.176102e+09
## [1359,] -4.824583e+09 -4.510010e+09 -9.637964e+12 -7.445067e+07
## [1360,] -6.825787e+06 -4.883611e+06 -4.786904e+10 -3.297626e+06
## [1361,] -6.108662e+05 -6.032218e+05 -2.048965e+10 -3.859946e+06
## [1362,] -1.025528e+08 -7.615645e+07 -1.274127e+11 -9.069800e+06
## [1363,] -3.710332e+11 -2.510143e+11 -7.629814e+14 -4.276905e+09
## [1364,] -2.458119e+11 -2.192247e+11 -5.779623e+14 -2.570953e+09
## [1365,] -4.882917e+09 -3.965227e+09 -9.637964e+12 -7.517489e+07
## [1366,] -5.491379e+06 -3.651179e+06 -4.790135e+10 -3.393177e+06
## [1367,] -5.719691e+05 -2.319051e+05 -2.050348e+10 -3.942418e+06
## [1368,] -9.218071e+07 -8.256490e+07 -1.274987e+11 -8.710446e+06
## [1369,] -3.259409e+11 -2.700387e+11 -7.634963e+14 -2.605545e+09
## [1370,] -2.482301e+11 -1.970281e+11 -5.783524e+14 -1.933456e+09
## [1371,] -4.356801e+09 -3.706074e+09 -9.644468e+12 -6.827585e+07
## [1372,] -5.593125e+06 -4.553023e+06 -4.793366e+10 -3.395993e+06
## [1373,] -6.874209e+05 -3.351433e+05 -2.051731e+10 -3.885269e+06
## [1374,] -9.334796e+07 -8.041826e+07 -1.275848e+11 -8.686719e+06

```

```

## [1375,] -3.227553e+11 -2.604385e+11 -7.640114e+14 -2.750139e+09
## [1376,] -2.418051e+11 -2.116930e+11 -5.787426e+14 -2.198722e+09
## [1377,] -4.412447e+09 -3.706260e+09 -9.657484e+12 -6.743885e+07
## [1378,] -5.379926e+06 -3.645341e+06 -4.796599e+10 -3.396061e+06
## [1379,] -6.461195e+05 -2.304355e+05 -2.053115e+10 -3.890217e+06
## [1380,] -9.382579e+07 -8.043197e+07 -1.276708e+11 -8.847140e+06
## [1381,] -3.206137e+11 -3.227281e+11 -2.704120e+13 -1.669627e+09
## [1382,] -2.460263e+11 -2.444195e+11 -2.048385e+13 -1.226526e+09
## [1383,] -4.184810e+09 -3.363027e+09 -3.415838e+11 -2.521186e+07
## [1384,] -1.761314e+07 -1.405742e+07 -1.702636e+09 -1.165854e+04
## [1385,] -6.989989e+06 -5.382763e+06 -7.287890e+08 -4.611556e+04
## [1386,] -6.044328e+07 -4.912157e+07 -4.531898e+09 -9.049425e+05
## [1387,] -3.216691e+11 -2.817603e+11 -2.713821e+13 -1.624179e+09
## [1388,] -2.557766e+11 -2.059605e+11 -2.055733e+13 -1.009736e+09
## [1389,] -4.280237e+09 -3.485605e+09 -3.428092e+11 -2.099762e+07
## [1390,] -1.773856e+07 -1.405742e+07 -1.702636e+09 -1.660318e+04
## [1391,] -6.835213e+06 -5.157534e+06 -7.287890e+08 -5.310398e+04
## [1392,] -6.156484e+07 -5.081326e+07 -4.531898e+09 -8.140055e+05
## [1393,] -3.323278e+11 -2.623192e+11 -2.713821e+13 -1.646793e+09
## [1394,] -2.444187e+11 -2.059605e+11 -2.055733e+13 -1.249304e+09
## [1395,] -4.225632e+09 -3.485605e+09 -3.428092e+11 -2.118990e+07
## [1396,] -1.686996e+07 -1.519816e+07 -1.702636e+09 -1.641157e+04
## [1397,] -6.784007e+06 -5.157534e+06 -7.287890e+08 -5.355712e+04
## [1398,] -6.081599e+07 -5.253359e+07 -4.531898e+09 -8.183298e+05
## [1399,] -3.259118e+11 -2.817603e+11 -2.713821e+13 -1.358123e+09
## [1400,] -2.549568e+11 -1.986636e+11 -2.055733e+13 -1.237862e+09
## [1401,] -4.239251e+09 -3.363115e+09 -3.428092e+11 -2.553588e+07
## [1402,] -1.760673e+07 -1.405169e+07 -1.708734e+09 -1.584802e+04
## [1403,] -6.703600e+06 -5.379217e+06 -7.313989e+08 -5.232855e+04
## [1404,] -6.064139e+07 -5.082415e+07 -4.548127e+09 -8.305828e+05
## [1405,] -3.164041e+11 -2.917406e+11 -2.723539e+13 -1.484526e+09
## [1406,] -2.492541e+11 -1.914977e+11 -2.063095e+13 -1.243522e+09
## [1407,] -4.212135e+09 -3.485695e+09 -3.440368e+11 -2.715519e+07
## [1408,] -1.741309e+07 -1.349250e+07 -1.714842e+09 -5.324633e+03
## [1409,] -6.373565e+06 -5.840271e+06 -7.340133e+08 -4.467645e+04
## [1410,] -6.065330e+07 -5.255575e+07 -4.564384e+09 -9.124189e+05
## [1411,] -3.122508e+11 -3.101711e+11 -7.650421e+14 -2.769564e+09
## [1412,] -2.284318e+11 -2.346770e+11 -5.795233e+14 -2.464824e+09
## [1413,] -4.912644e+09 -4.098528e+09 -9.663995e+12 -8.266553e+07
## [1414,] -4.451590e+06 -5.204844e+06 -4.799833e+10 -3.346830e+06
## [1415,] -5.611332e+05 -2.791327e+05 -2.054499e+10 -3.785574e+06
## [1416,] -9.477025e+07 -8.260656e+07 -1.277569e+11 -9.030592e+06
## [1417,] -3.227527e+11 -2.798086e+11 -7.655577e+14 -2.898474e+09
## [1418,] -2.354621e+11 -2.192204e+11 -5.803046e+14 -1.612405e+09
## [1419,] -4.315951e+09 -3.706539e+09 -9.677023e+12 -7.025576e+07
## [1420,] -6.193668e+06 -4.227732e+06 -4.806304e+10 -3.434856e+06
## [1421,] -6.424395e+05 -2.775201e+05 -2.057269e+10 -3.918663e+06

```

```

## [1422,] -9.294499e+07 -8.047309e+07 -1.279291e+11 -8.882167e+06
## [1423,] -3.091321e+11 -3.530836e+11 -7.660735e+14 -3.410968e+09
## [1424,] -2.747645e+11 -2.116895e+11 -5.806955e+14 -2.251933e+09
## [1425,] -4.767443e+09 -3.965997e+09 -9.690061e+12 -7.045698e+07
## [1426,] -4.661404e+06 -3.920545e+06 -4.812779e+10 -3.328023e+06
## [1427,] -5.712990e+05 -2.267820e+05 -2.060041e+10 -3.977373e+06
## [1428,] -9.646820e+07 -8.931883e+07 -1.281015e+11 -9.034579e+06
## [1429,] -3.377457e+11 -2.897530e+11 -7.671056e+14 -2.838330e+09
## [1430,] -2.613250e+11 -2.268800e+11 -5.814776e+14 -2.213460e+09
## [1431,] -4.553210e+09 -3.835360e+09 -9.696583e+12 -7.011880e+07
## [1432,] -5.052425e+06 -3.627854e+06 -4.816018e+10 -3.355357e+06
## [1433,] -4.847085e+05 -2.260548e+05 -2.061427e+10 -3.960871e+06
## [1434,] -8.820584e+07 -8.933328e+07 -1.281877e+11 -8.974530e+06
## [1435,] -3.080941e+11 -3.312764e+11 -7.676219e+14 -2.623983e+09
## [1436,] -2.555511e+11 -2.116874e+11 -5.818688e+14 -2.122745e+09
## [1437,] -4.482962e+09 -3.456397e+09 -9.703107e+12 -6.164042e+07
## [1438,] -6.327657e+06 -4.849896e+06 -4.819259e+10 -3.317281e+06
## [1439,] -1.270472e+06 -3.281028e+05 -2.062814e+10 -3.921054e+06
## [1440,] -8.822019e+07 -8.268993e+07 -1.282739e+11 -8.807818e+06
## [1441,] -3.323484e+11 -2.798038e+11 -7.686550e+14 -2.576304e+09
## [1442,] -2.522803e+11 -2.192168e+11 -5.822602e+14 -1.947075e+09
## [1443,] -4.695764e+09 -3.707004e+09 -9.709633e+12 -7.297752e+07
## [1444,] -5.809582e+06 -3.076533e+06 -4.822500e+10 -3.360958e+06
## [1445,] -5.604694e+05 -3.857599e+05 -2.064202e+10 -3.912428e+06
## [1446,] -9.232750e+07 -7.630323e+07 -1.283602e+11 -9.019591e+06
## [1447,] -3.143314e+11 -2.897505e+11 -7.686550e+14 -2.877946e+09
## [1448,] -2.547300e+11 -2.116860e+11 -5.826517e+14 -2.063230e+09
## [1449,] -4.371741e+09 -3.707097e+09 -9.716162e+12 -6.998198e+07
## [1450,] -5.878003e+06 -3.073853e+06 -4.825743e+10 -3.290303e+06
## [1451,] -5.010811e+05 -3.254818e+05 -2.066978e+10 -3.971091e+06
## [1452,] -9.374203e+07 -8.273162e+07 -1.285329e+11 -8.942684e+06
## [1453,] -3.195767e+11 -2.897488e+11 -7.696888e+14 -2.778657e+09
## [1454,] -2.474133e+11 -1.970199e+11 -5.830433e+14 -1.644708e+09
## [1455,] -4.582021e+09 -3.966574e+09 -9.729226e+12 -6.792157e+07
## [1456,] -5.272283e+06 -3.068496e+06 -4.832231e+10 -3.405056e+06
## [1457,] -5.139717e+05 -1.785692e+05 -2.068367e+10 -3.925389e+06
## [1458,] -9.422087e+07 -8.058281e+07 -1.286192e+11 -8.854433e+06
## [1459,] -3.091245e+11 -2.998676e+11 -7.707234e+14 -2.642643e+09
## [1460,] -2.482194e+11 -2.042854e+11 -5.838270e+14 -1.961148e+09
## [1461,] -4.483576e+09 -3.966767e+09 -9.742298e+12 -7.538705e+07
## [1462,] -5.333943e+06 -3.896374e+06 -4.838724e+10 -3.438301e+06
## [1463,] -5.330564e+05 -5.117827e+05 -2.071146e+10 -4.003757e+06
## [1464,] -8.629384e+07 -9.171206e+07 -1.287920e+11 -8.749894e+06
## [1465,] -3.334185e+11 -2.604268e+11 -7.717586e+14 -2.556952e+09
## [1466,] -2.362418e+11 -2.268741e+11 -5.846112e+14 -2.376052e+09
## [1467,] -4.455689e+09 -3.836117e+09 -9.748838e+12 -7.759730e+07
## [1468,] -4.406561e+06 -5.855793e+06 -4.845221e+10 -3.298825e+06

```

```

## [1469,] -5.598060e+05 -2.679431e+05 -2.073927e+10 -3.996134e+06
## [1470,] -1.030744e+08 -8.721396e+07 -1.289650e+11 -9.001416e+06
## [1471,] -3.049904e+11 -2.797981e+11 -7.722765e+14 -2.739093e+09
## [1472,] -2.409960e+11 -2.588359e+11 -5.850034e+14 -1.975340e+09
## [1473,] -4.596616e+09 -3.966959e+09 -9.755379e+12 -6.831756e+07
## [1474,] -5.740683e+06 -3.052455e+06 -4.851722e+10 -3.413725e+06
## [1475,] -6.648022e+05 -2.663633e+05 -2.076710e+10 -3.920231e+06
## [1476,] -9.524187e+07 -9.407762e+07 -1.291380e+11 -9.292945e+06
## [1477,] -3.431721e+11 -2.700228e+11 -7.738311e+14 -2.509736e+09
## [1478,] -2.522726e+11 -2.116797e+11 -5.861811e+14 -2.018634e+09
## [1479,] -4.554448e+09 -4.235325e+09 -9.775018e+12 -7.275060e+07
## [1480,] -5.769133e+06 -4.177603e+06 -4.858228e+10 -3.424894e+06
## [1481,] -5.699598e+05 -1.386150e+05 -2.079495e+10 -3.965264e+06
## [1482,] -9.318088e+07 -8.285678e+07 -1.293112e+11 -8.998216e+06
## [1483,] -3.312650e+11 -2.700220e+11 -7.743497e+14 -2.897075e+09
## [1484,] -2.449908e+11 -2.268698e+11 -5.869669e+14 -1.917743e+09
## [1485,] -4.442338e+09 -3.708121e+09 -9.788121e+12 -6.977254e+07
## [1486,] -5.374681e+06 -4.171358e+06 -4.864738e+10 -3.408486e+06
## [1487,] -4.423915e+05 -1.338655e+05 -2.082281e+10 -4.053899e+06
## [1488,] -9.694402e+07 -8.507779e+07 -1.294845e+11 -9.326202e+06
## [1489,] -3.269858e+11 -2.604213e+11 -7.753874e+14 -2.797454e+09
## [1490,] -2.514554e+11 -1.898767e+11 -5.877532e+14 -1.974864e+09
## [1491,] -4.414782e+09 -3.967730e+09 -9.807792e+12 -7.389148e+07
## [1492,] -5.506717e+06 -3.036455e+06 -4.871253e+10 -3.408622e+06
## [1493,] -6.415333e+05 -2.616519e+05 -2.085070e+10 -4.024547e+06
## [1494,] -8.755197e+07 -1.012627e+08 -1.296579e+11 -8.548495e+06
## [1495,] -3.164113e+11 -2.604190e+11 -7.769451e+14 -2.787361e+09
## [1496,] -2.370236e+11 -2.346600e+11 -5.885400e+14 -1.938846e+09
## [1497,] -4.626083e+09 -3.708586e+09 -9.820918e+12 -6.740881e+07
## [1498,] -5.464623e+06 -3.323519e+06 -4.877772e+10 -3.428062e+06
## [1499,] -4.987471e+05 -9.053671e+05 -2.087860e+10 -3.863057e+06
## [1500,] -9.305317e+07 -8.962240e+07 -1.299182e+11 -8.773281e+06
## [1501,] -3.206175e+11 -2.700165e+11 -7.779845e+14 -3.028381e+09
## [1502,] -2.638032e+11 -2.042758e+11 -5.893273e+14 -1.953025e+09
## [1503,] -4.654707e+09 -3.582296e+09 -9.827483e+12 -6.724959e+07
## [1504,] -5.601369e+06 -3.293608e+06 -4.881033e+10 -3.480803e+06
## [1505,] -5.046140e+05 -2.593119e+05 -2.089256e+10 -4.004246e+06
## [1506,] -9.213200e+07 -8.737103e+07 -1.299182e+11 -8.858553e+06
## [1507,] -3.653511e+11 -2.797892e+11 -7.779845e+14 -3.152724e+09
## [1508,] -2.315247e+11 -2.042751e+11 -5.897212e+14 -2.032618e+09
## [1509,] -4.141386e+09 -3.582388e+09 -9.834051e+12 -7.126865e+07
## [1510,] -5.847512e+06 -4.152651e+06 -4.884295e+10 -3.419918e+06
## [1511,] -5.607669e+05 -1.683859e+05 -2.090652e+10 -3.796077e+06
## [1512,] -9.422591e+07 -8.516239e+07 -1.300050e+11 -8.998995e+06
## [1513,] -3.280473e+11 -2.897349e+11 -7.785045e+14 -2.846476e+09
## [1514,] -2.457884e+11 -2.042744e+11 -5.901152e+14 -1.988901e+09
## [1515,] -4.359828e+09 -3.708866e+09 -9.840622e+12 -6.917654e+07

```

```

## [1516,] -6.660066e+06 -2.292857e+06 -4.890823e+10 -3.378801e+06
## [1517,] -6.658494e+05 -1.671340e+05 -2.093446e+10 -3.958578e+06
## [1518,] -9.286663e+07 -8.082994e+07 -1.301788e+11 -8.972287e+06
## [1519,] -3.301834e+11 -2.604143e+11 -7.800654e+14 -2.679686e+09
## [1520,] -2.433799e+11 -2.042730e+11 -5.909036e+14 -1.988765e+09
## [1521,] -4.626707e+09 -3.837727e+09 -9.860346e+12 -6.800099e+07
## [1522,] -5.236411e+06 -3.555447e+06 -4.897355e+10 -3.456144e+06
## [1523,] -5.344633e+05 -2.554354e+05 -2.096242e+10 -4.045164e+06
## [1524,] -1.038099e+08 -8.085742e+07 -1.303526e+11 -9.263348e+06
## [1525,] -2.867294e+11 -3.870668e+11 -7.805860e+14 -3.141839e+09
## [1526,] -2.323023e+11 -2.268610e+11 -5.916925e+14 -2.017672e+09
## [1527,] -4.570032e+09 -3.981794e+09 -9.866925e+12 -6.835929e+07
## [1528,] -5.267091e+06 -4.766120e+06 -4.900622e+10 -3.291834e+06
## [1529,] -5.333466e+05 -3.065829e+05 -2.097641e+10 -3.961844e+06
## [1530,] -9.406784e+07 -8.087116e+07 -1.304396e+11 -8.835997e+06
## [1531,] -3.164044e+11 -3.101447e+11 -7.811069e+14 -2.650660e+09
## [1532,] -2.563525e+11 -2.191996e+11 -5.916925e+14 -2.024966e+09
## [1533,] -4.360232e+09 -4.513603e+09 -9.866925e+12 -7.045193e+07
## [1534,] -4.831470e+06 -5.097320e+06 -4.900622e+10 -3.472870e+06
## [1535,] -5.986015e+05 -2.068619e+05 -2.099040e+10 -4.017811e+06
## [1536,] -9.807041e+07 -9.200501e+07 -1.305266e+11 -9.178154e+06
## [1537,] -3.164027e+11 -3.101430e+11 -7.821490e+14 -3.110317e+09
## [1538,] -2.547108e+11 -2.191982e+11 -5.924820e+14 -2.226732e+09
## [1539,] -4.513808e+09 -3.709424e+09 -9.880089e+12 -7.639607e+07
## [1540,] -5.260079e+06 -4.130880e+06 -4.907161e+10 -3.478568e+06
## [1541,] -5.311167e+05 -4.890807e+05 -2.100440e+10 -4.062297e+06
## [1542,] -9.808555e+07 -8.973819e+07 -1.306136e+11 -8.788235e+06
## [1543,] -3.464414e+11 -2.998492e+11 -7.821490e+14 -2.471306e+09
## [1544,] -2.514462e+11 -2.042702e+11 -5.924820e+14 -1.736580e+09
## [1545,] -4.319164e+09 -3.838105e+09 -9.886675e+12 -7.101865e+07
## [1546,] -5.463766e+06 -4.127774e+06 -4.910432e+10 -3.406681e+06
## [1547,] -4.477544e+05 -3.040495e+05 -2.101840e+10 -4.016071e+06
## [1548,] -9.457724e+07 -8.975266e+07 -1.307007e+11 -8.842513e+06
## [1549,] -3.453442e+11 -2.998484e+11 -7.826704e+14 -2.915855e+09
## [1550,] -2.654653e+11 -2.191975e+11 -5.928769e+14 -1.916739e+09
## [1551,] -4.457831e+09 -3.583120e+09 -9.886675e+12 -6.961441e+07
## [1552,] -4.953296e+06 -4.436383e+06 -4.910432e+10 -3.403928e+06
## [1553,] -3.373765e+05 -8.908839e+05 -2.101840e+10 -4.014105e+06
## [1554,] -9.320065e+07 -8.092615e+07 -1.307878e+11 -8.997180e+06
## [1555,] -3.597302e+11 -2.700085e+11 -7.831919e+14 -3.193864e+09
## [1556,] -2.338659e+11 -2.191968e+11 -5.932719e+14 -1.923781e+09
## [1557,] -4.500063e+09 -3.969077e+09 -9.899853e+12 -7.335662e+07
## [1558,] -5.352595e+06 -3.263170e+06 -4.916977e+10 -3.404064e+06
## [1559,] -5.349326e+05 -1.621731e+05 -2.104641e+10 -4.065606e+06
## [1560,] -9.275385e+07 -7.669087e+07 -1.308749e+11 -8.745120e+06
## [1561,] -3.164001e+11 -2.797803e+11 -7.837136e+14 -2.825808e+09
## [1562,] -2.530735e+11 -2.042682e+11 -5.936671e+14 -1.981060e+09

```

```

## [1563,] -4.264511e+09 -4.374570e+09 -9.899853e+12 -7.939236e+07
## [1564,] -5.110302e+06 -4.426731e+06 -4.920251e+10 -3.459395e+06
## [1565,] -4.985744e+05 -1.245287e+05 -2.106043e+10 -4.146238e+06
## [1566,] -9.672866e+07 -8.312130e+07 -1.309620e+11 -9.006350e+06
## [1567,] -3.143057e+11 -2.700069e+11 -7.842355e+14 -2.679053e+09
## [1568,] -2.473920e+11 -2.116656e+11 -5.940624e+14 -2.009981e+09
## [1569,] -4.713372e+09 -3.969270e+09 -9.913040e+12 -7.500554e+07
## [1570,] -5.695952e+06 -4.423517e+06 -4.923526e+10 -3.395948e+06
## [1571,] -4.905996e+05 -3.006881e+05 -2.107445e+10 -4.050022e+06
## [1572,] -9.721506e+07 -8.981059e+07 -1.310492e+11 -8.825116e+06
## [1573,] -3.132607e+11 -2.998450e+11 -7.847575e+14 -2.253555e+09
## [1574,] -2.401815e+11 -2.116642e+11 -5.948535e+14 -1.973642e+09
## [1575,] -4.292195e+09 -3.838579e+09 -9.919636e+12 -6.967818e+07
## [1576,] -5.656773e+06 -2.738934e+06 -4.926803e+10 -3.520836e+06
## [1577,] -5.033555e+05 -1.603320e+05 -2.108847e+10 -4.066937e+06
## [1578,] -9.349094e+07 -7.884177e+07 -1.311364e+11 -8.893777e+06
## [1579,] -3.301746e+11 -2.700053e+11 -7.852797e+14 -2.611787e+09
## [1580,] -2.473905e+11 -2.116642e+11 -5.948535e+14 -1.952079e+09
## [1581,] -4.430431e+09 -3.709982e+09 -9.919636e+12 -6.863373e+07
## [1582,] -5.137146e+06 -3.815349e+06 -4.926803e+10 -3.456757e+06
## [1583,] -6.364512e+05 -4.169296e+05 -2.108847e+10 -3.988176e+06
## [1584,] -9.074922e+07 -8.535995e+07 -1.312237e+11 -8.891197e+06
## [1585,] -3.227188e+11 -2.700045e+11 -7.858021e+14 -2.360841e+09
## [1586,] -2.449749e+11 -2.116635e+11 -5.952492e+14 -1.930568e+09
## [1587,] -4.585125e+09 -4.102442e+09 -9.926235e+12 -7.287192e+07
## [1588,] -6.009601e+06 -4.106068e+06 -4.933359e+10 -3.532178e+06
## [1589,] -5.582977e+05 -2.470097e+05 -2.111653e+10 -4.084993e+06
## [1590,] -9.773290e+07 -8.537407e+07 -1.313109e+11 -8.845858e+06
## [1591,] -3.237777e+11 -2.897225e+11 -7.863247e+14 -2.678737e+09
## [1592,] -2.514393e+11 -2.116621e+11 -5.960410e+14 -2.150196e+09
## [1593,] -4.528809e+09 -3.969655e+09 -9.939439e+12 -7.325591e+07
## [1594,] -4.959284e+06 -4.410669e+06 -4.936638e+10 -3.437576e+06
## [1595,] -5.633563e+05 -2.454929e+05 -2.114461e+10 -4.047630e+06
## [1596,] -9.147833e+07 -7.889606e+07 -1.314855e+11 -9.019509e+06
## [1597,] -3.366287e+11 -3.312430e+11 -7.873703e+14 -3.310088e+09
## [1598,] -2.747324e+11 -2.268523e+11 -5.964371e+14 -2.633495e+09
## [1599,] -4.543010e+09 -5.094974e+09 -9.946044e+12 -8.810782e+07
## [1600,] -6.950448e+06 -3.243873e+06 -4.939919e+10 -3.268318e+06
## [1601,] -5.487242e+05 -1.213140e+05 -2.114461e+10 -4.138941e+06
## [1602,] -9.424579e+07 -7.889606e+07 -1.314855e+11 -8.897733e+06
## [1603,] -3.291009e+11 -2.797747e+11 -7.873703e+14 -2.554634e+09
## [1604,] -2.563432e+11 -1.969969e+11 -5.964371e+14 -1.901960e+09
## [1605,] -4.430838e+09 -3.969751e+09 -9.946044e+12 -6.833785e+07
## [1606,] -5.501411e+06 -3.243873e+06 -4.939919e+10 -3.462579e+06
## [1607,] -5.414803e+05 -1.578936e+05 -2.114461e+10 -4.061459e+06
## [1608,] -9.424579e+07 -8.103617e+07 -1.314855e+11 -8.976435e+06
## [1609,] -2.642221e+11 -3.312430e+11 -7.873703e+14 -3.539127e+09

```

```

## [1610,] -2.449719e+11 -2.346444e+11 -5.968333e+14 -2.068102e+09
## [1611,] -4.543113e+09 -3.839052e+09 -9.952652e+12 -7.364090e+07
## [1612,] -5.289984e+06 -3.515218e+06 -4.943201e+10 -3.509993e+06
## [1613,] -4.773948e+05 -2.447363e+05 -2.115866e+10 -4.074436e+06
## [1614,] -9.057955e+07 -7.890963e+07 -1.315729e+11 -9.009726e+06
## [1615,] -3.519379e+11 -2.700006e+11 -7.884167e+14 -2.717147e+09
## [1616,] -2.473859e+11 -2.191896e+11 -5.972297e+14 -2.031309e+09
## [1617,] -4.529117e+09 -3.337868e+09 -9.959262e+12 -6.836312e+07
## [1618,] -5.082700e+06 -3.797459e+06 -4.946484e+10 -3.507268e+06
## [1619,] -5.320527e+05 -1.979245e+05 -2.117271e+10 -4.032081e+06
## [1620,] -9.013908e+07 -8.323281e+07 -1.316603e+11 -9.173089e+06
## [1621,] -3.333903e+11 -3.101328e+11 -7.884167e+14 -2.955341e+09
## [1622,] -2.563409e+11 -1.969948e+11 -5.976262e+14 -2.075348e+09
## [1623,] -4.487056e+09 -3.710634e+09 -9.965874e+12 -6.837576e+07
## [1624,] -4.978907e+06 -4.397840e+06 -4.949768e+10 -3.498961e+06
## [1625,] -4.820734e+05 -4.752852e+05 -2.118677e+10 -3.939153e+06
## [1626,] -9.851982e+07 -9.452285e+07 -1.317477e+11 -9.177718e+06
## [1627,] -3.398774e+11 -2.797714e+11 -7.894637e+14 -2.874667e+09
## [1628,] -2.237691e+11 -2.588102e+11 -5.980228e+14 -2.397291e+09
## [1629,] -4.473147e+09 -3.584309e+09 -9.972488e+12 -7.189439e+07
## [1630,] -5.042262e+06 -3.506627e+06 -4.953053e+10 -3.448988e+06
## [1631,] -5.503329e+05 -3.478243e+05 -2.121490e+10 -4.100681e+06
## [1632,] -9.408770e+07 -8.547295e+07 -1.319226e+11 -8.927691e+06
## [1633,] -3.387907e+11 -2.797706e+11 -7.899875e+14 -2.535442e+09
## [1634,] -2.688083e+11 -2.506218e+11 -5.984196e+14 -2.149771e+09
## [1635,] -4.501294e+09 -3.584400e+09 -9.979104e+12 -7.102255e+07
## [1636,] -5.659536e+06 -4.709569e+06 -4.956339e+10 -3.366452e+06
## [1637,] -6.024624e+05 -1.548719e+05 -2.121490e+10 -4.005867e+06
## [1638,] -9.019713e+07 -8.996997e+07 -1.320101e+11 -8.946569e+06
## [1639,] -3.290956e+11 -3.101294e+11 -7.905114e+14 -2.544759e+09
## [1640,] -2.370042e+11 -2.346407e+11 -5.988165e+14 -2.750860e+09
## [1641,] -4.389743e+09 -3.710913e+09 -9.985723e+12 -6.876040e+07
## [1642,] -5.514897e+06 -6.089591e+06 -4.959626e+10 -3.725942e+06
## [1643,] -4.857092e+05 -6.165890e+05 -2.122897e+10 -3.911303e+06
## [1644,] -9.739597e+07 -8.550121e+07 -1.320976e+11 -8.844058e+06
## [1645,] -3.184885e+11 -2.797690e+11 -7.910355e+14 -3.406685e+09
## [1646,] -2.546976e+11 -2.268472e+11 -5.992135e+14 -1.915669e+09
## [1647,] -4.600347e+09 -3.711007e+09 -9.992344e+12 -6.842632e+07
## [1648,] -5.099114e+06 -3.782583e+06 -4.962914e+10 -3.513201e+06
## [1649,] -4.187473e+05 -4.710802e+05 -2.124304e+10 -4.104885e+06
## [1650,] -9.763230e+07 -8.113250e+07 -1.320976e+11 -9.422612e+06
## [1651,] -3.355419e+11 -2.998350e+11 -7.910355e+14 -2.726473e+09
## [1652,] -2.522473e+11 -2.042585e+11 -5.992135e+14 -1.944177e+09
## [1653,] -4.431652e+09 -3.711100e+09 -9.998966e+12 -7.866571e+07
## [1654,] -4.829858e+06 -3.779611e+06 -4.966204e+10 -3.452031e+06
## [1655,] -4.295362e+05 -8.547904e+04 -2.127121e+10 -4.091210e+06
## [1656,] -9.303371e+07 -8.120134e+07 -1.325357e+11 -9.009900e+06

```

```

## [1657,] -3.323061e+11 -2.797650e+11 -7.936588e+14 -2.441924e+09
## [1658,] -2.473783e+11 -1.969887e+11 -6.012006e+14 -2.217499e+09
## [1659,] -4.672237e+09 -4.239205e+09 -1.003211e+13 -7.542566e+07
## [1660,] -5.737169e+06 -3.208189e+06 -4.982667e+10 -3.449601e+06
## [1661,] -5.413004e+05 -2.357479e+05 -2.132759e+10 -4.085716e+06
## [1662,] -9.725032e+07 -8.781443e+07 -1.326234e+11 -9.238619e+06
## [1663,] -3.519279e+11 -2.897102e+11 -7.941839e+14 -3.025775e+09
## [1664,] -2.377895e+11 -2.425598e+11 -6.015985e+14 -1.994163e+09
## [1665,] -5.036792e+09 -3.840189e+09 -1.003211e+13 -7.451941e+07
## [1666,] -5.524807e+06 -4.365848e+06 -4.982667e+10 -3.547245e+06
## [1667,] -6.549946e+05 -2.857928e+05 -2.132759e+10 -4.111539e+06
## [1668,] -9.397418e+07 -9.007148e+07 -1.326234e+11 -9.057654e+06
## [1669,] -3.111623e+11 -3.420462e+11 -7.941839e+14 -2.735735e+09
## [1670,] -2.283909e+11 -2.191817e+11 -6.015985e+14 -2.119225e+09
## [1671,] -3.931625e+09 -4.239304e+09 -1.003875e+13 -6.834168e+07
## [1672,] -5.275091e+06 -3.202717e+06 -4.989260e+10 -3.564259e+06
## [1673,] -5.176596e+05 -2.342661e+05 -2.135581e+10 -4.201784e+06
## [1674,] -9.540122e+07 -8.124266e+07 -1.327989e+11 -8.966245e+06
## [1675,] -3.237621e+11 -2.509661e+11 -7.957605e+14 -2.933950e+09
## [1676,] -2.911134e+11 -1.969860e+11 -6.027927e+14 -2.341123e+09
## [1677,] -4.933659e+09 -3.840473e+09 -1.005203e+13 -7.914620e+07
## [1678,] -5.237390e+06 -4.050514e+06 -4.992558e+10 -3.353521e+06
## [1679,] -2.781485e+05 -4.616871e+05 -2.136993e+10 -4.061305e+06
## [1680,] -8.675357e+07 -9.012950e+07 -1.329745e+11 -9.061646e+06
## [1681,] -3.322999e+11 -2.509638e+11 -7.973386e+14 -2.833610e+09
## [1682,] -2.473730e+11 -1.969840e+11 -6.039881e+14 -1.993754e+09
## [1683,] -5.217416e+09 -3.840852e+09 -1.007861e+13 -6.789906e+07
## [1684,] -4.309320e+06 -4.035150e+06 -5.009065e+10 -3.514163e+06
## [1685,] -6.609947e+05 -2.298490e+05 -2.144058e+10 -4.011607e+06
## [1686,] -9.831787e+07 -7.918138e+07 -1.333260e+11 -9.444223e+06
## [1687,] -3.226980e+11 -2.509623e+11 -7.983915e+14 -2.260523e+09
## [1688,] -2.587962e+11 -2.116459e+11 -6.051847e+14 -1.907573e+09
## [1689,] -4.460995e+09 -3.841041e+09 -1.009192e+13 -6.966040e+07
## [1690,] -5.492525e+06 -3.738130e+06 -5.012370e+10 -3.553488e+06
## [1691,] -4.621233e+05 -2.291169e+05 -2.145473e+10 -4.260116e+06
## [1692,] -9.976213e+07 -8.794337e+07 -1.334140e+11 -8.898080e+06
## [1693,] -3.442219e+11 -3.101158e+11 -7.989183e+14 -2.496739e+09
## [1694,] -2.662774e+11 -2.191753e+11 -6.051847e+14 -1.872309e+09
## [1695,] -4.861056e+09 -3.971870e+09 -1.009192e+13 -7.627468e+07
## [1696,] -5.668702e+06 -3.738130e+06 -5.012370e+10 -3.444675e+06
## [1697,] -4.949982e+05 -2.283860e+05 -2.146888e+10 -4.051234e+06
## [1698,] -9.067179e+07 -8.795770e+07 -1.335020e+11 -9.394842e+06
## [1699,] -3.248174e+11 -2.797561e+11 -7.994452e+14 -2.581190e+09
## [1700,] -2.654393e+11 -2.116445e+11 -6.059831e+14 -1.900361e+09
## [1701,] -4.172419e+09 -3.841231e+09 -1.010523e+13 -7.091448e+07
## [1702,] -5.450485e+06 -4.330793e+06 -5.018983e+10 -3.584623e+06
## [1703,] -5.506277e+05 -2.276562e+05 -2.148303e+10 -4.125744e+06

```



```

## [1704,] -9.160028e+07 -8.353983e+07 -1.335900e+11 -9.093879e+06
## [1705,] -3.409462e+11 -2.699823e+11 -8.004995e+14 -2.773906e+09
## [1706,] -2.555032e+11 -2.042461e+11 -6.063825e+14 -1.950122e+09
## [1707,] -4.573855e+09 -4.105184e+09 -1.011189e+13 -6.917538e+07
## [1708,] -5.446917e+06 -4.022880e+06 -5.022291e+10 -3.681355e+06
## [1709,] -4.523886e+05 -1.430770e+05 -2.149719e+10 -4.102972e+06
## [1710,] -9.791943e+07 -8.356777e+07 -1.337661e+11 -8.937776e+06
## [1711,] -3.475400e+11 -2.719513e+11 -2.733274e+13 -1.601598e+09
## [1712,] -2.404234e+11 -2.209475e+11 -2.070470e+13 -1.249196e+09
## [1713,] -4.502366e+09 -3.866410e+09 -3.452666e+11 -2.793221e+07
## [1714,] -1.791459e+07 -1.637103e+07 -1.714842e+09 -1.134654e+04
## [1715,] -6.674272e+06 -5.375673e+06 -7.340133e+08 -4.592935e+04
## [1716,] -5.752606e+07 -5.608306e+07 -4.564384e+09 -9.307991e+05
## [1717,] -3.195565e+11 -3.018946e+11 -2.733274e+13 -1.646669e+09
## [1718,] -2.380428e+11 -2.133875e+11 -2.070470e+13 -1.254936e+09
## [1719,] -4.446358e+09 -3.242991e+09 -3.452666e+11 -2.492041e+07
## [1720,] -1.829539e+07 -1.461054e+07 -1.714842e+09 -1.103107e+04
## [1721,] -6.674272e+06 -5.150595e+06 -7.340133e+08 -4.530073e+04
## [1722,] -5.752606e+07 -5.255575e+07 -4.564384e+09 -9.192900e+05
## [1723,] -3.301804e+11 -2.817587e+11 -2.733274e+13 -1.631576e+09
## [1724,] -2.549552e+11 -2.209475e+11 -2.070470e+13 -1.209380e+09
## [1725,] -4.404582e+09 -3.610470e+09 -3.452666e+11 -2.450417e+07
## [1726,] -1.753780e+07 -1.518625e+07 -1.714842e+09 -1.072004e+04
## [1727,] -7.112138e+06 -5.605565e+06 -7.340133e+08 -4.741297e+04
## [1728,] -6.348135e+07 -5.255575e+07 -4.564384e+09 -9.055736e+05
## [1729,] -3.312524e+11 -2.817587e+11 -2.733274e+13 -1.624056e+09
## [1730,] -2.500639e+11 -2.209475e+11 -2.070470e+13 -1.226365e+09
## [1731,] -4.225831e+09 -3.737344e+09 -3.452666e+11 -2.512984e+07
## [1732,] -1.643144e+07 -1.637103e+07 -1.714842e+09 -9.813663e+03
## [1733,] -6.776048e+06 -5.150595e+06 -7.340133e+08 -4.509216e+04
## [1734,] -6.102665e+07 -5.788968e+07 -4.564384e+09 -8.942220e+05
## [1735,] -3.486397e+11 -2.623176e+11 -2.733274e+13 -1.609067e+09
## [1736,] -2.574187e+11 -2.209475e+11 -2.070470e+13 -1.226365e+09
## [1737,] -4.307871e+09 -3.737344e+09 -3.452666e+11 -2.492041e+07
## [1738,] -1.735090e+07 -1.461054e+07 -1.714842e+09 -1.026185e+04
## [1739,] -6.801612e+06 -5.150595e+06 -7.340133e+08 -4.530073e+04
## [1740,] -5.825443e+07 -5.083505e+07 -4.564384e+09 -9.215861e+05
## [1741,] -3.333691e+11 -2.896995e+11 -8.010269e+14 -2.599931e+09
## [1742,] -2.457558e+11 -2.116424e+11 -6.071817e+14 -2.036903e+09
## [1743,] -4.447534e+09 -3.712869e+09 -1.012522e+13 -6.885298e+07
## [1744,] -5.370430e+06 -3.441113e+06 -5.028910e+10 -3.579186e+06
## [1745,] -4.493101e+05 -3.274028e+05 -2.153970e+10 -4.178184e+06
## [1746,] -1.017761e+08 -8.802938e+07 -1.339423e+11 -8.925453e+06
## [1747,] -3.322911e+11 -2.896970e+11 -8.026102e+14 -2.714996e+09
## [1748,] -2.465592e+11 -2.268312e+11 -6.079814e+14 -2.355884e+09
## [1749,] -4.489820e+09 -3.841799e+09 -1.014523e+13 -7.011260e+07
## [1750,] -5.533863e+06 -3.714528e+06 -5.038847e+10 -3.616174e+06

```

```

## [1751,] -4.943748e+05 -1.402012e+05 -2.156806e+10 -4.172401e+06
## [1752,] -8.897310e+07 -8.146322e+07 -1.342069e+11 -9.234940e+06
## [1753,] -3.366012e+11 -2.797496e+11 -8.036666e+14 -2.609054e+09
## [1754,] -2.377753e+11 -2.191682e+11 -6.091820e+14 -1.978408e+09
## [1755,] -4.504063e+09 -4.105869e+09 -1.015857e+13 -7.350862e+07
## [1756,] -5.046656e+06 -3.426953e+06 -5.045477e+10 -3.450895e+06
## [1757,] -3.573708e+05 -3.812172e+05 -2.161063e+10 -4.137747e+06
## [1758,] -9.520250e+07 -8.366559e+07 -1.343834e+11 -9.287942e+06
## [1759,] -3.333621e+11 -2.603769e+11 -8.052526e+14 -2.561434e+09
## [1760,] -2.441446e+11 -2.116375e+11 -6.099830e+14 -1.949514e+09
## [1761,] -4.574786e+09 -3.973026e+09 -1.017193e+13 -7.104324e+07
## [1762,] -5.554591e+06 -3.421297e+06 -5.052111e+10 -3.624967e+06
## [1763,] -3.924713e+05 -3.802742e+05 -2.162484e+10 -4.178878e+06
## [1764,] -9.083194e+07 -8.367957e+07 -1.344718e+11 -9.870371e+06
## [1765,] -3.184652e+11 -2.699752e+11 -8.052526e+14 -2.783006e+09
## [1766,] -2.322677e+11 -2.505989e+11 -6.103837e+14 -2.065740e+09
## [1767,] -4.392680e+09 -4.378817e+09 -1.017861e+13 -6.826092e+07
## [1768,] -5.100080e+06 -3.989232e+06 -5.058750e+10 -3.554456e+06
## [1769,] -8.271544e+05 -1.029083e+05 -2.165325e+10 -4.225369e+06
## [1770,] -9.063308e+07 -9.501381e+07 -1.346485e+11 -9.455836e+06
## [1771,] -3.398489e+11 -2.998107e+11 -8.063107e+14 -3.013600e+09
## [1772,] -2.530405e+11 -2.116361e+11 -6.107846e+14 -2.316161e+09
## [1773,] -4.789943e+09 -3.829497e+09 -1.019199e+13 -7.143530e+07
## [1774,] -5.198152e+06 -3.693939e+06 -5.062071e+10 -3.602493e+06
## [1775,] -3.031569e+05 -3.195800e+05 -2.166747e+10 -4.152191e+06
## [1776,] -9.456267e+07 -8.154600e+07 -1.347369e+11 -9.067205e+06
## [1777,] -2.886881e+11 -3.101030e+11 -8.068401e+14 -2.842074e+09
## [1778,] -2.596105e+11 -2.042378e+11 -6.111855e+14 -1.927883e+09
## [1779,] -4.603457e+09 -3.587329e+09 -1.019199e+13 -7.647502e+07
## [1780,] -4.765453e+06 -3.693939e+06 -5.062071e+10 -3.571418e+06
## [1781,] -5.504463e+05 -1.024186e+05 -2.166747e+10 -4.184241e+06
## [1782,] -9.364883e+07 -7.941274e+07 -1.348253e+11 -9.144035e+06
## [1783,] -3.269325e+11 -2.797439e+11 -8.073696e+14 -2.523531e+09
## [1784,] -2.497851e+11 -1.828339e+11 -6.115866e+14 -2.207999e+09
## [1785,] -3.986714e+09 -4.660652e+09 -1.020537e+13 -6.693436e+07
## [1786,] -5.642388e+06 -3.407177e+06 -5.068716e+10 -3.565921e+06
## [1787,] -4.578115e+05 -1.350985e+05 -2.169591e+10 -4.172439e+06
## [1788,] -9.366362e+07 -7.942636e+07 -1.349137e+11 -9.163140e+06
## [1789,] -3.290667e+11 -2.699712e+11 -8.078992e+14 -2.822072e+09
## [1790,] -2.514086e+11 -2.116340e+11 -6.119879e+14 -2.124868e+09
## [1791,] -4.675058e+09 -4.241892e+09 -1.021206e+13 -7.984651e+07
## [1792,] -4.755450e+06 -4.280056e+06 -5.072041e+10 -3.636756e+06
## [1793,] -5.386949e+05 -1.339774e+05 -2.172437e+10 -4.222925e+06
## [1794,] -9.323046e+07 -8.377746e+07 -1.350907e+11 -9.252299e+06
## [1795,] -3.121791e+11 -3.205664e+11 -8.089591e+14 -2.542062e+09
## [1796,] -2.849979e+11 -2.042350e+11 -6.127908e+14 -2.347128e+09
## [1797,] -4.603976e+09 -3.973797e+09 -1.022545e+13 -6.834934e+07

```

```

## [1798,] -4.555762e+06 -4.273735e+06 -5.078693e+10 -3.614174e+06
## [1799,] -5.593716e+05 -3.152748e+05 -2.173861e+10 -4.226066e+06
## [1800,] -9.255319e+07 -8.161502e+07 -1.351793e+11 -9.140809e+06
## [1801,] -3.344321e+11 -2.509462e+11 -8.094893e+14 -2.811936e+09
## [1802,] -2.425380e+11 -2.042343e+11 -6.131924e+14 -2.087431e+09
## [1803,] -4.421182e+09 -3.842936e+09 -1.022545e+13 -7.132300e+07
## [1804,] -5.666955e+06 -3.398720e+06 -5.078693e+10 -3.580226e+06
## [1805,] -5.232826e+05 -1.716627e+05 -2.173861e+10 -4.167776e+06
## [1806,] -9.347646e+07 -8.823024e+07 -1.351793e+11 -9.286098e+06
## [1807,] -3.322797e+11 -2.509462e+11 -8.094893e+14 -2.831739e+09
## [1808,] -2.579553e+11 -2.346133e+11 -6.135941e+14 -1.870921e+09
## [1809,] -4.393490e+09 -4.242191e+09 -1.023215e+13 -8.271859e+07
## [1810,] -5.211261e+06 -3.967894e+06 -5.082020e+10 -3.432274e+06
## [1811,] -8.263485e+05 -2.618082e+05 -2.175286e+10 -4.116970e+06
## [1812,] -1.098891e+08 -8.824459e+07 -1.352678e+11 -9.415183e+06
## [1813,] -3.195093e+11 -2.797391e+11 -8.105503e+14 -2.801898e+09
## [1814,] -2.338267e+11 -2.191588e+11 -6.143981e+14 -1.877812e+09
## [1815,] -4.352165e+09 -3.714545e+09 -1.024556e+13 -6.547608e+07
## [1816,] -5.136453e+06 -3.390273e+06 -5.088678e+10 -3.591733e+06
## [1817,] -5.270703e+05 -9.854332e+04 -2.178136e+10 -4.197218e+06
## [1818,] -9.399907e+07 -9.284247e+07 -1.355337e+11 -9.421908e+06
## [1819,] -3.121748e+11 -3.205621e+11 -8.116119e+14 -3.147235e+09
## [1820,] -2.433346e+11 -1.969657e+11 -6.148002e+14 -1.692730e+09
## [1821,] -4.228866e+09 -4.379929e+09 -1.025226e+13 -7.226162e+07
## [1822,] -4.800615e+06 -3.958766e+06 -5.092009e+10 -3.518680e+06
## [1823,] -7.188932e+05 -2.594676e+05 -2.179561e+10 -4.204372e+06
## [1824,] -9.966568e+07 -8.168407e+07 -1.356224e+11 -9.411910e+06
## [1825,] -3.247965e+11 -2.998015e+11 -8.121430e+14 -2.831333e+09
## [1826,] -2.473517e+11 -2.191574e+11 -6.152025e+14 -2.362428e+09
## [1827,] -4.533850e+09 -4.107436e+09 -1.026568e+13 -6.877192e+07
## [1828,] -5.539329e+06 -3.381836e+06 -5.098674e+10 -3.608923e+06
## [1829,] -4.820098e+05 -1.678846e+05 -2.182414e+10 -4.226764e+06
## [1830,] -9.614395e+07 -8.388941e+07 -1.357999e+11 -9.642957e+06
## [1831,] -3.485859e+11 -2.797351e+11 -8.132056e+14 -2.971725e+09
## [1832,] -2.538464e+11 -2.116262e+11 -6.164102e+14 -1.969978e+09
## [1833,] -4.394199e+09 -3.588519e+09 -1.027911e+13 -6.931913e+07
## [1834,] -5.673360e+06 -3.376217e+06 -5.105344e+10 -3.680252e+06
## [1835,] -6.254530e+05 -1.666345e+05 -2.185269e+10 -4.158689e+06
## [1836,] -9.405835e+07 -7.957625e+07 -1.358886e+11 -9.163316e+06
## [1837,] -2.886774e+11 -3.100919e+11 -8.137372e+14 -3.348701e+09
## [1838,] -2.571257e+11 -2.116255e+11 -6.168130e+14 -1.905638e+09
## [1839,] -4.067580e+09 -4.242987e+09 -1.028583e+13 -7.073325e+07
## [1840,] -5.048441e+06 -3.511780e+06 -5.108680e+10 -3.648913e+06
## [1841,] -7.802207e+05 -5.637694e+05 -2.186697e+10 -4.181846e+06
## [1842,] -9.570508e+07 -8.835948e+07 -1.359774e+11 -9.138980e+06
## [1843,] -3.311981e+11 -3.205577e+11 -8.142690e+14 -2.588491e+09
## [1844,] -2.369707e+11 -2.191546e+11 -6.168130e+14 -2.433627e+09

```

```

## [1845,] -4.548368e+09 -3.843883e+09 -1.029255e+13 -6.778462e+07
## [1846,] -5.385599e+06 -3.370603e+06 -5.112017e+10 -3.686118e+06
## [1847,] -3.288736e+05 -4.250607e+05 -2.188125e+10 -4.229246e+06
## [1848,] -9.832817e+07 -8.838822e+07 -1.361551e+11 -9.097621e+06
## [1849,] -3.279860e+11 -3.311964e+11 -8.153331e+14 -2.722803e+09
## [1850,] -2.457361e+11 -2.042267e+11 -6.176190e+14 -1.941078e+09
## [1851,] -4.464160e+09 -3.588794e+09 -1.029927e+13 -6.935731e+07
## [1852,] -5.008140e+06 -3.367798e+06 -5.115356e+10 -3.589463e+06
## [1853,] -5.603321e+05 -2.532772e+05 -2.190984e+10 -4.255751e+06
## [1854,] -9.411765e+07 -8.178078e+07 -1.362440e+11 -9.145606e+06
## [1855,] -3.258536e+11 -2.603613e+11 -8.158653e+14 -2.484996e+09
## [1856,] -2.457346e+11 -2.346044e+11 -6.184256e+14 -2.183974e+09
## [1857,] -4.436435e+09 -3.715477e+09 -1.031272e+13 -7.255678e+07
## [1858,] -5.203450e+06 -3.641257e+06 -5.122036e+10 -3.677743e+06
## [1859,] -4.951058e+05 -2.056126e+05 -2.192414e+10 -4.250809e+06
## [1860,] -9.646880e+07 -8.179460e+07 -1.363329e+11 -9.324802e+06
## [1861,] -3.290526e+11 -2.997948e+11 -8.163978e+14 -2.810882e+09
## [1862,] -2.595965e+11 -1.969596e+11 -6.184256e+14 -1.976845e+09
## [1863,] -4.763016e+09 -4.520588e+09 -1.031945e+13 -7.454460e+07
## [1864,] -5.440784e+06 -3.091562e+06 -5.125378e+10 -3.632187e+06
## [1865,] -5.865782e+05 -3.589073e+05 -2.195275e+10 -4.277381e+06
## [1866,] -9.673407e+07 -8.182225e+07 -1.365109e+11 -9.123296e+06
## [1867,] -3.100843e+11 -2.797270e+11 -8.185294e+14 -2.970892e+09
## [1868,] -2.579428e+11 -2.042226e+11 -6.200403e+14 -2.056709e+09
## [1869,] -4.605739e+09 -4.108514e+09 -1.033965e+13 -7.154259e+07
## [1870,] -4.220193e+06 -5.534870e+06 -5.135409e+10 -3.519574e+06
## [1871,] -4.897436e+05 -1.604544e+05 -2.199570e+10 -4.210021e+06
## [1872,] -9.443906e+07 -8.186373e+07 -1.367780e+11 -9.428815e+06
## [1873,] -3.387409e+11 -3.205491e+11 -8.195962e+14 -2.521765e+09
## [1874,] -2.595910e+11 -2.042205e+11 -6.212527e+14 -1.883721e+09
## [1875,] -4.041992e+09 -4.381548e+09 -1.035986e+13 -7.498589e+07
## [1876,] -5.044184e+06 -3.075460e+06 -5.145451e+10 -3.692553e+06
## [1877,] -4.539524e+05 -1.224878e+05 -2.202436e+10 -4.246569e+06
## [1878,] -9.586962e+07 -8.407148e+07 -1.369562e+11 -9.175367e+06
## [1879,] -3.301166e+11 -2.997889e+11 -8.201299e+14 -2.503003e+09
## [1880,] -2.409277e+11 -2.116178e+11 -6.212527e+14 -2.578965e+09
## [1881,] -3.975724e+09 -4.953319e+09 -1.035986e+13 -7.105105e+07
## [1882,] -5.074297e+06 -3.907242e+06 -5.148800e+10 -3.652604e+06
## [1883,] -8.796680e+05 -1.586232e+05 -2.203870e+10 -4.239612e+06
## [1884,] -9.401893e+07 -7.975358e+07 -1.370453e+11 -9.325595e+06
## [1885,] -3.496746e+11 -2.699521e+11 -8.206638e+14 -2.970559e+09
## [1886,] -2.489551e+11 -2.191453e+11 -6.220616e+14 -1.947490e+09
## [1887,] -4.606257e+09 -4.109003e+09 -1.037335e+13 -6.897485e+07
## [1888,] -4.970590e+06 -3.337018e+06 -5.152151e+10 -3.701297e+06
## [1889,] -5.062003e+05 -1.994231e+05 -2.205304e+10 -4.297501e+06
## [1890,] -9.589955e+07 -8.409950e+07 -1.371345e+11 -9.206400e+06
## [1891,] -3.279764e+11 -2.699513e+11 -8.211978e+14 -2.741410e+09

```

```

## [1892,] -2.571157e+11 -2.116164e+11 -6.220616e+14 -2.005187e+09
## [1893,] -4.648977e+09 -3.589801e+09 -1.037335e+13 -7.321033e+07
## [1894,] -4.637019e+06 -4.198245e+06 -5.158855e+10 -3.632886e+06
## [1895,] -5.986488e+05 -2.441318e+05 -2.208174e+10 -4.273362e+06
## [1896,] -9.710509e+07 -8.194671e+07 -1.373129e+11 -9.237485e+06
## [1897,] -3.607812e+11 -2.896666e+11 -8.222664e+14 -2.493380e+09
## [1898,] -2.369596e+11 -2.505752e+11 -6.228710e+14 -1.968892e+09
## [1899,] -4.749738e+09 -3.976205e+09 -1.039360e+13 -6.831909e+07
## [1900,] -5.332531e+06 -4.195114e+06 -5.162209e+10 -3.712997e+06
## [1901,] -5.240346e+05 -1.561979e+05 -2.209609e+10 -4.232000e+06
## [1902,] -9.386103e+07 -8.197438e+07 -1.374915e+11 -9.275911e+06
## [1903,] -3.507732e+11 -3.100766e+11 -8.233356e+14 -3.082938e+09
## [1904,] -2.546506e+11 -2.841105e+11 -6.236810e+14 -2.205845e+09
## [1905,] -4.564251e+09 -3.976398e+09 -1.040711e+13 -8.061849e+07
## [1906,] -4.920426e+06 -3.600544e+06 -5.168919e+10 -3.517464e+06
## [1907,] -8.348447e+05 -1.960253e+05 -2.212482e+10 -4.226180e+06
## [1908,] -8.952173e+07 -9.088555e+07 -1.375808e+11 -9.797945e+06
## [1909,] -3.398195e+11 -3.100758e+11 -8.238705e+14 -3.347021e+09
## [1910,] -2.433173e+11 -2.345941e+11 -6.240862e+14 -2.160293e+09
## [1911,] -4.493815e+09 -3.590259e+09 -1.040711e+13 -7.008584e+07
## [1912,] -5.087249e+06 -3.056728e+06 -5.168919e+10 -3.710265e+06
## [1913,] -5.567229e+05 -1.953493e+05 -2.213918e+10 -4.281947e+06
## [1914,] -9.575503e+07 -8.418362e+07 -1.376702e+11 -9.292516e+06
## [1915,] -3.311814e+11 -2.603488e+11 -8.244056e+14 -2.799795e+09
## [1916,] -2.521989e+11 -2.116122e+11 -6.244915e+14 -1.954251e+09
## [1917,] -4.735744e+09 -3.976591e+09 -1.042063e+13 -7.258677e+07
## [1918,] -5.632518e+06 -3.051387e+06 -5.175634e+10 -3.587888e+06
## [1919,] -5.055698e+05 -7.802647e+04 -2.215356e+10 -4.379047e+06
## [1920,] -9.553591e+07 -7.710659e+07 -1.377596e+11 -9.007570e+06
## [1921,] -2.866607e+11 -3.100741e+11 -8.249408e+14 -2.701955e+09
## [1922,] -2.629009e+11 -1.969487e+11 -6.248970e+14 -2.313588e+09
## [1923,] -4.056187e+09 -4.522129e+09 -1.042063e+13 -7.240853e+07
## [1924,] -4.913648e+06 -4.182603e+06 -5.175634e+10 -3.590714e+06
## [1925,] -4.063402e+05 -1.537912e+05 -2.215356e+10 -4.236503e+06
## [1926,] -9.114303e+07 -8.640802e+07 -1.377596e+11 -9.495250e+06
## [1927,] -3.215966e+11 -2.896625e+11 -8.249408e+14 -2.809586e+09
## [1928,] -2.513833e+11 -2.345919e+11 -6.253025e+14 -2.305718e+09
## [1929,] -4.692731e+09 -3.845778e+09 -1.042740e+13 -6.907642e+07
## [1930,] -4.302343e+06 -5.144354e+06 -5.178993e+10 -3.509283e+06
## [1931,] -4.558490e+05 -1.166750e+05 -2.218232e+10 -4.309752e+06
## [1932,] -9.324049e+07 -8.867581e+07 -1.379384e+11 -9.255461e+06
## [1933,] -3.409034e+11 -2.997797e+11 -8.260118e+14 -2.819313e+09
## [1934,] -2.489483e+11 -1.969474e+11 -6.257083e+14 -1.579520e+09
## [1935,] -4.550532e+09 -3.717154e+09 -1.043416e+13 -6.463936e+07
## [1936,] -5.140888e+06 -2.791284e+06 -5.182354e+10 -3.622012e+06
## [1937,] -5.103842e+05 -2.388747e+05 -2.218232e+10 -4.307715e+06
## [1938,] -1.005421e+08 -8.422569e+07 -1.379384e+11 -9.519433e+06

```

```

## [1939,] -3.463667e+11 -3.311788e+11 -8.260118e+14 -2.889019e+09
## [1940,] -2.401238e+11 -2.425147e+11 -6.257083e+14 -2.313441e+09
## [1941,] -4.177257e+09 -4.382661e+09 -1.043416e+13 -8.011033e+07
## [1942,] -6.021146e+06 -3.046050e+06 -5.182354e+10 -3.610666e+06
## [1943,] -7.593306e+05 -2.388747e+05 -2.218232e+10 -4.248862e+06
## [1944,] -9.791973e+07 -8.422569e+07 -1.379384e+11 -9.512051e+06
## [1945,] -3.269019e+11 -2.699442e+11 -8.260118e+14 -2.899047e+09
## [1946,] -2.441152e+11 -2.345911e+11 -6.257083e+14 -2.144956e+09
## [1947,] -4.678507e+09 -3.466287e+09 -1.043416e+13 -7.824771e+07
## [1948,] -6.021146e+06 -3.311939e+06 -5.182354e+10 -3.565459e+06
## [1949,] -4.964616e+05 -1.525949e+05 -2.218232e+10 -4.301608e+06
## [1950,] -1.000780e+08 -8.205743e+07 -1.380279e+11 -9.260111e+06
## [1951,] -3.018227e+11 -2.997781e+11 -8.270835e+14 -3.061682e+09
## [1952,] -2.489467e+11 -1.969460e+11 -6.265201e+14 -2.033593e+09
## [1953,] -4.794069e+09 -3.977073e+09 -1.045447e+13 -6.722604e+07
## [1954,] -5.543934e+06 -4.477035e+06 -5.192441e+10 -3.780039e+06
## [1955,] -5.354469e+05 -1.913175e+05 -2.222550e+10 -4.242136e+06
## [1956,] -1.005881e+08 -8.871899e+07 -1.382069e+11 -9.095363e+06
## [1957,] -3.354808e+11 -2.797132e+11 -8.276196e+14 -2.701558e+09
## [1958,] -2.497561e+11 -2.042108e+11 -6.269262e+14 -2.026215e+09
## [1959,] -4.765231e+09 -4.245576e+09 -1.046125e+13 -8.205023e+07
## [1960,] -5.575501e+06 -2.537895e+06 -5.195806e+10 -3.557291e+06
## [1961,] -3.811606e+05 -3.399379e+05 -2.225430e+10 -4.278823e+06
## [1962,] -9.400915e+07 -8.211281e+07 -1.383860e+11 -9.381065e+06
## [1963,] -3.247695e+11 -2.797116e+11 -8.286924e+14 -2.614910e+09
## [1964,] -2.417126e+11 -2.116066e+11 -6.277388e+14 -2.004229e+09
## [1965,] -4.327907e+09 -3.846347e+09 -1.046802e+13 -7.178840e+07
## [1966,] -5.089870e+06 -3.032728e+06 -5.199171e+10 -3.728161e+06
## [1967,] -4.120494e+05 -1.899830e+05 -2.225430e+10 -4.311357e+06
## [1968,] -9.493964e+07 -8.429583e+07 -1.383860e+11 -9.315209e+06
## [1969,] -3.365586e+11 -2.797108e+11 -8.292290e+14 -2.586315e+09
## [1970,] -2.481349e+11 -1.969433e+11 -6.281453e+14 -1.690656e+09
## [1971,] -4.551151e+09 -3.717713e+09 -1.047480e+13 -7.521103e+07
## [1972,] -3.888414e+06 -5.120118e+06 -5.202538e+10 -3.693751e+06
## [1973,] -3.853424e+05 -1.886530e+05 -2.228313e+10 -4.317706e+06
## [1974,] -9.311274e+07 -9.567040e+07 -1.385653e+11 -9.715894e+06
## [1975,] -3.131880e+11 -2.896551e+11 -8.297658e+14 -3.745467e+09
## [1976,] -2.579265e+11 -2.345859e+11 -6.285519e+14 -2.062616e+09
## [1977,] -4.722294e+09 -3.846537e+09 -1.048158e+13 -8.228153e+07
## [1978,] -4.684132e+06 -3.853055e+06 -5.209275e+10 -3.754339e+06
## [1979,] -4.345991e+05 -2.329366e+05 -2.229755e+10 -4.347436e+06
## [1980,] -9.638896e+07 -7.999944e+07 -1.386550e+11 -9.248971e+06
## [1981,] -3.430755e+11 -2.896534e+11 -8.308399e+14 -2.759519e+09
## [1982,] -2.505629e+11 -2.116037e+11 -6.293656e+14 -1.910655e+09
## [1983,] -4.509192e+09 -3.846726e+09 -1.049515e+13 -6.920350e+07
## [1984,] -5.143522e+06 -3.562943e+06 -5.212645e+10 -3.739974e+06
## [1985,] -4.915420e+05 -1.860072e+05 -2.234084e+10 -4.348813e+06

```

```

## [1986,] -9.903655e+07 -8.438004e+07 -1.389242e+11 -9.233807e+06
## [1987,] -3.343950e+11 -2.997705e+11 -8.319148e+14 -2.798663e+09
## [1988,] -2.530036e+11 -2.267912e+11 -6.301798e+14 -2.391308e+09
## [1989,] -4.579955e+09 -3.718179e+09 -1.050873e+13 -7.710445e+07
## [1990,] -5.476633e+06 -4.138960e+06 -5.222762e+10 -3.783582e+06
## [1991,] -5.254295e+05 -2.299956e+05 -2.235528e+10 -4.362241e+06
## [1992,] -9.833848e+07 -8.439408e+07 -1.390140e+11 -9.384511e+06
## [1993,] -3.322418e+11 -2.699347e+11 -8.324524e+14 -3.133449e+09
## [1994,] -2.449076e+11 -2.042039e+11 -6.309945e+14 -2.320293e+09
## [1995,] -4.287493e+09 -4.111159e+09 -1.052231e+13 -7.439833e+07
## [1996,] -5.028819e+06 -3.011474e+06 -5.226136e+10 -3.918294e+06
## [1997,] -4.295762e+05 -1.099875e+05 -2.236972e+10 -4.456099e+06
## [1998,] -1.009972e+08 -7.795409e+07 -1.391936e+11 -1.021808e+07
## [1999,] -3.142252e+11 -2.896485e+11 -8.340665e+14 -3.122768e+09
## [2000,] -2.489368e+11 -2.115995e+11 -6.318097e+14 -1.967401e+09
## [2001,] -4.665765e+09 -4.111355e+09 -1.053591e+13 -7.771075e+07
## [2002,] -5.183528e+06 -3.539903e+06 -5.239645e+10 -3.637408e+06
## [2003,] -4.192023e+05 -7.813750e+04 -2.242755e+10 -4.339295e+06
## [2004,] -9.605436e+07 -8.012251e+07 -1.394633e+11 -9.488856e+06
## [2005,] -3.333126e+11 -2.997655e+11 -8.351434e+14 -2.661839e+09
## [2006,] -2.385230e+11 -2.115974e+11 -6.330336e+14 -2.032491e+09
## [2007,] -4.609058e+09 -3.592274e+09 -1.055632e+13 -7.683102e+07
## [2008,] -4.846128e+06 -3.262066e+06 -5.243025e+10 -3.763726e+06
## [2009,] -4.909208e+05 -7.771090e+04 -2.244201e+10 -4.277299e+06
## [2010,] -9.561570e+07 -7.592191e+07 -1.396433e+11 -9.572176e+06
## [2011,] -3.268853e+11 -2.797003e+11 -8.362210e+14 -2.454320e+09
## [2012,] -2.521821e+11 -2.041998e+11 -6.334418e+14 -1.924194e+09
## [2013,] -4.496171e+09 -4.111747e+09 -1.056313e+13 -7.357692e+07
## [2014,] -5.623527e+06 -3.531282e+06 -5.249788e+10 -3.740754e+06
## [2015,] -5.379773e+05 -2.241696e+05 -2.247096e+10 -4.383704e+06
## [2016,] -8.210367e+07 -9.586483e+07 -1.397333e+11 -9.807879e+06
## [2017,] -3.607564e+11 -2.896444e+11 -8.367601e+14 -2.807804e+09
## [2018,] -2.570932e+11 -1.969338e+11 -6.338501e+14 -2.288628e+09
## [2019,] -4.609370e+09 -4.111943e+09 -1.057675e+13 -6.883415e+07
## [2020,] -5.034853e+06 -3.253790e+06 -5.253171e+10 -3.732175e+06
## [2021,] -3.662137e+05 -1.403157e+05 -2.248544e+10 -4.325471e+06
## [2022,] -9.011064e+07 -9.823757e+07 -1.398233e+11 -9.782700e+06
## [2023,] -3.354649e+11 -3.205205e+11 -8.372993e+14 -2.978141e+09
## [2024,] -2.432984e+11 -2.587402e+11 -6.342586e+14 -2.288555e+09
## [2025,] -3.886917e+09 -3.978808e+09 -1.057675e+13 -1.051415e+08
## [2026,] -3.612966e+06 -3.814155e+06 -5.253171e+10 -3.279954e+06
## [2027,] -3.147259e+05 -1.403157e+05 -2.248544e+10 -4.264470e+06
## [2028,] -1.045018e+08 -8.673507e+07 -1.398233e+11 -9.589044e+06
## [2029,] -2.987425e+11 -3.100545e+11 -8.372993e+14 -2.857325e+09
## [2030,] -2.440993e+11 -2.041984e+11 -6.342586e+14 -1.959805e+09
## [2031,] -4.723765e+09 -4.247269e+09 -1.057675e+13 -7.632160e+07
## [2032,] -5.203589e+06 -2.990294e+06 -5.253171e+10 -3.769730e+06

```

```

## [2033,] -3.038136e+05 -2.722320e+05 -2.248544e+10 -4.242211e+06
## [2034,] -1.008642e+08 -8.673507e+07 -1.398233e+11 -9.589044e+06
## [2035,] -3.268836e+11 -2.997622e+11 -8.372993e+14 -2.651916e+09
## [2036,] -2.513650e+11 -1.897981e+11 -6.350759e+14 -2.083663e+09
## [2037,] -4.695244e+09 -3.719297e+09 -1.059038e+13 -7.184413e+07
## [2038,] -5.542207e+06 -3.248279e+06 -5.259940e+10 -3.828017e+06
## [2039,] -4.586185e+05 -2.220041e+05 -2.251442e+10 -4.403598e+06
## [2040,] -9.219626e+07 -9.826787e+07 -1.400035e+11 -9.362707e+06
## [2041,] -3.464420e+11 -2.719513e+11 -2.733274e+13 -1.609067e+09
## [2042,] -2.484440e+11 -2.059591e+11 -2.070470e+13 -1.243468e+09
## [2043,] -4.171576e+09 -3.363293e+09 -3.452666e+11 -2.544563e+07
## [2044,] -1.698011e+07 -1.577308e+07 -1.714842e+09 -9.813663e+03
## [2045,] -6.648948e+06 -6.324121e+06 -7.340133e+08 -4.677424e+04
## [2046,] -6.215357e+07 -5.788968e+07 -4.564384e+09 -9.055736e+05
## [2047,] -3.398905e+11 -2.528577e+11 -2.733274e+13 -1.624056e+09
## [2048,] -2.492533e+11 -2.059591e+11 -2.070470e+13 -1.237754e+09
## [2049,] -4.239450e+09 -3.610470e+09 -3.452666e+11 -2.512984e+07
## [2050,] -1.785151e+07 -1.577308e+07 -1.714842e+09 -1.118825e+04
## [2051,] -7.112138e+06 -5.375673e+06 -7.340133e+08 -4.613985e+04
## [2052,] -6.102665e+07 -5.972493e+07 -4.564384e+09 -9.078525e+05
## [2053,] -3.334015e+11 -2.917398e+11 -2.733274e+13 -1.594147e+09
## [2054,] -2.574187e+11 -2.286392e+11 -2.070470e+13 -1.203745e+09
## [2055,] -4.376841e+09 -3.610470e+09 -3.452666e+11 -2.471185e+07
## [2056,] -1.797778e+07 -1.637103e+07 -1.714842e+09 -1.118825e+04
## [2057,] -6.448092e+06 -6.079789e+06 -7.340133e+08 -4.509216e+04
## [2058,] -6.196504e+07 -5.255575e+07 -4.564384e+09 -9.078525e+05
## [2059,] -3.185037e+11 -3.122232e+11 -2.733274e+13 -1.646669e+09
## [2060,] -2.388350e+11 -2.133875e+11 -2.070470e+13 -1.260690e+09
## [2061,] -4.064117e+09 -3.737344e+09 -3.452666e+11 -2.534015e+07
## [2062,] -1.816801e+07 -1.295017e+07 -1.714842e+09 -1.056620e+04
## [2063,] -6.373565e+06 -6.324121e+06 -7.340133e+08 -4.550979e+04
## [2064,] -6.177679e+07 -5.788968e+07 -4.564384e+09 -8.987540e+05
## [2065,] -3.323260e+11 -3.018946e+11 -2.733274e+13 -1.609067e+09
## [2066,] -2.557751e+11 -2.209475e+11 -2.070470e+13 -1.215029e+09
## [2067,] -4.198660e+09 -3.737344e+09 -3.452666e+11 -2.481602e+07
## [2068,] -1.753780e+07 -1.404596e+07 -1.714842e+09 -1.026185e+04
## [2069,] -6.699644e+06 -6.324121e+06 -7.340133e+08 -4.530073e+04
## [2070,] -6.140114e+07 -5.608306e+07 -4.564384e+09 -9.032975e+05
## [2071,] -3.419720e+11 -2.997605e+11 -8.383783e+14 -2.661366e+09
## [2072,] -2.538110e+11 -2.755064e+11 -6.350759e+14 -2.234405e+09
## [2073,] -4.709598e+09 -4.112139e+09 -1.059038e+13 -7.708168e+07
## [2074,] -4.507094e+06 -4.412595e+06 -5.259940e+10 -3.720799e+06
## [2075,] -4.259978e+05 -2.220041e+05 -2.251442e+10 -4.329788e+06
## [2076,] -9.475627e+07 -8.237615e+07 -1.400937e+11 -9.484949e+06
## [2077,] -3.354622e+11 -2.997597e+11 -8.389181e+14 -2.642090e+09
## [2078,] -2.337883e+11 -2.424966e+11 -6.354848e+14 -2.120784e+09
## [2079,] -4.524904e+09 -4.247667e+09 -1.060401e+13 -6.801893e+07

```



```

## [2080,] -5.021145e+06 -4.098639e+06 -5.266714e+10 -3.813582e+06
## [2081,] -4.699061e+05 -1.768941e+05 -2.254341e+10 -4.348418e+06
## [2082,] -9.878850e+07 -8.680625e+07 -1.402740e+11 -9.821610e+06
## [2083,] -3.205153e+11 -2.896386e+11 -8.405384e+14 -2.748294e+09
## [2084,] -2.678926e+11 -2.041943e+11 -6.367122e+14 -2.429935e+09
## [2085,] -4.681330e+09 -3.979386e+09 -1.061766e+13 -7.296485e+07
## [2086,] -3.592660e+06 -4.396558e+06 -5.276883e+10 -3.776023e+06
## [2087,] -4.146827e+05 -2.184183e+05 -2.258694e+10 -4.294720e+06
## [2088,] -9.458288e+07 -8.907923e+07 -1.404545e+11 -9.503785e+06
## [2089,] -3.079762e+11 -2.896378e+11 -8.410788e+14 -2.651365e+09
## [2090,] -2.587348e+11 -2.115904e+11 -6.371216e+14 -1.874105e+09
## [2091,] -4.469062e+09 -3.848527e+09 -1.062449e+13 -6.979459e+07
## [2092,] -4.776536e+06 -3.790315e+06 -5.280275e+10 -3.822613e+06
## [2093,] -4.792127e+05 -2.177047e+05 -2.260146e+10 -4.383743e+06
## [2094,] -9.436512e+07 -8.463292e+07 -1.405448e+11 -9.604678e+06
## [2095,] -3.142124e+11 -3.205128e+11 -8.421603e+14 -3.007982e+09
## [2096,] -2.353553e+11 -2.345689e+11 -6.379408e+14 -2.311236e+09
## [2097,] -4.483272e+09 -3.593373e+09 -1.063815e+13 -7.246844e+07
## [2098,] -5.070993e+06 -3.229027e+06 -5.283668e+10 -3.776166e+06
## [2099,] -6.004475e+05 -2.169922e+05 -2.261598e+10 -4.354124e+06
## [2100,] -9.368373e+07 -7.817013e+07 -1.406351e+11 -9.855799e+06
## [2101,] -3.507406e+11 -2.699196e+11 -8.427012e+14 -2.886473e+09
## [2102,] -2.369313e+11 -2.345682e+11 -6.383506e+14 -1.916281e+09
## [2103,] -4.855200e+09 -4.248265e+09 -1.064498e+13 -7.499792e+07
## [2104,] -4.080096e+06 -4.080096e+06 -5.287062e+10 -3.684053e+06
## [2105,] -5.246101e+05 -1.005685e+05 -2.264504e+10 -4.381017e+06
## [2106,] -9.911778e+07 -8.467511e+07 -1.408158e+11 -9.663479e+06
## [2107,] -3.441475e+11 -2.997530e+11 -8.432424e+14 -2.926588e+09
## [2108,] -2.440910e+11 -2.041908e+11 -6.387605e+14 -1.973449e+09
## [2109,] -4.943325e+09 -3.979965e+09 -1.065866e+13 -7.684847e+07
## [2110,] -4.923952e+06 -4.070840e+06 -5.297251e+10 -3.590389e+06
## [2111,] -3.369861e+05 -1.329724e+05 -2.267412e+10 -4.307632e+06
## [2112,] -9.867218e+07 -8.692020e+07 -1.409966e+11 -9.598692e+06
## [2113,] -4.009918e+11 -2.603200e+11 -8.443252e+14 -3.354449e+09
## [2114,] -2.481136e+11 -2.115862e+11 -6.395807e+14 -2.248972e+09
## [2115,] -4.511861e+09 -4.113315e+09 -1.067234e+13 -7.761117e+07
## [2116,] -4.986958e+06 -2.953410e+06 -5.300649e+10 -3.834718e+06
## [2117,] -3.831446e+05 -9.911984e+04 -2.268867e+10 -4.417386e+06
## [2118,] -9.679450e+07 -8.693445e+07 -1.410871e+11 -9.932531e+06
## [2119,] -3.641091e+11 -2.997504e+11 -8.448669e+14 -3.215485e+09
## [2120,] -2.712556e+11 -2.345652e+11 -6.399910e+14 -2.172622e+09
## [2121,] -4.526035e+09 -3.720509e+09 -1.067918e+13 -7.183510e+07
## [2122,] -5.425822e+06 -3.212570e+06 -5.304049e+10 -3.707345e+06
## [2123,] -4.574187e+05 -6.982733e+04 -2.271777e+10 -4.384690e+06
## [2124,] -9.217190e+07 -9.309327e+07 -1.412681e+11 -9.524064e+06
## [2125,] -3.290044e+11 -2.896304e+11 -8.459507e+14 -3.131311e+09
## [2126,] -2.628703e+11 -2.267722e+11 -6.408121e+14 -2.218086e+09

```

```

## [2127,] -4.540232e+09 -4.113511e+09 -1.068603e+13 -7.856305e+07
## [2128,] -5.046931e+06 -3.482628e+06 -5.307449e+10 -3.724668e+06
## [2129,] -3.111694e+05 -1.307526e+05 -2.273233e+10 -4.404348e+06
## [2130,] -9.543168e+07 -8.257045e+07 -1.413586e+11 -9.440334e+06
## [2131,] -3.110788e+11 -2.699140e+11 -8.464929e+14 -2.718180e+09
## [2132,] -2.145789e+11 -2.754944e+11 -6.412228e+14 -2.469250e+09
## [2133,] -4.841476e+09 -3.720788e+09 -1.069973e+13 -7.583122e+07
## [2134,] -5.107262e+06 -3.476927e+06 -5.314254e+10 -3.873072e+06
## [2135,] -4.164955e+05 -1.373773e+05 -2.274690e+10 -4.438508e+06
## [2136,] -9.358524e+07 -8.389445e+07 -1.414492e+11 -9.452387e+06
## [2137,] -3.290027e+11 -2.708825e+11 -8.470353e+14 -2.593234e+09
## [2138,] -2.400946e+11 -2.115826e+11 -6.416336e+14 -2.195080e+09
## [2139,] -4.639815e+09 -4.113805e+09 -1.070658e+13 -7.170955e+07
## [2140,] -4.805036e+06 -3.201623e+06 -5.317658e+10 -3.823401e+06
## [2141,] -4.336928e+05 -2.092319e+05 -2.277604e+10 -4.379002e+06
## [2142,] -9.454335e+07 -8.480172e+07 -1.416304e+11 -9.661598e+06
## [2143,] -2.886248e+11 -3.205032e+11 -8.481205e+14 -3.364633e+09
## [2144,] -2.385058e+11 -2.670425e+11 -6.424557e+14 -2.279341e+09
## [2145,] -4.498426e+09 -3.594381e+09 -1.071344e+13 -6.131615e+07
## [2146,] -4.704132e+06 -4.049284e+06 -5.321062e+10 -3.667597e+06
## [2147,] -4.790435e+05 -1.285515e+05 -2.279062e+10 -4.537598e+06
## [2148,] -9.432563e+07 -8.481580e+07 -1.417211e+11 -9.444411e+06
## [2149,] -3.268652e+11 -2.699109e+11 -8.486634e+14 -2.236035e+09
## [2150,] -2.620345e+11 -2.191081e+11 -6.432783e+14 -2.599531e+09
## [2151,] -4.470595e+09 -3.849950e+09 -1.072716e+13 -6.963644e+07
## [2152,] -4.959692e+06 -3.465537e+06 -5.327876e+10 -3.864559e+06
## [2153,] -4.381527e+05 -9.530810e+04 -2.280520e+10 -4.436917e+06
## [2154,] -9.597469e+07 -8.263990e+07 -1.418118e+11 -9.515435e+06
## [2155,] -3.300692e+11 -2.796809e+11 -8.492065e+14 -2.659790e+09
## [2156,] -2.432811e+11 -2.115791e+11 -6.436898e+14 -1.958250e+09
## [2157,] -4.456814e+09 -3.721348e+09 -1.074088e+13 -6.983677e+07
## [2158,] -5.393831e+06 -3.459850e+06 -5.334693e+10 -3.841281e+06
## [2159,] -4.624350e+05 -9.436684e+04 -2.283439e+10 -4.453705e+06
## [2160,] -1.017151e+08 -8.707700e+07 -1.419932e+11 -9.852633e+06
## [2161,] -3.236725e+11 -2.796785e+11 -8.508367e+14 -2.688470e+09
## [2162,] -2.392951e+11 -1.969162e+11 -6.445132e+14 -2.045209e+09
## [2163,] -4.512990e+09 -3.594839e+09 -1.074775e+13 -7.160998e+07
## [2164,] -4.752384e+06 -3.457007e+06 -5.338103e+10 -3.835508e+06
## [2165,] -3.718770e+05 -3.035441e+05 -2.286359e+10 -4.458086e+06
## [2166,] -9.231869e+07 -9.626927e+07 -1.421748e+11 -9.445829e+06
## [2167,] -3.376045e+11 -2.603098e+11 -8.513804e+14 -2.805618e+09
## [2168,] -2.472947e+11 -1.969141e+11 -6.457493e+14 -1.965097e+09
## [2169,] -4.499246e+09 -3.595114e+09 -1.076836e+13 -7.559991e+07
## [2170,] -4.329521e+06 -3.448488e+06 -5.348341e+10 -3.806566e+06
## [2171,] -5.403338e+05 -3.010234e+05 -2.290742e+10 -4.383148e+06
## [2172,] -9.445926e+07 -8.275109e+07 -1.425383e+11 -9.516237e+06
## [2173,] -3.141944e+11 -2.796744e+11 -8.535572e+14 -2.639970e+09

```

```

## [2174,] -2.578924e+11 -2.041777e+11 -6.465740e+14 -1.929168e+09
## [2175,] -4.683839e+09 -3.850708e+09 -1.078212e+13 -7.417719e+07
## [2176,] -4.542984e+06 -3.725140e+06 -5.355172e+10 -3.774764e+06
## [2177,] -4.551888e+05 -2.480742e+05 -2.293667e+10 -4.488774e+06
## [2178,] -1.074532e+08 -8.942575e+07 -1.426292e+11 -9.751254e+06
## [2179,] -3.058905e+11 -2.997362e+11 -8.541018e+14 -2.955255e+09
## [2180,] -2.361267e+11 -2.115735e+11 -6.469865e+14 -2.089048e+09
## [2181,] -4.570035e+09 -3.981797e+09 -1.078900e+13 -8.233573e+07
## [2182,] -5.028956e+06 -2.908929e+06 -5.358589e+10 -3.874011e+06
## [2183,] -7.930432e+05 -4.150660e+04 -2.293667e+10 -4.379277e+06
## [2184,] -1.084479e+08 -7.636198e+07 -1.426292e+11 -9.841142e+06
## [2185,] -3.365179e+11 -2.997362e+11 -8.541018e+14 -3.288409e+09
## [2186,] -2.448781e+11 -2.115735e+11 -6.469865e+14 -2.484333e+09
## [2187,] -4.388024e+09 -3.722094e+09 -1.079588e+13 -7.492654e+07
## [2188,] -4.761584e+06 -3.719243e+06 -5.362007e+10 -3.874083e+06
## [2189,] -3.603921e+05 -1.225948e+05 -2.295130e+10 -4.467093e+06
## [2190,] -9.706534e+07 -8.277889e+07 -1.427202e+11 -9.466667e+06
## [2191,] -3.311322e+11 -3.419452e+11 -8.546466e+14 -3.213925e+09
## [2192,] -2.611961e+11 -2.063807e+11 -6.478120e+14 -2.030011e+09
## [2193,] -4.457732e+09 -4.115177e+09 -1.080276e+13 -7.100616e+07
## [2194,] -5.323923e+06 -4.006344e+06 -5.368846e+10 -3.903642e+06
## [2195,] -3.354442e+05 -3.527084e+05 -2.298057e+10 -4.395045e+06
## [2196,] -1.013867e+08 -8.499887e+07 -1.429023e+11 -9.765576e+06
## [2197,] -3.463173e+11 -3.311304e+11 -8.557367e+14 -2.864516e+09
## [2198,] -2.306383e+11 -2.424733e+11 -6.482250e+14 -2.325019e+09
## [2199,] -4.584507e+09 -3.851088e+09 -1.080965e+13 -7.013974e+07
## [2200,] -4.754916e+06 -3.713350e+06 -5.368846e+10 -4.019423e+06
## [2201,] -3.576449e+05 -1.575295e+05 -2.299522e+10 -4.472638e+06
## [2202,] -9.453354e+07 -8.501296e+07 -1.429933e+11 -9.495523e+06
## [2203,] -3.183832e+11 -3.311295e+11 -8.562820e+14 -2.601410e+09
## [2204,] -2.537856e+11 -1.827745e+11 -6.486381e+14 -2.008005e+09
## [2205,] -4.598899e+09 -4.250855e+09 -1.082343e+13 -8.259522e+07
## [2206,] -4.491792e+06 -5.282535e+06 -5.375690e+10 -3.680158e+06
## [2207,] -3.168901e+05 -2.442829e+05 -2.300987e+10 -4.378842e+06
## [2208,] -8.973905e+07 -8.951248e+07 -1.431755e+11 -1.014246e+07
## [2209,] -3.300560e+11 -2.698981e+11 -8.573732e+14 -2.563365e+09
## [2210,] -2.720829e+11 -2.927716e+11 -6.494646e+14 -2.332627e+09
## [2211,] -4.088755e+09 -3.851372e+09 -1.083032e+13 -8.684779e+07
## [2212,] -4.777471e+06 -3.152590e+06 -5.379113e+10 -3.674508e+06
## [2213,] -9.019675e+05 -6.160439e+04 -2.302452e+10 -4.394372e+06
## [2214,] -9.810159e+07 -8.286234e+07 -1.432667e+11 -9.406612e+06
## [2215,] -3.204877e+11 -2.796680e+11 -8.579190e+14 -2.924356e+09
## [2216,] -2.562403e+11 -2.041715e+11 -6.502917e+14 -2.051584e+09
## [2217,] -3.877588e+09 -4.528503e+09 -1.084411e+13 -9.485592e+07
## [2218,] -5.200243e+06 -3.414516e+06 -5.389390e+10 -3.927690e+06
## [2219,] -1.998465e+05 -4.075101e+05 -2.306851e+10 -4.480502e+06
## [2220,] -1.002772e+08 -8.508343e+07 -1.434491e+11 -9.704579e+06

```

```

## [2221,] -3.173280e+11 -2.896107e+11 -8.590112e+14 -3.171106e+09
## [2222,] -2.628515e+11 -2.041708e+11 -6.507054e+14 -2.231661e+09
## [2223,] -4.416613e+09 -3.722840e+09 -1.085101e+13 -7.039208e+07
## [2224,] -4.670251e+06 -3.414516e+06 -5.389390e+10 -3.904077e+06
## [2225,] -2.971953e+05 -2.412709e+05 -2.306851e+10 -4.490892e+06
## [2226,] -9.554129e+07 -8.072555e+07 -1.434491e+11 -9.526470e+06
## [2227,] -3.685979e+11 -2.796664e+11 -8.590112e+14 -2.904066e+09
## [2228,] -2.806086e+11 -2.041708e+11 -6.507054e+14 -2.216359e+09
## [2229,] -5.020218e+09 -4.115864e+09 -1.085101e+13 -7.612429e+07
## [2230,] -6.649815e+06 -2.885518e+06 -5.389390e+10 -3.830744e+06
## [2231,] -3.589439e+05 -2.412709e+05 -2.306851e+10 -4.480502e+06
## [2232,] -9.321629e+07 -8.508343e+07 -1.434491e+11 -9.630166e+06
## [2233,] -3.236595e+11 -3.640851e+11 -8.590112e+14 -2.629617e+09
## [2234,] -2.416706e+11 -1.969060e+11 -6.507054e+14 -2.140640e+09
## [2235,] -4.713690e+09 -3.851752e+09 -1.085791e+13 -6.918077e+07
## [2236,] -4.666949e+06 -3.141745e+06 -5.392818e+10 -3.904149e+06
## [2237,] -3.406333e+05 -4.065351e+05 -2.308318e+10 -4.396904e+06
## [2238,] -9.862178e+07 -9.184969e+07 -1.435403e+11 -9.649773e+06
## [2239,] -3.225990e+11 -2.796655e+11 -8.595576e+14 -2.863943e+09
## [2240,] -2.513351e+11 -2.190945e+11 -6.511193e+14 -2.036775e+09
## [2241,] -4.771352e+09 -4.115962e+09 -1.085791e+13 -6.952943e+07
## [2242,] -5.196758e+06 -2.882922e+06 -5.392818e+10 -3.680510e+06
## [2243,] -6.549699e+05 -1.178263e+05 -2.308318e+10 -4.388678e+06
## [2244,] -9.699519e+07 -8.293192e+07 -1.437229e+11 -9.681598e+06
## [2245,] -3.225973e+11 -2.896082e+11 -8.606508e+14 -2.534670e+09
## [2246,] -2.244409e+11 -2.345437e+11 -6.519474e+14 -1.985710e+09
## [2247,] -4.642313e+09 -3.851941e+09 -1.087172e+13 -8.383853e+07
## [2248,] -5.084906e+06 -4.278791e+06 -5.403108e+10 -3.822278e+06
## [2249,] -5.451301e+05 -4.036171e+05 -2.312723e+10 -4.383896e+06
## [2250,] -1.027501e+08 -9.653936e+07 -1.438142e+11 -9.986588e+06
## [2251,] -3.332703e+11 -2.997253e+11 -8.611977e+14 -3.297966e+09
## [2252,] -2.529613e+11 -2.267511e+11 -6.527761e+14 -2.316393e+09
## [2253,] -4.129795e+09 -3.983147e+09 -1.088554e+13 -7.951538e+07
## [2254,] -4.816030e+06 -3.130919e+06 -5.406540e+10 -3.880896e+06
## [2255,] -3.902914e+05 -1.921205e+05 -2.314192e+10 -4.494611e+06
## [2256,] -9.493011e+07 -8.297367e+07 -1.439969e+11 -9.606648e+06
## [2257,] -3.332676e+11 -2.796607e+11 -8.628394e+14 -2.677074e+09
## [2258,] -2.505178e+11 -2.190902e+11 -6.536053e+14 -1.999921e+09
## [2259,] -4.685722e+09 -4.252051e+09 -1.090628e+13 -7.387357e+07
## [2260,] -5.552286e+06 -4.266155e+06 -5.416843e+10 -3.828400e+06
## [2261,] -3.176132e+05 -1.141828e+05 -2.318602e+10 -4.466932e+06
## [2262,] -9.659944e+07 -8.519624e+07 -1.441798e+11 -9.549446e+06
## [2263,] -3.311181e+11 -3.529174e+11 -8.633869e+14 -3.066332e+09
## [2264,] -2.282959e+11 -2.424620e+11 -6.544350e+14 -1.985301e+09
## [2265,] -4.557752e+09 -3.597038e+09 -1.091320e+13 -6.928250e+07
## [2266,] -5.443779e+06 -3.389147e+06 -5.420280e+10 -3.966871e+06
## [2267,] -4.902357e+05 -8.299524e+04 -2.320073e+10 -4.424642e+06

```

```

## [2268,] -9.567578e+07 -9.196690e+07 -1.442713e+11 -9.297008e+06
## [2269,] -3.279073e+11 -2.698886e+11 -8.639347e+14 -2.657662e+09
## [2270,] -2.480862e+11 -1.968999e+11 -6.544350e+14 -2.043551e+09
## [2271,] -4.417528e+09 -3.983533e+09 -1.091320e+13 -7.015642e+07
## [2272,] -4.802624e+06 -2.862201e+06 -5.420280e+10 -3.934259e+06
## [2273,] -1.894504e+05 -6.851167e+05 -2.320073e+10 -4.373196e+06
## [2274,] -9.637936e+07 -7.871155e+07 -1.442713e+11 -9.784871e+06
## [2275,] -3.375823e+11 -2.997195e+11 -8.650307e+14 -3.705273e+09
## [2276,] -2.513266e+11 -1.827634e+11 -6.556806e+14 -1.787864e+09
## [2277,] -4.293600e+09 -3.983919e+09 -1.094090e+13 -8.668559e+07
## [2278,] -4.987094e+06 -3.109323e+06 -5.434037e+10 -3.910916e+06
## [2279,] -2.558217e+05 -4.589911e+05 -2.325961e+10 -4.466493e+06
## [2280,] -9.598487e+07 -8.308508e+07 -1.447291e+11 -9.816285e+06
## [2281,] -3.321863e+11 -2.508650e+11 -8.666760e+14 -2.783648e+09
## [2282,] -2.505117e+11 -2.115566e+11 -6.569273e+14 -1.906182e+09
## [2283,] -4.643563e+09 -3.853080e+09 -1.095476e+13 -7.834934e+07
## [2284,] -3.824788e+06 -3.942363e+06 -5.440922e+10 -3.869873e+06
## [2285,] -4.838365e+05 -2.796173e+05 -2.328908e+10 -4.489571e+06
## [2286,] -9.883438e+07 -8.529501e+07 -1.448207e+11 -9.881167e+06
## [2287,] -3.354162e+11 -3.204730e+11 -8.672248e+14 -2.892796e+09
## [2288,] -2.306229e+11 -2.586975e+11 -6.569273e+14 -2.339138e+09
## [2289,] -4.432062e+09 -3.853080e+09 -1.095476e+13 -7.853473e+07
## [2290,] -4.588833e+06 -5.216007e+06 -5.440922e+10 -3.834742e+06
## [2291,] -2.396521e+05 -3.339058e+05 -2.328908e+10 -4.448088e+06
## [2292,] -9.646940e+07 -7.879292e+07 -1.448207e+11 -9.783609e+06
## [2293,] -3.754051e+11 -2.796542e+11 -8.672248e+14 -2.922951e+09
## [2294,] -2.537694e+11 -2.041597e+11 -6.573431e+14 -1.767087e+09
## [2295,] -4.586784e+09 -4.117433e+09 -1.096170e+13 -7.077337e+07
## [2296,] -5.043635e+06 -2.844130e+06 -5.444366e+10 -3.949576e+06
## [2297,] -2.389046e+05 -2.294096e+05 -2.330382e+10 -4.528234e+06
## [2298,] -9.910287e+07 -8.980190e+07 -1.450041e+11 -9.643953e+06
## [2299,] -3.354144e+11 -3.640694e+11 -8.683229e+14 -2.953096e+09
## [2300,] -2.611773e+11 -2.267424e+11 -6.577591e+14 -2.192289e+09
## [2301,] -4.672344e+09 -3.597772e+09 -1.096864e+13 -7.745254e+07
## [2302,] -4.550414e+06 -3.645924e+06 -5.447811e+10 -3.952614e+06
## [2303,] -5.152653e+05 -5.389646e+04 -2.333332e+10 -4.553564e+06
## [2304,] -1.003130e+08 -8.314081e+07 -1.450958e+11 -9.641267e+06
## [2305,] -3.529084e+11 -2.508620e+11 -8.688722e+14 -2.724635e+09
## [2306,] -2.448577e+11 -2.041584e+11 -6.581752e+14 -2.109457e+09
## [2307,] -4.446416e+09 -3.597955e+09 -1.098252e+13 -7.187279e+07
## [2308,] -4.543896e+06 -3.093175e+06 -5.454705e+10 -3.932029e+06
## [2309,] -5.001944e+05 -5.354227e+04 -2.334808e+10 -4.421704e+06
## [2310,] -9.867248e+07 -8.536560e+07 -1.452794e+11 -9.561748e+06
## [2311,] -3.173108e+11 -2.997120e+11 -8.699714e+14 -3.211499e+09
## [2312,] -2.368934e+11 -2.190802e+11 -6.594243e+14 -2.057413e+09
## [2313,] -4.011162e+09 -4.672762e+09 -1.099640e+13 -7.332568e+07
## [2314,] -3.437939e+06 -3.924178e+06 -5.461603e+10 -3.803108e+06

```

```

## [2315,] -1.850988e+05 -2.250387e+05 -2.339238e+10 -4.381919e+06
## [2316,] -9.704546e+07 -8.319656e+07 -1.454630e+11 -9.637955e+06
## [2317,] -3.289641e+11 -2.602818e+11 -8.710712e+14 -2.647039e+09
## [2318,] -2.554020e+11 -1.968911e+11 -6.598410e+14 -1.891577e+09
## [2319,] -4.446722e+09 -3.724891e+09 -1.100335e+13 -7.441830e+07
## [2320,] -4.791779e+06 -2.583382e+06 -5.465054e+10 -3.861579e+06
## [2321,] -3.986227e+05 -7.737046e+04 -2.339238e+10 -4.585508e+06
## [2322,] -9.728137e+07 -8.539384e+07 -1.454630e+11 -9.652821e+06
## [2323,] -3.584631e+11 -2.508589e+11 -8.710712e+14 -3.127378e+09
## [2324,] -2.603450e+11 -2.190794e+11 -6.598410e+14 -2.441725e+09
## [2325,] -4.502835e+09 -3.724985e+09 -1.101030e+13 -8.780595e+07
## [2326,] -4.723377e+06 -2.826117e+06 -5.468506e+10 -3.627878e+06
## [2327,] -4.091507e+05 -3.260052e+05 -2.342193e+10 -4.497929e+06
## [2328,] -9.496495e+07 -8.322444e+07 -1.456468e+11 -9.826678e+06
## [2329,] -3.246999e+11 -2.602802e+11 -8.721717e+14 -2.792684e+09
## [2330,] -2.432494e+11 -2.115496e+11 -6.610916e+14 -2.020509e+09
## [2331,] -4.616116e+09 -3.985076e+09 -1.102421e+13 -7.904200e+07
## [2332,] -4.946224e+06 -3.077069e+06 -5.475412e+10 -3.829620e+06
## [2333,] -3.714298e+05 -1.398581e+05 -2.343672e+10 -4.561740e+06
## [2334,] -9.709064e+07 -8.106919e+07 -1.457387e+11 -9.719229e+06
## [2335,] -3.278933e+11 -2.796461e+11 -8.727223e+14 -2.714357e+09
## [2336,] -2.529459e+11 -2.041535e+11 -6.610916e+14 -1.984212e+09
## [2337,] -5.157333e+09 -3.725171e+09 -1.102421e+13 -8.453115e+07
## [2338,] -4.749186e+06 -3.077069e+06 -5.475412e+10 -3.950232e+06
## [2339,] -4.019294e+05 -1.398581e+05 -2.343672e+10 -4.572224e+06
## [2340,] -9.710570e+07 -8.325233e+07 -1.458307e+11 -9.709074e+06
## [2341,] -3.343278e+11 -2.895893e+11 -8.732730e+14 -2.832062e+09
## [2342,] -2.472658e+11 -1.968884e+11 -6.615088e+14 -2.168919e+09
## [2343,] -4.559506e+09 -3.854123e+09 -1.103116e+13 -7.339113e+07
## [2344,] -4.778406e+06 -2.818415e+06 -5.478867e+10 -3.959204e+06
## [2345,] -3.704989e+05 -7.567946e+04 -2.345150e+10 -4.521088e+06
## [2346,] -9.290698e+07 -8.325233e+07 -1.458307e+11 -9.858793e+06
## [2347,] -3.257603e+11 -2.796445e+11 -8.738238e+14 -3.360467e+09
## [2348,] -2.432479e+11 -2.345260e+11 -6.619261e+14 -2.497781e+09
## [2349,] -4.587923e+09 -3.854218e+09 -1.103812e+13 -8.379105e+07
## [2350,] -5.072920e+06 -2.571115e+06 -5.482324e+10 -4.009893e+06
## [2351,] -3.938128e+05 -7.525963e+04 -2.346630e+10 -4.610308e+06
## [2352,] -1.040811e+08 -8.590755e+07 -1.459227e+11 -9.743696e+06
## [2353,] -3.765368e+11 -2.905924e+11 -8.738238e+14 -2.861817e+09
## [2354,] -2.661670e+11 -2.115475e+11 -6.623435e+14 -1.814367e+09
## [2355,] -4.267708e+09 -3.985366e+09 -1.104508e+13 -8.592622e+07
## [2356,] -4.674479e+06 -3.613896e+06 -5.485781e+10 -3.917907e+06
## [2357,] -8.758021e+05 -4.435917e+05 -2.348110e+10 -4.521329e+06
## [2358,] -9.318206e+07 -8.997577e+07 -1.461068e+11 -1.015340e+07
## [2359,] -3.408222e+11 -2.602755e+11 -8.754775e+14 -2.551389e+09
## [2360,] -2.360977e+11 -2.115461e+11 -6.631788e+14 -1.976652e+09
## [2361,] -4.602423e+09 -3.598963e+09 -1.105901e+13 -7.910995e+07

```

```

## [2362,] -5.129944e+06 -4.508132e+06 -5.492699e+10 -4.019080e+06
## [2363,] -3.727535e+05 -3.207907e+05 -2.351071e+10 -4.517398e+06
## [2364,] -9.763834e+07 -8.330812e+07 -1.461988e+11 -1.005935e+07
## [2365,] -3.484821e+11 -2.895860e+11 -8.754775e+14 -2.541982e+09
## [2366,] -2.780122e+11 -2.115461e+11 -6.631788e+14 -2.393264e+09
## [2367,] -5.618749e+09 -4.391872e+09 -1.105901e+13 -9.490960e+07
## [2368,] -4.761717e+06 -3.605185e+06 -5.496159e+10 -3.859297e+06
## [2369,] -4.737061e+05 -2.185612e+05 -2.352552e+10 -4.537351e+06
## [2370,] -9.789009e+07 -7.901012e+07 -1.462910e+11 -9.807706e+06
## [2371,] -3.301804e+11 -2.719513e+11 -2.733274e+13 -1.654242e+09
## [2372,] -2.565962e+11 -2.209475e+11 -2.070470e+13 -1.220690e+09
## [2373,] -4.266753e+09 -3.610470e+09 -3.452666e+11 -2.523488e+07
## [2374,] -1.747539e+07 -1.349250e+07 -1.714842e+09 -9.961945e+03
## [2375,] -6.699644e+06 -5.605565e+06 -7.340133e+08 -4.530073e+04
## [2376,] -6.348135e+07 -4.914299e+07 -4.564384e+09 -9.124189e+05
## [2377,] -3.344786e+11 -3.018946e+11 -2.733274e+13 -1.609067e+09
## [2378,] -2.607217e+11 -2.133875e+11 -2.070470e+13 -1.203745e+09
## [2379,] -4.376841e+09 -3.737344e+09 -3.452666e+11 -2.440066e+07
## [2380,] -1.685741e+07 -1.577308e+07 -1.714842e+09 -9.961945e+03
## [2381,] -6.598445e+06 -5.840271e+06 -7.340133e+08 -4.488406e+04
## [2382,] -5.770772e+07 -5.255575e+07 -4.564384e+09 -9.284916e+05
## [2383,] -3.420674e+11 -2.917398e+11 -2.733274e+13 -1.609067e+09
## [2384,] -2.541367e+11 -2.209475e+11 -2.070470e+13 -1.220690e+09
## [2385,] -4.307871e+09 -3.737344e+09 -3.452666e+11 -2.502501e+07
## [2386,] -1.874472e+07 -1.461054e+07 -1.714842e+09 -6.468159e+03
## [2387,] -6.699644e+06 -6.324121e+06 -7.340133e+08 -4.613985e+04
## [2388,] -5.917135e+07 -5.430508e+07 -4.564384e+09 -9.078525e+05
## [2389,] -3.280417e+11 -3.018946e+11 -2.733274e+13 -1.646669e+09
## [2390,] -2.476360e+11 -2.133875e+11 -2.070470e+13 -1.237754e+09
## [2391,] -4.266753e+09 -3.610470e+09 -3.452666e+11 -2.502501e+07
## [2392,] -1.747539e+07 -1.349250e+07 -1.714842e+09 -9.813663e+03
## [2393,] -6.598445e+06 -5.375673e+06 -7.340133e+08 -4.446932e+04
## [2394,] -6.253151e+07 -5.083505e+07 -4.564384e+09 -9.078525e+05
## [2395,] -3.420674e+11 -2.623176e+11 -2.733274e+13 -1.609067e+09
## [2396,] -2.508758e+11 -1.986623e+11 -2.070470e+13 -1.249196e+09
## [2397,] -4.158067e+09 -3.866410e+09 -3.452666e+11 -2.512984e+07
## [2398,] -1.760032e+07 -1.577308e+07 -1.714842e+09 -1.056620e+04
## [2399,] -6.645008e+06 -5.836578e+06 -7.366325e+08 -5.146032e+04
## [2400,] -6.103859e+07 -4.915370e+07 -4.580671e+09 -9.070285e+05
## [2401,] -3.215152e+11 -2.698712e+11 -8.760291e+14 -2.598604e+09
## [2402,] -2.384678e+11 -2.115454e+11 -6.635966e+14 -2.005540e+09
## [2403,] -4.789100e+09 -3.854692e+09 -1.107295e+13 -6.887872e+07
## [2404,] -4.533347e+06 -2.558877e+06 -5.499621e+10 -3.962611e+06
## [2405,] -3.759514e+05 -1.016376e+05 -2.355516e+10 -4.638467e+06
## [2406,] -9.744725e+07 -8.117931e+07 -1.464753e+11 -9.772340e+06
## [2407,] -3.375619e+11 -2.698688e+11 -8.776848e+14 -2.569944e+09
## [2408,] -2.408482e+11 -2.041473e+11 -6.648508e+14 -1.990831e+09

```

```

## [2409,] -4.546207e+09 -3.854882e+09 -1.108690e+13 -7.030118e+07
## [2410,] -5.082425e+06 -3.319175e+06 -5.506547e+10 -4.022365e+06
## [2411,] -4.978625e+05 -1.731857e+05 -2.356998e+10 -4.578559e+06
## [2412,] -8.645121e+07 -9.699037e+07 -1.465675e+11 -1.111460e+07
## [2413,] -3.289527e+11 -2.895819e+11 -8.782371e+14 -2.655614e+09
## [2414,] -2.432419e+11 -2.267293e+11 -6.652691e+14 -2.384960e+09
## [2415,] -4.560435e+09 -3.854977e+09 -1.109387e+13 -7.677500e+07
## [2416,] -4.428918e+06 -3.593587e+06 -5.510012e+10 -3.998541e+06
## [2417,] -3.621741e+05 -7.194304e+04 -2.358481e+10 -4.615495e+06
## [2418,] -9.583041e+07 -8.557754e+07 -1.466597e+11 -9.714646e+06
## [2419,] -3.573360e+11 -3.099907e+11 -8.782371e+14 -2.961736e+09
## [2420,] -2.737476e+11 -2.115426e+11 -6.652691e+14 -2.229135e+09
## [2421,] -4.560435e+09 -3.726104e+09 -1.109387e+13 -8.011199e+07
## [2422,] -4.810263e+06 -3.047650e+06 -5.513478e+10 -3.880198e+06
## [2423,] -4.099723e+05 -1.719160e+05 -2.359965e+10 -4.518119e+06
## [2424,] -9.491045e+07 -8.782016e+07 -1.467519e+11 -9.533773e+06
## [2425,] -3.278836e+11 -2.796373e+11 -8.787895e+14 -3.074289e+09
## [2426,] -2.329506e+11 -2.345193e+11 -6.656876e+14 -2.416682e+09
## [2427,] -4.490130e+09 -3.726197e+09 -1.110085e+13 -7.550974e+07
## [2428,] -5.309968e+06 -3.587795e+06 -5.516945e+10 -4.031565e+06
## [2429,] -3.782225e+05 -9.969805e+04 -2.361449e+10 -4.615737e+06
## [2430,] -9.681495e+07 -8.341975e+07 -1.469365e+11 -9.728942e+06
## [2431,] -3.332403e+11 -2.602693e+11 -8.798949e+14 -2.607569e+09
## [2432,] -2.611609e+11 -2.041445e+11 -6.665250e+14 -1.897574e+09
## [2433,] -4.504373e+09 -4.119590e+09 -1.111481e+13 -8.821739e+07
## [2434,] -4.419275e+06 -3.308047e+06 -5.520413e+10 -3.900937e+06
## [2435,] -3.419904e+05 -7.071858e+04 -2.362933e+10 -4.587445e+06
## [2436,] -9.447441e+07 -9.239241e+07 -1.469365e+11 -9.736408e+06
## [2437,] -3.408142e+11 -2.895786e+11 -8.804479e+14 -2.569557e+09
## [2438,] -2.480633e+11 -1.968795e+11 -6.669438e+14 -2.093113e+09
## [2439,] -4.420677e+09 -3.599880e+09 -1.112879e+13 -7.072974e+07
## [2440,] -4.475741e+06 -3.036988e+06 -5.527353e+10 -4.019815e+06
## [2441,] -3.517470e+05 -1.314166e+05 -2.365904e+10 -4.648834e+06
## [2442,] -9.520339e+07 -8.344766e+07 -1.471212e+11 -9.948721e+06
## [2443,] -3.110251e+11 -2.895778e+11 -8.810010e+14 -2.752138e+09
## [2444,] -2.152849e+11 -3.015779e+11 -6.682012e+14 -2.424212e+09
## [2445,] -4.660655e+09 -4.119983e+09 -1.114277e+13 -8.152544e+07
## [2446,] -5.258116e+06 -3.031663e+06 -5.534297e+10 -3.907121e+06
## [2447,] -1.030260e+05 -3.666393e+05 -2.370363e+10 -4.443152e+06
## [2448,] -9.830878e+07 -8.348955e+07 -1.473985e+11 -1.003129e+07
## [2449,] -2.936014e+11 -2.698616e+11 -8.826614e+14 -2.840605e+09
## [2450,] -2.472522e+11 -2.115363e+11 -6.690402e+14 -2.041134e+09
## [2451,] -4.296704e+09 -4.120179e+09 -1.115676e+13 -8.023514e+07
## [2452,] -5.048029e+06 -3.291390e+06 -5.541245e+10 -3.939766e+06
## [2453,] -3.598051e+05 -6.830121e+04 -2.371850e+10 -4.645092e+06
## [2454,] -9.133338e+07 -8.570482e+07 -1.474910e+11 -9.892595e+06
## [2455,] -3.289448e+11 -2.698608e+11 -8.832153e+14 -2.664518e+09

```



```

## [2456,] -2.496782e+11 -2.041404e+11 -6.690402e+14 -1.990149e+09
## [2457,] -4.589786e+09 -4.255739e+09 -1.116375e+13 -8.442729e+07
## [2458,] -4.780144e+06 -2.527194e+06 -5.544721e+10 -4.047144e+06
## [2459,] -3.134069e+05 -1.662604e+05 -2.373338e+10 -4.543219e+06
## [2460,] -9.929070e+07 -9.249527e+07 -1.475835e+11 -1.009413e+07
## [2461,] -3.730965e+11 -2.602638e+11 -8.837693e+14 -3.156753e+09
## [2462,] -2.392495e+11 -2.041390e+11 -6.698796e+14 -1.911200e+09
## [2463,] -4.296905e+09 -3.856021e+09 -1.117075e+13 -7.151321e+07
## [2464,] -4.776803e+06 -2.767335e+06 -5.548198e+10 -4.050219e+06
## [2465,] -3.698109e+05 -1.281135e+05 -2.374826e+10 -4.658032e+06
## [2466,] -9.717107e+07 -8.573312e+07 -1.476761e+11 -9.744688e+06
## [2467,] -3.246798e+11 -2.602623e+11 -8.848778e+14 -2.820446e+09
## [2468,] -2.521138e+11 -1.968741e+11 -6.702995e+14 -1.925344e+09
## [2469,] -4.283294e+09 -3.856116e+09 -1.117776e+13 -7.474826e+07
## [2470,] -4.806108e+06 -4.143936e+06 -5.551676e+10 -4.071334e+06
## [2471,] -3.339941e+05 -1.275671e+05 -2.376315e+10 -4.654978e+06
## [2472,] -9.765858e+07 -8.574727e+07 -1.477686e+11 -9.944721e+06
## [2473,] -3.257428e+11 -2.698585e+11 -8.848778e+14 -2.780988e+09
## [2474,] -2.653157e+11 -2.267206e+11 -6.702995e+14 -2.129824e+09
## [2475,] -4.533441e+09 -4.819708e+09 -1.117776e+13 -8.407107e+07
## [2476,] -4.174355e+06 -3.845859e+06 -5.551676e+10 -3.963706e+06
## [2477,] -5.186717e+05 -1.275671e+05 -2.376315e+10 -4.526744e+06
## [2478,] -9.579062e+07 -9.253937e+07 -1.478612e+11 -9.987322e+06
## [2479,] -3.332315e+11 -2.508390e+11 -8.854323e+14 -2.664203e+09
## [2480,] -2.145286e+11 -2.424326e+11 -6.707196e+14 -2.463861e+09
## [2481,] -4.310838e+09 -4.675583e+09 -1.118476e+13 -7.030507e+07
## [2482,] -5.067827e+06 -3.556023e+06 -5.555155e+10 -3.987572e+06
## [2483,] -4.626429e+05 -2.535850e+05 -2.377804e+10 -4.580253e+06
## [2484,] -9.580558e+07 -8.688743e+07 -1.479539e+11 -9.418118e+06
## [2485,] -3.386315e+11 -2.895695e+11 -8.865419e+14 -2.830110e+09
## [2486,] -2.537433e+11 -1.827385e+11 -6.715601e+14 -1.982510e+09
## [2487,] -4.576133e+09 -3.476282e+09 -1.119878e+13 -7.033070e+07
## [2488,] -4.666288e+06 -3.010413e+06 -5.562116e+10 -3.987718e+06
## [2489,] -4.672489e+05 -2.983295e+05 -2.380784e+10 -4.643708e+06
## [2490,] -1.008034e+08 -8.802078e+07 -1.480465e+11 -1.009560e+07
## [2491,] -3.451709e+11 -3.099779e+11 -8.865419e+14 -2.960489e+09
## [2492,] -2.464408e+11 -2.115313e+11 -6.719805e+14 -1.724184e+09
## [2493,] -4.675897e+09 -3.354046e+09 -1.120579e+13 -7.754141e+07
## [2494,] -4.662988e+06 -2.754638e+06 -5.565598e+10 -3.898933e+06
## [2495,] -4.131685e+05 -9.259131e+04 -2.383765e+10 -4.589141e+06
## [2496,] -9.561630e+07 -8.361528e+07 -1.482319e+11 -9.344198e+06
## [2497,] -3.214970e+11 -2.508360e+11 -8.876521e+14 -2.770765e+09
## [2498,] -2.848796e+11 -2.345075e+11 -6.724011e+14 -2.250940e+09
## [2499,] -4.534059e+09 -4.121062e+09 -1.121982e+13 -7.683264e+07
## [2500,] -4.818714e+06 -3.827897e+06 -5.572566e+10 -4.062753e+06
## [2501,] -3.231146e+05 -2.031255e+05 -2.385257e+10 -4.681149e+06
## [2502,] -9.798598e+07 -8.362925e+07 -1.483247e+11 -9.740729e+06

```

```

## [2503,] -3.321519e+11 -2.602576e+11 -8.882075e+14 -2.909749e+09
## [2504,] -2.424281e+11 -2.267155e+11 -6.732427e+14 -1.946287e+09
## [2505,] -3.766318e+09 -4.820450e+09 -1.122684e+13 -8.707452e+07
## [2506,] -4.947175e+06 -3.263722e+06 -5.576052e+10 -4.077874e+06
## [2507,] -3.057541e+05 -9.166360e+04 -2.386749e+10 -4.684457e+06
## [2508,] -9.401478e+07 -9.966659e+07 -1.484175e+11 -1.039862e+07
## [2509,] -3.353817e+11 -2.698529e+11 -8.887631e+14 -2.540133e+09
## [2510,] -2.480519e+11 -2.115292e+11 -6.732427e+14 -1.960628e+09
## [2511,] -4.604912e+09 -4.256636e+09 -1.122684e+13 -8.378553e+07
## [2512,] -4.746789e+06 -3.260962e+06 -5.579538e+10 -4.071926e+06
## [2513,] -3.614938e+05 -9.120150e+04 -2.388241e+10 -4.662308e+06
## [2514,] -9.872835e+07 -8.365721e+07 -1.485103e+11 -1.011989e+07
## [2515,] -3.506628e+11 -2.796211e+11 -8.898747e+14 -2.929645e+09
## [2516,] -2.384491e+11 -2.267140e+11 -6.740847e+14 -1.931865e+09
## [2517,] -4.408394e+09 -4.121356e+09 -1.124088e+13 -7.023208e+07
## [2518,] -4.874294e+06 -3.258202e+06 -5.583026e+10 -4.068990e+06
## [2519,] -3.205137e+05 -1.227019e+05 -2.389734e+10 -4.623319e+06
## [2520,] -9.497508e+07 -8.149632e+07 -1.486031e+11 -9.950360e+06
## [2521,] -3.068656e+11 -2.602537e+11 -8.909871e+14 -2.711730e+09
## [2522,] -2.661433e+11 -2.190537e+11 -6.749273e+14 -2.407063e+09
## [2523,] -4.478364e+09 -4.394709e+09 -1.125493e+13 -8.460994e+07
## [2524,] -5.164756e+06 -4.733479e+06 -5.593496e+10 -4.102377e+06
## [2525,] -4.125990e+05 -2.451901e+05 -2.394215e+10 -4.720175e+06
## [2526,] -9.807677e+07 -8.371313e+07 -1.488818e+11 -1.032307e+07
## [2527,] -3.506601e+11 -2.698489e+11 -8.915435e+14 -3.229273e+09
## [2528,] -2.384461e+11 -2.345016e+11 -6.757705e+14 -1.917362e+09
## [2529,] -4.394911e+09 -4.121749e+09 -1.126899e+13 -8.774737e+07
## [2530,] -4.348877e+06 -2.983955e+06 -5.596988e+10 -4.081331e+06
## [2531,] -2.953486e+05 -8.890849e+04 -2.395710e+10 -4.697942e+06
## [2532,] -8.974427e+07 -9.738209e+07 -1.489747e+11 -9.931905e+06
## [2533,] -3.386226e+11 -2.996785e+11 -8.921001e+14 -3.061933e+09
## [2534,] -2.831439e+11 -2.267111e+11 -6.757705e+14 -2.136400e+09
## [2535,] -5.116159e+09 -3.988454e+09 -1.126899e+13 -7.619380e+07
## [2536,] -5.646600e+06 -2.490883e+06 -5.596988e+10 -3.976544e+06
## [2537,] -5.991219e+05 -2.444340e+05 -2.395710e+10 -4.647042e+06
## [2538,] -1.038632e+08 -9.042573e+07 -1.489747e+11 -1.009853e+07
## [2539,] -2.996785e+11 -3.204340e+11 -8.921001e+14 -3.186956e+09
## [2540,] -2.392390e+11 -2.115250e+11 -6.757705e+14 -2.003556e+09
## [2541,] -4.506733e+09 -3.988550e+09 -1.127602e+13 -7.313228e+07
## [2542,] -4.630044e+06 -2.981315e+06 -5.600481e+10 -4.057333e+06
## [2543,] -3.981597e+05 -6.168028e+04 -2.397205e+10 -4.694875e+06
## [2544,] -9.411854e+07 -8.594551e+07 -1.490677e+11 -9.570493e+06
## [2545,] -3.225469e+11 -2.698473e+11 -8.926569e+14 -2.577307e+09
## [2546,] -2.456285e+11 -1.968646e+11 -6.761922e+14 -1.924405e+09
## [2547,] -4.243687e+09 -4.534882e+09 -1.127602e+13 -7.064759e+07
## [2548,] -5.053250e+06 -2.726807e+06 -5.603976e+10 -4.027418e+06
## [2549,] -3.550904e+05 -8.799947e+04 -2.398701e+10 -4.649401e+06

```

```

## [2550,] -9.764861e+07 -7.943180e+07 -1.491607e+11 -1.040718e+07
## [2551,] -3.214874e+11 -2.698457e+11 -8.937710e+14 -2.750294e+09
## [2552,] -2.537333e+11 -2.267089e+11 -6.770362e+14 -1.867759e+09
## [2553,] -4.271203e+09 -4.257534e+09 -1.129010e+13 -7.137894e+07
## [2554,] -4.559547e+06 -3.798055e+06 -5.607471e+10 -3.970817e+06
## [2555,] -4.277152e+05 -2.928622e+05 -2.400197e+10 -4.612573e+06
## [2556,] -9.673497e+07 -9.744243e+07 -1.493468e+11 -9.966285e+06
## [2557,] -3.364531e+11 -2.796146e+11 -8.943283e+14 -2.979640e+09
## [2558,] -2.408257e+11 -2.070690e+11 -6.774583e+14 -1.996027e+09
## [2559,] -4.409205e+09 -3.857729e+09 -1.129714e+13 -7.515441e+07
## [2560,] -4.681222e+06 -2.478837e+06 -5.614465e+10 -4.036624e+06
## [2561,] -3.182854e+05 -2.406707e+05 -2.403191e+10 -4.720912e+06
## [2562,] -9.888026e+07 -8.379705e+07 -1.494399e+11 -9.790560e+06
## [2563,] -3.183229e+11 -2.602482e+11 -8.948857e+14 -2.838814e+09
## [2564,] -2.553688e+11 -2.504734e+11 -6.778806e+14 -2.181272e+09
## [2565,] -4.865322e+09 -3.857824e+09 -1.130418e+13 -7.921337e+07
## [2566,] -4.681222e+06 -4.713550e+06 -5.614465e+10 -3.985839e+06
## [2567,] -4.852833e+05 -2.406707e+05 -2.403191e+10 -4.657175e+06
## [2568,] -1.044297e+08 -8.379705e+07 -1.494399e+11 -1.011522e+07
## [2569,] -3.429698e+11 -2.508252e+11 -8.954434e+14 -2.989656e+09
## [2570,] -2.400287e+11 -2.424191e+11 -6.783030e+14 -1.981421e+09
## [2571,] -4.620374e+09 -3.728996e+09 -1.131122e+13 -7.141768e+07
## [2572,] -3.935690e+06 -3.504338e+06 -5.617964e+10 -4.036698e+06
## [2573,] -3.010569e+05 -2.903864e+05 -2.404689e+10 -4.666830e+06
## [2574,] -9.258848e+07 -9.513898e+07 -1.496262e+11 -9.688066e+06
## [2575,] -3.386164e+11 -2.796122e+11 -8.960012e+14 -2.567388e+09
## [2576,] -2.496606e+11 -1.897282e+11 -6.787256e+14 -1.945411e+09
## [2577,] -4.577890e+09 -3.477814e+09 -1.131827e+13 -7.072468e+07
## [2578,] -4.451590e+06 -3.227928e+06 -5.621463e+10 -4.072814e+06
## [2579,] -2.782936e+05 -1.929252e+05 -2.407685e+10 -4.671314e+06
## [2580,] -9.540242e+07 -8.605890e+07 -1.498126e+11 -1.003586e+07
## [2581,] -3.407874e+11 -2.996710e+11 -8.971174e+14 -2.586157e+09
## [2582,] -2.078045e+11 -2.424168e+11 -6.795711e+14 -2.551617e+09
## [2583,] -4.409814e+09 -3.858299e+09 -1.133942e+13 -8.210183e+07
## [2584,] -2.983321e+06 -4.072690e+06 -5.631969e+10 -3.853319e+06
## [2585,] -3.834284e+05 -2.369366e+05 -2.410683e+10 -4.614477e+06
## [2586,] -9.287782e+07 -8.832214e+07 -1.499991e+11 -1.067718e+07
## [2587,] -3.278530e+11 -2.698394e+11 -8.982342e+14 -3.542667e+09
## [2588,] -2.400242e+11 -2.190437e+11 -6.808403e+14 -1.937925e+09
## [2589,] -4.149852e+09 -4.122926e+09 -1.135353e+13 -7.273954e+07
## [2590,] -4.853263e+06 -2.701629e+06 -5.638978e+10 -4.130582e+06
## [2591,] -3.635735e+05 -1.902495e+05 -2.413684e+10 -4.750598e+06
## [2592,] -9.851102e+07 -9.994141e+07 -1.500924e+11 -1.035617e+07
## [2593,] -3.396974e+11 -2.508207e+11 -8.987929e+14 -2.908182e+09
## [2594,] -2.416165e+11 -2.041211e+11 -6.808403e+14 -1.825340e+09
## [2595,] -4.299510e+09 -3.729556e+09 -1.135353e+13 -7.273954e+07
## [2596,] -4.719392e+06 -3.768329e+06 -5.642485e+10 -4.091340e+06

```

```

## [2597,] -3.394035e+05 -1.137701e+05 -2.415184e+10 -4.867987e+06
## [2598,] -9.429654e+07 -9.290728e+07 -1.501857e+11 -9.851376e+06
## [2599,] -3.310609e+11 -3.418728e+11 -8.993518e+14 -2.948447e+09
## [2600,] -2.472301e+11 -2.115159e+11 -6.812637e+14 -2.068541e+09
## [2601,] -4.244981e+09 -4.678301e+09 -1.136765e+13 -9.171733e+07
## [2602,] -5.112789e+06 -3.208737e+06 -5.645992e+10 -4.145902e+06
## [2603,] -3.857220e+05 -1.486803e+05 -2.416686e+10 -4.752984e+06
## [2604,] -1.006911e+08 -8.836523e+07 -1.502790e+11 -9.841152e+06
## [2605,] -3.386101e+11 -2.698370e+11 -8.999108e+14 -2.576298e+09
## [2606,] -2.561823e+11 -2.041197e+11 -6.816871e+14 -1.881079e+09
## [2607,] -4.621309e+09 -3.989902e+09 -1.137472e+13 -7.786473e+07
## [2608,] -4.208899e+06 -3.478637e+06 -5.649501e+10 -3.986571e+06
## [2609,] -2.778262e+05 -1.882550e+05 -2.418187e+10 -4.728540e+06
## [2610,] -9.784504e+07 -8.393701e+07 -1.503724e+11 -9.913650e+06
## [2611,] -3.141216e+11 -2.895490e+11 -9.004700e+14 -3.710668e+09
## [2612,] -2.594750e+11 -2.190401e+11 -6.829583e+14 -1.894978e+09
## [2613,] -4.452329e+09 -3.858963e+09 -1.138885e+13 -7.155982e+07
## [2614,] -4.447592e+06 -2.936625e+06 -5.660032e+10 -4.324231e+06
## [2615,] -2.963961e+05 -1.112073e+05 -2.422695e+10 -4.753477e+06
## [2616,] -9.578584e+07 -9.299568e+07 -1.507463e+11 -1.014523e+07
## [2617,] -3.407785e+11 -2.895457e+11 -9.027086e+14 -3.248750e+09
## [2618,] -2.636211e+11 -2.115110e+11 -6.842307e+14 -2.187783e+09
## [2619,] -4.522749e+09 -3.603549e+09 -1.141007e+13 -6.983831e+07
## [2620,] -4.437928e+06 -2.679068e+06 -5.670574e+10 -4.016849e+06
## [2621,] -3.155667e+05 -1.096836e+05 -2.427208e+10 -4.757056e+06
## [2622,] -9.841002e+07 -8.402104e+07 -1.509334e+11 -9.950090e+06
## [2623,] -3.342792e+11 -2.895440e+11 -9.038290e+14 -2.585224e+09
## [2624,] -2.297961e+11 -1.968511e+11 -6.846551e+14 -2.180130e+09
## [2625,] -3.950909e+09 -4.536940e+09 -1.141715e+13 -8.187497e+07
## [2626,] -5.855793e+06 -3.189602e+06 -5.670574e+10 -4.055807e+06
## [2627,] -2.833633e+05 -7.959669e+04 -2.427208e+10 -4.729277e+06
## [2628,] -9.605016e+07 -8.402104e+07 -1.509334e+11 -9.539210e+06
## [2629,] -3.068444e+11 -2.996593e+11 -9.049500e+14 -2.998434e+09
## [2630,] -2.456119e+11 -2.344845e+11 -6.855043e+14 -1.803891e+09
## [2631,] -4.636383e+09 -3.990674e+09 -1.143131e+13 -7.234785e+07
## [2632,] -4.715276e+06 -3.181419e+06 -5.681126e+10 -4.170984e+06
## [2633,] -3.075313e+05 -2.266365e+05 -2.431724e+10 -4.801398e+06
## [2634,] -9.988550e+07 -8.627169e+07 -1.512142e+11 -9.896681e+06
## [2635,] -3.289098e+11 -2.602334e+11 -9.055108e+14 -2.584991e+09
## [2636,] -2.480291e+11 -1.968490e+11 -6.859291e+14 -1.937118e+09
## [2637,] -4.369625e+09 -3.859628e+09 -1.143839e+13 -7.182764e+07
## [2638,] -4.459719e+06 -2.920932e+06 -5.681126e+10 -4.158808e+06
## [2639,] -3.702943e+05 -1.428459e+05 -2.431724e+10 -4.671149e+06
## [2640,] -1.018082e+08 -9.306939e+07 -1.512142e+11 -1.026904e+07
## [2641,] -3.037530e+11 -3.099481e+11 -9.060717e+14 -2.937340e+09
## [2642,] -2.464150e+11 -2.115074e+11 -6.863540e+14 -2.542196e+09
## [2643,] -4.397445e+09 -4.124202e+09 -1.144548e+13 -7.671090e+07

```

```

## [2644,] -5.004447e+06 -2.666576e+06 -5.688166e+10 -4.146799e+06
## [2645,] -2.441923e+05 -1.071676e+05 -2.434737e+10 -4.724559e+06
## [2646,] -9.848584e+07 -8.409109e+07 -1.514016e+11 -1.030187e+07
## [2647,] -3.407722e+11 -3.099473e+11 -9.066328e+14 -2.444638e+09
## [2648,] -2.561730e+11 -2.115067e+11 -6.867791e+14 -2.104687e+09
## [2649,] -4.509606e+09 -3.860103e+09 -1.147384e+13 -6.547533e+07
## [2650,] -4.861751e+06 -3.438846e+06 -5.698733e+10 -4.011460e+06
## [2651,] -3.365958e+05 -1.056720e+05 -2.439261e+10 -4.803093e+06
## [2652,] -9.829393e+07 -9.546721e+07 -1.516829e+11 -1.054072e+07
## [2653,] -3.089079e+11 -2.895375e+11 -9.083172e+14 -2.641773e+09
## [2654,] -2.456073e+11 -2.041093e+11 -6.880550e+14 -1.943928e+09
## [2655,] -4.084362e+09 -4.679869e+09 -1.147384e+13 -7.331933e+07
## [2656,] -4.195615e+06 -3.167804e+06 -5.698733e+10 -3.919384e+06
## [2657,] -3.716161e+05 -1.399724e+05 -2.439261e+10 -4.807394e+06
## [2658,] -9.430159e+07 -9.084767e+07 -1.516829e+11 -1.015579e+07
## [2659,] -3.099439e+11 -3.099439e+11 -9.088791e+14 -2.641695e+09
## [2660,] -2.594649e+11 -2.115039e+11 -6.884806e+14 -2.037959e+09
## [2661,] -4.608646e+09 -3.860198e+09 -1.148094e+13 -7.172798e+07
## [2662,] -4.598922e+06 -4.315540e+06 -5.702258e+10 -4.223384e+06
## [2663,] -3.357098e+05 -5.116469e+04 -2.440770e+10 -4.804292e+06
## [2664,] -9.807193e+07 -8.635688e+07 -1.517767e+11 -9.970840e+06
## [2665,] -3.193530e+11 -2.602280e+11 -9.094410e+14 -2.632045e+09
## [2666,] -2.545288e+11 -2.190294e+11 -6.893322e+14 -2.364903e+09
## [2667,] -4.398154e+09 -3.991543e+09 -1.149514e+13 -7.865010e+07
## [2668,] -4.980544e+06 -2.649135e+06 -5.712839e+10 -4.080763e+06
## [2669,] -2.999511e+05 -1.376947e+05 -2.445299e+10 -4.805739e+06
## [2670,] -9.906788e+07 -8.863840e+07 -1.520583e+11 -1.003075e+07
## [2671,] -3.310434e+11 -2.996509e+11 -9.105655e+14 -3.048841e+09
## [2672,] -2.569894e+11 -2.041066e+11 -6.897581e+14 -1.900981e+09
## [2673,] -4.315355e+09 -3.731517e+09 -1.150224e+13 -7.301352e+07
## [2674,] -4.848281e+06 -3.156933e+06 -5.712839e+10 -4.211357e+06
## [2675,] -1.299580e+05 -2.194194e+05 -2.446809e+10 -4.787598e+06
## [2676,] -9.460845e+07 -8.865279e+07 -1.521523e+11 -9.990153e+06
## [2677,] -3.257018e+11 -2.602256e+11 -9.111281e+14 -2.565298e+09
## [2678,] -2.488301e+11 -2.115011e+11 -6.901842e+14 -1.950750e+09
## [2679,] -4.709077e+09 -4.398357e+09 -1.150935e+13 -7.775157e+07
## [2680,] -4.711162e+06 -3.421862e+06 -5.719899e+10 -4.168762e+06
## [2681,] -2.134332e+05 -1.745877e+05 -2.449832e+10 -4.783552e+06
## [2682,] -9.605526e+07 -8.424532e+07 -1.524342e+11 -1.017188e+07
## [2683,] -3.120168e+11 -2.795880e+11 -9.128166e+14 -2.689259e+09
## [2684,] -2.602865e+11 -2.423958e+11 -6.914633e+14 -2.224663e+09
## [2685,] -4.384890e+09 -3.605200e+09 -1.153779e+13 -7.487924e+07
## [2686,] -4.572740e+06 -3.413386e+06 -5.730496e+10 -4.147695e+06
## [2687,] -2.799892e+05 -4.843667e+04 -2.452856e+10 -4.839758e+06
## [2688,] -1.003697e+08 -8.428741e+07 -1.527165e+11 -9.988877e+06
## [2689,] -3.539411e+11 -2.698156e+11 -9.150705e+14 -2.976554e+09
## [2690,] -2.407979e+11 -2.114962e+11 -6.931707e+14 -2.022581e+09

```

```

## [2691,] -4.510838e+09 -3.732264e+09 -1.155915e+13 -7.747699e+07
## [2692,] -5.154480e+06 -4.280688e+06 -5.741103e+10 -4.102476e+06
## [2693,] -3.204618e+05 -1.331954e+05 -2.457397e+10 -4.750965e+06
## [2694,] -1.023124e+08 -8.211835e+07 -1.528106e+11 -1.035247e+07
## [2695,] -3.506221e+11 -2.996442e+11 -9.150705e+14 -2.905793e+09
## [2696,] -2.619414e+11 -2.266813e+11 -6.931707e+14 -2.193874e+09
## [2697,] -4.796400e+09 -3.732264e+09 -1.155915e+13 -7.970380e+07
## [2698,] -4.311605e+06 -3.404921e+06 -5.741103e+10 -4.066302e+06
## [2699,] -7.653953e+04 -3.149317e+05 -2.457397e+10 -4.623516e+06
## [2700,] -1.062224e+08 -9.332020e+07 -1.528106e+11 -1.025260e+07
## [2701,] -3.355566e+11 -2.528569e+11 -2.743027e+13 -1.631514e+09
## [2702,] -2.541360e+11 -1.914964e+11 -2.077858e+13 -1.209327e+09
## [2703,] -4.104347e+09 -3.485876e+09 -3.464986e+11 -2.513750e+07
## [2704,] -1.703533e+07 -1.460470e+07 -1.720961e+09 -1.072384e+04
## [2705,] -6.874586e+06 -4.711560e+06 -7.366325e+08 -4.625744e+04
## [2706,] -6.160082e+07 -4.585514e+07 -4.580671e+09 -9.002035e+05
## [2707,] -3.259091e+11 -2.623168e+11 -2.743027e+13 -1.616491e+09
## [2708,] -2.557743e+11 -2.286384e+11 -2.077858e+13 -1.348519e+09
## [2709,] -4.198858e+09 -3.485966e+09 -3.477328e+11 -2.390133e+07
## [2710,] -1.733817e+07 -1.293917e+07 -1.727091e+09 -8.262649e+03
## [2711,] -6.717140e+06 -5.143660e+06 -7.392563e+08 -4.722415e+04
## [2712,] -6.011911e+07 -4.916442e+07 -4.596987e+09 -8.457354e+05
## [2713,] -3.216648e+11 -2.917373e+11 -2.762586e+13 -1.661645e+09
## [2714,] -2.508735e+11 -1.986602e+11 -2.092673e+13 -1.243307e+09
## [2715,] -4.226129e+09 -3.363559e+09 -3.489692e+11 -2.568048e+07
## [2716,] -1.671640e+07 -1.402878e+07 -1.733231e+09 -9.677312e+03
## [2717,] -6.789660e+06 -5.594716e+06 -7.418847e+08 -4.863261e+04
## [2718,] -6.218973e+07 -5.258899e+07 -4.613332e+09 -8.895111e+05
## [2719,] -3.388019e+11 -3.227229e+11 -2.762586e+13 -1.586531e+09
## [2720,] -2.657133e+11 -2.059570e+11 -2.092673e+13 -1.056417e+09
## [2721,] -4.335695e+09 -3.363559e+09 -3.489692e+11 -2.200361e+07
## [2722,] -1.569573e+07 -1.696123e+07 -1.733231e+09 -1.457876e+04
## [2723,] -6.511348e+06 -6.561517e+06 -7.418847e+08 -5.238030e+04
## [2724,] -6.106247e+07 -5.976037e+07 -4.613332e+09 -8.449401e+05
## [2725,] -3.475373e+11 -2.817562e+11 -2.762586e+13 -1.392401e+09
## [2726,] -2.508728e+11 -2.059563e+11 -2.100100e+13 -1.348351e+09
## [2727,] -4.253489e+09 -3.363647e+09 -3.502078e+11 -2.654400e+07
## [2728,] -1.795187e+07 -1.347006e+07 -1.739383e+09 -9.828199e+03
## [2729,] -6.633195e+06 -5.361509e+06 -7.445179e+08 -4.746223e+04
## [2730,] -6.107441e+07 -4.918585e+07 -4.629706e+09 -9.114003e+05
## [2731,] -3.539411e+11 -3.418478e+11 -9.150705e+14 -2.875727e+09
## [2732,] -2.569832e+11 -2.423928e+11 -6.931707e+14 -2.224375e+09
## [2733,] -4.412961e+09 -3.605476e+09 -1.155915e+13 -8.120586e+07
## [2734,] -4.752784e+06 -3.402102e+06 -5.744641e+10 -4.248849e+06
## [2735,] -3.596035e+05 -1.707773e+05 -2.458911e+10 -4.861865e+06
## [2736,] -9.944335e+07 -8.652739e+07 -1.529048e+11 -9.968292e+06
## [2737,] -3.310354e+11 -2.602194e+11 -9.156344e+14 -2.564678e+09

```

```

## [2738,] -2.545211e+11 -1.968368e+11 -6.935978e+14 -1.893316e+09
## [2739,] -4.539102e+09 -3.861337e+09 -1.156627e+13 -6.228822e+07
## [2740,] -4.913377e+06 -2.871516e+06 -5.748180e+10 -4.190708e+06
## [2741,] -2.863650e+05 -4.676962e+04 -2.460426e+10 -4.899924e+06
## [2742,] -9.661506e+07 -8.432951e+07 -1.529990e+11 -9.815031e+06
## [2743,] -3.214528e+11 -2.795831e+11 -9.161985e+14 -2.352085e+09
## [2744,] -2.496331e+11 -2.040997e+11 -6.940251e+14 -1.816396e+09
## [2745,] -4.553320e+09 -3.605659e+09 -1.157340e+13 -7.171896e+07
## [2746,] -6.138717e+06 -4.588310e+06 -5.748180e+10 -4.081504e+06
## [2747,] -2.961299e+05 -1.695166e+05 -2.461941e+10 -4.799577e+06
## [2748,] -9.686549e+07 -8.434354e+07 -1.530932e+11 -1.016021e+07
## [2749,] -3.440283e+11 -2.698132e+11 -9.167627e+14 -2.679048e+09
## [2750,] -2.423905e+11 -2.040990e+11 -6.944525e+14 -2.022375e+09
## [2751,] -4.497097e+09 -3.605751e+09 -1.158053e+13 -7.297830e+07
## [2752,] -4.873620e+06 -3.393650e+06 -5.755261e+10 -4.181703e+06
## [2753,] -4.052888e+05 -2.116155e+05 -2.463457e+10 -4.779302e+06
## [2754,] -9.245647e+07 -9.108088e+07 -1.531875e+11 -1.054241e+07
## [2755,] -3.353365e+11 -2.895243e+11 -9.173272e+14 -2.966060e+09
## [2756,] -2.431891e+11 -2.190201e+11 -6.948801e+14 -1.971559e+09
## [2757,] -4.782337e+09 -4.126165e+09 -1.158766e+13 -7.588083e+07
## [2758,] -5.660408e+06 -3.673992e+06 -5.755261e+10 -4.130010e+06
## [2759,] -4.436325e+05 -1.309737e+05 -2.463457e+10 -4.783593e+06
## [2760,] -9.877422e+07 -9.337926e+07 -1.531875e+11 -1.048033e+07
## [2761,] -3.078592e+11 -2.895243e+11 -9.173272e+14 -2.746929e+09
## [2762,] -2.611078e+11 -2.266776e+11 -6.953078e+14 -2.239343e+09
## [2763,] -4.399573e+09 -3.732730e+09 -1.159479e+13 -7.264714e+07
## [2764,] -4.234145e+06 -3.121732e+06 -5.758803e+10 -4.148293e+06
## [2765,] -3.443360e+05 -6.918270e+04 -2.464973e+10 -4.806275e+06
## [2766,] -9.878941e+07 -8.437162e+07 -1.532817e+11 -1.039249e+07
## [2767,] -3.182875e+11 -2.795807e+11 -9.178917e+14 -3.109800e+09
## [2768,] -2.488209e+11 -2.190194e+11 -6.953078e+14 -2.293405e+09
## [2769,] -4.371848e+09 -3.861717e+09 -1.159479e+13 -7.571189e+07
## [2770,] -4.575224e+06 -2.614425e+06 -5.762347e+10 -4.240008e+06
## [2771,] -3.848682e+05 -6.878132e+04 -2.466490e+10 -4.863571e+06
## [2772,] -9.787043e+07 -8.439970e+07 -1.534704e+11 -1.001998e+07
## [2773,] -3.256896e+11 -2.795791e+11 -9.190215e+14 -2.564214e+09
## [2774,] -2.472035e+11 -2.114913e+11 -6.961635e+14 -1.914151e+09
## [2775,] -4.469474e+09 -3.732917e+09 -1.160906e+13 -7.483036e+07
## [2776,] -4.508391e+06 -2.858582e+06 -5.765891e+10 -4.121145e+06
## [2777,] -2.140266e+05 -2.568276e+05 -2.468007e+10 -4.819438e+06
## [2778,] -9.835970e+07 -8.222918e+07 -1.535648e+11 -1.026877e+07
## [2779,] -3.396645e+11 -2.698092e+11 -9.195866e+14 -2.573584e+09
## [2780,] -2.423867e+11 -1.968321e+11 -6.965916e+14 -2.029333e+09
## [2781,] -4.553938e+09 -3.606210e+09 -1.161620e+13 -7.358129e+07
## [2782,] -5.259237e+06 -3.659360e+06 -5.772983e+10 -4.169885e+06
## [2783,] -3.350548e+05 -9.549691e+04 -2.471042e+10 -4.774559e+06
## [2784,] -9.790068e+07 -8.442778e+07 -1.536592e+11 -1.009038e+07

```

```

## [2785,] -3.331759e+11 -3.099260e+11 -9.207173e+14 -2.945294e+09
## [2786,] -2.512508e+11 -2.040941e+11 -6.974482e+14 -2.269793e+09
## [2787,] -4.525936e+09 -3.606394e+09 -1.163048e+13 -7.632605e+07
## [2788,] -4.245977e+06 -2.602084e+06 -5.780080e+10 -4.200550e+06
## [2789,] -2.948173e+05 -1.271308e+05 -2.474080e+10 -4.822089e+06
## [2790,] -9.675030e+07 -8.445587e+07 -1.538481e+11 -1.010010e+07
## [2791,] -3.203882e+11 -2.895177e+11 -9.218488e+14 -3.078100e+09
## [2792,] -2.545126e+11 -2.190144e+11 -6.983052e+14 -2.029058e+09
## [2793,] -4.929050e+09 -3.993571e+09 -1.164477e+13 -7.856346e+07
## [2794,] -4.332320e+06 -3.100167e+06 -5.787181e+10 -4.200700e+06
## [2795,] -1.795263e+05 -4.216797e+05 -2.477119e+10 -4.710949e+06
## [2796,] -9.168455e+07 -9.122679e+07 -1.541316e+11 -1.024448e+07
## [2797,] -3.182798e+11 -2.698045e+11 -9.229809e+14 -2.805049e+09
## [2798,] -2.586190e+11 -2.344601e+11 -6.995918e+14 -1.836346e+09
## [2799,] -4.317664e+09 -3.993860e+09 -1.166623e+13 -7.529901e+07
## [2800,] -4.388230e+06 -2.592233e+06 -5.794286e+10 -4.262217e+06
## [2801,] -4.133650e+05 -1.249605e+05 -2.480161e+10 -4.738920e+06
## [2802,] -9.728198e+07 -9.587081e+07 -1.542262e+11 -1.066730e+07
## [2803,] -2.996308e+11 -3.203847e+11 -9.241138e+14 -3.140120e+09
## [2804,] -2.415827e+11 -2.114849e+11 -7.000210e+14 -1.949198e+09
## [2805,] -4.611448e+09 -3.733758e+09 -1.167338e+13 -8.256365e+07
## [2806,] -4.667345e+06 -3.089413e+06 -5.801395e+10 -4.259289e+06
## [2807,] -2.491410e+05 -1.608220e+05 -2.483204e+10 -4.692293e+06
## [2808,] -1.016235e+08 -8.676923e+07 -1.545101e+11 -1.007326e+07
## [2809,] -3.440148e+11 -2.698013e+11 -9.252473e+14 -2.894274e+09
## [2810,] -2.536902e+11 -1.968253e+11 -7.008796e+14 -2.223078e+09
## [2811,] -4.414890e+09 -3.734038e+09 -1.169487e+13 -7.265109e+07
## [2812,] -4.438057e+06 -3.630183e+06 -5.808509e+10 -4.293371e+06
## [2813,] -3.432965e+05 -6.366968e+04 -2.486249e+10 -4.920534e+06
## [2814,] -1.021221e+08 -9.828908e+07 -1.546048e+11 -1.051584e+07
## [2815,] -3.172247e+11 -2.895120e+11 -9.258143e+14 -2.582195e+09
## [2816,] -2.463885e+11 -1.896929e+11 -7.013092e+14 -2.184924e+09
## [2817,] -5.077871e+09 -3.994247e+09 -1.169487e+13 -8.165679e+07
## [2818,] -4.921917e+06 -3.351551e+06 -5.808509e+10 -4.061693e+06
## [2819,] -3.969840e+05 -9.083266e+04 -2.486249e+10 -4.769364e+06
## [2820,] -1.057821e+08 -8.238170e+07 -1.546048e+11 -1.052360e+07
## [2821,] -3.650999e+11 -2.602053e+11 -9.258143e+14 -3.119008e+09
## [2822,] -2.504306e+11 -2.114821e+11 -7.017388e+14 -2.370640e+09
## [2823,] -4.654609e+09 -3.994343e+09 -1.170203e+13 -7.554717e+07
## [2824,] -4.657445e+06 -3.627272e+06 -5.812068e+10 -4.207344e+06
## [2825,] -2.324500e+05 -2.468578e+05 -2.487772e+10 -4.693723e+06
## [2826,] -9.901739e+07 -8.458232e+07 -1.546995e+11 -1.028920e+07
## [2827,] -3.561433e+11 -2.795678e+11 -9.269489e+14 -2.914117e+09
## [2828,] -2.594400e+11 -2.114814e+11 -7.021686e+14 -2.215219e+09
## [2829,] -4.712014e+09 -3.863237e+09 -1.170920e+13 -7.868542e+07
## [2830,] -4.494643e+06 -4.526322e+06 -5.815628e+10 -4.176879e+06
## [2831,] -2.317138e+05 -8.991382e+04 -2.489296e+10 -4.799657e+06

```



```

## [2832,] -1.014286e+08 -8.025115e+07 -1.547942e+11 -1.002710e+07
## [2833,] -3.353215e+11 -2.602038e+11 -9.269489e+14 -2.706639e+09
## [2834,] -2.471929e+11 -2.040865e+11 -7.021686e+14 -2.102164e+09
## [2835,] -4.597762e+09 -3.734225e+09 -1.170920e+13 -7.465339e+07
## [2836,] -4.590012e+06 -2.577490e+06 -5.815628e+10 -4.238070e+06
## [2837,] -1.178158e+05 -2.963461e+05 -2.490820e+10 -4.861239e+06
## [2838,] -9.976365e+07 -8.242332e+07 -1.548890e+11 -1.007747e+07
## [2839,] -3.130358e+11 -2.996250e+11 -9.280842e+14 -3.266102e+09
## [2840,] -2.220539e+11 -1.968219e+11 -7.030286e+14 -2.394172e+09
## [2841,] -4.168576e+09 -4.541471e+09 -1.173071e+13 -7.235967e+07
## [2842,] -3.846098e+06 -3.070638e+06 -5.826313e+10 -4.256741e+06
## [2843,] -3.108796e+05 -8.854432e+04 -2.493869e+10 -4.896163e+06
## [2844,] -9.553711e+07 -9.137282e+07 -1.550786e+11 -1.030882e+07
## [2845,] -3.288738e+11 -2.697965e+11 -9.286521e+14 -2.181889e+09
## [2846,] -2.463847e+11 -2.040845e+11 -7.034588e+14 -1.984631e+09
## [2847,] -4.569728e+09 -3.734505e+09 -1.173071e+13 -7.307368e+07
## [2848,] -4.297400e+06 -2.336569e+06 -5.826313e+10 -4.204585e+06
## [2849,] -2.628101e+05 -3.947720e+04 -2.495395e+10 -4.821673e+06
## [2850,] -9.207509e+07 -9.838001e+07 -1.551735e+11 -1.093777e+07
## [2851,] -3.267385e+11 -2.602007e+11 -9.292201e+14 -2.478598e+09
## [2852,] -2.321013e+11 -2.114779e+11 -7.043195e+14 -2.013508e+09
## [2853,] -4.387926e+09 -3.863807e+09 -1.175225e+13 -7.673646e+07
## [2854,] -3.954875e+06 -2.807137e+06 -5.837008e+10 -4.260046e+06
## [2855,] -3.711690e+05 -6.062215e+04 -2.498447e+10 -4.895453e+06
## [2856,] -1.044353e+08 -8.468073e+07 -1.553633e+11 -1.020852e+07
## [2857,] -3.278022e+11 -2.895046e+11 -9.309254e+14 -3.025265e+09
## [2858,] -2.520508e+11 -2.753725e+11 -7.051808e+14 -2.230012e+09
## [2859,] -4.360339e+09 -3.608046e+09 -1.175943e+13 -7.402370e+07
## [2860,] -4.346710e+06 -2.560344e+06 -5.840576e+10 -4.290964e+06
## [2861,] -2.705759e+05 -6.024646e+04 -2.499974e+10 -4.924929e+06
## [2862,] -9.749312e+07 -1.008295e+08 -1.555533e+11 -1.010385e+07
## [2863,] -3.418219e+11 -2.697926e+11 -9.314942e+14 -3.180919e+09
## [2864,] -2.496125e+11 -1.968178e+11 -7.056117e+14 -1.955488e+09
## [2865,] -4.332838e+09 -3.863997e+09 -1.176661e+13 -7.367706e+07
## [2866,] -4.692207e+06 -2.557899e+06 -5.844144e+10 -4.315794e+06
## [2867,] -3.574804e+05 -1.175117e+05 -2.501502e+10 -4.785612e+06
## [2868,] -9.009236e+07 -9.845581e+07 -1.556483e+11 -1.064838e+07
## [2869,] -3.396449e+11 -2.697918e+11 -9.320631e+14 -2.496811e+09
## [2870,] -2.297595e+11 -2.266594e+11 -7.060426e+14 -2.191727e+09
## [2871,] -4.374374e+09 -4.684261e+09 -1.177380e+13 -8.486615e+07
## [2872,] -3.769991e+06 -3.886727e+06 -5.847714e+10 -4.113776e+06
## [2873,] -3.112376e+05 -3.449461e+05 -2.503030e+10 -4.784662e+06
## [2874,] -1.122034e+08 -8.472293e+07 -1.556483e+11 -1.033059e+07
## [2875,] -3.310099e+11 -3.310099e+11 -9.320631e+14 -3.128487e+09
## [2876,] -2.504230e+11 -1.968172e+11 -7.060426e+14 -2.094103e+09
## [2877,] -4.612901e+09 -3.735065e+09 -1.177380e+13 -8.428862e+07
## [2878,] -4.155891e+06 -2.799461e+06 -5.847714e+10 -3.940179e+06

```

```

## [2879,] -2.531696e+05 -2.889059e+05 -2.504558e+10 -4.961299e+06
## [2880,] -8.874894e+07 -1.008602e+08 -1.557433e+11 -1.069246e+07
## [2881,] -3.214268e+11 -2.795589e+11 -9.332015e+14 -2.590664e+09
## [2882,] -2.336627e+11 -2.586058e+11 -7.069050e+14 -2.815404e+09
## [2883,] -5.019788e+09 -4.542295e+09 -1.178818e+13 -7.920677e+07
## [2884,] -4.614667e+06 -3.046583e+06 -5.858429e+10 -4.217506e+06
## [2885,] -4.997189e+05 -1.149069e+05 -2.509146e+10 -4.832492e+06
## [2886,] -1.004413e+08 -8.925818e+07 -1.561237e+11 -1.016352e+07
## [2887,] -3.342306e+11 -2.601929e+11 -9.349104e+14 -2.599926e+09
## [2888,] -2.528606e+11 -2.040769e+11 -7.081995e+14 -2.330203e+09
## [2889,] -4.699227e+09 -3.995889e+09 -1.181697e+13 -7.630744e+07
## [2890,] -5.865264e+06 -3.038586e+06 -5.869153e+10 -4.263807e+06
## [2891,] -2.542627e+05 -2.348583e+05 -2.512207e+10 -4.882477e+06
## [2892,] -1.009370e+08 -8.927262e+07 -1.562189e+11 -1.052248e+07
## [2893,] -3.439987e+11 -3.203674e+11 -9.354804e+14 -3.127974e+09
## [2894,] -2.779260e+11 -2.189972e+11 -7.086312e+14 -2.191298e+09
## [2895,] -4.858399e+09 -3.995889e+09 -1.181697e+13 -7.982126e+07
## [2896,] -4.996929e+06 -3.580851e+06 -5.869153e+10 -4.199372e+06
## [2897,] -3.569507e+05 -8.317144e+04 -2.512207e+10 -4.873808e+06
## [2898,] -1.060495e+08 -8.927262e+07 -1.562189e+11 -1.049920e+07
## [2899,] -2.905018e+11 -2.894980e+11 -9.354804e+14 -3.329184e+09
## [2900,] -2.258834e+11 -2.266551e+11 -7.086312e+14 -2.425052e+09
## [2901,] -4.728075e+09 -4.237719e+09 -1.182417e+13 -7.342287e+07
## [2902,] -4.569604e+06 -3.577960e+06 -5.872731e+10 -4.251572e+06
## [2903,] -3.162367e+05 -8.273129e+04 -2.513738e+10 -4.970801e+06
## [2904,] -9.832454e+07 -8.263157e+07 -1.563141e+11 -1.021147e+07
## [2905,] -3.320771e+11 -2.894972e+11 -9.360505e+14 -2.580797e+09
## [2906,] -2.383879e+11 -2.528591e+11 -7.090631e+14 -2.108486e+09
## [2907,] -4.713693e+09 -4.278697e+09 -1.182417e+13 -7.306457e+07
## [2908,] -4.314906e+06 -2.535948e+06 -5.876309e+10 -4.504420e+06
## [2909,] -2.058067e+05 -8.229231e+04 -2.515269e+10 -4.954534e+06
## [2910,] -9.434641e+07 -8.483550e+07 -1.564094e+11 -1.054016e+07
## [2911,] -3.267272e+11 -3.193115e+11 -9.366209e+14 -2.983559e+09
## [2912,] -2.561312e+11 -2.189950e+11 -7.099273e+14 -1.926226e+09
## [2913,] -4.599628e+09 -4.129602e+09 -1.183858e+13 -7.579976e+07
## [2914,] -6.713654e+06 -2.080928e+06 -5.879888e+10 -4.239429e+06
## [2915,] -1.751885e+05 -1.123313e+05 -2.516802e+10 -4.905643e+06
## [2916,] -8.976888e+07 -1.034024e+08 -1.565046e+11 -1.092147e+07
## [2917,] -3.385505e+11 -2.894947e+11 -9.377620e+14 -3.055086e+09
## [2918,] -2.694358e+11 -2.344416e+11 -7.103596e+14 -2.221493e+09
## [2919,] -4.557342e+09 -3.609239e+09 -1.185300e+13 -8.026418e+07
## [2920,] -4.620447e+06 -2.528652e+06 -5.887050e+10 -4.335323e+06
## [2921,] -3.073449e+05 -8.098237e+04 -2.519867e+10 -4.995398e+06
## [2922,] -1.000539e+08 -8.934483e+07 -1.566953e+11 -1.015461e+07
## [2923,] -3.550136e+11 -2.601882e+11 -9.383329e+14 -2.983309e+09
## [2924,] -2.220402e+11 -2.344401e+11 -7.112246e+14 -2.603531e+09
## [2925,] -4.459062e+09 -3.996469e+09 -1.186021e+13 -7.420790e+07

```

```

## [2926,] -4.585167e+06 -3.563520e+06 -5.890633e+10 -4.157137e+06
## [2927,] -2.257497e+05 -5.260944e+05 -2.521401e+10 -4.898415e+06
## [2928,] -1.012698e+08 -8.489182e+07 -1.567906e+11 -1.077105e+07
## [2929,] -3.267219e+11 -2.996074e+11 -9.400465e+14 -2.983058e+09
## [2930,] -2.685912e+11 -2.266493e+11 -7.120901e+14 -2.168005e+09
## [2931,] -4.361953e+09 -3.865422e+09 -1.187465e+13 -7.770054e+07
## [2932,] -4.173107e+06 -2.763777e+06 -5.897801e+10 -4.351095e+06
## [2933,] -2.580061e+05 -3.391898e+04 -2.524469e+10 -4.981533e+06
## [2934,] -9.701114e+07 -9.630526e+07 -1.569814e+11 -1.058552e+07
## [2935,] -3.775707e+11 -2.795492e+11 -9.400465e+14 -3.200683e+09
## [2936,] -2.383820e+11 -2.266485e+11 -7.125230e+14 -2.070846e+09
## [2937,] -4.743322e+09 -3.865517e+09 -1.188187e+13 -7.370727e+07
## [2938,] -4.385925e+06 -3.279202e+06 -5.901387e+10 -4.323214e+06
## [2939,] -3.307342e+05 -1.435398e+05 -2.527539e+10 -4.911954e+06
## [2940,] -1.001303e+08 -9.869859e+07 -1.571723e+11 -1.055655e+07
## [2941,] -3.407169e+11 -2.601835e+11 -9.417616e+14 -2.891890e+09
## [2942,] -2.569468e+11 -2.585941e+11 -7.133893e+14 -2.329318e+09
## [2943,] -4.700380e+09 -3.865707e+09 -1.189631e+13 -7.627144e+07
## [2944,] -4.827440e+06 -4.442179e+06 -5.908562e+10 -4.181878e+06
## [2945,] -1.866801e+05 -1.824651e+05 -2.529075e+10 -4.941480e+06
## [2946,] -9.918992e+07 -9.635026e+07 -1.572678e+11 -1.085914e+07
## [2947,] -3.385443e+11 -2.894890e+11 -9.417616e+14 -3.179368e+09
## [2948,] -2.360101e+11 -2.040686e+11 -7.133893e+14 -2.092914e+09
## [2949,] -4.918223e+09 -4.130486e+09 -1.190354e+13 -8.148990e+07
## [2950,] -4.160628e+06 -2.753623e+06 -5.912151e+10 -4.348290e+06
## [2951,] -2.598881e+05 -1.423841e+05 -2.530611e+10 -5.003962e+06
## [2952,] -8.944598e+07 -9.172377e+07 -1.573634e+11 -1.046559e+07
## [2953,] -3.320665e+11 -2.697767e+11 -9.429059e+14 -2.982641e+09
## [2954,] -2.399658e+11 -2.040672e+11 -7.142561e+14 -1.961315e+09
## [2955,] -4.801588e+09 -3.485298e+09 -1.191077e+13 -7.666426e+07
## [2956,] -4.127153e+06 -2.751088e+06 -5.915741e+10 -4.348367e+06
## [2957,] -3.006043e+05 -5.262682e+04 -2.532148e+10 -4.941731e+06
## [2958,] -9.971298e+07 -9.405983e+07 -1.575545e+11 -1.082696e+07
## [2959,] -3.374580e+11 -2.601812e+11 -9.434783e+14 -2.753017e+09
## [2960,] -2.227996e+11 -2.504077e+11 -7.146897e+14 -1.925488e+09
## [2961,] -4.515971e+09 -4.686353e+09 -1.191800e+13 -8.826655e+07
## [2962,] -4.033677e+06 -3.001404e+06 -5.919332e+10 -4.209601e+06
## [2963,] -2.997670e+05 -1.412331e+05 -2.533685e+10 -4.838796e+06
## [2964,] -9.877452e+07 -8.723965e+07 -1.576501e+11 -1.045720e+07
## [2965,] -3.256512e+11 -2.894857e+11 -9.440509e+14 -2.821823e+09
## [2966,] -2.415564e+11 -2.344335e+11 -7.151235e+14 -2.480157e+09
## [2967,] -4.700904e+09 -3.997435e+09 -1.193247e+13 -8.382920e+07
## [2968,] -4.648478e+06 -3.534729e+06 -5.926518e+10 -4.246556e+06
## [2969,] -3.838639e+05 -1.664258e+04 -2.536761e+10 -4.993499e+06
## [2970,] -9.063948e+07 -8.503269e+07 -1.577458e+11 -1.054747e+07
## [2971,] -3.299191e+11 -2.795427e+11 -9.446237e+14 -2.541903e+09
## [2972,] -2.553000e+11 -1.968016e+11 -7.159913e+14 -2.258946e+09

```

```

## [2973,] -4.474175e+09 -4.544458e+09 -1.193970e+13 -8.441920e+07
## [2974,] -4.236661e+06 -2.740958e+06 -5.930113e+10 -4.467675e+06
## [2975,] -2.660321e+05 -1.052749e+05 -2.538299e+10 -4.918270e+06
## [2976,] -9.832969e+07 -8.504678e+07 -1.578415e+11 -1.024375e+07
## [2977,] -3.288484e+11 -2.697735e+11 -9.451966e+14 -2.589031e+09
## [2978,] -2.487843e+11 -2.040645e+11 -7.159913e+14 -1.925287e+09
## [2979,] -4.474175e+09 -3.610341e+09 -1.193970e+13 -7.291580e+07
## [2980,] -3.702050e+06 -2.993466e+06 -5.930113e+10 -4.121542e+06
## [2981,] -2.132779e+05 -1.395154e+05 -2.538299e+10 -4.966257e+06
## [2982,] -1.179717e+08 -9.179697e+07 -1.578415e+11 -1.056021e+07
## [2983,] -3.417996e+11 -2.795411e+11 -9.457697e+14 -3.178765e+09
## [2984,] -2.536624e+11 -2.040638e+11 -7.164255e+14 -1.903924e+09
## [2985,] -4.516382e+09 -3.485750e+09 -1.194694e+13 -7.581710e+07
## [2986,] -4.051376e+06 -2.738428e+06 -5.933708e+10 -4.386156e+06
## [2987,] -2.544631e+05 -1.772800e+05 -2.541378e+10 -4.927228e+06
## [2988,] -9.623538e+07 -8.507497e+07 -1.580329e+11 -1.035340e+07
## [2989,] -3.288467e+11 -2.795403e+11 -9.463430e+14 -2.551077e+09
## [2990,] -2.520301e+11 -1.896690e+11 -7.168597e+14 -1.953732e+09
## [2991,] -3.853557e+09 -4.404744e+09 -1.196143e+13 -8.523260e+07
## [2992,] -5.368731e+06 -3.808785e+06 -5.940903e+10 -4.167314e+06
## [2993,] -2.730459e+05 -1.033008e+05 -2.544458e+10 -4.953650e+06
## [2994,] -9.673557e+07 -8.957611e+07 -1.582245e+11 -1.065026e+07
## [2995,] -3.505705e+11 -2.601757e+11 -9.474901e+14 -2.921213e+09
## [2996,] -2.652283e+11 -2.266398e+11 -7.177287e+14 -2.144482e+09
## [2997,] -4.787940e+09 -4.404846e+09 -1.196867e+13 -7.861642e+07
## [2998,] -4.859460e+06 -3.520377e+06 -5.944502e+10 -4.299351e+06
## [2999,] -1.446072e+05 -7.417354e+04 -2.544458e+10 -4.905724e+06
## [3000,] -1.031955e+08 -8.510316e+07 -1.582245e+11 -1.061125e+07
## [3001,] -3.171920e+11 -2.795387e+11 -9.474901e+14 -2.588720e+09
## [3002,] -2.423499e+11 -2.040617e+11 -7.177287e+14 -2.062637e+09
## [3003,] -4.558993e+09 -3.737587e+09 -1.196867e+13 -7.658805e+07
## [3004,] -4.438186e+06 -2.487507e+06 -5.948102e+10 -4.402097e+06
## [3005,] -2.671526e+05 -4.951891e+04 -2.545999e+10 -5.036005e+06
## [3006,] -9.604567e+07 -8.511726e+07 -1.583203e+11 -1.036816e+07
## [3007,] -3.363689e+11 -2.697695e+11 -9.480639e+14 -2.550846e+09
## [3008,] -2.719537e+11 -2.423491e+11 -7.181633e+14 -1.924952e+09
## [3009,] -4.948702e+09 -4.267112e+09 -1.197592e+13 -8.181715e+07
## [3010,] -5.677001e+06 -2.487507e+06 -5.948102e+10 -4.247010e+06
## [3011,] -3.428668e+05 -1.028102e+05 -2.545999e+10 -4.902590e+06
## [3012,] -1.036979e+08 -8.075851e+07 -1.583203e+11 -1.074136e+07
## [3013,] -3.098835e+11 -2.601734e+11 -9.492120e+14 -3.032832e+09
## [3014,] -2.487790e+11 -2.114540e+11 -7.190330e+14 -2.018460e+09
## [3015,] -4.545179e+09 -3.866942e+09 -1.199043e+13 -7.535086e+07
## [3016,] -4.150534e+06 -2.480281e+06 -5.958908e+10 -4.572949e+06
## [3017,] -2.401462e+05 -1.013454e+05 -2.550625e+10 -5.048503e+06
## [3018,] -1.042327e+08 -8.963398e+07 -1.586079e+11 -1.053773e+07
## [3019,] -3.277734e+11 -2.795354e+11 -9.497863e+14 -2.578934e+09

```

```

## [3020,] -2.447488e+11 -2.040589e+11 -7.194681e+14 -1.946163e+09
## [3021,] -4.391369e+09 -3.867037e+09 -1.199768e+13 -7.391735e+07
## [3022,] -4.488295e+06 -2.718233e+06 -5.962513e+10 -4.290458e+06
## [3023,] -2.069731e+05 -7.210709e+04 -2.552168e+10 -4.940094e+06
## [3024,] -9.377369e+07 -8.964845e+07 -1.587039e+11 -1.041873e+07
## [3025,] -3.331300e+11 -2.697664e+11 -9.503608e+14 -2.820931e+09
## [3026,] -2.487767e+11 -1.967948e+11 -7.203386e+14 -1.840157e+09
## [3027,] -4.377711e+09 -3.867227e+09 -1.201220e+13 -7.575461e+07
## [3028,] -4.453524e+06 -3.229576e+06 -5.966118e+10 -4.433834e+06
## [3029,] -2.291608e+05 -1.338655e+05 -2.553711e+10 -5.059786e+06
## [3030,] -1.018344e+08 -8.966292e+07 -1.587998e+11 -1.080572e+07
## [3031,] -3.355540e+11 -2.528546e+11 -2.772391e+13 -1.616307e+09
## [3032,] -2.468263e+11 -1.986595e+11 -2.100100e+13 -1.220477e+09
## [3033,] -4.460736e+09 -3.363647e+09 -3.502078e+11 -2.191268e+07
## [3034,] -1.622592e+07 -1.695493e+07 -1.739383e+09 -1.440365e+04
## [3035,] -7.333018e+06 -6.064725e+06 -7.445179e+08 -4.166616e+04
## [3036,] -6.201317e+07 -4.918585e+07 -4.629706e+09 -9.000121e+05
## [3037,] -3.486361e+11 -2.623145e+11 -2.772391e+13 -1.542237e+09
## [3038,] -2.648769e+11 -2.209447e+11 -2.100100e+13 -1.136942e+09
## [3039,] -4.460736e+09 -3.866790e+09 -3.502078e+11 -2.361015e+07
## [3040,] -1.646714e+07 -1.757468e+07 -1.739383e+09 -1.233595e+04
## [3041,] -7.148213e+06 -5.361509e+06 -7.445179e+08 -4.918756e+04
## [3042,] -6.163681e+07 -5.793620e+07 -4.629706e+09 -8.886955e+05
## [3043,] -3.377170e+11 -2.817554e+11 -2.772391e+13 -1.564275e+09
## [3044,] -2.428127e+11 -2.444142e+11 -2.100100e+13 -1.192303e+09
## [3045,] -4.011397e+09 -3.737812e+09 -3.514485e+11 -2.341456e+07
## [3046,] -1.813546e+07 -1.346445e+07 -1.745546e+09 -1.568838e+04
## [3047,] -6.935870e+06 -5.357971e+06 -7.471556e+08 -5.263102e+04
## [3048,] -5.978400e+07 -5.088955e+07 -4.646109e+09 -8.766404e+05
## [3049,] -3.431539e+11 -2.623137e+11 -2.782213e+13 -1.448485e+09
## [3050,] -2.428120e+11 -2.133840e+11 -2.107541e+13 -1.131427e+09
## [3051,] -4.104739e+09 -3.610929e+09 -3.514485e+11 -2.311167e+07
## [3052,] -1.807199e+07 -1.458135e+07 -1.745546e+09 -8.272651e+03
## [3053,] -6.705262e+06 -5.357971e+06 -7.471556e+08 -5.173455e+04
## [3054,] -6.089945e+07 -5.261116e+07 -4.646109e+09 -8.699309e+05
## [3055,] -3.291058e+11 -2.917356e+11 -2.782213e+13 -1.753947e+09
## [3056,] -2.309686e+11 -2.364587e+11 -2.107541e+13 -1.312789e+09
## [3057,] -3.919128e+09 -4.267252e+09 -3.514485e+11 -2.687645e+07
## [3058,] -1.819903e+07 -1.292268e+07 -1.745546e+09 -9.684528e+03
## [3059,] -6.428703e+06 -6.304919e+06 -7.471556e+08 -4.197868e+04
## [3060,] -5.758403e+07 -5.436141e+07 -4.646109e+09 -9.498124e+05
## [3061,] -3.450677e+11 -2.697648e+11 -9.515103e+14 -2.503533e+09
## [3062,] -2.463543e+11 -2.040569e+11 -7.207740e+14 -1.974692e+09
## [3063,] -4.517409e+09 -3.738241e+09 -1.201946e+13 -6.779033e+07
## [3064,] -3.987767e+06 -3.224085e+06 -5.973332e+10 -4.368276e+06
## [3065,] -2.769247e+05 -4.716705e+04 -2.556799e+10 -5.042400e+06
## [3066,] -9.709154e+07 -8.969186e+07 -1.589918e+11 -1.041808e+07

```

```

## [3067,] -3.320524e+11 -2.894742e+11 -9.520854e+14 -2.810796e+09
## [3068,] -2.471595e+11 -2.189764e+11 -7.212096e+14 -2.099082e+09
## [3069,] -4.391774e+09 -4.405657e+09 -1.202672e+13 -7.415006e+07
## [3070,] -4.602462e+06 -3.494617e+06 -5.976941e+10 -4.374590e+06
## [3071,] -3.472117e+05 -7.047495e+04 -2.558344e+10 -5.087794e+06
## [3072,] -9.828938e+07 -8.970634e+07 -1.590879e+11 -1.052370e+07
## [3073,] -3.483586e+11 -2.995890e+11 -9.526606e+14 -2.790985e+09
## [3074,] -2.197356e+11 -2.344224e+11 -7.216453e+14 -2.327916e+09
## [3075,] -4.817907e+09 -3.998788e+09 -1.203399e+13 -8.268741e+07
## [3076,] -4.538685e+06 -2.959191e+06 -5.976941e+10 -4.068176e+06
## [3077,] -2.865286e+05 -1.321933e+05 -2.558344e+10 -4.962429e+06
## [3078,] -9.710660e+07 -8.970634e+07 -1.590879e+11 -1.046168e+07
## [3079,] -3.494596e+11 -2.601687e+11 -9.526606e+14 -2.522067e+09
## [3080,] -2.423431e+11 -2.423431e+11 -7.216453e+14 -2.258001e+09
## [3081,] -4.588236e+09 -3.867513e+09 -1.203399e+13 -9.429924e+07
## [3082,] -4.162249e+06 -2.705650e+06 -5.980551e+10 -4.541577e+06
## [3083,] -1.078993e+05 -1.316383e+05 -2.559889e+10 -4.872263e+06
## [3084,] -1.026376e+08 -8.525832e+07 -1.592801e+11 -1.075223e+07
## [3085,] -3.331247e+11 -2.795298e+11 -9.538115e+14 -2.761361e+09
## [3086,] -2.463513e+11 -1.896603e+11 -7.225171e+14 -2.039833e+09
## [3087,] -4.531901e+09 -3.867703e+09 -1.204853e+13 -7.691872e+07
## [3088,] -4.278538e+06 -2.700624e+06 -5.987774e+10 -4.393559e+06
## [3089,] -3.436189e+05 -6.886150e+04 -2.564527e+10 -5.019926e+06
## [3090,] -9.977922e+07 -8.528654e+07 -1.594724e+11 -1.035786e+07
## [3091,] -3.235099e+11 -3.309739e+11 -9.555391e+14 -3.114571e+09
## [3092,] -2.503908e+11 -2.040513e+11 -7.242623e+14 -2.039557e+09
## [3093,] -4.717366e+09 -3.738989e+09 -1.207763e+13 -8.050127e+07
## [3094,] -4.743859e+06 -3.204905e+06 -5.998616e+10 -4.331480e+06
## [3095,] -1.396639e+05 -6.806178e+04 -2.567621e+10 -5.009194e+06
## [3096,] -9.980976e+07 -9.207538e+07 -1.596648e+11 -1.074089e+07
## [3097,] -3.288309e+11 -2.507426e+11 -9.566918e+14 -2.741405e+09
## [3098,] -2.463475e+11 -1.967880e+11 -7.246990e+14 -1.931069e+09
## [3099,] -4.476424e+09 -3.739269e+09 -1.209948e+13 -8.647142e+07
## [3100,] -4.016874e+06 -2.685576e+06 -6.009469e+10 -4.622024e+06
## [3101,] -2.588607e+05 -4.390651e+04 -2.572267e+10 -5.096692e+06
## [3102,] -9.724219e+07 -8.758257e+07 -1.599537e+11 -1.039018e+07
## [3103,] -3.256303e+11 -2.601617e+11 -9.578451e+14 -2.731495e+09
## [3104,] -2.423363e+11 -2.040493e+11 -7.255726e+14 -2.617532e+09
## [3105,] -4.532724e+09 -3.999754e+09 -1.210677e+13 -7.720981e+07
## [3106,] -4.411696e+06 -2.683072e+06 -6.013088e+10 -4.444267e+06
## [3107,] -2.474504e+05 -2.054741e+05 -2.575366e+10 -5.024111e+06
## [3108,] -9.633046e+07 -8.318820e+07 -1.601464e+11 -1.040775e+07
## [3109,] -3.417790e+11 -2.507395e+11 -9.589991e+14 -2.558800e+09
## [3110,] -2.569235e+11 -2.189679e+11 -7.264468e+14 -1.930800e+09
## [3111,] -4.476629e+09 -3.487825e+09 -1.211406e+13 -6.421076e+07
## [3112,] -5.260359e+06 -2.729634e+06 -6.016709e+10 -4.431775e+06
## [3113,] -3.204964e+05 -9.371074e+04 -2.575366e+10 -4.999949e+06

```

```

## [3114,] -9.869373e+07 -8.761118e+07 -1.601464e+11 -1.082098e+07
## [3115,] -3.505524e+11 -2.697545e+11 -9.589991e+14 -2.939740e+09
## [3116,] -2.839118e+11 -2.114421e+11 -7.264468e+14 -2.158114e+09
## [3117,] -4.848287e+09 -3.487915e+09 -1.212135e+13 -7.631957e+07
## [3118,] -4.342887e+06 -3.188510e+06 -6.020331e+10 -4.344365e+06
## [3119,] -2.515880e+05 -4.094190e+04 -2.576916e+10 -5.069423e+06
## [3120,] -9.872410e+07 -8.321608e+07 -1.603392e+11 -1.037903e+07
## [3121,] -3.203302e+11 -2.697529e+11 -9.601538e+14 -2.606005e+09
## [3122,] -2.415353e+11 -2.040465e+11 -7.273215e+14 -1.952111e+09
## [3123,] -4.632225e+09 -3.868748e+09 -1.212864e+13 -7.542123e+07
## [3124,] -4.182603e+06 -2.922499e+06 -6.027577e+10 -4.285647e+06
## [3125,] -2.549876e+05 -1.245287e+05 -2.580018e+10 -5.021193e+06
## [3126,] -9.731755e+07 -8.990910e+07 -1.604357e+11 -1.056209e+07
## [3127,] -3.672994e+11 -3.203294e+11 -9.607315e+14 -2.849240e+09
## [3128,] -2.281703e+11 -2.344120e+11 -7.277591e+14 -2.358293e+09
## [3129,] -4.504992e+09 -3.612821e+09 -1.213594e+13 -7.416721e+07
## [3130,] -3.766431e+06 -3.454735e+06 -6.027577e+10 -4.307290e+06
## [3131,] -1.424418e+05 -2.034011e+05 -2.580018e+10 -4.977318e+06
## [3132,] -1.011471e+08 -8.766841e+07 -1.605322e+11 -1.043521e+07
## [3133,] -3.235004e+11 -2.507357e+11 -9.618872e+14 -2.809419e+09
## [3134,] -2.520094e+11 -2.040444e+11 -7.286346e+14 -1.951908e+09
## [3135,] -4.718416e+09 -3.739923e+09 -1.215054e+13 -7.311565e+07
## [3136,] -3.995462e+06 -2.668073e+06 -6.034829e+10 -4.372697e+06
## [3137,] -2.340739e+05 -4.169362e+04 -2.583122e+10 -5.025845e+06
## [3138,] -9.996250e+07 -8.545599e+07 -1.606287e+11 -1.135644e+07
## [3139,] -3.331115e+11 -2.795177e+11 -9.624654e+14 -2.929146e+09
## [3140,] -2.544571e+11 -1.896496e+11 -7.295106e+14 -1.930330e+09
## [3141,] -4.533547e+09 -3.740110e+09 -1.216515e+13 -7.242744e+07
## [3142,] -4.049161e+06 -2.663083e+06 -6.042084e+10 -4.476388e+06
## [3143,] -2.278896e+05 -4.107187e+04 -2.586227e+10 -5.130013e+06
## [3144,] -1.031595e+08 -8.551251e+07 -1.610151e+11 -1.038265e+07
## [3145,] -3.538629e+11 -2.795152e+11 -9.642009e+14 -2.501851e+09
## [3146,] -2.455331e+11 -2.266187e+11 -7.303872e+14 -1.908872e+09
## [3147,] -4.393901e+09 -3.740297e+09 -1.217976e+13 -7.587841e+07
## [3148,] -4.255682e+06 -2.420475e+06 -6.049344e+10 -4.492337e+06
## [3149,] -4.129917e+05 -1.992866e+05 -2.589335e+10 -5.059401e+06
## [3150,] -1.036462e+08 -9.693619e+07 -1.610151e+11 -1.071690e+07
## [3151,] -3.352640e+11 -2.697473e+11 -9.642009e+14 -3.082169e+09
## [3152,] -2.891147e+11 -2.040417e+11 -7.303872e+14 -2.218181e+09
## [3153,] -4.435728e+09 -4.000817e+09 -1.218708e+13 -6.756288e+07
## [3154,] -4.470570e+06 -3.163997e+06 -6.052976e+10 -4.508236e+06
## [3155,] -1.572870e+05 -1.572870e+05 -2.590889e+10 -4.994633e+06
## [3156,] -9.093567e+07 -9.933731e+07 -1.612084e+11 -1.089215e+07
## [3157,] -2.934805e+11 -3.309589e+11 -9.653587e+14 -3.144401e+09
## [3158,] -2.479492e+11 -2.189600e+11 -7.312642e+14 -2.053128e+09
## [3159,] -4.548065e+09 -3.613556e+09 -1.219439e+13 -7.590504e+07
## [3160,] -4.188106e+06 -2.653116e+06 -6.056609e+10 -4.489331e+06

```

```

## [3161,] -1.197223e+05 -1.197223e+05 -2.594000e+10 -4.997079e+06
## [3162,] -8.958595e+07 -1.017524e+08 -1.613051e+11 -1.095256e+07
## [3163,] -3.309581e+11 -2.795128e+11 -9.659379e+14 -2.548454e+09
## [3164,] -2.495667e+11 -2.114336e+11 -7.317030e+14 -2.349754e+09
## [3165,] -4.408194e+09 -3.740671e+09 -1.220902e+13 -6.985650e+07
## [3166,] -3.736830e+06 -2.896431e+06 -6.063877e+10 -4.565658e+06
## [3167,] -2.189186e+05 -2.220813e+04 -2.595555e+10 -5.110799e+06
## [3168,] -9.889121e+07 -8.556905e+07 -1.614019e+11 -1.054953e+07
## [3169,] -3.385052e+11 -2.894528e+11 -9.670968e+14 -3.260165e+09
## [3170,] -2.479469e+11 -2.189579e+11 -7.325808e+14 -1.695150e+09
## [3171,] -4.366699e+09 -5.130598e+09 -1.221635e+13 -8.592106e+07
## [3172,] -3.396015e+06 -3.423559e+06 -6.067513e+10 -4.252580e+06
## [3173,] -3.131161e+05 -3.863160e+04 -2.598668e+10 -5.162200e+06
## [3174,] -9.939825e+07 -1.017986e+08 -1.615955e+11 -1.078620e+07
## [3175,] -3.224324e+11 -3.309554e+11 -9.676765e+14 -3.040409e+09
## [3176,] -2.447253e+11 -2.114315e+11 -7.330200e+14 -2.187294e+09
## [3177,] -4.619339e+09 -3.613923e+09 -1.222367e+13 -8.190849e+07
## [3178,] -4.735607e+06 -3.144997e+06 -6.078428e+10 -4.543688e+06
## [3179,] -3.224547e+05 -1.170930e+05 -2.601783e+10 -5.073670e+06
## [3180,] -1.018295e+08 -9.011209e+07 -1.617892e+11 -1.074911e+07
## [3181,] -3.439467e+11 -3.203172e+11 -9.688364e+14 -2.858055e+09
## [3182,] -2.685516e+11 -2.189557e+11 -7.338986e+14 -2.209971e+09
## [3183,] -4.734067e+09 -3.870174e+09 -1.223832e+13 -7.949142e+07
## [3184,] -4.292079e+06 -2.355483e+06 -6.078428e+10 -4.489797e+06
## [3185,] -6.123323e+04 -2.379792e+05 -2.604900e+10 -4.959652e+06
## [3186,] -9.922067e+07 -8.565390e+07 -1.619830e+11 -1.057156e+07
## [3187,] -3.213713e+11 -2.697394e+11 -9.699971e+14 -2.623740e+09
## [3188,] -2.503725e+11 -1.967724e+11 -7.347778e+14 -1.936658e+09
## [3189,] -4.381048e+09 -4.001687e+09 -1.225298e+13 -7.455859e+07
## [3190,] -4.728958e+06 -3.690415e+06 -6.085709e+10 -4.414418e+06
## [3191,] -3.726789e+05 -5.882950e+04 -2.604900e+10 -5.076135e+06
## [3192,] -9.614575e+07 -8.788318e+07 -1.619830e+11 -1.070426e+07
## [3193,] -3.213705e+11 -2.697386e+11 -9.705776e+14 -2.739485e+09
## [3194,] -2.511842e+11 -2.343994e+11 -7.352176e+14 -1.994127e+09
## [3195,] -4.450700e+09 -3.741326e+09 -1.226032e+13 -6.734456e+07
## [3196,] -4.435096e+06 -3.134165e+06 -6.092995e+10 -4.540822e+06
## [3197,] -2.559609e+05 -1.150106e+05 -2.608019e+10 -5.036677e+06
## [3198,] -1.050559e+08 -9.477263e+07 -1.621769e+11 -1.074562e+07
## [3199,] -3.277410e+11 -2.601438e+11 -9.711584e+14 -2.576063e+09
## [3200,] -2.643605e+11 -2.189521e+11 -7.360976e+14 -2.217245e+09
## [3201,] -4.591653e+09 -3.489811e+09 -1.227499e+13 -7.208849e+07
## [3202,] -4.153773e+06 -2.625805e+06 -6.096640e+10 -4.464936e+06
## [3203,] -2.601687e+05 -3.655768e+04 -2.609579e+10 -5.146392e+06
## [3204,] -9.202670e+07 -9.019916e+07 -1.623710e+11 -1.107189e+07
## [3205,] -3.266730e+11 -2.697362e+11 -9.723204e+14 -2.116020e+09
## [3206,] -2.463270e+11 -2.114259e+11 -7.365378e+14 -1.986684e+09
## [3207,] -4.591757e+09 -3.741606e+09 -1.228233e+13 -7.245740e+07

```



```

## [3208,] -4.587000e+06 -3.398156e+06 -6.100286e+10 -4.395942e+06
## [3209,] -2.797628e+05 -5.735619e+04 -2.611140e+10 -5.083279e+06
## [3210,] -9.044113e+07 -9.021367e+07 -1.624680e+11 -1.066665e+07
## [3211,] -3.330956e+11 -3.098486e+11 -9.729017e+14 -2.857483e+09
## [3212,] -2.487470e+11 -2.343957e+11 -7.374185e+14 -1.886605e+09
## [3213,] -4.577790e+09 -3.614842e+09 -1.229702e+13 -7.248342e+07
## [3214,] -4.053837e+06 -3.964242e+06 -6.107581e+10 -4.421151e+06
## [3215,] -4.484500e+05 -8.238001e+04 -2.614262e+10 -5.074689e+06
## [3216,] -9.343894e+07 -9.717709e+07 -1.625651e+11 -1.113790e+07
## [3217,] -3.538475e+11 -2.894429e+11 -9.740647e+14 -3.111843e+09
## [3218,] -2.677044e+11 -2.503671e+11 -7.378591e+14 -2.171362e+09
## [3219,] -4.677572e+09 -4.271606e+09 -1.230436e+13 -7.339033e+07
## [3220,] -4.510339e+06 -3.117952e+06 -6.114880e+10 -4.528585e+06
## [3221,] -3.083625e+05 -5.590156e+04 -2.617386e+10 -5.112589e+06
## [3222,] -9.139766e+07 -9.720723e+07 -1.627594e+11 -1.096507e+07
## [3223,] -3.417540e+11 -2.894413e+11 -9.752285e+14 -2.661361e+09
## [3224,] -2.528068e+11 -2.266049e+11 -7.387407e+14 -2.278342e+09
## [3225,] -4.437561e+09 -3.742073e+09 -1.231906e+13 -6.969828e+07
## [3226,] -3.718418e+06 -2.608498e+06 -6.122183e+10 -4.493892e+06
## [3227,] -1.987821e+05 -3.454098e+04 -2.620513e+10 -5.193024e+06
## [3228,] -9.961167e+07 -8.359292e+07 -1.629538e+11 -1.053568e+07
## [3229,] -3.224202e+11 -2.794991e+11 -9.758106e+14 -2.613420e+09
## [3230,] -2.463225e+11 -1.896350e+11 -7.391816e+14 -1.602008e+09
## [3231,] -4.663580e+09 -3.742167e+09 -1.232642e+13 -8.848074e+07
## [3232,] -4.162374e+06 -3.381274e+06 -6.122183e+10 -4.284534e+06
## [3233,] -1.203895e+05 -1.453986e+05 -2.622076e+10 -5.167472e+06
## [3234,] -9.986595e+07 -9.490658e+07 -1.630510e+11 -1.053287e+07
## [3235,] -3.428428e+11 -2.995547e+11 -9.763929e+14 -2.957494e+09
## [3236,] -2.431115e+11 -1.896343e+11 -7.396227e+14 -2.022523e+09
## [3237,] -4.069243e+09 -5.132350e+09 -1.233377e+13 -8.249591e+07
## [3238,] -4.038466e+06 -3.658191e+06 -6.125837e+10 -4.430951e+06
## [3239,] -4.565096e+05 -1.089732e+04 -2.622076e+10 -5.114082e+06
## [3240,] -9.938819e+07 -8.804085e+07 -1.630510e+11 -1.076718e+07
## [3241,] -3.320145e+11 -3.098426e+11 -9.769754e+14 -2.546988e+09
## [3242,] -2.693819e+11 -2.266027e+11 -7.400640e+14 -2.411663e+09
## [3243,] -4.536017e+09 -4.002848e+09 -1.234113e+13 -7.220532e+07
## [3244,] -4.371726e+06 -2.849803e+06 -6.129491e+10 -4.579828e+06
## [3245,] -2.784871e+05 -5.446561e+04 -2.623641e+10 -5.217906e+06
## [3246,] -9.822909e+07 -8.363484e+07 -1.632456e+11 -1.079293e+07
## [3247,] -3.309405e+11 -2.794967e+11 -9.775581e+14 -3.195065e+09
## [3248,] -2.495514e+11 -2.040258e+11 -7.405053e+14 -2.895808e+09
## [3249,] -4.480004e+09 -4.003041e+09 -1.235585e+13 -7.693090e+07
## [3250,] -3.706639e+06 -3.649427e+06 -6.136804e+10 -4.424905e+06
## [3251,] -2.608239e+05 -7.847962e+04 -2.628336e+10 -5.197023e+06
## [3252,] -1.008863e+08 -8.809822e+07 -1.634403e+11 -1.068530e+07
## [3253,] -3.352418e+11 -2.894363e+11 -9.787239e+14 -2.748128e+09
## [3254,] -2.651858e+11 -2.189436e+11 -7.413885e+14 -2.163240e+09

```

```

## [3255,] -4.564567e+09 -3.871791e+09 -1.236322e+13 -7.897736e+07
## [3256,] -4.874834e+06 -3.367237e+06 -6.140461e+10 -4.443828e+06
## [3257,] -2.658588e+05 -1.083716e+05 -2.628336e+10 -5.210452e+06
## [3258,] -1.030614e+08 -8.366280e+07 -1.634403e+11 -1.060721e+07
## [3259,] -3.140034e+11 -2.894355e+11 -9.793071e+14 -3.069627e+09
## [3260,] -2.399186e+11 -2.114175e+11 -7.418302e+14 -1.921333e+09
## [3261,] -4.895747e+09 -3.871886e+09 -1.237059e+13 -8.086234e+07
## [3262,] -3.726556e+06 -2.836918e+06 -6.147780e+10 -4.573838e+06
## [3263,] -2.796335e+05 -7.762572e+04 -2.631469e+10 -5.079407e+06
## [3264,] -9.947963e+07 -8.812691e+07 -1.636351e+11 -1.097099e+07
## [3265,] -3.192459e+11 -2.794926e+11 -9.804740e+14 -2.787111e+09
## [3266,] -2.455119e+11 -1.967602e+11 -7.427141e+14 -1.914095e+09
## [3267,] -4.536635e+09 -3.615945e+09 -1.238533e+13 -7.353442e+07
## [3268,] -3.868911e+06 -2.834345e+06 -6.151441e+10 -4.557981e+06
## [3269,] -2.020936e+05 -2.247488e+05 -2.633036e+10 -5.076218e+06
## [3270,] -9.361629e+07 -9.501083e+07 -1.637326e+11 -1.123125e+07
## [3271,] -3.560585e+11 -2.794926e+11 -9.804740e+14 -3.142173e+09
## [3272,] -2.212247e+11 -2.585421e+11 -7.427141e+14 -2.540359e+09
## [3273,] -4.693051e+09 -3.872076e+09 -1.238533e+13 -8.489175e+07
## [3274,] -3.581082e+06 -3.927811e+06 -6.151441e+10 -4.418941e+06
## [3275,] -2.341478e+05 -2.247488e+05 -2.633036e+10 -5.080640e+06
## [3276,] -1.014138e+08 -9.973374e+07 -1.637326e+11 -1.009076e+07
## [3277,] -3.026172e+11 -3.417460e+11 -9.804740e+14 -3.387086e+09
## [3278,] -2.544332e+11 -2.114154e+11 -7.431563e+14 -1.871678e+09
## [3279,] -4.564980e+09 -3.743008e+09 -1.239270e+13 -7.903170e+07
## [3280,] -4.010873e+06 -2.583873e+06 -6.158766e+10 -4.526348e+06
## [3281,] -2.007219e+05 -7.635362e+04 -2.636171e+10 -5.183138e+06
## [3282,] -9.811310e+07 -9.505552e+07 -1.640251e+11 -1.096746e+07
## [3283,] -3.320066e+11 -2.697227e+11 -9.822256e+14 -2.660415e+09
## [3284,] -2.495453e+11 -2.040203e+11 -7.440410e+14 -1.767750e+09
## [3285,] -4.397042e+09 -4.579341e+09 -1.240745e+13 -7.776137e+07
## [3286,] -3.714764e+06 -2.826631e+06 -6.162431e+10 -4.406638e+06
## [3287,] -2.561619e+05 -7.593192e+04 -2.637740e+10 -5.139800e+06
## [3288,] -1.046181e+08 -8.818431e+07 -1.640251e+11 -1.094369e+07
## [3289,] -3.406545e+11 -2.995463e+11 -9.822256e+14 -2.997343e+09
## [3290,] -2.463134e+11 -2.040196e+11 -7.444836e+14 -2.125183e+09
## [3291,] -4.622144e+09 -4.137462e+09 -1.242221e+13 -7.270478e+07
## [3292,] -4.305641e+06 -2.576509e+06 -6.169763e+10 -4.577500e+06
## [3293,] -2.399814e+05 -5.061311e+04 -2.640878e+10 -5.128940e+06
## [3294,] -1.034288e+08 -9.047515e+07 -1.642202e+11 -1.076453e+07
## [3295,] -3.450183e+11 -2.995446e+11 -9.833942e+14 -2.669880e+09
## [3296,] -2.560694e+11 -2.040189e+11 -7.449263e+14 -1.978168e+09
## [3297,] -4.537252e+09 -4.137561e+09 -1.242960e+13 -7.253942e+07
## [3298,] -3.968868e+06 -2.574056e+06 -6.173430e+10 -4.276338e+06
## [3299,] -2.481656e+05 -4.992783e+04 -2.644018e+10 -5.236411e+06
## [3300,] -1.008148e+08 -8.825608e+07 -1.645132e+11 -1.092148e+07
## [3301,] -3.417388e+11 -2.697187e+11 -9.851485e+14 -2.936012e+09

```

```

## [3302,] -2.552468e+11 -2.040168e+11 -7.462551e+14 -2.223233e+09
## [3303,] -4.551673e+09 -4.411543e+09 -1.245176e+13 -7.821206e+07
## [3304,] -4.049284e+06 -3.900599e+06 -6.184439e+10 -4.648294e+06
## [3305,] -2.767478e+05 -1.532912e+04 -2.647160e+10 -5.220965e+06
## [3306,] -1.015524e+08 -8.165368e+07 -1.646109e+11 -1.080032e+07
## [3307,] -3.224046e+11 -2.894256e+11 -9.863188e+14 -2.621549e+09
## [3308,] -2.527922e+11 -2.040154e+11 -7.471416e+14 -1.941918e+09
## [3309,] -4.397752e+09 -4.411644e+09 -1.245916e+13 -7.456658e+07
## [3310,] -4.700818e+06 -3.330879e+06 -6.188111e+10 -4.561949e+06
## [3311,] -1.783239e+05 -2.961794e+04 -2.648732e+10 -5.255901e+06
## [3312,] -9.079028e+07 -9.517476e+07 -1.648064e+11 -1.103977e+07
## [3313,] -3.202904e+11 -3.202904e+11 -9.869043e+14 -2.996674e+09
## [3314,] -2.479210e+11 -2.114083e+11 -7.475851e+14 -1.892129e+09
## [3315,] -4.537767e+09 -3.743943e+09 -1.246655e+13 -7.331973e+07
## [3316,] -3.140337e+06 -3.605765e+06 -6.191784e+10 -4.422925e+06
## [3317,] -2.443735e+05 -7.218919e+04 -2.651877e+10 -5.206790e+06
## [3318,] -1.006359e+08 -8.831352e+07 -1.649042e+11 -1.091796e+07
## [3319,] -3.266503e+11 -2.697156e+11 -9.874899e+14 -2.669327e+09
## [3320,] -2.536070e+11 -2.040141e+11 -7.480287e+14 -1.934640e+09
## [3321,] -4.552085e+09 -4.274003e+09 -1.248135e+13 -7.771156e+07
## [3322,] -4.218812e+06 -2.102146e+06 -6.199134e+10 -4.810799e+06
## [3323,] -1.932610e+05 -2.883422e+04 -2.653450e+10 -5.210278e+06
## [3324,] -9.359175e+07 -9.521950e+07 -1.650998e+11 -1.076255e+07
## [3325,] -3.277148e+11 -2.697140e+11 -9.886616e+14 -2.659548e+09
## [3326,] -2.568832e+11 -2.189307e+11 -7.493603e+14 -1.870753e+09
## [3327,] -4.853716e+09 -3.873503e+09 -1.249616e+13 -7.265661e+07
## [3328,] -5.352171e+06 -2.319314e+06 -6.206487e+10 -4.540066e+06
## [3329,] -1.630112e+05 -9.950513e+04 -2.656598e+10 -5.006526e+06
## [3330,] -9.926147e+07 -9.524932e+07 -1.652956e+11 -1.063945e+07
## [3331,] -3.234586e+11 -3.309220e+11 -9.898341e+14 -3.016697e+09
## [3332,] -2.536039e+11 -2.422950e+11 -7.498045e+14 -2.261064e+09
## [3333,] -4.412253e+09 -3.744411e+09 -1.250356e+13 -7.410421e+07
## [3334,] -4.087879e+06 -2.316987e+06 -6.210166e+10 -4.632781e+06
## [3335,] -1.469645e+05 -1.703986e+05 -2.658172e+10 -5.160394e+06
## [3336,] -1.004726e+08 -8.176420e+07 -1.653936e+11 -1.121406e+07
## [3337,] -3.026029e+11 -2.794789e+11 -9.904206e+14 -2.865001e+09
## [3338,] -2.527868e+11 -2.265860e+11 -7.502487e+14 -2.237908e+09
## [3339,] -4.044913e+09 -4.274403e+09 -1.251097e+13 -8.590561e+07
## [3340,] -3.759909e+06 -3.588374e+06 -6.213845e+10 -4.632860e+06
## [3341,] -2.126008e+05 -1.385300e+04 -2.659747e+10 -5.179485e+06
## [3342,] -1.024009e+08 -9.526424e+07 -1.653936e+11 -1.094322e+07
## [3343,] -3.439126e+11 -2.995338e+11 -9.910072e+14 -1.929439e+09
## [3344,] -2.577038e+11 -2.265852e+11 -7.506931e+14 -1.436120e+09
## [3345,] -4.552601e+09 -4.005169e+09 -1.251838e+13 -8.747904e+07
## [3346,] -4.051622e+06 -2.312337e+06 -6.217526e+10 -4.616900e+06
## [3347,] -1.420729e+05 -4.624232e+04 -2.661323e+10 -5.333703e+06
## [3348,] -1.036309e+08 -9.066422e+07 -1.654915e+11 -1.103556e+07

```

```

## [3349,] -3.461015e+11 -2.894182e+11 -9.915940e+14 -2.996005e+09
## [3350,] -2.227397e+11 -2.343728e+11 -7.511376e+14 -2.385954e+09
## [3351,] -4.274603e+09 -4.274603e+09 -1.252579e+13 -8.381266e+07
## [3352,] -4.196867e+06 -2.086664e+06 -6.224890e+10 -4.565919e+06
## [3353,] -8.242388e+04 -2.104921e+05 -2.664475e+10 -5.281973e+06
## [3354,] -1.000392e+08 -8.842845e+07 -1.656876e+11 -1.067503e+07
## [3355,] -2.995321e+11 -2.995321e+11 -9.921810e+14 -2.726784e+09
## [3356,] -2.626666e+11 -2.114013e+11 -7.520271e+14 -2.027898e+09
## [3357,] -4.496588e+09 -3.744879e+09 -1.254063e+13 -7.327135e+07
## [3358,] -4.565031e+06 -3.032196e+06 -6.232259e+10 -4.521563e+06
## [3359,] -2.766192e+05 -4.493717e+04 -2.667629e+10 -5.221524e+06
## [3360,] -9.983052e+07 -8.401263e+07 -1.658837e+11 -1.044388e+07
## [3361,] -3.249827e+11 -2.918686e+11 -1.424517e+13 -1.566575e+09
## [3362,] -2.413366e+11 -2.060673e+11 -1.079079e+13 -1.223353e+09
## [3363,] -3.890767e+09 -3.851695e+09 -1.808344e+11 -2.395638e+07
## [3364,] -1.905459e+07 -1.494187e+07 -9.025830e+08 -6.057871e+01
## [3365,] -7.111812e+06 -5.935203e+06 -3.863377e+08 -9.820930e+03
## [3366,] -5.957078e+07 -5.086338e+07 -2.402400e+09 -6.330542e+05
## [3367,] -3.443893e+11 -2.529760e+11 -1.438621e+13 -1.394400e+09
## [3368,] -2.675126e+11 -2.365769e+11 -1.089763e+13 -1.048412e+09
## [3369,] -4.142904e+09 -3.596342e+09 -1.817263e+11 -2.215486e+07
## [3370,] -1.879504e+07 -1.494187e+07 -9.025830e+08 -7.225013e+01
## [3371,] -7.563579e+06 -5.698578e+06 -3.863377e+08 -9.820930e+03
## [3372,] -5.846762e+07 -4.917085e+07 -2.402400e+09 -7.094959e+05
## [3373,] -3.335374e+11 -2.918669e+11 -1.438621e+13 -1.544400e+09
## [3374,] -2.600140e+11 -1.845645e+11 -1.089763e+13 -1.183850e+09
## [3375,] -4.292438e+09 -3.596342e+09 -1.817263e+11 -2.051153e+07
## [3376,] -1.846653e+07 -1.551798e+07 -9.070237e+08 -2.511061e+02
## [3377,] -6.925811e+06 -5.931480e+06 -3.882385e+08 -9.110803e+03
## [3378,] -6.032381e+07 -5.087428e+07 -2.414220e+09 -6.887622e+05
## [3379,] -3.465796e+11 -2.624374e+11 -1.445699e+13 -1.588603e+09
## [3380,] -2.469455e+11 -2.210575e+11 -1.095124e+13 -1.217526e+09
## [3381,] -4.347572e+09 -3.471994e+09 -1.826204e+11 -2.315845e+07
## [3382,] -1.776819e+07 -1.733079e+07 -9.070237e+08 -1.468566e+02
## [3383,] -7.292022e+06 -7.186428e+06 -3.882385e+08 -9.777975e+03
## [3384,] -6.163201e+07 -5.087428e+07 -2.414220e+09 -6.867774e+05
## [3385,] -3.498795e+11 -2.720732e+11 -1.445699e+13 -1.566394e+09
## [3386,] -2.509930e+11 -2.287510e+11 -1.095124e+13 -1.194987e+09
## [3387,] -4.224239e+09 -3.851884e+09 -1.826204e+11 -2.325929e+07
## [3388,] -1.827474e+07 -1.671540e+07 -9.070237e+08 -1.651753e+02
## [3389,] -7.722100e+06 -6.419019e+06 -3.882385e+08 -9.777975e+03
## [3390,] -6.163201e+07 -5.087428e+07 -2.414220e+09 -6.867774e+05
## [3391,] -3.420629e+11 -2.719473e+11 -2.782213e+13 -1.661520e+09
## [3392,] -2.340972e+11 -2.444127e+11 -2.114995e+13 -1.153308e+09
## [3393,] -3.919224e+09 -4.545221e+09 -3.526915e+11 -2.291815e+07
## [3394,] -1.639429e+07 -1.401161e+07 -1.751719e+09 -8.006905e+03
## [3395,] -6.154176e+06 -6.549778e+06 -7.497981e+08 -5.096922e+04

```

```

## [3396,] -6.203724e+07 -4.837145e+07 -4.662540e+09 -9.166105e+05
## [3397,] -3.333962e+11 -2.613591e+11 -2.792053e+13 -1.616184e+09
## [3398,] -2.565916e+11 -1.914930e+11 -2.114995e+13 -1.186602e+09
## [3399,] -4.349792e+09 -3.243513e+09 -3.526915e+11 -2.434259e+07
## [3400,] -1.743708e+07 -1.819251e+07 -1.751719e+09 -1.284617e+04
## [3401,] -6.701305e+06 -6.549778e+06 -7.497981e+08 -4.986775e+04
## [3402,] -5.723294e+07 -5.979582e+07 -4.662540e+09 -8.938405e+05
## [3403,] -3.080658e+11 -3.227202e+11 -2.792053e+13 -1.542117e+09
## [3404,] -2.690666e+11 -2.059549e+11 -2.114995e+13 -1.396316e+09
## [3405,] -4.488946e+09 -3.486327e+09 -3.526915e+11 -2.393122e+07
## [3406,] -1.825619e+07 -1.345884e+07 -1.751719e+09 -1.136999e+04
## [3407,] -7.087705e+06 -5.129805e+06 -7.497981e+08 -4.684765e+04
## [3408,] -6.166081e+07 -5.090045e+07 -4.662540e+09 -9.304099e+05
## [3409,] -3.153496e+11 -2.817530e+11 -2.801910e+13 -1.601170e+09
## [3410,] -2.533142e+11 -2.133826e+11 -2.122461e+13 -1.169844e+09
## [3411,] -4.172267e+09 -3.363913e+09 -3.539367e+11 -2.832200e+07
## [3412,] -1.755547e+07 -1.345323e+07 -1.757903e+09 -7.356815e+03
## [3413,] -6.520788e+06 -5.350898e+06 -7.524452e+08 -4.160068e+04
## [3414,] -5.980763e+07 -5.091135e+07 -4.679001e+09 -9.953074e+05
## [3415,] -3.248407e+11 -2.623121e+11 -2.801910e+13 -1.623625e+09
## [3416,] -2.524983e+11 -2.286341e+11 -2.122461e+13 -1.318563e+09
## [3417,] -4.131802e+09 -3.611112e+09 -3.539367e+11 -2.455715e+07
## [3418,] -1.863399e+07 -1.345323e+07 -1.757903e+09 -9.839108e+03
## [3419,] -6.545867e+06 -6.297247e+06 -7.524452e+08 -4.444934e+04
## [3420,] -5.962269e+07 -5.616320e+07 -4.679001e+09 -9.645099e+05
## [3421,] -3.797782e+11 -2.995304e+11 -9.933556e+14 -2.814927e+09
## [3422,] -2.601774e+11 -1.896150e+11 -7.524720e+14 -2.199340e+09
## [3423,] -4.482664e+09 -3.744972e+09 -1.254805e+13 -8.792836e+07
## [3424,] -3.710406e+06 -2.530110e+06 -6.239633e+10 -4.646264e+06
## [3425,] -2.032495e+05 -1.262271e+04 -2.670785e+10 -5.325426e+06
## [3426,] -9.677616e+07 -8.848595e+07 -1.660799e+11 -1.070285e+07
## [3427,] -3.309150e+11 -2.794732e+11 -9.945308e+14 -2.765536e+09
## [3428,] -2.702007e+11 -2.343691e+11 -7.533622e+14 -2.168870e+09
## [3429,] -4.302520e+09 -4.413065e+09 -1.256289e+13 -7.493255e+07
## [3430,] -3.914254e+06 -2.772931e+06 -6.239633e+10 -4.601361e+06
## [3431,] -1.204426e+05 -4.397057e+04 -2.672364e+10 -5.258971e+06
## [3432,] -9.329156e+07 -9.306054e+07 -1.661781e+11 -1.114291e+07
## [3433,] -3.395478e+11 -3.202783e+11 -9.951187e+14 -2.985310e+09
## [3434,] -2.462974e+11 -2.040051e+11 -7.538076e+14 -1.912423e+09
## [3435,] -4.840419e+09 -4.413370e+09 -1.258518e+13 -7.957195e+07
## [3436,] -4.144558e+06 -3.018904e+06 -6.250701e+10 -4.541004e+06
## [3437,] -2.331727e+05 -6.616151e+04 -2.675523e+10 -5.234509e+06
## [3438,] -9.776554e+07 -9.309003e+07 -1.663745e+11 -1.105741e+07
## [3439,] -3.319855e+11 -3.202766e+11 -9.962949e+14 -2.954668e+09
## [3440,] -2.527792e+11 -2.585211e+11 -7.546986e+14 -2.221864e+09
## [3441,] -4.667233e+09 -4.553529e+09 -1.258518e+13 -8.032062e+07
## [3442,] -5.241308e+06 -2.522823e+06 -6.250701e+10 -4.547363e+06

```

```

## [3443,] -3.726229e+05 -1.262604e+05 -2.675523e+10 -5.261481e+06
## [3444,] -1.003859e+08 -8.852908e+07 -1.663745e+11 -1.083570e+07
## [3445,] -3.460943e+11 -2.894117e+11 -9.962949e+14 -3.005546e+09
## [3446,] -2.454914e+11 -2.343669e+11 -7.546986e+14 -2.221864e+09
## [3447,] -5.549107e+09 -3.618426e+09 -1.258518e+13 -7.975879e+07
## [3448,] -4.141447e+06 -2.762761e+06 -6.254392e+10 -4.468269e+06
## [3449,] -1.961336e+05 -9.333685e+04 -2.677103e+10 -5.226784e+06
## [3450,] -1.025711e+08 -8.409670e+07 -1.664728e+11 -1.103067e+07
## [3451,] -3.439037e+11 -2.995254e+11 -9.968833e+14 -2.924268e+09
## [3452,] -2.281251e+11 -2.265780e+11 -7.551443e+14 -2.763682e+09
## [3453,] -4.567769e+09 -3.745533e+09 -1.259261e+13 -7.462338e+07
## [3454,] -3.840466e+06 -3.278095e+06 -6.258085e+10 -4.704715e+06
## [3455,] -1.583677e+05 -9.287054e+04 -2.678683e+10 -5.291039e+06
## [3456,] -9.591152e+07 -8.411072e+07 -1.665711e+11 -1.082213e+07
## [3457,] -3.330586e+11 -2.601087e+11 -9.974719e+14 -2.765134e+09
## [3458,] -2.414865e+11 -2.422844e+11 -7.560361e+14 -2.244648e+09
## [3459,] -4.413675e+09 -3.874929e+09 -1.260748e+13 -7.868172e+07
## [3460,] -4.695915e+06 -3.834478e+06 -6.265473e+10 -4.579540e+06
## [3461,] -1.690387e+05 -4.206890e+04 -2.681846e+10 -5.232781e+06
## [3462,] -9.617602e+07 -8.858661e+07 -1.667677e+11 -1.080857e+07
## [3463,] -3.245066e+11 -2.697005e+11 -9.986495e+14 -2.619906e+09
## [3464,] -2.576937e+11 -2.265758e+11 -7.564822e+14 -2.456898e+09
## [3465,] -4.511764e+09 -3.745907e+09 -1.262236e+13 -7.926696e+07
## [3466,] -3.005642e+06 -3.269799e+06 -6.269169e+10 -4.455976e+06
## [3467,] -1.765600e+05 -2.411473e+04 -2.683428e+10 -5.265506e+06
## [3468,] -9.572213e+07 -9.086806e+07 -1.668661e+11 -1.147668e+07
## [3469,] -3.266328e+11 -2.995221e+11 -9.992386e+14 -3.373406e+09
## [3470,] -2.288969e+11 -2.039996e+11 -7.573748e+14 -2.108216e+09
## [3471,] -4.568285e+09 -4.554148e+09 -1.262980e+13 -7.289128e+07
## [3472,] -4.125911e+06 -3.267036e+06 -6.272866e+10 -4.602069e+06
## [3473,] -1.794097e+05 -9.055651e+04 -2.686593e+10 -5.324466e+06
## [3474,] -1.000138e+08 -8.862977e+07 -1.670630e+11 -1.113290e+07
## [3475,] -3.077371e+11 -2.894059e+11 -1.000417e+15 -3.438497e+09
## [3476,] -2.219639e+11 -2.668301e+11 -7.578213e+14 -2.521421e+09
## [3477,] -4.540135e+09 -4.414081e+09 -1.263725e+13 -8.517788e+07
## [3478,] -3.796387e+06 -3.264274e+06 -6.276564e+10 -4.471888e+06
## [3479,] -1.547396e+05 -1.219535e+05 -2.688176e+10 -5.175104e+06
## [3480,] -1.005238e+08 -8.641938e+07 -1.672599e+11 -1.080222e+07
## [3481,] -3.330515e+11 -2.506829e+11 -1.002187e+15 -2.287254e+09
## [3482,] -2.462883e+11 -1.967351e+11 -7.591616e+14 -2.122859e+09
## [3483,] -4.087003e+09 -3.875691e+09 -1.266705e+13 -8.028368e+07
## [3484,] -4.481304e+06 -3.813558e+06 -6.291368e+10 -4.580090e+06
## [3485,] -1.937181e+05 -6.190821e+04 -2.692929e+10 -5.259532e+06
## [3486,] -1.010350e+08 -9.095549e+07 -1.674570e+11 -1.110540e+07
## [3487,] -3.287617e+11 -2.995170e+11 -1.002777e+15 -2.994416e+09
## [3488,] -2.535870e+11 -2.189142e+11 -7.596086e+14 -2.213433e+09
## [3489,] -4.625573e+09 -4.140707e+09 -1.266705e+13 -7.990900e+07

```

```

## [3490,] -4.355891e+06 -2.737417e+06 -6.291368e+10 -4.596065e+06
## [3491,] -7.471560e+04 -1.203577e+05 -2.692929e+10 -5.248287e+06
## [3492,] -9.745872e+07 -9.557774e+07 -1.674570e+11 -1.097023e+07
## [3493,] -3.395353e+11 -2.894018e+11 -1.003367e+15 -3.128398e+09
## [3494,] -2.552228e+11 -2.265700e+11 -7.600558e+14 -2.305899e+09
## [3495,] -4.526556e+09 -4.554766e+09 -1.267451e+13 -8.409272e+07
## [3496,] -3.987279e+06 -2.263792e+06 -6.295071e+10 -4.724944e+06
## [3497,] -1.803301e+05 -2.248224e+04 -2.694515e+10 -5.383011e+06
## [3498,] -9.212965e+07 -8.871611e+07 -1.676542e+11 -1.130792e+07
## [3499,] -3.560220e+11 -3.309009e+11 -1.003958e+15 -2.843207e+09
## [3500,] -2.430761e+11 -2.189128e+11 -7.605031e+14 -2.267038e+09
## [3501,] -4.583168e+09 -3.619622e+09 -1.268197e+13 -8.353180e+07
## [3502,] -3.833760e+06 -2.981843e+06 -6.302481e+10 -4.679820e+06
## [3503,] -2.516187e+05 -3.899288e+04 -2.697687e+10 -5.297115e+06
## [3504,] -1.037452e+08 -9.562257e+07 -1.677528e+11 -1.101718e+07
## [3505,] -3.160589e+11 -2.794595e+11 -1.004548e+15 -2.793648e+09
## [3506,] -2.487066e+11 -1.967324e+11 -7.609505e+14 -2.011942e+09
## [3507,] -4.442653e+09 -3.746749e+09 -1.268943e+13 -7.661642e+07
## [3508,] -4.067881e+06 -2.038379e+06 -6.306188e+10 -4.696047e+06
## [3509,] -1.825565e+05 -8.691480e+04 -2.699273e+10 -5.298374e+06
## [3510,] -1.003758e+08 -8.429302e+07 -1.678515e+11 -1.091129e+07
## [3511,] -3.571323e+11 -2.600978e+11 -1.005730e+15 -3.426770e+09
## [3512,] -2.576844e+11 -2.265671e+11 -7.618457e+14 -1.875923e+09
## [3513,] -4.583479e+09 -3.746936e+09 -1.270436e+13 -7.997732e+07
## [3514,] -4.094927e+06 -4.094927e+06 -6.309896e+10 -4.554979e+06
## [3515,] -2.162098e+05 -3.809284e+04 -2.702448e+10 -5.334832e+06
## [3516,] -9.921092e+07 -8.877370e+07 -1.680489e+11 -1.077949e+07
## [3517,] -3.213176e+11 -2.696902e+11 -1.006321e+15 -2.599846e+09
## [3518,] -2.462830e+11 -2.113852e+11 -7.622936e+14 -1.925365e+09
## [3519,] -4.597765e+09 -3.876261e+09 -1.271183e+13 -7.794484e+07
## [3520,] -4.395917e+06 -3.233972e+06 -6.317315e+10 -4.603013e+06
## [3521,] -2.534773e+05 -2.235131e+03 -2.704036e+10 -5.406588e+06
## [3522,] -1.009020e+08 -8.433512e+07 -1.681476e+11 -1.080023e+07
## [3523,] -3.351994e+11 -2.995112e+11 -1.006913e+15 -3.233002e+09
## [3524,] -2.601587e+11 -2.113838e+11 -7.631896e+14 -1.854704e+09
## [3525,] -4.457126e+09 -3.747217e+09 -1.272677e+13 -7.431885e+07
## [3526,] -3.786745e+06 -2.966030e+06 -6.324739e+10 -4.587183e+06
## [3527,] -1.834849e+05 -2.068661e+04 -2.707213e+10 -5.288867e+06
## [3528,] -9.712226e+07 -9.571226e+07 -1.683452e+11 -1.120730e+07
## [3529,] -3.706209e+11 -2.794546e+11 -1.008096e+15 -2.942887e+09
## [3530,] -2.684985e+11 -2.189078e+11 -7.636378e+14 -2.447654e+09
## [3531,] -4.359938e+09 -4.415401e+09 -1.273424e+13 -8.191562e+07
## [3532,] -4.736672e+06 -4.079479e+06 -6.328452e+10 -4.648162e+06
## [3533,] -6.801395e+04 -2.366391e+05 -2.708803e+10 -5.269834e+06
## [3534,] -1.002279e+08 -9.110130e+07 -1.684440e+11 -1.107660e+07
## [3535,] -3.223708e+11 -2.696862e+11 -1.009280e+15 -2.628045e+09
## [3536,] -2.382939e+11 -1.967270e+11 -7.645346e+14 -1.975178e+09

```

```

## [3537,] -4.387828e+09 -3.876737e+09 -1.274920e+13 -7.471983e+07
## [3538,] -4.225218e+06 -3.493475e+06 -6.335882e+10 -4.764813e+06
## [3539,] -1.306973e+05 -8.290721e+04 -2.713574e+10 -5.400534e+06
## [3540,] -9.741859e+07 -8.887453e+07 -1.687407e+11 -1.093302e+07
## [3541,] -3.537911e+11 -2.893919e+11 -1.010464e+15 -3.158723e+09
## [3542,] -2.470835e+11 -2.265612e+11 -7.654319e+14 -2.431326e+09
## [3543,] -4.570248e+09 -3.620725e+09 -1.277165e+13 -8.954335e+07
## [3544,] -4.280435e+06 -1.810362e+06 -6.343316e+10 -4.742208e+06
## [3545,] -1.593910e+05 -1.938893e+04 -2.716757e+10 -5.387125e+06
## [3546,] -1.005443e+08 -8.666107e+07 -1.689387e+11 -1.099068e+07
## [3547,] -3.129127e+11 -2.696830e+11 -1.011650e+15 -2.892051e+09
## [3548,] -2.414685e+11 -2.189028e+11 -7.667789e+14 -2.320401e+09
## [3549,] -4.570558e+09 -4.008748e+09 -1.279412e+13 -7.607176e+07
## [3550,] -3.909055e+06 -2.010112e+06 -6.354476e+10 -4.470363e+06
## [3551,] -2.556671e+05 -8.115642e+04 -2.719942e+10 -5.412467e+06
## [3552,] -1.061710e+08 -9.350336e+07 -1.691367e+11 -1.140938e+07
## [3553,] -3.526796e+11 -2.995028e+11 -1.012836e+15 -3.669917e+09
## [3554,] -2.560299e+11 -2.113767e+11 -7.676776e+14 -2.430949e+09
## [3555,] -4.756488e+09 -3.621093e+09 -1.280161e+13 -7.463138e+07
## [3556,] -4.298667e+06 -3.203811e+06 -6.358198e+10 -4.781587e+06
## [3557,] -2.206811e+05 -8.028803e+04 -2.723129e+10 -5.335397e+06
## [3558,] -1.015681e+08 -8.671799e+07 -1.693349e+11 -1.101096e+07
## [3559,] -3.276771e+11 -2.600869e+11 -1.014022e+15 -2.617872e+09
## [3560,] -2.486944e+11 -1.967216e+11 -7.681271e+14 -1.938754e+09
## [3561,] -4.169565e+09 -4.008942e+09 -1.280911e+13 -9.021115e+07
## [3562,] -4.169611e+06 -2.937148e+06 -6.365645e+10 -4.636097e+06
## [3563,] -1.889319e+05 -3.403165e+04 -2.724723e+10 -5.334395e+06
## [3564,] -9.447590e+07 -9.823454e+07 -1.694340e+11 -1.127972e+07
## [3565,] -3.808938e+11 -2.516009e+11 -1.014616e+15 -2.733489e+09
## [3566,] -2.593225e+11 -2.188999e+11 -7.685768e+14 -2.519580e+09
## [3567,] -4.361149e+09 -4.699230e+09 -1.282411e+13 -7.796243e+07
## [3568,] -3.608087e+06 -2.445743e+06 -6.369371e+10 -4.759023e+06
## [3569,] -1.716247e+05 -3.375032e+04 -2.726317e+10 -5.440421e+06
## [3570,] -9.920088e+07 -8.674645e+07 -1.695332e+11 -1.095763e+07
## [3571,] -2.934102e+11 -3.202489e+11 -1.015210e+15 -2.694567e+09
## [3572,] -2.219459e+11 -2.343432e+11 -7.690266e+14 -2.003440e+09
## [3573,] -4.306029e+09 -4.699230e+09 -1.282411e+13 -8.591848e+07
## [3574,] -4.667873e+06 -4.045595e+06 -6.369371e+10 -4.636176e+06
## [3575,] -2.567656e+05 -7.899421e+04 -2.727912e+10 -5.457730e+06
## [3576,] -9.802774e+07 -8.900424e+07 -1.696324e+11 -1.105003e+07
## [3577,] -3.308833e+11 -3.202481e+11 -1.015804e+15 -2.560730e+09
## [3578,] -2.576712e+11 -2.039809e+11 -7.694765e+14 -2.113774e+09
## [3579,] -4.347437e+09 -3.877784e+09 -1.283161e+13 -7.946169e+07
## [3580,] -4.504888e+06 -2.931912e+06 -6.373097e+10 -4.645895e+06
## [3581,] -2.270732e+05 -1.084723e+05 -2.729508e+10 -5.295202e+06
## [3582,] -1.006669e+08 -8.455983e+07 -1.697316e+11 -1.088074e+07
## [3583,] -3.223603e+11 -2.600837e+11 -1.016398e+15 -2.608032e+09

```



```

## [3584,] -2.398707e+11 -2.113725e+11 -7.703767e+14 -1.703170e+09
## [3585,] -4.528921e+09 -3.748714e+09 -1.284662e+13 -7.855853e+07
## [3586,] -3.887932e+06 -2.677068e+06 -6.380553e+10 -4.694405e+06
## [3587,] -1.779111e+05 -1.820736e+05 -2.731104e+10 -5.353062e+06
## [3588,] -9.039318e+07 -9.130564e+07 -1.698308e+11 -1.158360e+07
## [3589,] -3.672105e+11 -3.202463e+11 -1.016992e+15 -3.178762e+09
## [3590,] -2.668072e+11 -2.113718e+11 -7.708270e+14 -2.181222e+09
## [3591,] -4.458861e+09 -4.279000e+09 -1.285413e+13 -8.232690e+07
## [3592,] -4.245725e+06 -2.924067e+06 -6.384283e+10 -4.655783e+06
## [3593,] -1.173337e+05 -3.263670e+04 -2.732700e+10 -5.327119e+06
## [3594,] -1.002178e+08 -8.904750e+07 -1.699301e+11 -1.096995e+07
## [3595,] -2.883802e+11 -3.416897e+11 -1.017586e+15 -3.168175e+09
## [3596,] -2.527515e+11 -2.668072e+11 -7.708270e+14 -2.188806e+09
## [3597,] -3.930483e+09 -4.417127e+09 -1.286164e+13 -9.515022e+07
## [3598,] -3.911352e+06 -2.433808e+06 -6.388013e+10 -4.752917e+06
## [3599,] -2.479981e+05 -1.801225e+05 -2.735895e+10 -5.375043e+06
## [3600,] -9.881584e+07 -9.598158e+07 -1.701287e+11 -1.087722e+07
## [3601,] -3.308789e+11 -2.414161e+11 -1.018776e+15 -2.569784e+09
## [3602,] -2.519350e+11 -2.113704e+11 -7.717281e+14 -2.257504e+09
## [3603,] -4.917583e+09 -3.787544e+09 -1.286916e+13 -8.065383e+07
## [3604,] -4.615980e+06 -3.450759e+06 -6.391745e+10 -4.665602e+06
## [3605,] -2.833796e+05 -7.686120e+04 -2.735895e+10 -5.288951e+06
## [3606,] -1.078462e+08 -9.137867e+07 -1.703275e+11 -1.136627e+07
## [3607,] -2.913877e+11 -3.416861e+11 -1.019966e+15 -3.391977e+09
## [3608,] -2.478784e+11 -1.967148e+11 -7.726296e+14 -1.973956e+09
## [3609,] -4.089836e+09 -4.844673e+09 -1.288419e+13 -8.525696e+07
## [3610,] -3.641607e+06 -3.173791e+06 -6.399212e+10 -4.569604e+06
## [3611,] -2.869869e+05 -3.154175e+04 -2.739091e+10 -5.384408e+06
## [3612,] -1.024631e+08 -8.465823e+07 -1.704269e+11 -1.122662e+07
## [3613,] -3.212968e+11 -2.696711e+11 -1.020561e+15 -2.900849e+09
## [3614,] -2.693232e+11 -2.039754e+11 -7.730806e+14 -2.002825e+09
## [3615,] -4.586066e+09 -3.749276e+09 -1.289171e+13 -8.918086e+07
## [3616,] -4.353595e+06 -2.662086e+06 -6.402947e+10 -4.762998e+06
## [3617,] -1.465898e+05 -7.559540e+04 -2.740690e+10 -5.426741e+06
## [3618,] -9.909953e+07 -9.602650e+07 -1.704269e+11 -1.107478e+07
## [3619,] -3.255361e+11 -2.893771e+11 -1.021157e+15 -2.522448e+09
## [3620,] -2.519319e+11 -2.188921e+11 -7.735317e+14 -2.017303e+09
## [3621,] -4.501508e+09 -4.010103e+09 -1.289923e+13 -7.883913e+07
## [3622,] -4.226852e+06 -1.979892e+06 -6.406684e+10 -4.750066e+06
## [3623,] -2.306116e+05 -6.080022e+03 -2.742289e+10 -5.437163e+06
## [3624,] -9.983083e+07 -8.688885e+07 -1.705263e+11 -1.098447e+07
## [3625,] -3.351781e+11 -2.696703e+11 -1.021157e+15 -2.880723e+09
## [3626,] -2.454596e+11 -2.265481e+11 -7.735317e+14 -1.952256e+09
## [3627,] -4.252455e+09 -4.417838e+09 -1.291428e+13 -8.339091e+07
## [3628,] -4.129141e+06 -3.433746e+06 -6.414159e+10 -4.675748e+06
## [3629,] -1.803950e+05 -1.574815e+04 -2.745489e+10 -5.455745e+06
## [3630,] -1.001007e+08 -8.691735e+07 -1.707253e+11 -1.093121e+07

```

```

## [3631,] -3.287327e+11 -2.794353e+11 -1.022348e+15 -2.541052e+09
## [3632,] -2.478754e+11 -2.113662e+11 -7.744343e+14 -1.902268e+09
## [3633,] -4.501713e+09 -3.622473e+09 -1.291428e+13 -7.392691e+07
## [3634,] -3.860859e+06 -2.190808e+06 -6.414159e+10 -4.818740e+06
## [3635,] -1.267714e+05 -3.046549e+04 -2.745489e+10 -5.471799e+06
## [3636,] -1.003403e+08 -8.470042e+07 -1.707253e+11 -1.092330e+07
## [3637,] -3.066717e+11 -2.794344e+11 -1.022945e+15 -2.801001e+09
## [3638,] -2.438510e+11 -2.039713e+11 -7.757892e+14 -1.987921e+09
## [3639,] -4.335155e+09 -4.418245e+09 -1.294441e+13 -8.325563e+07
## [3640,] -3.966798e+06 -2.644660e+06 -6.429124e+10 -4.802704e+06
## [3641,] -1.500268e+05 -2.940792e+04 -2.751894e+10 -5.474624e+06
## [3642,] -9.082465e+07 -9.151020e+07 -1.712233e+11 -1.122749e+07
## [3643,] -3.548770e+11 -3.097720e+11 -1.025927e+15 -2.860095e+09
## [3644,] -2.568352e+11 -2.188863e+11 -7.771453e+14 -2.218264e+09
## [3645,] -4.672455e+09 -3.879402e+09 -1.295949e+13 -8.195167e+07
## [3646,] -4.171234e+06 -3.990453e+06 -6.436613e+10 -4.705299e+06
## [3647,] -3.218475e+05 -1.461864e+04 -2.755099e+10 -5.419929e+06
## [3648,] -1.033309e+08 -9.382875e+07 -1.713230e+11 -1.131297e+07
## [3649,] -3.191794e+11 -3.202333e+11 -1.025927e+15 -3.083609e+09
## [3650,] -2.226972e+11 -2.343292e+11 -7.775976e+14 -2.357859e+09
## [3651,] -4.280500e+09 -4.280500e+09 -1.296703e+13 -8.368001e+07
## [3652,] -3.637991e+06 -2.400543e+06 -6.440359e+10 -4.809486e+06
## [3653,] -1.439222e+05 -4.947241e+03 -2.758307e+10 -5.431619e+06
## [3654,] -1.014246e+08 -8.262323e+07 -1.715224e+11 -1.154987e+07
## [3655,] -3.308658e+11 -2.696616e+11 -1.027719e+15 -2.587551e+09
## [3656,] -2.398565e+11 -1.967053e+11 -7.789552e+14 -2.225623e+09
## [3657,] -4.687193e+09 -4.280800e+09 -1.298967e+13 -7.825958e+07
## [3658,] -3.945520e+06 -3.133083e+06 -6.455354e+10 -4.855714e+06
## [3659,] -1.733256e+05 -2.760213e+04 -2.763121e+10 -5.652594e+06
## [3660,] -9.931263e+07 -8.707415e+07 -1.718218e+11 -1.110618e+07
## [3661,] -3.297927e+11 -2.600674e+11 -1.028914e+15 -2.950101e+09
## [3662,] -2.568306e+11 -2.188821e+11 -7.798610e+14 -2.082439e+09
## [3663,] -4.773786e+09 -3.623576e+09 -1.300478e+13 -7.589737e+07
## [3664,] -3.737893e+06 -2.624814e+06 -6.459105e+10 -4.803347e+06
## [3665,] -3.506602e+05 -1.307526e+05 -2.764727e+10 -5.429860e+06
## [3666,] -1.073550e+08 -9.161256e+07 -1.719216e+11 -1.160324e+07
## [3667,] -3.471413e+11 -2.893656e+11 -1.029512e+15 -3.689936e+09
## [3668,] -2.430430e+11 -1.967033e+11 -7.803141e+14 -2.517586e+09
## [3669,] -4.308537e+09 -4.419159e+09 -1.301233e+13 -7.500152e+07
## [3670,] -4.058762e+06 -3.127675e+06 -6.462858e+10 -4.634939e+06
## [3671,] -6.646847e+04 -1.680098e+05 -2.766333e+10 -5.346862e+06
## [3672,] -1.022262e+08 -8.935061e+07 -1.720215e+11 -1.117229e+07
## [3673,] -3.244596e+11 -2.893640e+11 -1.030709e+15 -3.000688e+09
## [3674,] -2.502937e+11 -2.265365e+11 -7.807673e+14 -2.225334e+09
## [3675,] -4.336161e+09 -4.011651e+09 -1.301989e+13 -8.416153e+07
## [3676,] -3.703227e+06 -2.159254e+06 -6.466611e+10 -4.705935e+06
## [3677,] -1.966619e+05 -1.317802e+04 -2.767940e+10 -5.418698e+06

```

```

## [3678,] -1.022417e+08 -9.164182e+07 -1.721214e+11 -1.097033e+07
## [3679,] -3.427604e+11 -3.416700e+11 -1.030709e+15 -3.000688e+09
## [3680,] -2.462512e+11 -2.188799e+11 -7.812206e+14 -2.067451e+09
## [3681,] -4.559615e+09 -3.750960e+09 -1.302745e+13 -6.420741e+07
## [3682,] -3.845139e+06 -2.381638e+06 -6.470366e+10 -4.819948e+06
## [3683,] -1.707900e+05 -4.223780e+03 -2.769547e+10 -5.674146e+06
## [3684,] -9.865912e+07 -8.713120e+07 -1.722214e+11 -1.099126e+07
## [3685,] -3.244587e+11 -2.696568e+11 -1.031307e+15 -2.839460e+09
## [3686,] -2.551858e+11 -2.188792e+11 -7.816741e+14 -2.179510e+09
## [3687,] -4.644923e+09 -4.011845e+09 -1.303501e+13 -8.209007e+07
## [3688,] -4.201001e+06 -3.119572e+06 -6.474122e+10 -4.745004e+06
## [3689,] -1.996689e+05 -1.661358e+05 -2.771155e+10 -5.462444e+06
## [3690,] -9.867430e+07 -9.397685e+07 -1.723213e+11 -1.132412e+07
## [3691,] -3.340839e+11 -3.416682e+11 -1.031906e+15 -2.899286e+09
## [3692,] -2.242245e+11 -2.265350e+11 -7.816741e+14 -2.349321e+09
## [3693,] -4.281400e+09 -4.145527e+09 -1.303501e+13 -7.486000e+07
## [3694,] -3.989721e+06 -3.668721e+06 -6.474122e+10 -4.758010e+06
## [3695,] -1.115643e+05 -1.282955e+04 -2.771155e+10 -5.478508e+06
## [3696,] -1.027727e+08 -8.940840e+07 -1.724213e+11 -1.096174e+07
## [3697,] -3.108001e+11 -3.097618e+11 -1.033104e+15 -2.634471e+09
## [3698,] -2.470546e+11 -2.188778e+11 -7.825814e+14 -2.484749e+09
## [3699,] -4.876205e+09 -3.499207e+09 -1.305014e+13 -8.098357e+07
## [3700,] -4.505796e+06 -2.374567e+06 -6.481637e+10 -4.732176e+06
## [3701,] -2.020112e+05 -1.269129e+05 -2.775980e+10 -5.415930e+06
## [3702,] -1.067229e+08 -9.171499e+07 -1.726214e+11 -1.139604e+07
## [3703,] -3.319300e+11 -2.506423e+11 -1.033703e+15 -2.605769e+09
## [3704,] -2.576480e+11 -2.039602e+11 -7.830353e+14 -2.364851e+09
## [3705,] -4.688135e+09 -3.751335e+09 -1.305771e+13 -8.558183e+07
## [3706,] -3.659945e+06 -3.111479e+06 -6.485396e+10 -4.661140e+06
## [3707,] -1.642723e+05 -2.560843e+04 -2.775980e+10 -5.390843e+06
## [3708,] -9.471878e+07 -8.277611e+07 -1.726214e+11 -1.116295e+07
## [3709,] -3.149698e+11 -2.696537e+11 -1.033703e+15 -2.779855e+09
## [3710,] -2.226885e+11 -2.265329e+11 -7.830353e+14 -2.607456e+09
## [3711,] -4.503764e+09 -3.751428e+09 -1.306528e+13 -7.400975e+07
## [3712,] -4.158010e+06 -2.605043e+06 -6.489156e+10 -4.648346e+06
## [3713,] -1.590983e+05 -2.512169e+04 -2.779200e+10 -5.434476e+06
## [3714,] -1.038078e+08 -8.499605e+07 -1.728216e+11 -1.139020e+07
## [3715,] -2.974344e+11 -2.893574e+11 -1.035501e+15 -3.000019e+09
## [3716,] -2.462459e+11 -2.039582e+11 -7.843977e+14 -1.964993e+09
## [3717,] -4.546213e+09 -3.880925e+09 -1.308043e+13 -7.935150e+07
## [3718,] -3.622733e+06 -3.651179e+06 -6.496680e+10 -4.722765e+06
## [3719,] -2.462356e+05 -3.557542e+03 -2.780810e+10 -5.460944e+06
## [3720,] -1.009330e+08 -8.949513e+07 -1.730219e+11 -1.110349e+07
## [3721,] -3.442449e+11 -2.817530e+11 -2.801910e+13 -1.534746e+09
## [3722,] -2.648745e+11 -1.914923e+11 -2.122461e+13 -1.330371e+09
## [3723,] -4.064799e+09 -3.611112e+09 -3.539367e+11 -2.710984e+07
## [3724,] -1.837732e+07 -1.400589e+07 -1.757903e+09 -9.545498e+03

```

```

## [3725,] -6.824909e+06 -5.126345e+06 -7.524452e+08 -4.403661e+04
## [3726,] -6.186090e+07 -5.091135e+07 -4.679001e+09 -9.574715e+05
## [3727,] -3.453394e+11 -2.917340e+11 -2.801910e+13 -1.542057e+09
## [3728,] -2.533142e+11 -1.986575e+11 -2.122461e+13 -1.342232e+09
## [3729,] -4.433123e+09 -3.611112e+09 -3.539367e+11 -2.393870e+07
## [3730,] -1.632778e+07 -1.755547e+07 -1.757903e+09 -8.552908e+03
## [3731,] -6.520788e+06 -6.545867e+06 -7.524452e+08 -4.383097e+04
## [3732,] -5.851905e+07 -5.797110e+07 -4.679001e+09 -9.645099e+05
## [3733,] -3.344724e+11 -2.817530e+11 -2.801910e+13 -1.753819e+09
## [3734,] -2.404174e+11 -1.986568e+11 -2.129942e+13 -1.077364e+09
## [3735,] -4.240246e+09 -3.364002e+09 -3.551840e+11 -2.690022e+07
## [3736,] -1.742431e+07 -1.237591e+07 -1.764099e+09 -8.694788e+03
## [3737,] -6.567077e+06 -5.122885e+06 -7.550970e+08 -4.858679e+04
## [3738,] -6.225000e+07 -5.439522e+07 -4.695491e+09 -8.922057e+05
## [3739,] -3.301725e+11 -2.690358e+11 -2.821677e+13 -1.668877e+09
## [3740,] -2.665455e+11 -1.986561e+11 -2.137435e+13 -1.420497e+09
## [3741,] -4.503289e+09 -3.486598e+09 -3.564336e+11 -2.395366e+07
## [3742,] -1.735574e+07 -1.631543e+07 -1.770305e+09 -1.354397e+04
## [3743,] -6.714842e+06 -5.343830e+06 -7.577535e+08 -5.001529e+04
## [3744,] -5.983127e+07 -5.093316e+07 -4.712010e+09 -9.141277e+05
## [3745,] -3.227176e+11 -2.917323e+11 -2.821677e+13 -1.593598e+09
## [3746,] -2.444104e+11 -2.364557e+11 -2.137435e+13 -1.186444e+09
## [3747,] -4.172464e+09 -3.364090e+09 -3.564336e+11 -2.457230e+07
## [3748,] -1.791951e+07 -1.455801e+07 -1.770305e+09 -1.337097e+04
## [3749,] -6.609599e+06 -6.042164e+06 -7.604146e+08 -5.788516e+04
## [3750,] -5.746047e+07 -4.925018e+07 -4.728558e+09 -9.855794e+05
## [3751,] -3.330013e+11 -2.696505e+11 -1.036101e+15 -2.634079e+09
## [3752,] -2.454407e+11 -2.113500e+11 -7.848521e+14 -2.052170e+09
## [3753,] -4.532213e+09 -3.751709e+09 -1.308801e+13 -7.404920e+07
## [3754,] -2.526028e+06 -3.938723e+06 -6.500443e+10 -4.638941e+06
## [3755,] -1.043250e+05 -1.611899e+05 -2.784033e+10 -5.394917e+06
## [3756,] -9.974961e+07 -9.643128e+07 -1.731221e+11 -1.168215e+07
## [3757,] -3.340769e+11 -2.794159e+11 -1.036701e+15 -2.959153e+09
## [3758,] -2.527269e+11 -2.039568e+11 -7.853066e+14 -2.444026e+09
## [3759,] -4.617369e+09 -3.624772e+09 -1.310317e+13 -7.643613e+07
## [3760,] -4.021899e+06 -1.922256e+06 -6.507974e+10 -4.768496e+06
## [3761,] -1.766885e+05 -4.181852e+04 -2.785644e+10 -5.453318e+06
## [3762,] -1.014606e+08 -8.728819e+07 -1.733226e+11 -1.103911e+07
## [3763,] -3.212717e+11 -2.506370e+11 -1.037902e+15 -3.133869e+09
## [3764,] -2.414362e+11 -2.343151e+11 -7.862160e+14 -2.582119e+09
## [3765,] -4.717579e+09 -4.012813e+09 -1.311075e+13 -8.203889e+07
## [3766,] -4.261611e+06 -2.355765e+06 -6.511740e+10 -4.755556e+06
## [3767,] -1.446537e+05 -4.150660e+04 -2.787257e+10 -5.456887e+06
## [3768,] -9.669650e+07 -8.953851e+07 -1.733226e+11 -1.244073e+07
## [3769,] -3.394819e+11 -2.794126e+11 -1.039103e+15 -3.292170e+09
## [3770,] -2.438321e+11 -2.039540e+11 -7.871260e+14 -2.483987e+09
## [3771,] -4.631916e+09 -4.420683e+09 -1.312593e+13 -8.244628e+07

```

```

## [3772,] -3.605301e+06 -3.087264e+06 -6.519277e+10 -4.890017e+06
## [3773,] -9.018898e+04 -2.345487e+04 -2.790483e+10 -5.535359e+06
## [3774,] -1.044209e+08 -8.733103e+07 -1.736236e+11 -1.127024e+07
## [3775,] -3.493259e+11 -2.696457e+11 -1.039704e+15 -2.710690e+09
## [3776,] -2.551750e+11 -2.113451e+11 -7.880365e+14 -2.459638e+09
## [3777,] -4.532933e+09 -3.625233e+09 -1.314111e+13 -7.432164e+07
## [3778,] -4.886178e+06 -2.825604e+06 -6.526818e+10 -4.733133e+06
## [3779,] -1.386605e+05 -4.027059e+04 -2.793711e+10 -5.407107e+06
## [3780,] -1.029742e+08 -8.734531e+07 -1.737239e+11 -1.172990e+07
## [3781,] -3.405671e+11 -2.893508e+11 -1.040305e+15 -3.185915e+09
## [3782,] -2.527223e+11 -2.188692e+11 -7.880365e+14 -1.964451e+09
## [3783,] -4.848291e+09 -4.146905e+09 -1.314111e+13 -8.612551e+07
## [3784,] -3.292166e+06 -2.577981e+06 -6.530590e+10 -4.694352e+06
## [3785,] -1.238932e+05 -3.996450e+04 -2.795325e+10 -5.571597e+06
## [3786,] -1.012966e+08 -8.513700e+07 -1.738243e+11 -1.117625e+07
## [3787,] -3.471242e+11 -2.994635e+11 -1.040906e+15 -3.143884e+09
## [3788,] -2.592882e+11 -2.113444e+11 -7.884920e+14 -2.051616e+09
## [3789,] -4.589585e+09 -3.881782e+09 -1.314871e+13 -7.505848e+07
## [3790,] -3.823473e+06 -1.907453e+06 -6.534364e+10 -4.893640e+06
## [3791,] -1.563187e+05 -1.563187e+05 -2.796940e+10 -5.494416e+06
## [3792,] -1.003507e+08 -8.737388e+07 -1.739248e+11 -1.115736e+07
## [3793,] -3.139134e+11 -3.308455e+11 -1.041508e+15 -2.576293e+09
## [3794,] -2.551726e+11 -2.265227e+11 -7.894032e+14 -1.885952e+09
## [3795,] -4.505097e+09 -4.147200e+09 -1.316390e+13 -7.328206e+07
## [3796,] -3.478637e+06 -2.339374e+06 -6.538138e+10 -4.765880e+06
## [3797,] -1.406135e+05 -1.005611e+04 -2.798556e+10 -5.585769e+06
## [3798,] -9.750942e+07 -8.963977e+07 -1.740252e+11 -1.112252e+07
## [3799,] -3.035559e+11 -3.202100e+11 -1.042109e+15 -2.642868e+09
## [3800,] -2.659368e+11 -2.343092e+11 -7.898591e+14 -2.316648e+09
## [3801,] -4.575725e+09 -3.752739e+09 -1.317150e+13 -8.618226e+07
## [3802,] -3.876008e+06 -3.905430e+06 -6.541913e+10 -4.733453e+06
## [3803,] -1.512725e+05 -9.903472e+03 -2.800172e+10 -5.705964e+06
## [3804,] -1.035227e+08 -8.740246e+07 -1.741257e+11 -1.104793e+07
## [3805,] -3.460241e+11 -3.097482e+11 -1.042711e+15 -2.897805e+09
## [3806,] -2.543530e+11 -2.113423e+11 -7.898591e+14 -1.921276e+09
## [3807,] -5.129616e+09 -4.283200e+09 -1.317150e+13 -7.932840e+07
## [3808,] -4.644920e+06 -2.815337e+06 -6.541913e+10 -4.828031e+06
## [3809,] -1.025654e+05 -2.420221e+05 -2.800172e+10 -5.330336e+06
## [3810,] -1.059878e+08 -9.659643e+07 -1.742263e+11 -1.160069e+07
## [3811,] -2.994602e+11 -3.202083e+11 -1.043313e+15 -2.719925e+09
## [3812,] -2.454309e+11 -2.039485e+11 -7.907712e+14 -1.978450e+09
## [3813,] -4.463454e+09 -4.283500e+09 -1.319432e+13 -8.314284e+07
## [3814,] -3.551068e+06 -2.330033e+06 -6.553246e+10 -5.087305e+06
## [3815,] -1.347056e+05 -9.452578e+03 -2.805023e+10 -5.721614e+06
## [3816,] -9.851769e+07 -8.744532e+07 -1.744274e+11 -1.079418e+07
## [3817,] -3.202065e+11 -2.600471e+11 -1.044517e+15 -2.585375e+09
## [3818,] -2.446271e+11 -2.039478e+11 -7.912274e+14 -2.051201e+09

```

```

## [3819,] -4.576035e+09 -4.147594e+09 -1.319432e+13 -8.352502e+07
## [3820,] -4.041907e+06 -2.327701e+06 -6.557026e+10 -4.649770e+06
## [3821,] -1.408543e+05 -2.095119e+04 -2.808259e+10 -5.614434e+06
## [3822,] -9.177852e+07 -1.014197e+08 -1.746286e+11 -1.154007e+07
## [3823,] -3.362209e+11 -3.097431e+11 -1.046325e+15 -2.472664e+09
## [3824,] -2.510861e+11 -2.343047e+11 -7.925969e+14 -2.014421e+09
## [3825,] -4.791222e+09 -3.753300e+09 -1.321716e+13 -7.663669e+07
## [3826,] -3.712879e+06 -2.101260e+06 -6.564589e+10 -4.927344e+06
## [3827,] -1.366307e+05 -2.073059e+04 -2.809878e+10 -5.632018e+06
## [3828,] -1.009536e+08 -8.526396e+07 -1.747293e+11 -1.113426e+07
## [3829,] -3.180979e+11 -3.202039e+11 -1.046325e+15 -2.613652e+09
## [3830,] -2.510854e+11 -2.039450e+11 -7.930537e+14 -1.899536e+09
## [3831,] -4.422004e+09 -4.283900e+09 -1.322478e+13 -8.784413e+07
## [3832,] -2.923545e+06 -2.099045e+06 -6.568372e+10 -4.711321e+06
## [3833,] -2.001335e+05 -2.051116e+04 -2.811497e+10 -5.545172e+06
## [3834,] -1.002487e+08 -8.527808e+07 -1.748300e+11 -1.129969e+07
## [3835,] -3.493150e+11 -2.893418e+11 -1.046928e+15 -3.122161e+09
## [3836,] -2.265169e+11 -2.188613e+11 -7.930537e+14 -2.605739e+09
## [3837,] -5.160413e+09 -4.147987e+09 -1.322478e+13 -8.319859e+07
## [3838,] -3.397818e+06 -4.180728e+06 -6.572156e+10 -4.795955e+06
## [3839,] -9.261922e+04 -2.360448e+05 -2.813117e+10 -5.534913e+06
## [3840,] -1.085775e+08 -8.977004e+07 -1.749307e+11 -1.139351e+07
## [3841,] -3.416450e+11 -2.893410e+11 -1.047532e+15 -2.998345e+09
## [3842,] -2.709739e+11 -2.422220e+11 -7.935106e+14 -2.192823e+09
## [3843,] -4.719259e+09 -3.882830e+09 -1.323239e+13 -8.207077e+07
## [3844,] -4.180728e+06 -2.794860e+06 -6.572156e+10 -4.914271e+06
## [3845,] -1.103832e+05 -3.609168e+04 -2.816358e+10 -5.523643e+06
## [3846,] -9.886173e+07 -8.754539e+07 -1.751322e+11 -1.120268e+07
## [3847,] -3.276264e+11 -2.600417e+11 -1.048738e+15 -2.907023e+09
## [3848,] -2.327331e+11 -2.188585e+11 -7.948820e+14 -2.043307e+09
## [3849,] -4.506431e+09 -4.014750e+09 -1.326289e+13 -7.381148e+07
## [3850,] -3.039119e+06 -3.553257e+06 -6.587304e+10 -4.871703e+06
## [3851,] -2.725191e+05 -1.707723e+03 -2.819601e+10 -5.496272e+06
## [3852,] -1.013018e+08 -9.443669e+07 -1.754348e+11 -1.148411e+07
## [3853,] -3.201979e+11 -2.793973e+11 -1.050550e+15 -2.575130e+09
## [3854,] -2.470326e+11 -2.039409e+11 -7.957970e+14 -1.934651e+09
## [3855,] -4.464475e+09 -3.753956e+09 -1.327052e+13 -7.527047e+07
## [3856,] -3.635194e+06 -2.538869e+06 -6.591093e+10 -4.964404e+06
## [3857,] -1.363032e+05 -8.025508e+03 -2.821223e+10 -5.643441e+06
## [3858,] -1.001010e+08 -8.758830e+07 -1.754348e+11 -1.119399e+07
## [3859,] -3.286916e+11 -2.696314e+11 -1.050550e+15 -2.584598e+09
## [3860,] -2.366613e+11 -2.113332e+11 -7.957970e+14 -1.984924e+09
## [3861,] -4.492492e+09 -3.883306e+09 -1.327052e+13 -7.508897e+07
## [3862,] -3.578538e+06 -2.085781e+06 -6.591093e+10 -4.947801e+06
## [3863,] -9.328083e+04 -1.921909e+04 -2.821223e+10 -5.629465e+06
## [3864,] -9.677676e+07 -8.758830e+07 -1.754348e+11 -1.157350e+07
## [3865,] -3.351348e+11 -2.600393e+11 -1.050550e+15 -3.008141e+09

```

```

## [3866,] -2.366613e+11 -2.584504e+11 -7.957970e+14 -2.370663e+09
## [3867,] -4.506534e+09 -4.014846e+09 -1.327052e+13 -8.271015e+07
## [3868,] -3.746881e+06 -2.779551e+06 -6.594884e+10 -4.961163e+06
## [3869,] -8.648282e+04 -1.861391e+05 -2.824468e+10 -5.523155e+06
## [3870,] -1.032691e+08 -9.446639e+07 -1.756366e+11 -1.187900e+07
## [3871,] -3.233682e+11 -2.696299e+11 -1.051758e+15 -2.603429e+09
## [3872,] -2.438155e+11 -2.113311e+11 -7.971704e+14 -2.276603e+09
## [3873,] -4.605748e+09 -4.422919e+09 -1.329343e+13 -8.275185e+07
## [3874,] -3.945641e+06 -2.079165e+06 -6.602469e+10 -4.908310e+06
## [3875,] -1.005394e+05 -3.408806e+04 -2.827716e+10 -5.585855e+06
## [3876,] -1.057469e+08 -8.764552e+07 -1.758385e+11 -1.148050e+07
## [3877,] -3.394614e+11 -2.696283e+11 -1.052968e+15 -2.806825e+09
## [3878,] -2.701229e+11 -2.265096e+11 -7.976285e+14 -2.284277e+09
## [3879,] -4.549305e+09 -4.285001e+09 -1.330871e+13 -8.702266e+07
## [3880,] -4.207394e+06 -2.524280e+06 -6.613854e+10 -4.872270e+06
## [3881,] -1.793321e+05 -7.908014e+04 -2.830965e+10 -5.586123e+06
## [3882,] -1.052866e+08 -8.992939e+07 -1.760406e+11 -1.147464e+07
## [3883,] -3.427255e+11 -3.416352e+11 -1.054178e+15 -2.876214e+09
## [3884,] -2.684376e+11 -2.342951e+11 -7.985451e+14 -2.386040e+09
## [3885,] -4.451111e+09 -4.423224e+09 -1.331635e+13 -8.374865e+07
## [3886,] -3.703344e+06 -4.776135e+06 -6.613854e+10 -4.813186e+06
## [3887,] -2.225661e+05 -7.865097e+04 -2.832590e+10 -5.592055e+06
## [3888,] -1.023758e+08 -8.768844e+07 -1.761416e+11 -1.179002e+07
## [3889,] -3.362076e+11 -2.696251e+11 -1.055388e+15 -2.679597e+09
## [3890,] -2.502616e+11 -2.113268e+11 -7.999209e+14 -1.962690e+09
## [3891,] -4.507457e+09 -3.754799e+09 -1.333929e+13 -7.575380e+07
## [3892,] -3.114283e+06 -3.549686e+06 -6.629050e+10 -4.925417e+06
## [3893,] -1.972995e+05 -1.695948e+04 -2.839097e+10 -5.608844e+06
## [3894,] -1.051195e+08 -8.774570e+07 -1.765462e+11 -1.152490e+07
## [3895,] -3.223013e+11 -2.994409e+11 -1.057206e+15 -2.698691e+09
## [3896,] -2.592672e+11 -2.113254e+11 -8.008388e+14 -1.991408e+09
## [3897,] -4.479598e+09 -4.015912e+09 -1.335460e+13 -8.305377e+07
## [3898,] -4.161251e+06 -2.281301e+06 -6.632851e+10 -4.879262e+06
## [3899,] -9.115535e+04 -5.213715e+04 -2.839097e+10 -5.574043e+06
## [3900,] -1.017123e+08 -8.551817e+07 -1.765462e+11 -1.164709e+07
## [3901,] -3.286819e+11 -2.696227e+11 -1.057206e+15 -2.564828e+09
## [3902,] -2.559735e+11 -2.265045e+11 -8.008388e+14 -2.146344e+09
## [3903,] -4.272208e+09 -4.016202e+09 -1.337757e+13 -8.424440e+07
## [3904,] -3.679853e+06 -2.504892e+06 -6.644263e+10 -5.005514e+06
## [3905,] -1.429730e+05 -3.132501e+04 -2.843981e+10 -5.612732e+06
## [3906,] -1.022420e+08 -8.423747e+07 -1.768500e+11 -1.124963e+07
## [3907,] -3.405385e+11 -2.893245e+11 -1.059631e+15 -2.517538e+09
## [3908,] -2.454112e+11 -1.966701e+11 -8.026761e+14 -1.976683e+09
## [3909,] -4.368722e+09 -4.016396e+09 -1.339290e+13 -7.566475e+07
## [3910,] -4.115364e+06 -2.269774e+06 -6.651876e+10 -4.969036e+06
## [3911,] -1.105153e+05 -1.597910e+04 -2.847240e+10 -5.819422e+06
## [3912,] -1.020310e+08 -9.007438e+07 -1.770526e+11 -1.143726e+07

```

```

## [3913,] -3.394508e+11 -3.097235e+11 -1.060238e+15 -2.698294e+09
## [3914,] -2.446066e+11 -2.342870e+11 -8.035955e+14 -1.919267e+09
## [3915,] -4.410429e+09 -4.016493e+09 -1.340057e+13 -7.732582e+07
## [3916,] -3.614128e+06 -2.048428e+06 -6.655684e+10 -5.015777e+06
## [3917,] -1.602831e+05 -3.051886e+04 -2.848870e+10 -5.717053e+06
## [3918,] -9.750459e+07 -9.703252e+07 -1.771540e+11 -1.155605e+07
## [3919,] -3.222953e+11 -2.793827e+11 -1.061452e+15 -3.440286e+09
## [3920,] -2.486342e+11 -2.188442e+11 -8.040554e+14 -2.481170e+09
## [3921,] -4.550645e+09 -3.755642e+09 -1.340824e+13 -6.789027e+07
## [3922,] -4.261737e+06 -2.265172e+06 -6.659493e+10 -4.893018e+06
## [3923,] -7.095449e+04 -5.635808e+03 -2.852131e+10 -5.679849e+06
## [3924,] -1.018356e+08 -9.011789e+07 -1.773568e+11 -1.143658e+07
## [3925,] -3.254768e+11 -2.994343e+11 -1.062059e+15 -2.678726e+09
## [3926,] -2.406097e+11 -2.039278e+11 -8.045155e+14 -2.005367e+09
## [3927,] -4.852122e+09 -4.150448e+09 -1.341591e+13 -1.061353e+08
## [3928,] -3.864824e+06 -2.983427e+06 -6.667115e+10 -5.019364e+06
## [3929,] -1.507380e+05 -5.521713e+03 -2.853763e+10 -5.622838e+06
## [3930,] -1.020927e+08 -8.787459e+07 -1.774582e+11 -1.169408e+07
## [3931,] -3.276054e+11 -2.893196e+11 -1.063275e+15 -3.246044e+09
## [3932,] -2.486319e+11 -2.342840e+11 -8.054360e+14 -2.400792e+09
## [3933,] -4.693264e+09 -3.885306e+09 -1.343126e+13 -8.686029e+07
## [3934,] -3.774384e+06 -2.258276e+06 -6.670927e+10 -5.137091e+06
## [3935,] -1.353233e+05 -1.502791e+04 -2.855394e+10 -5.731679e+06
## [3936,] -1.050465e+08 -9.244825e+07 -1.776612e+11 -1.154135e+07
## [3937,] -3.004526e+11 -3.526025e+11 -1.063882e+15 -3.203617e+09
## [3938,] -2.535085e+11 -2.039257e+11 -8.058964e+14 -2.221371e+09
## [3939,] -4.522858e+09 -3.885401e+09 -1.343894e+13 -8.093148e+07
## [3940,] -5.019091e+06 -3.241121e+06 -6.674741e+10 -4.962879e+06
## [3941,] -1.202093e+05 -5.186433e+03 -2.858660e+10 -5.557127e+06
## [3942,] -9.949579e+07 -9.477858e+07 -1.777627e+11 -1.134413e+07
## [3943,] -3.405305e+11 -3.097167e+11 -1.065099e+15 -2.726781e+09
## [3944,] -2.518759e+11 -2.113163e+11 -8.068177e+14 -1.911699e+09
## [3945,] -4.397248e+09 -3.885592e+09 -1.345430e+13 -7.558903e+07
## [3946,] -3.736593e+06 -2.251392e+06 -6.682371e+10 -5.059876e+06
## [3947,] -1.129879e+05 -4.961144e+02 -2.860293e+10 -5.723866e+06
## [3948,] -1.021545e+08 -9.713793e+07 -1.778643e+11 -1.145433e+07
## [3949,] -3.254716e+11 -2.793771e+11 -1.065707e+15 -2.995835e+09
## [3950,] -2.567841e+11 -2.039236e+11 -8.072786e+14 -2.152874e+09
## [3951,] -4.509202e+09 -4.151138e+09 -1.346967e+13 -7.488926e+07
## [3952,] -3.644757e+06 -2.246808e+06 -6.690006e+10 -5.060041e+06
## [3953,] -9.921610e+04 -4.861664e+03 -2.863561e+10 -5.740581e+06
## [3954,] -1.002591e+08 -9.021948e+07 -1.780675e+11 -1.131123e+07
## [3955,] -3.180694e+11 -2.696108e+11 -1.066315e+15 -2.582578e+09
## [3956,] -2.743377e+11 -2.188384e+11 -8.077395e+14 -3.087419e+09
## [3957,] -4.551573e+09 -3.756485e+09 -1.347736e+13 -9.636157e+07
## [3958,] -3.756590e+06 -4.388230e+06 -6.693825e+10 -4.946686e+06
## [3959,] -1.734529e+05 -1.693908e+05 -2.866831e+10 -5.661201e+06

```



```

## [3960,] -9.345962e+07 -9.485299e+07 -1.782708e+11 -1.171953e+07
## [3961,] -3.427050e+11 -2.600167e+11 -1.068142e+15 -3.203012e+09
## [3962,] -2.502463e+11 -2.342781e+11 -8.091232e+14 -2.416116e+09
## [3963,] -4.722829e+09 -4.017655e+09 -1.349275e+13 -7.878239e+07
## [3964,] -3.721837e+06 -1.815712e+06 -6.701466e+10 -4.828138e+06
## [3965,] -1.380579e+05 -9.777723e+04 -2.868466e+10 -5.671846e+06
## [3966,] -1.007850e+08 -9.958727e+07 -1.783725e+11 -1.162663e+07
## [3967,] -3.212284e+11 -2.600167e+11 -1.068142e+15 -3.395713e+09
## [3968,] -2.358505e+11 -2.421957e+11 -8.095847e+14 -2.813969e+09
## [3969,] -4.151532e+09 -4.151532e+09 -1.350044e+13 -8.679341e+07
## [3970,] -4.223962e+06 -2.020091e+06 -6.705289e+10 -4.913811e+06
## [3971,] -2.837540e+05 -4.571802e+04 -2.870102e+10 -5.680162e+06
## [3972,] -9.258054e+07 -1.020208e+08 -1.785761e+11 -1.100102e+07
## [3973,] -3.212267e+11 -2.793722e+11 -1.069361e+15 -2.687432e+09
## [3974,] -2.650654e+11 -2.039188e+11 -8.105081e+14 -2.182590e+09
## [3975,] -4.453763e+09 -4.017946e+09 -1.351584e+13 -9.479909e+07
## [3976,] -4.035887e+06 -2.461543e+06 -6.712937e+10 -4.957052e+06
## [3977,] -1.257072e+05 -4.243656e+03 -2.873376e+10 -5.753155e+06
## [3978,] -1.054645e+08 -9.260995e+07 -1.787797e+11 -1.130696e+07
## [3979,] -2.923253e+11 -3.097091e+11 -1.070580e+15 -3.245000e+09
## [3980,] -2.518690e+11 -1.689328e+11 -8.109700e+14 -2.480028e+09
## [3981,] -5.074829e+09 -3.886449e+09 -1.352354e+13 -8.528262e+07
## [3982,] -4.849223e+06 -2.459146e+06 -6.716762e+10 -4.910748e+06
## [3983,] -8.943787e+04 -1.656379e+05 -2.876651e+10 -5.624716e+06
## [3984,] -1.011022e+08 -9.262466e+07 -1.788815e+11 -1.204815e+07
## [3985,] -3.514856e+11 -3.097082e+11 -1.071190e+15 -2.934188e+09
## [3986,] -2.600760e+11 -2.502425e+11 -8.114321e+14 -2.258895e+09
## [3987,] -4.510125e+09 -4.018236e+09 -1.353896e+13 -8.803913e+07
## [3988,] -3.790791e+06 -2.226238e+06 -6.724417e+10 -4.997229e+06
## [3989,] -1.235491e+05 -1.234953e+04 -2.879929e+10 -5.725490e+06
## [3990,] -1.033107e+08 -9.265408e+07 -1.790853e+11 -1.150025e+07
## [3991,] -3.297295e+11 -2.696029e+11 -1.072410e+15 -2.755097e+09
## [3992,] -2.218768e+11 -2.502402e+11 -8.128189e+14 -2.627273e+09
## [3993,] -4.496386e+09 -3.630295e+09 -1.356209e+13 -7.559306e+07
## [3994,] -3.695349e+06 -2.002752e+06 -6.735906e+10 -5.101378e+06
## [3995,] -1.123928e+05 -3.667690e+03 -2.883208e+10 -5.784605e+06
## [3996,] -1.021289e+08 -8.813265e+07 -1.792892e+11 -1.136492e+07
## [3997,] -3.307989e+11 -2.793666e+11 -1.073632e+15 -3.025427e+09
## [3998,] -2.617295e+11 -2.188291e+11 -8.137442e+14 -1.939168e+09
## [3999,] -4.496488e+09 -3.887021e+09 -1.356981e+13 -7.469901e+07
## [4000,] -3.692412e+06 -2.217126e+06 -6.739739e+10 -5.071185e+06
## [4001,] -1.086233e+05 -1.476519e+03 -2.884848e+10 -5.899758e+06
## [4002,] -1.031297e+08 -9.271293e+07 -1.794933e+11 -1.174136e+07
## [4003,] -3.117813e+11 -2.600081e+11 -1.074853e+15 -2.706077e+09
## [4004,] -2.413904e+11 -2.113051e+11 -8.142070e+14 -1.924839e+09
## [4005,] -4.752908e+09 -4.018818e+09 -1.358524e+13 -8.175976e+07
## [4006,] -3.269467e+06 -2.440011e+06 -6.747406e+10 -4.934565e+06

```

```

## [4007,] -9.512890e+04 -1.596103e+03 -2.888130e+10 -5.671125e+06
## [4008,] -1.007289e+08 -9.043735e+07 -1.795953e+11 -1.177943e+07
## [4009,] -3.265219e+11 -2.893031e+11 -1.075464e+15 -2.984305e+09
## [4010,] -2.592439e+11 -2.188277e+11 -8.146699e+14 -2.197130e+09
## [4011,] -4.623913e+09 -4.152615e+09 -1.358524e+13 -8.270888e+07
## [4012,] -3.831127e+06 -2.678568e+06 -6.747406e+10 -4.971080e+06
## [4013,] -1.652773e+05 -3.395472e+03 -2.888130e+10 -5.706227e+06
## [4014,] -1.043641e+08 -9.043735e+07 -1.795953e+11 -1.149370e+07
## [4015,] -3.138655e+11 -3.307963e+11 -1.075464e+15 -3.372959e+09
## [4016,] -2.486159e+11 -2.039119e+11 -8.151330e+14 -2.407173e+09
## [4017,] -4.724194e+09 -4.426884e+09 -1.359297e+13 -8.120669e+07
## [4018,] -4.278412e+06 -3.186328e+06 -6.751241e+10 -5.027859e+06
## [4019,] -1.561858e+05 -3.219833e+03 -2.891414e+10 -5.636400e+06
## [4020,] -1.034195e+08 -8.820440e+07 -1.797995e+11 -1.174067e+07
## [4021,] -3.222736e+11 -2.793625e+11 -1.076687e+15 -3.076484e+09
## [4022,] -2.413882e+11 -2.113030e+11 -8.155962e+14 -2.335995e+09
## [4023,] -4.511049e+09 -3.758077e+09 -1.360842e+13 -7.549082e+07
## [4024,] -2.340683e+06 -4.029013e+06 -6.758915e+10 -4.862182e+06
## [4025,] -1.115847e+05 -1.915500e+03 -2.896343e+10 -5.809317e+06
## [4026,] -9.817971e+07 -8.824747e+07 -1.801060e+11 -1.144663e+07
## [4027,] -3.014550e+11 -2.695949e+11 -1.078523e+15 -2.676591e+09
## [4028,] -2.303558e+11 -2.188241e+11 -8.169866e+14 -2.829907e+09
## [4029,] -4.469276e+09 -3.631124e+09 -1.363161e+13 -7.772952e+07
## [4030,] -3.640440e+06 -2.198959e+06 -6.770435e+10 -5.125736e+06
## [4031,] -1.649172e+05 -4.002563e+04 -2.899632e+10 -5.736510e+06
## [4032,] -9.870011e+07 -8.829054e+07 -1.804128e+11 -1.149458e+07
## [4033,] -2.963571e+11 -3.415968e+11 -1.080360e+15 -3.275533e+09
## [4034,] -2.534870e+11 -2.188213e+11 -8.188423e+14 -2.414539e+09
## [4035,] -4.330732e+09 -3.888069e+09 -1.365482e+13 -9.043077e+07
## [4036,] -3.746289e+06 -2.192165e+06 -6.781964e+10 -5.075454e+06
## [4037,] -1.000265e+05 -2.641881e+03 -2.902922e+10 -5.819326e+06
## [4038,] -1.069655e+08 -9.286015e+07 -1.805151e+11 -1.195047e+07
## [4039,] -3.297172e+11 -3.307884e+11 -1.080973e+15 -3.201196e+09
## [4040,] -2.658872e+11 -2.342626e+11 -8.188423e+14 -2.343325e+09
## [4041,] -4.441637e+09 -4.568081e+09 -1.365482e+13 -9.856847e+07
## [4042,] -3.746289e+06 -2.192165e+06 -6.781964e+10 -4.918744e+06
## [4043,] -1.334632e+05 -6.130132e+04 -2.902922e+10 -5.757950e+06
## [4044,] -9.895322e+07 -8.830490e+07 -1.805151e+11 -1.214151e+07
## [4045,] -3.307884e+11 -2.793569e+11 -1.080973e+15 -3.393844e+09
## [4046,] -2.397906e+11 -2.188206e+11 -8.193066e+14 -2.343251e+09
## [4047,] -4.682071e+09 -3.506443e+09 -1.366256e+13 -7.413490e+07
## [4048,] -4.850974e+06 -2.651125e+06 -6.789655e+10 -4.955364e+06
## [4049,] -5.581487e+04 -2.487262e+03 -2.906214e+10 -5.624803e+06
## [4050,] -1.102396e+08 -8.833363e+07 -1.807199e+11 -1.201075e+07
## [4051,] -3.111740e+11 -2.917315e+11 -2.831586e+13 -1.398965e+09
## [4052,] -2.460164e+11 -2.059521e+11 -2.144941e+13 -1.324294e+09
## [4053,] -4.226825e+09 -3.486688e+09 -3.576853e+11 -2.702479e+07

```

```

## [4054,] -1.704012e+07 -1.398874e+07 -1.776522e+09 -9.702580e+03
## [4055,] -6.710883e+06 -4.896454e+06 -7.604146e+08 -4.563049e+04
## [4056,] -6.189696e+07 -4.758493e+07 -4.728558e+09 -9.596172e+05
## [4057,] -3.280330e+11 -2.528500e+11 -2.831586e+13 -1.800774e+09
## [4058,] -2.452124e+11 -1.986554e+11 -2.144941e+13 -1.348014e+09
## [4059,] -4.186095e+09 -3.364179e+09 -3.576853e+11 -2.768165e+07
## [4060,] -1.791304e+07 -1.343642e+07 -1.776522e+09 -1.154532e+04
## [4061,] -7.334757e+06 -4.896454e+06 -7.604146e+08 -4.926283e+04
## [4062,] -6.379419e+07 -5.094407e+07 -4.728558e+09 -9.525967e+05
## [4063,] -3.333926e+11 -2.917315e+11 -2.831586e+13 -1.571293e+09
## [4064,] -2.648722e+11 -2.133805e+11 -2.144941e+13 -1.175242e+09
## [4065,] -4.308875e+09 -3.243861e+09 -3.576853e+11 -2.468377e+07
## [4066,] -1.716349e+07 -1.512675e+07 -1.776522e+09 -1.286280e+04
## [4067,] -7.149929e+06 -5.115969e+06 -7.604146e+08 -5.124215e+04
## [4068,] -6.152096e+07 -5.266660e+07 -4.728558e+09 -9.110151e+05
## [4069,] -3.409691e+11 -2.719433e+11 -2.831586e+13 -1.586105e+09
## [4070,] -2.607139e+11 -1.986554e+11 -2.144941e+13 -1.197594e+09
## [4071,] -4.267751e+09 -3.364179e+09 -3.576853e+11 -2.499676e+07
## [4072,] -1.716349e+07 -1.289523e+07 -1.776522e+09 -1.203103e+04
## [4073,] -7.176189e+06 -5.340298e+06 -7.604146e+08 -5.102030e+04
## [4074,] -6.133338e+07 -5.266660e+07 -4.728558e+09 -9.087322e+05
## [4075,] -3.377116e+11 -2.719433e+11 -2.831586e+13 -1.593537e+09
## [4076,] -2.500563e+11 -2.286319e+11 -2.144941e+13 -1.191986e+09
## [4077,] -4.226825e+09 -3.611388e+09 -3.576853e+11 -2.478788e+07
## [4078,] -1.823008e+07 -1.455218e+07 -1.776522e+09 -1.337521e+04
## [4079,] -6.634848e+06 -5.115969e+06 -7.604146e+08 -4.969931e+04
## [4080,] -6.436894e+07 -5.441776e+07 -4.728558e+09 -9.087322e+05
## [4081,] -3.096921e+11 -2.793545e+11 -1.082812e+15 -3.106727e+09
## [4082,] -2.374118e+11 -2.188191e+11 -8.202355e+14 -2.113434e+09
## [4083,] -4.497923e+09 -3.758920e+09 -1.367805e+13 -7.948109e+07
## [4084,] -3.795315e+06 -2.185382e+06 -6.793503e+10 -5.095884e+06
## [4085,] -1.857173e+05 -9.482311e+03 -2.909508e+10 -5.709156e+06
## [4086,] -1.019078e+08 -8.837672e+07 -1.810272e+11 -1.159893e+07
## [4087,] -3.705037e+11 -2.892916e+11 -1.084039e+15 -2.942552e+09
## [4088,] -2.366197e+11 -2.584069e+11 -8.216299e+14 -2.203665e+09
## [4089,] -4.372763e+09 -4.428307e+09 -1.370131e+13 -8.329916e+07
## [4090,] -3.992285e+06 -2.641181e+06 -6.805051e+10 -5.035703e+06
## [4091,] -6.642120e+04 -1.929252e+05 -2.912804e+10 -5.765830e+06
## [4092,] -1.048433e+08 -9.294853e+07 -1.811297e+11 -1.152275e+07
## [4093,] -3.459621e+11 -2.695870e+11 -1.084652e+15 -3.200677e+09
## [4094,] -2.551186e+11 -2.342581e+11 -8.216299e+14 -2.414088e+09
## [4095,] -4.372763e+09 -4.711286e+09 -1.370131e+13 -8.716398e+07
## [4096,] -3.725612e+06 -3.415646e+06 -6.808903e+10 -5.052535e+06
## [4097,] -5.402426e+04 -2.121152e+03 -2.914453e+10 -5.762432e+06
## [4098,] -1.024225e+08 -8.840546e+07 -1.812322e+11 -1.174838e+07
## [4099,] -3.265079e+11 -2.599949e+11 -1.085266e+15 -2.637293e+09
## [4100,] -2.518506e+11 -2.039016e+11 -8.220949e+14 -1.888286e+09

```

```

## [4101,] -4.262826e+09 -4.428409e+09 -1.370906e+13 -8.973759e+07
## [4102,] -3.303490e+06 -3.142829e+06 -6.812756e+10 -5.194417e+06
## [4103,] -6.070495e+04 -8.896535e+03 -2.916102e+10 -5.889265e+06
## [4104,] -1.005093e+08 -1.000300e+08 -1.813347e+11 -1.146009e+07
## [4105,] -2.872875e+11 -3.201477e+11 -1.085881e+15 -3.393131e+09
## [4106,] -2.709238e+11 -2.342567e+11 -8.225601e+14 -2.158065e+09
## [4107,] -4.512589e+09 -3.759482e+09 -1.372458e+13 -7.881775e+07
## [4108,] -3.719714e+06 -1.754458e+06 -6.816610e+10 -5.153786e+06
## [4109,] -1.082509e+05 -8.753010e+03 -2.917752e+10 -5.668876e+06
## [4110,] -1.024535e+08 -8.843420e+07 -1.814373e+11 -1.183284e+07
## [4111,] -3.514621e+11 -3.201460e+11 -1.087109e+15 -2.861809e+09
## [4112,] -2.734614e+11 -2.188141e+11 -8.234909e+14 -2.165466e+09
## [4113,] -4.856488e+09 -3.889022e+09 -1.373234e+13 -8.335496e+07
## [4114,] -4.470440e+06 -1.955453e+06 -6.820465e+10 -5.066203e+06
## [4115,] -1.210161e+05 -2.011912e+04 -2.919402e+10 -5.827794e+06
## [4116,] -1.024689e+08 -8.621208e+07 -1.815399e+11 -1.169852e+07
## [4117,] -3.222580e+11 -2.695830e+11 -1.087724e+15 -2.831891e+09
## [4118,] -2.559348e+11 -2.038988e+11 -8.239565e+14 -2.002493e+09
## [4119,] -4.625992e+09 -4.020756e+09 -1.374010e+13 -8.375162e+07
## [4120,] -3.800557e+06 -1.953316e+06 -6.824321e+10 -5.049513e+06
## [4121,] -1.811358e+05 -3.614976e+04 -2.921052e+10 -5.798360e+06
## [4122,] -1.059202e+08 -9.535973e+07 -1.817452e+11 -1.184038e+07
## [4123,] -3.086480e+11 -2.793472e+11 -1.088339e+15 -2.636900e+09
## [4124,] -2.502211e+11 -2.038981e+11 -8.244222e+14 -1.923364e+09
## [4125,] -4.944624e+09 -4.154683e+09 -1.374787e+13 -8.434134e+07
## [4126,] -3.622268e+06 -2.870998e+06 -6.832036e+10 -5.266474e+06
## [4127,] -2.192333e+05 -1.947414e+04 -2.924355e+10 -5.758537e+06
## [4128,] -9.328270e+07 -1.099138e+08 -1.818479e+11 -1.211902e+07
## [4129,] -3.222562e+11 -2.892851e+11 -1.088954e+15 -4.427777e+09
## [4130,] -2.518453e+11 -1.966369e+11 -8.253540e+14 -2.608560e+09
## [4131,] -4.087787e+09 -4.291005e+09 -1.377118e+13 -7.760299e+07
## [4132,] -3.644874e+06 -2.618875e+06 -6.839756e+10 -5.164450e+06
## [4133,] -1.117175e+05 -3.653341e+02 -2.927659e+10 -5.886655e+06
## [4134,] -1.028043e+08 -8.629724e+07 -1.821562e+11 -1.218506e+07
## [4135,] -3.286337e+11 -2.599879e+11 -1.090800e+15 -3.403285e+09
## [4136,] -2.551109e+11 -1.966355e+11 -8.262863e+14 -2.053288e+09
## [4137,] -4.429324e+09 -4.429324e+09 -1.377896e+13 -8.633150e+07
## [4138,] -3.501020e+06 -2.616402e+06 -6.843618e+10 -5.086863e+06
## [4139,] -1.145032e+05 -1.535727e+03 -2.929312e+10 -5.864198e+06
## [4140,] -1.032902e+08 -9.080106e+07 -1.821562e+11 -1.172991e+07
## [4141,] -3.383212e+11 -2.993949e+11 -1.090800e+15 -3.490833e+09
## [4142,] -2.494064e+11 -2.188091e+11 -8.267527e+14 -1.923029e+09
## [4143,] -4.669429e+09 -4.021337e+09 -1.378673e+13 -8.345266e+07
## [4144,] -3.782702e+06 -2.378337e+06 -6.847480e+10 -5.056714e+06
## [4145,] -3.228367e+05 -7.646856e+03 -2.930965e+10 -5.749665e+06
## [4146,] -9.496734e+07 -9.543436e+07 -1.822590e+11 -1.204045e+07
## [4147,] -3.329210e+11 -2.892818e+11 -1.091415e+15 -3.414078e+09

```

```

## [4148,] -2.658730e+11 -2.188084e+11 -8.272192e+14 -2.349851e+09
## [4149,] -4.626720e+09 -4.021434e+09 -1.379451e+13 -8.851298e+07
## [4150,] -2.832904e+06 -3.384647e+06 -6.851344e+10 -4.996601e+06
## [4151,] -8.002843e+04 -4.314136e+04 -2.932619e+10 -5.776889e+06
## [4152,] -1.135360e+08 -9.083019e+07 -1.823618e+11 -1.184722e+07
## [4153,] -3.201382e+11 -2.599856e+11 -1.092647e+15 -2.645930e+09
## [4154,] -2.526562e+11 -2.342485e+11 -8.276858e+14 -2.542309e+09
## [4155,] -4.655449e+09 -3.889975e+09 -1.381008e+13 -8.387754e+07
## [4156,] -3.573683e+06 -1.892875e+06 -6.859075e+10 -5.215840e+06
## [4157,] -1.059603e+05 -1.305901e+03 -2.935928e+10 -5.822055e+06
## [4158,] -9.806890e+07 -1.075299e+08 -1.825676e+11 -1.211460e+07
## [4159,] -3.339939e+11 -2.793399e+11 -1.093880e+15 -2.626632e+09
## [4160,] -2.421648e+11 -2.038919e+11 -8.286195e+14 -2.599736e+09
## [4161,] -4.291706e+09 -3.890166e+09 -1.382565e+13 -7.732867e+07
## [4162,] -3.237821e+06 -2.142667e+06 -6.866810e+10 -5.202390e+06
## [4163,] -1.249065e+05 -3.302434e+04 -2.939239e+10 -5.791591e+06
## [4164,] -1.004992e+08 -8.639665e+07 -1.828765e+11 -1.165192e+07
## [4165,] -3.180281e+11 -2.599817e+11 -1.095730e+15 -3.084200e+09
## [4166,] -2.469756e+11 -2.038891e+11 -8.304884e+14 -1.915386e+09
## [4167,] -4.472137e+09 -3.760982e+09 -1.384903e+13 -7.645111e+07
## [4168,] -3.283410e+06 -2.840008e+06 -6.878421e+10 -5.057373e+06
## [4169,] -1.034876e+05 -1.044894e+03 -2.944209e+10 -5.738992e+06
## [4170,] -1.017333e+08 -9.322869e+07 -1.830825e+11 -1.219966e+07
## [4171,] -3.264913e+11 -2.695711e+11 -1.096964e+15 -2.635802e+09
## [4172,] -2.534662e+11 -2.112791e+11 -8.314236e+14 -2.278948e+09
## [4173,] -4.570871e+09 -4.292207e+09 -1.386462e+13 -8.609887e+07
## [4174,] -3.781989e+06 -2.354827e+06 -6.886167e+10 -5.216426e+06
## [4175,] -1.512012e+05 -4.547405e+03 -2.947525e+10 -5.786369e+06
## [4176,] -9.652195e+07 -1.027321e+08 -1.832887e+11 -1.209354e+07
## [4177,] -3.243629e+11 -2.892727e+11 -1.098199e+15 -3.022066e+09
## [4178,] -2.445605e+11 -2.264558e+11 -8.318914e+14 -2.232644e+09
## [4179,] -4.642010e+09 -3.508887e+09 -1.387243e+13 -8.246184e+07
## [4180,] -4.044488e+06 -2.586822e+06 -6.890041e+10 -5.124933e+06
## [4181,] -4.472362e+04 -3.137912e+04 -2.949183e+10 -5.837361e+06
## [4182,] -9.796813e+07 -9.328772e+07 -1.834950e+11 -1.172418e+07
## [4183,] -3.117480e+11 -3.096700e+11 -1.098817e+15 -2.870233e+09
## [4184,] -2.559209e+11 -2.112777e+11 -8.323594e+14 -2.224913e+09
## [4185,] -4.542816e+09 -3.761357e+09 -1.388023e+13 -8.496558e+07
## [4186,] -3.519689e+06 -2.127036e+06 -6.893917e+10 -5.111518e+06
## [4187,] -6.456744e+04 -6.008762e+03 -2.952501e+10 -5.783238e+06
## [4188,] -1.067131e+08 -9.101964e+07 -1.837014e+11 -1.166915e+07
## [4189,] -3.329078e+11 -2.599754e+11 -1.100671e+15 -2.840109e+09
## [4190,] -2.502050e+11 -2.038836e+11 -8.342325e+14 -2.044769e+09
## [4191,] -4.279103e+09 -4.156752e+09 -1.391146e+13 -7.528132e+07
## [4192,] -3.761213e+06 -2.572095e+06 -6.913312e+10 -5.105190e+06
## [4193,] -3.325803e+04 -7.326071e+04 -2.959144e+10 -5.753147e+06
## [4194,] -1.004279e+08 -8.655298e+07 -1.840112e+11 -1.220590e+07

```

```

## [4195,] -3.275503e+11 -2.599739e+11 -1.101908e+15 -2.683234e+09
## [4196,] -2.625241e+11 -2.112735e+11 -8.351698e+14 -2.209204e+09
## [4197,] -4.757545e+09 -3.761919e+09 -1.392709e+13 -7.805732e+07
## [4198,] -3.933750e+06 -2.569645e+06 -6.917194e+10 -5.048139e+06
## [4199,] -1.179837e+05 -1.017350e+05 -2.960805e+10 -5.799266e+06
## [4200,] -1.062822e+08 -9.805891e+07 -1.841146e+11 -1.211109e+07
## [4201,] -3.275494e+11 -2.892670e+11 -1.102527e+15 -3.283056e+09
## [4202,] -2.485831e+11 -2.342367e+11 -8.351698e+14 -2.427872e+09
## [4203,] -4.320482e+09 -4.431257e+09 -1.392709e+13 -9.054134e+07
## [4204,] -3.334227e+06 -1.900283e+06 -6.921077e+10 -5.200159e+06
## [4205,] -1.277637e+05 -2.925090e+04 -2.962468e+10 -5.788774e+06
## [4206,] -1.023867e+08 -8.882267e+07 -1.842179e+11 -1.161357e+07
## [4207,] -3.383034e+11 -2.793278e+11 -1.103146e+15 -2.712120e+09
## [4208,] -2.845803e+11 -2.342360e+11 -8.356387e+14 -2.356387e+09
## [4209,] -4.320683e+09 -4.293208e+09 -1.394273e+13 -7.753039e+07
## [4210,] -3.865785e+06 -2.806625e+06 -6.928847e+10 -5.272003e+06
## [4211,] -5.672841e+04 -1.450800e+04 -2.965793e+10 -5.862459e+06
## [4212,] -9.859416e+07 -1.005044e+08 -1.845282e+11 -1.171915e+07
## [4213,] -3.296830e+11 -3.525417e+11 -1.105004e+15 -2.829614e+09
## [4214,] -2.437506e+11 -2.038795e+11 -8.370461e+14 -1.879122e+09
## [4215,] -4.729133e+09 -3.762294e+09 -1.395838e+13 -8.491350e+07
## [4216,] -3.516135e+06 -2.102589e+06 -6.936622e+10 -5.139446e+06
## [4217,] -4.710069e+04 -4.710069e+04 -2.969121e+10 -5.803491e+06
## [4218,] -1.022064e+08 -8.663831e+07 -1.846317e+11 -1.167526e+07
## [4219,] -3.382989e+11 -2.993740e+11 -1.106243e+15 -2.929471e+09
## [4220,] -2.534554e+11 -2.187920e+11 -8.379850e+14 -2.224048e+09
## [4221,] -4.859790e+09 -4.157540e+09 -1.397404e+13 -8.571512e+07
## [4222,] -3.711701e+06 -1.889764e+06 -6.940510e+10 -5.068763e+06
## [4223,] -1.424187e+05 -8.931715e+02 -2.972451e+10 -5.996802e+06
## [4224,] -1.066396e+08 -8.666676e+07 -1.848387e+11 -1.197381e+07
## [4225,] -3.275433e+11 -2.793230e+11 -1.106863e+15 -2.849235e+09
## [4226,] -2.469627e+11 -2.038774e+11 -8.384546e+14 -1.693848e+09
## [4227,] -4.743855e+09 -3.762575e+09 -1.398187e+13 -8.399379e+07
## [4228,] -3.566521e+06 -2.098160e+06 -6.944400e+10 -4.915545e+06
## [4229,] -8.268734e+04 -3.193306e+02 -2.975782e+10 -5.980272e+06
## [4230,] -9.867005e+07 -1.005811e+08 -1.850459e+11 -1.264785e+07
## [4231,] -2.922741e+11 -3.096564e+11 -1.108724e+15 -3.165764e+09
## [4232,] -2.510080e+11 -2.187891e+11 -8.398644e+14 -2.681213e+09
## [4233,] -4.787523e+09 -3.892358e+09 -1.400538e+13 -9.188682e+07
## [4234,] -3.929992e+06 -3.583165e+06 -6.959971e+10 -5.184001e+06
## [4235,] -1.630235e+05 -4.513176e+04 -2.979115e+10 -5.920713e+06
## [4236,] -1.040006e+08 -8.896676e+07 -1.852531e+11 -1.206137e+07
## [4237,] -3.222276e+11 -2.892579e+11 -1.109345e+15 -3.677785e+09
## [4238,] -2.272146e+11 -2.501943e+11 -8.408049e+14 -2.475160e+09
## [4239,] -5.022285e+09 -4.158132e+09 -1.402106e+13 -8.696737e+07
## [4240,] -3.806638e+06 -2.084898e+06 -6.967762e+10 -5.173985e+06
## [4241,] -5.314695e+04 -4.448479e+04 -2.982450e+10 -6.000036e+06

```

```

## [4242,] -1.025878e+08 -8.901001e+07 -1.855643e+11 -1.178795e+07
## [4243,] -3.318182e+11 -2.599622e+11 -1.111208e+15 -2.809008e+09
## [4244,] -2.264405e+11 -2.501928e+11 -8.417459e+14 -2.285092e+09
## [4245,] -4.558999e+09 -4.432682e+09 -1.403676e+13 -8.180415e+07
## [4246,] -3.244094e+06 -3.862060e+06 -6.971660e+10 -5.089594e+06
## [4247,] -1.140383e+05 -4.416305e+04 -2.984119e+10 -5.955795e+06
## [4248,] -1.030887e+08 -9.129687e+07 -1.856680e+11 -1.205767e+07
## [4249,] -2.963147e+11 -2.892546e+11 -1.111830e+15 -3.133951e+09
## [4250,] -2.429420e+11 -2.187855e+11 -8.422166e+14 -2.080428e+09
## [4251,] -4.212597e+09 -4.573248e+09 -1.404461e+13 -8.162874e+07
## [4252,] -3.322405e+06 -2.533028e+06 -6.975559e+10 -5.297017e+06
## [4253,] -1.097343e+05 -1.221406e+04 -2.987457e+10 -5.924983e+06
## [4254,] -1.048123e+08 -9.361275e+07 -1.857718e+11 -1.203805e+07
## [4255,] -2.932777e+11 -3.307436e+11 -1.112451e+15 -3.565156e+09
## [4256,] -2.248977e+11 -2.264390e+11 -8.426875e+14 -2.323885e+09
## [4257,] -4.502947e+09 -4.432987e+09 -1.406031e+13 -7.571551e+07
## [4258,] -3.650828e+06 -2.528166e+06 -6.983359e+10 -5.194696e+06
## [4259,] -1.367098e+05 -2.521866e+04 -2.989126e+10 -5.935873e+06
## [4260,] -1.036064e+08 -9.362753e+07 -1.858757e+11 -1.207660e+07
## [4261,] -3.558579e+11 -2.993648e+11 -1.113073e+15 -3.102554e+09
## [4262,] -2.469544e+11 -2.112608e+11 -8.436296e+14 -2.207911e+09
## [4263,] -4.531187e+09 -4.158723e+09 -1.406817e+13 -7.885722e+07
## [4264,] -2.996217e+06 -3.022091e+06 -6.987261e+10 -5.174402e+06
## [4265,] -6.312328e+04 -1.227873e+02 -2.990796e+10 -5.920483e+06
## [4266,] -1.033784e+08 -8.906769e+07 -1.859795e+11 -1.183364e+07
## [4267,] -3.525290e+11 -3.096496e+11 -1.113695e+15 -3.217727e+09
## [4268,] -2.518153e+11 -2.038698e+11 -8.436296e+14 -2.050727e+09
## [4269,] -4.601914e+09 -3.267458e+09 -1.406817e+13 -9.040479e+07
## [4270,] -3.393200e+06 -2.071679e+06 -6.991164e+10 -5.273350e+06
## [4271,] -7.835124e+04 -1.171272e+04 -2.992467e+10 -6.027335e+06
## [4272,] -9.320921e+07 -1.031663e+08 -1.861873e+11 -1.179478e+07
## [4273,] -3.372032e+11 -2.695481e+11 -1.114939e+15 -2.749565e+09
## [4274,] -3.066119e+11 -2.187820e+11 -8.445722e+14 -2.246046e+09
## [4275,] -4.433394e+09 -4.159019e+09 -1.409175e+13 -8.399804e+07
## [4276,] -3.066141e+06 -2.518455e+06 -6.998973e+10 -5.063287e+06
## [4277,] -7.213172e+04 -1.645244e+03 -2.995810e+10 -6.005952e+06
## [4278,] -1.071082e+08 -9.601752e+07 -1.862913e+11 -1.198988e+07
## [4279,] -3.328866e+11 -2.793117e+11 -1.115562e+15 -2.808441e+09
## [4280,] -2.658430e+11 -1.966084e+11 -8.450437e+14 -2.426291e+09
## [4281,] -4.475306e+09 -3.893407e+09 -1.409175e+13 -9.005066e+07
## [4282,] -4.385285e+06 -2.760729e+06 -6.998973e+10 -5.171259e+06
## [4283,] -4.194362e+04 -9.175616e+04 -2.995810e+10 -5.848303e+06
## [4284,] -1.005250e+08 -1.007651e+08 -1.862913e+11 -1.229007e+07
## [4285,] -3.285987e+11 -2.695473e+11 -1.115562e+15 -3.270549e+09
## [4286,] -2.357941e+11 -2.187813e+11 -8.450437e+14 -2.474475e+09
## [4287,] -4.602329e+09 -3.511513e+09 -1.409961e+13 -7.541800e+07
## [4288,] -3.664741e+06 -1.658637e+06 -7.002879e+10 -5.369949e+06

```

```

## [4289,] -5.002349e+04 -6.405587e+04 -2.997482e+10 -5.882895e+06
## [4290,] -1.063979e+08 -9.141373e+07 -1.864992e+11 -1.214182e+07
## [4291,] -3.264625e+11 -2.599544e+11 -1.117430e+15 -3.070892e+09
## [4292,] -2.493744e+11 -2.342189e+11 -8.464589e+14 -1.877797e+09
## [4293,] -4.159413e+09 -3.893789e+09 -1.412322e+13 -9.412662e+07
## [4294,] -3.240681e+06 -2.278071e+06 -7.014604e+10 -5.171593e+06
## [4295,] -8.412615e+04 -1.902164e+03 -3.002500e+10 -5.996892e+06
## [4296,] -1.030164e+08 -9.376067e+07 -1.868114e+11 -1.250235e+07
## [4297,] -3.222146e+11 -2.695434e+11 -1.118676e+15 -2.652221e+09
## [4298,] -2.241210e+11 -2.583634e+11 -8.478754e+14 -2.393983e+09
## [4299,] -4.574488e+09 -3.893979e+09 -1.413897e+13 -7.953849e+07
## [4300,] -3.509031e+06 -1.648810e+06 -7.022427e+10 -5.346205e+06
## [4301,] -1.241084e+05 -2.285034e+04 -3.005849e+10 -5.875254e+06
## [4302,] -1.037776e+08 -9.379027e+07 -1.870197e+11 -1.168088e+07
## [4303,] -3.350348e+11 -3.096410e+11 -1.119923e+15 -2.807875e+09
## [4304,] -2.493705e+11 -2.264296e+11 -8.488204e+14 -2.370080e+09
## [4305,] -4.775057e+09 -3.894170e+09 -1.415473e+13 -8.897805e+07
## [4306,] -3.698522e+06 -2.990294e+06 -7.034168e+10 -5.246908e+06
## [4307,] -6.848505e+04 -7.874340e+00 -3.010874e+10 -6.003593e+06
## [4308,] -1.279952e+08 -9.151604e+07 -1.872281e+11 -1.194639e+07
## [4309,] -3.034473e+11 -3.307313e+11 -1.121171e+15 -3.519507e+09
## [4310,] -2.501806e+11 -2.112524e+11 -8.492931e+14 -1.969894e+09
## [4311,] -4.406576e+09 -4.160004e+09 -1.417050e+13 -8.821868e+07
## [4312,] -3.494732e+06 -2.732867e+06 -7.042001e+10 -5.230006e+06
## [4313,] -9.561974e+04 -9.661687e+03 -3.014227e+10 -5.977454e+06
## [4314,] -1.004536e+08 -9.154529e+07 -1.874365e+11 -1.252632e+07
## [4315,] -3.264555e+11 -2.695386e+11 -1.122420e+15 -2.632586e+09
## [4316,] -2.477506e+11 -2.112510e+11 -8.502388e+14 -2.013197e+09
## [4317,] -4.818868e+09 -4.717687e+09 -1.417838e+13 -8.243282e+07
## [4318,] -3.411580e+06 -3.248279e+06 -7.042001e+10 -5.247076e+06
## [4319,] -1.580273e+05 -9.661687e+03 -3.014227e+10 -6.006275e+06
## [4320,] -1.128051e+08 -9.854379e+07 -1.874365e+11 -1.195695e+07
## [4321,] -3.285882e+11 -2.793020e+11 -1.123044e+15 -2.867041e+09
## [4322,] -2.469422e+11 -2.264260e+11 -8.511851e+14 -2.206762e+09
## [4323,] -4.310145e+09 -5.159099e+09 -1.419416e+13 -9.004055e+07
## [4324,] -3.686775e+06 -1.831396e+06 -7.049839e+10 -5.326124e+06
## [4325,] -1.453753e+05 -2.278644e+03 -3.017582e+10 -5.937020e+06
## [4326,] -1.203305e+08 -9.387909e+07 -1.876452e+11 -1.213369e+07
## [4327,] -3.899817e+11 -3.307278e+11 -1.123669e+15 -2.917079e+09
## [4328,] -2.897696e+11 -2.666699e+11 -8.511851e+14 -2.214390e+09
## [4329,] -4.476635e+09 -4.026378e+09 -1.419416e+13 -8.964373e+07
## [4330,] -3.573105e+06 -2.487025e+06 -7.049839e+10 -5.158783e+06
## [4331,] -4.746622e+04 -1.347985e+01 -3.020939e+10 -5.913412e+06
## [4332,] -1.048802e+08 -9.860448e+07 -1.878539e+11 -1.237899e+07
## [4333,] -3.371890e+11 -3.096342e+11 -1.124919e+15 -3.008222e+09
## [4334,] -2.518015e+11 -2.342101e+11 -8.521319e+14 -2.252581e+09
## [4335,] -4.393198e+09 -4.434920e+09 -1.420995e+13 -9.246929e+07

```



```

## [4336,] -3.237271e+06 -2.034453e+06 -7.057681e+10 -5.121750e+06
## [4337,] -8.494371e+04 -2.705037e+03 -3.020939e+10 -5.975609e+06
## [4338,] -1.068502e+08 -8.932750e+07 -1.878539e+11 -1.237899e+07
## [4339,] -3.211487e+11 -2.993490e+11 -1.124919e+15 -4.347823e+09
## [4340,] -2.666667e+11 -2.112468e+11 -8.530793e+14 -2.191260e+09
## [4341,] -4.575625e+09 -3.638126e+09 -1.422575e+13 -8.100190e+07
## [4342,] -2.969189e+06 -2.030096e+06 -7.065527e+10 -5.309264e+06
## [4343,] -6.040410e+04 -5.801687e+04 -3.024297e+10 -5.932790e+06
## [4344,] -1.024745e+08 -8.935639e+07 -1.880627e+11 -1.222183e+07
## [4345,] -3.211470e+11 -2.695338e+11 -1.126170e+15 -2.613024e+09
## [4346,] -2.477460e+11 -1.965969e+11 -8.530793e+14 -2.049343e+09
## [4347,] -4.407287e+09 -3.765482e+09 -1.422575e+13 -7.746190e+07
## [4348,] -3.339922e+06 -2.030096e+06 -7.065527e+10 -5.385146e+06
## [4349,] -7.043439e+04 -2.469088e+01 -3.024297e+10 -6.093989e+06
## [4350,] -1.051568e+08 -8.935639e+07 -1.880627e+11 -1.183999e+07
## [4351,] -3.232631e+11 -3.096325e+11 -1.126170e+15 -3.518781e+09
## [4352,] -2.421250e+11 -2.112461e+11 -8.535531e+14 -1.897948e+09
## [4353,] -4.133832e+09 -4.026863e+09 -1.423365e+13 -8.540712e+07
## [4354,] -3.253129e+06 -2.025743e+06 -7.073378e+10 -5.074930e+06
## [4355,] -2.912558e+04 -1.862435e+03 -3.027657e+10 -5.902038e+06
## [4356,] -1.034770e+08 -9.630226e+07 -1.882717e+11 -1.244268e+07
## [4357,] -3.502991e+11 -2.599419e+11 -1.127421e+15 -2.670349e+09
## [4358,] -2.608330e+11 -2.038546e+11 -8.540271e+14 -2.100935e+09
## [4359,] -4.704264e+09 -4.160990e+09 -1.424946e+13 -9.335002e+07
## [4360,] -3.196812e+06 -2.470183e+06 -7.077304e+10 -5.402722e+06
## [4361,] -8.357355e+03 -3.591770e+04 -3.029338e+10 -5.910521e+06
## [4362,] -9.375090e+07 -1.034925e+08 -1.883762e+11 -1.233013e+07
## [4363,] -3.065262e+11 -3.307216e+11 -1.128047e+15 -3.675005e+09
## [4364,] -2.658273e+11 -2.187670e+11 -8.545013e+14 -2.198646e+09
## [4365,] -4.618618e+09 -4.863626e+09 -1.425737e+13 -8.352544e+07
## [4366,] -2.732261e+06 -3.778423e+06 -7.081232e+10 -5.139142e+06
## [4367,] -1.264125e+05 -1.951681e+04 -3.031020e+10 -6.036553e+06
## [4368,] -1.030217e+08 -8.941419e+07 -1.884808e+11 -1.198499e+07
## [4369,] -3.222007e+11 -2.792947e+11 -1.128673e+15 -2.767379e+09
## [4370,] -2.567051e+11 -2.112439e+11 -8.549755e+14 -2.746275e+09
## [4371,] -4.352278e+09 -4.161089e+09 -1.425737e+13 -9.539839e+07
## [4372,] -3.746526e+06 -2.705147e+06 -7.085162e+10 -5.430665e+06
## [4373,] -8.185449e+04 -3.289528e+03 -3.032701e+10 -5.875069e+06
## [4374,] -1.059888e+08 -9.872592e+07 -1.886900e+11 -1.180568e+07
## [4375,] -3.339426e+11 -2.695291e+11 -1.129926e+15 -3.551484e+09
## [4376,] -2.649891e+11 -1.894653e+11 -8.559244e+14 -2.384783e+09
## [4377,] -4.604610e+09 -3.638680e+09 -1.427319e+13 -9.501971e+07
## [4378,] -3.399621e+06 -2.458187e+06 -7.096955e+10 -5.261929e+06
## [4379,] -8.335665e+04 -3.557542e+03 -3.037750e+10 -5.931502e+06
## [4380,] -1.045468e+08 -9.175012e+07 -1.888993e+11 -1.223948e+07
## [4381,] -3.237765e+11 -2.817505e+11 -2.831586e+13 -1.608454e+09
## [4382,] -2.533118e+11 -2.209404e+11 -2.144941e+13 -1.186392e+09

```

```

## [4383,] -4.308875e+09 -3.364179e+09 -3.576853e+11 -2.468377e+07
## [4384,] -1.810293e+07 -1.455218e+07 -1.776522e+09 -1.389764e+04
## [4385,] -6.787351e+06 -4.896454e+06 -7.604146e+08 -4.991827e+04
## [4386,] -6.021395e+07 -5.800601e+07 -4.728558e+09 -9.155895e+05
## [4387,] -3.497322e+11 -2.719433e+11 -2.831586e+13 -1.563913e+09
## [4388,] -2.364550e+11 -2.444097e+11 -2.144941e+13 -1.248656e+09
## [4389,] -4.132097e+09 -3.611388e+09 -3.576853e+11 -2.520651e+07
## [4390,] -1.791304e+07 -1.455218e+07 -1.776522e+09 -1.337521e+04
## [4391,] -7.019354e+06 -5.340298e+06 -7.604146e+08 -5.057804e+04
## [4392,] -6.322201e+07 -4.925018e+07 -4.728558e+09 -9.110151e+05
## [4393,] -3.398815e+11 -2.719433e+11 -2.831586e+13 -1.593537e+09
## [4394,] -2.476284e+11 -2.209404e+11 -2.144941e+13 -1.208849e+09
## [4395,] -4.475341e+09 -3.738279e+09 -3.576853e+11 -2.406371e+07
## [4396,] -1.816645e+07 -1.289523e+07 -1.776522e+09 -1.303249e+04
## [4397,] -7.228852e+06 -4.896454e+06 -7.604146e+08 -5.057804e+04
## [4398,] -6.133338e+07 -5.094407e+07 -4.728558e+09 -9.133009e+05
## [4399,] -3.344698e+11 -2.719433e+11 -2.831586e+13 -1.593537e+09
## [4400,] -2.380354e+11 -2.059521e+11 -2.144941e+13 -1.225830e+09
## [4401,] -4.145563e+09 -3.486688e+09 -3.576853e+11 -2.499676e+07
## [4402,] -1.704012e+07 -1.343642e+07 -1.776522e+09 -1.219516e+04
## [4403,] -6.484078e+06 -5.340298e+06 -7.604146e+08 -5.035764e+04
## [4404,] -5.984310e+07 -5.441776e+07 -4.728558e+09 -9.110151e+05
## [4405,] -3.377116e+11 -2.719433e+11 -2.831586e+13 -1.578690e+09
## [4406,] -2.615429e+11 -2.286319e+11 -2.144941e+13 -1.158616e+09
## [4407,] -4.531530e+09 -3.243861e+09 -3.576853e+11 -2.406371e+07
## [4408,] -1.791304e+07 -1.455218e+07 -1.776522e+09 -1.337521e+04
## [4409,] -6.812936e+06 -5.340298e+06 -7.604146e+08 -4.969931e+04
## [4410,] -6.077238e+07 -5.094407e+07 -4.728558e+09 -9.110151e+05
## [4411,] -3.480898e+11 -2.695267e+11 -1.131806e+15 -2.966551e+09
## [4412,] -2.334175e+11 -2.112404e+11 -8.573488e+14 -1.983165e+09
## [4413,] -4.134618e+09 -4.027639e+09 -1.429695e+13 -9.182690e+07
## [4414,] -3.507657e+06 -1.804609e+06 -7.100889e+10 -5.258593e+06
## [4415,] -5.025618e+04 -1.429993e+03 -3.039433e+10 -6.103726e+06
## [4416,] -9.109284e+07 -1.036014e+08 -1.891087e+11 -1.251969e+07
## [4417,] -3.190292e+11 -2.792899e+11 -1.132433e+15 -2.536584e+09
## [4418,] -2.658218e+11 -2.187620e+11 -8.578239e+14 -2.392413e+09
## [4419,] -4.633479e+09 -4.027736e+09 -1.430487e+13 -9.124071e+07
## [4420,] -3.474078e+06 -2.006214e+06 -7.108759e+10 -5.448572e+06
## [4421,] -7.118264e+04 -3.836065e+03 -3.042802e+10 -6.152583e+06
## [4422,] -9.856412e+07 -8.726535e+07 -1.892134e+11 -1.249970e+07
## [4423,] -3.360951e+11 -2.993372e+11 -1.133688e+15 -3.027526e+09
## [4424,] -2.477369e+11 -2.038477e+11 -8.587744e+14 -2.026544e+09
## [4425,] -4.952472e+09 -3.766607e+09 -1.432072e+13 -8.192315e+07
## [4426,] -3.697112e+06 -2.220769e+06 -7.112696e+10 -5.112789e+06
## [4427,] -4.674979e+04 -2.114245e+02 -3.046173e+10 -6.140701e+06
## [4428,] -9.576340e+07 -1.036481e+08 -1.894230e+11 -1.250205e+07
## [4429,] -3.200803e+11 -2.695235e+11 -1.134315e+15 -3.517603e+09

```

```

## [4430,] -2.575200e+11 -1.894600e+11 -8.597254e+14 -2.213095e+09
## [4431,] -4.835536e+09 -3.391234e+09 -1.433658e+13 -8.366517e+07
## [4432,] -3.865184e+06 -1.600116e+06 -7.120573e+10 -5.320764e+06
## [4433,] -2.260548e+05 -3.280255e+04 -3.047859e+10 -6.018671e+06
## [4434,] -1.019649e+08 -9.183797e+07 -1.895279e+11 -1.195506e+07
## [4435,] -3.580532e+11 -2.792866e+11 -1.134943e+15 -2.865487e+09
## [4436,] -2.750991e+11 -2.112369e+11 -8.597254e+14 -2.077850e+09
## [4437,] -4.648156e+09 -3.639417e+09 -1.433658e+13 -9.432397e+07
## [4438,] -3.352558e+06 -2.213942e+06 -7.124513e+10 -5.173929e+06
## [4439,] -7.483261e+04 -1.723922e+04 -3.049545e+10 -6.158013e+06
## [4440,] -9.767640e+07 -1.012566e+08 -1.896327e+11 -1.195207e+07
## [4441,] -3.044555e+11 -3.200786e+11 -1.135571e+15 -3.299797e+09
## [4442,] -2.501622e+11 -2.187577e+11 -8.606769e+14 -2.251275e+09
## [4443,] -5.026835e+09 -3.896555e+09 -1.435245e+13 -9.013198e+07
## [4444,] -3.625410e+06 -1.993247e+06 -7.132396e+10 -5.307264e+06
## [4445,] -7.669182e+04 -3.197749e+04 -3.052919e+10 -6.051627e+06
## [4446,] -9.747019e+07 -1.037103e+08 -1.898426e+11 -1.241381e+07
## [4447,] -3.469837e+11 -2.993331e+11 -1.136828e+15 -2.925419e+09
## [4448,] -2.566950e+11 -1.852448e+11 -8.611529e+14 -1.847745e+09
## [4449,] -4.734494e+09 -3.514502e+09 -1.436038e+13 -7.476667e+07
## [4450,] -2.924590e+06 -2.436670e+06 -7.132396e+10 -5.396983e+06
## [4451,] -6.125593e+04 -3.197749e+04 -3.052919e+10 -6.046801e+06
## [4452,] -1.034823e+08 -8.961662e+07 -1.899475e+11 -1.228462e+07
## [4453,] -3.243081e+11 -2.892210e+11 -1.137456e+15 -2.955660e+09
## [4454,] -2.295083e+11 -2.038436e+11 -8.616290e+14 -1.997026e+09
## [4455,] -4.605855e+09 -3.767170e+09 -1.436832e+13 -8.391274e+07
## [4456,] -3.820963e+06 -1.590464e+06 -7.140283e+10 -5.232103e+06
## [4457,] -1.252416e+05 -9.114829e+02 -3.056296e+10 -6.037432e+06
## [4458,] -1.081756e+08 -8.963109e+07 -1.900525e+11 -1.240772e+07
## [4459,] -3.096164e+11 -2.892201e+11 -1.138085e+15 -2.688301e+09
## [4460,] -2.302854e+11 -2.501599e+11 -8.621052e+14 -2.336524e+09
## [4461,] -4.312453e+09 -4.028609e+09 -1.437626e+13 -9.257665e+07
## [4462,] -2.793327e+06 -2.919365e+06 -7.140283e+10 -5.242344e+06
## [4463,] -5.577156e+04 -9.114829e+02 -3.056296e+10 -6.146406e+06
## [4464,] -9.586812e+07 -9.423481e+07 -1.901575e+11 -1.222829e+07
## [4465,] -3.232457e+11 -2.993306e+11 -1.138714e+15 -2.945369e+09
## [4466,] -2.525986e+11 -2.038415e+11 -8.630581e+14 -1.861454e+09
## [4467,] -4.451216e+09 -3.897032e+09 -1.439215e+13 -7.627507e+07
## [4468,] -3.756946e+06 -2.427137e+06 -7.148175e+10 -5.522796e+06
## [4469,] -5.975234e+04 -4.244340e+02 -3.059674e+10 -6.166162e+06
## [4470,] -1.045053e+08 -8.518496e+07 -1.902626e+11 -1.193414e+07
## [4471,] -3.339294e+11 -2.505108e+11 -1.139343e+15 -2.775825e+09
## [4472,] -2.485382e+11 -2.187541e+11 -8.630581e+14 -2.099604e+09
## [4473,] -4.549514e+09 -5.161844e+09 -1.439215e+13 -8.921322e+07
## [4474,] -3.844181e+06 -2.427137e+06 -7.148175e+10 -5.508783e+06
## [4475,] -5.701267e+04 -5.298645e+02 -3.061363e+10 -5.971731e+06
## [4476,] -1.047813e+08 -9.427933e+07 -1.904728e+11 -1.231981e+07

```

```

## [4477,] -3.382501e+11 -3.200716e+11 -1.140601e+15 -3.036865e+09
## [4478,] -2.591622e+11 -2.187527e+11 -8.640115e+14 -2.174458e+09
## [4479,] -4.563851e+09 -3.640247e+09 -1.440805e+13 -8.188585e+07
## [4480,] -3.384872e+06 -1.775981e+06 -7.156072e+10 -5.404427e+06
## [4481,] -6.598082e+04 -5.164455e+03 -3.064744e+10 -6.172676e+06
## [4482,] -9.876146e+07 -9.899945e+07 -1.905779e+11 -1.238406e+07
## [4483,] -3.339267e+11 -2.505085e+11 -1.141231e+15 -2.261746e+09
## [4484,] -2.397188e+11 -2.421077e+11 -8.644884e+14 -2.250695e+09
## [4485,] -4.479499e+09 -4.163061e+09 -1.441600e+13 -8.342220e+07
## [4486,] -3.382061e+06 -2.193523e+06 -7.160022e+10 -5.380267e+06
## [4487,] -4.524871e+04 -1.753548e+05 -3.064744e+10 -6.053808e+06
## [4488,] -1.055490e+08 -9.430901e+07 -1.906830e+11 -1.189741e+07
## [4489,] -3.480754e+11 -2.892152e+11 -1.141861e+15 -3.140283e+09
## [4490,] -2.641397e+11 -2.187512e+11 -8.649654e+14 -2.343928e+09
## [4491,] -4.939255e+09 -4.029288e+09 -1.443192e+13 -8.192735e+07
## [4492,] -3.456325e+06 -2.650130e+06 -7.171878e+10 -5.439501e+06
## [4493,] -1.244480e+04 -5.612896e+03 -3.071512e+10 -6.015799e+06
## [4494,] -9.622249e+07 -8.750822e+07 -1.909987e+11 -1.263422e+07
## [4495,] -3.253618e+11 -2.892127e+11 -1.143751e+15 -3.015936e+09
## [4496,] -2.542266e+11 -1.965779e+11 -8.663973e+14 -1.896151e+09
## [4497,] -4.939470e+09 -3.897700e+09 -1.444784e+13 -8.328690e+07
## [4498,] -3.650244e+06 -2.184479e+06 -7.175832e+10 -5.352963e+06
## [4499,] -2.904218e+04 -6.721275e+02 -3.071512e+10 -6.064025e+06
## [4500,] -1.036378e+08 -9.435354e+07 -1.909987e+11 -1.235506e+07
## [4501,] -3.096087e+11 -2.993239e+11 -1.143751e+15 -3.057021e+09
## [4502,] -2.501531e+11 -2.112271e+11 -8.663973e+14 -2.618351e+09
## [4503,] -4.082808e+09 -4.578520e+09 -1.444784e+13 -8.911658e+07
## [4504,] -2.969927e+06 -3.704521e+06 -7.179787e+10 -5.315154e+06
## [4505,] -6.403267e+04 -7.121836e+02 -3.073205e+10 -6.150241e+06
## [4506,] -1.182840e+08 -9.207245e+07 -1.912093e+11 -1.219806e+07
## [4507,] -3.360783e+11 -2.993214e+11 -1.145643e+15 -2.985054e+09
## [4508,] -2.326181e+11 -1.824531e+11 -8.678303e+14 -2.257890e+09
## [4509,] -4.910411e+09 -3.897986e+09 -1.447173e+13 -8.199652e+07
## [4510,] -3.387009e+06 -2.175453e+06 -7.191659e+10 -5.495734e+06
## [4511,] -2.182720e+04 -1.321933e+05 -3.078286e+10 -6.018761e+06
## [4512,] -1.121519e+08 -1.039439e+08 -1.914200e+11 -1.248625e+07
## [4513,] -3.818420e+11 -2.892094e+11 -1.146274e+15 -3.036107e+09
## [4514,] -2.683196e+11 -2.421017e+11 -8.683083e+14 -2.335563e+09
## [4515,] -4.579037e+09 -3.898177e+09 -1.448768e+13 -8.741840e+07
## [4516,] -3.411692e+06 -2.882922e+06 -7.195619e+10 -5.294878e+06
## [4517,] -1.778209e+05 -8.840859e+02 -3.079981e+10 -6.097385e+06
## [4518,] -1.088972e+08 -9.676774e+07 -1.915254e+11 -1.245784e+07
## [4519,] -1.583894e+11 -2.993197e+11 -1.146905e+15 -3.150051e+09
## [4520,] -2.349699e+11 -2.421009e+11 -8.687864e+14 -2.446543e+09
## [4521,] -4.313858e+09 -4.438483e+09 -1.448768e+13 -9.057792e+07
## [4522,] -3.635660e+06 -2.398649e+06 -7.195619e+10 -5.260611e+06
## [4523,] -1.281026e+05 -8.840859e+02 -3.079981e+10 -6.085277e+06

```

```

## [4524,] -1.015336e+08 -8.983376e+07 -1.915254e+11 -1.270402e+07
## [4525,] -3.179574e+11 -2.695077e+11 -1.146905e+15 -3.406135e+09
## [4526,] -2.534047e+11 -2.112229e+11 -8.692646e+14 -2.242281e+09
## [4527,] -4.466521e+09 -3.768671e+09 -1.449565e+13 -7.884653e+07
## [4528,] -3.112665e+06 -1.753648e+06 -7.199580e+10 -5.485421e+06
## [4529,] -9.351435e+04 -2.724545e+02 -3.086765e+10 -6.044757e+06
## [4530,] -9.991361e+07 -9.682789e+07 -1.919472e+11 -1.247097e+07
## [4531,] -3.328381e+11 -3.200587e+11 -1.150063e+15 -3.244474e+09
## [4532,] -2.428961e+11 -2.263954e+11 -8.711787e+14 -2.288319e+09
## [4533,] -4.693581e+09 -4.438992e+09 -1.452757e+13 -8.380926e+07
## [4534,] -3.940057e+06 -2.386829e+06 -7.215433e+10 -5.223465e+06
## [4535,] -2.316557e+04 -4.085954e+03 -3.090160e+10 -6.057103e+06
## [4536,] -1.062618e+08 -9.451690e+07 -1.921583e+11 -1.204596e+07
## [4537,] -3.425860e+11 -2.792664e+11 -1.150695e+15 -3.244387e+09
## [4538,] -2.759306e+11 -2.187412e+11 -8.716576e+14 -2.311587e+09
## [4539,] -4.178059e+09 -4.579658e+09 -1.453556e+13 -9.186507e+07
## [4540,] -3.996439e+06 -3.125513e+06 -7.219400e+10 -5.322880e+06
## [4541,] -2.027548e+04 -6.766367e+04 -3.090160e+10 -6.059518e+06
## [4542,] -9.358850e+07 -1.016260e+08 -1.921583e+11 -1.271964e+07
## [4543,] -3.502656e+11 -2.599131e+11 -1.150695e+15 -3.107832e+09
## [4544,] -2.608041e+11 -1.894434e+11 -8.716576e+14 -2.406135e+09
## [4545,] -4.259637e+09 -4.579658e+09 -1.453556e+13 -9.226677e+07
## [4546,] -3.675164e+06 -1.946061e+06 -7.219400e+10 -5.319439e+06
## [4547,] -1.213991e+05 -2.248077e+02 -3.090160e+10 -6.107918e+06
## [4548,] -1.055386e+08 -9.924289e+07 -1.922639e+11 -1.217621e+07
## [4549,] -3.349906e+11 -2.792656e+11 -1.151328e+15 -2.953832e+09
## [4550,] -2.501431e+11 -2.187398e+11 -8.726157e+14 -1.867140e+09
## [4551,] -4.679565e+09 -3.898940e+09 -1.455153e+13 -8.519838e+07
## [4552,] -3.497018e+06 -2.152970e+06 -7.231305e+10 -5.412986e+06
## [4553,] -1.017289e+04 -1.224786e+04 -3.095256e+10 -6.138687e+06
## [4554,] -1.050788e+08 -9.456148e+07 -1.924752e+11 -1.211181e+07
## [4555,] -3.296163e+11 -3.095968e+11 -1.152593e+15 -2.696148e+09
## [4556,] -2.583222e+11 -2.187391e+11 -8.730950e+14 -2.203461e+09
## [4557,] -4.551782e+09 -4.164934e+09 -1.456752e+13 -9.680350e+07
## [4558,] -3.749603e+06 -2.610473e+06 -7.235275e+10 -5.440870e+06
## [4559,] -5.407400e+04 -1.435277e+02 -3.096955e+10 -6.159507e+06
## [4560,] -1.046043e+08 -9.457634e+07 -1.925809e+11 -1.237676e+07
## [4561,] -3.179488e+11 -3.306864e+11 -1.153226e+15 -3.117890e+09
## [4562,] -2.477133e+11 -2.187384e+11 -8.735744e+14 -1.860004e+09
## [4563,] -4.439501e+09 -4.030937e+09 -1.456752e+13 -8.814997e+07
## [4564,] -3.578307e+06 -2.610473e+06 -7.235275e+10 -5.381883e+06
## [4565,] -6.862910e+04 -1.435277e+02 -3.096955e+10 -6.237676e+06
## [4566,] -1.083082e+08 -9.226319e+07 -1.925809e+11 -1.276710e+07
## [4567,] -3.242846e+11 -3.200526e+11 -1.154492e+15 -3.149021e+09
## [4568,] -2.566734e+11 -2.187369e+11 -8.745335e+14 -2.287807e+09
## [4569,] -4.467747e+09 -3.769797e+09 -1.459152e+13 -8.031729e+07
## [4570,] -3.427292e+06 -2.141773e+06 -7.251168e+10 -5.493528e+06

```

```

## [4571,] -6.205279e+04 -1.917674e+04 -3.103758e+10 -6.248047e+06
## [4572,] -1.039336e+08 -9.232192e+07 -1.930039e+11 -1.214675e+07
## [4573,] -3.232223e+11 -2.504909e+11 -1.155759e+15 -2.705438e+09
## [4574,] -2.217811e+11 -2.187355e+11 -8.754933e+14 -2.413499e+09
## [4575,] -4.370543e+09 -3.769985e+09 -1.460752e+13 -8.109696e+07
## [4576,] -3.734821e+06 -2.139537e+06 -7.255144e+10 -5.420441e+06
## [4577,] -1.100484e+05 -6.820366e+01 -3.105460e+10 -6.198012e+06
## [4578,] -1.078900e+08 -9.699338e+07 -1.931098e+11 -1.235314e+07
## [4579,] -3.274742e+11 -2.792592e+11 -1.156392e+15 -2.599763e+09
## [4580,] -2.574929e+11 -2.187341e+11 -8.764535e+14 -2.264296e+09
## [4581,] -4.723567e+09 -3.394438e+09 -1.462354e+13 -8.648949e+07
## [4582,] -2.569253e+06 -2.838978e+06 -7.263099e+10 -5.289450e+06
## [4583,] -2.090332e+03 -1.223809e+05 -3.108865e+10 -6.093702e+06
## [4584,] -1.030220e+08 -9.009468e+07 -1.934274e+11 -1.231880e+07
## [4585,] -2.972686e+11 -3.095892e+11 -1.158295e+15 -3.285944e+09
## [4586,] -2.525748e+11 -2.112102e+11 -8.778948e+14 -2.038416e+09
## [4587,] -4.524506e+09 -4.165822e+09 -1.463957e+13 -8.496728e+07
## [4588,] -3.358269e+06 -1.717408e+06 -7.271059e+10 -5.518458e+06
## [4589,] -6.429590e+04 -2.093125e+03 -3.115681e+10 -6.289571e+06
## [4590,] -1.062514e+08 -9.473990e+07 -1.937453e+11 -1.257986e+07
## [4591,] -3.189912e+11 -2.891914e+11 -1.160198e+15 -2.734043e+09
## [4592,] -2.493225e+11 -2.187305e+11 -8.788564e+14 -2.624623e+09
## [4593,] -4.796198e+09 -4.166019e+09 -1.465560e+13 -9.248710e+07
## [4594,] -3.487764e+06 -2.346860e+06 -7.283006e+10 -5.358707e+06
## [4595,] -9.713793e+04 -2.673365e+03 -3.117386e+10 -6.229571e+06
## [4596,] -1.040583e+08 -9.015272e+07 -1.938514e+11 -1.206439e+07
## [4597,] -3.179384e+11 -2.694902e+11 -1.160833e+15 -2.570786e+09
## [4598,] -2.550244e+11 -1.894327e+11 -8.793373e+14 -2.217782e+09
## [4599,] -4.869063e+09 -3.900276e+09 -1.466362e+13 -9.030045e+07
## [4600,] -3.600080e+06 -2.123917e+06 -7.283006e+10 -5.362160e+06
## [4601,] -5.830434e+04 -9.842745e+03 -3.120798e+10 -6.161472e+06
## [4602,] -1.216191e+08 -9.018174e+07 -1.940635e+11 -1.243526e+07
## [4603,] -3.349747e+11 -2.891881e+11 -1.162739e+15 -2.992989e+09
## [4604,] -2.566633e+11 -2.666210e+11 -8.807810e+14 -2.240545e+09
## [4605,] -4.427192e+09 -3.745352e+09 -1.469573e+13 -7.862832e+07
## [4606,] -2.790876e+06 -3.071709e+06 -7.298952e+10 -5.463137e+06
## [4607,] -9.524206e+04 -5.994675e+04 -3.124211e+10 -6.259558e+06
## [4608,] -1.061150e+08 -9.956287e+07 -1.944882e+11 -1.284841e+07
## [4609,] -3.328178e+11 -3.095807e+11 -1.164647e+15 -2.972378e+09
## [4610,] -2.533839e+11 -2.112039e+11 -8.822259e+14 -2.202098e+09
## [4611,] -4.483284e+09 -4.302927e+09 -1.471179e+13 -8.567439e+07
## [4612,] -3.014339e+06 -2.810723e+06 -7.306931e+10 -5.452854e+06
## [4613,] -7.439013e+04 -2.108411e+04 -3.127627e+10 -6.247573e+06
## [4614,] -1.043962e+08 -8.798063e+07 -1.944882e+11 -1.249064e+07
## [4615,] -3.221513e+11 -2.694854e+11 -1.164647e+15 -2.560880e+09
## [4616,] -2.468921e+11 -2.038132e+11 -8.827078e+14 -2.741632e+09
## [4617,] -4.913732e+09 -3.643844e+09 -1.471983e+13 -8.472242e+07

```

```

## [4618,] -2.833213e+06 -2.563768e+06 -7.310922e+10 -5.400818e+06
## [4619,] -3.714439e+04 -1.740371e+01 -3.131044e+10 -6.228251e+06
## [4620,] -1.000716e+08 -9.959337e+07 -1.947007e+11 -1.247607e+07
## [4621,] -3.338923e+11 -2.694839e+11 -1.165919e+15 -3.002776e+09
## [4622,] -2.310316e+11 -2.501255e+11 -8.836720e+14 -2.541396e+09
## [4623,] -4.399886e+09 -3.771486e+09 -1.473591e+13 -8.746994e+07
## [4624,] -2.704041e+06 -2.803042e+06 -7.318908e+10 -5.362925e+06
## [4625,] -4.686882e+04 -2.335957e+01 -3.132753e+10 -6.088391e+06
## [4626,] -1.000869e+08 -1.044431e+08 -1.948069e+11 -1.323662e+07
## [4627,] -3.328152e+11 -2.891831e+11 -1.166556e+15 -3.116098e+09
## [4628,] -2.632760e+11 -1.894268e+11 -8.836720e+14 -2.444200e+09
## [4629,] -4.596528e+09 -3.644121e+09 -1.474395e+13 -8.553728e+07
## [4630,] -3.742267e+06 -3.055659e+06 -7.322902e+10 -5.554677e+06
## [4631,] -4.208771e+04 -3.015232e+03 -3.136173e+10 -6.340589e+06
## [4632,] -1.010930e+08 -9.965439e+07 -1.951260e+11 -1.215319e+07
## [4633,] -3.328126e+11 -2.694807e+11 -1.168466e+15 -2.674849e+09
## [4634,] -2.517486e+11 -2.341590e+11 -8.851193e+14 -2.468094e+09
## [4635,] -4.497926e+09 -4.033266e+09 -1.476004e+13 -7.873677e+07
## [4636,] -3.621919e+06 -2.097274e+06 -7.330894e+10 -5.401244e+06
## [4637,] -1.064484e+05 -8.245992e+03 -3.139595e+10 -6.373033e+06
## [4638,] -1.059787e+08 -9.729464e+07 -1.952324e+11 -1.259634e+07
## [4639,] -3.126939e+11 -2.792430e+11 -1.169103e+15 -2.911139e+09
## [4640,] -2.493118e+11 -2.111990e+11 -8.856020e+14 -1.928952e+09
## [4641,] -3.993579e+09 -5.017632e+09 -1.476809e+13 -8.733139e+07
## [4642,] -4.239429e+06 -2.316522e+06 -7.334892e+10 -5.551421e+06
## [4643,] -5.662654e+04 -8.245992e+03 -3.139595e+10 -6.176420e+06
## [4644,] -1.064720e+08 -9.494827e+07 -1.952324e+11 -1.253695e+07
## [4645,] -3.491371e+11 -3.095747e+11 -1.169103e+15 -2.931288e+09
## [4646,] -2.493118e+11 -2.111990e+11 -8.856020e+14 -2.286126e+09
## [4647,] -4.739859e+09 -4.167400e+09 -1.476809e+13 -8.538615e+07
## [4648,] -3.791267e+06 -3.878897e+06 -7.334892e+10 -5.526848e+06
## [4649,] -1.032714e+05 -1.745770e+03 -3.139595e+10 -6.266970e+06
## [4650,] -1.094561e+08 -9.729464e+07 -1.952324e+11 -1.244391e+07
## [4651,] -3.502394e+11 -2.992904e+11 -1.169103e+15 -2.901091e+09
## [4652,] -2.599537e+11 -2.263736e+11 -8.856020e+14 -2.178818e+09
## [4653,] -4.582657e+09 -4.442047e+09 -1.476809e+13 -8.499973e+07
## [4654,] -3.099952e+06 -2.316522e+06 -7.334892e+10 -5.301266e+06
## [4655,] -2.195196e+05 -5.886114e+01 -3.139595e+10 -6.279258e+06
## [4656,] -1.045056e+08 -9.263055e+07 -1.952324e+11 -1.285245e+07
## [4657,] -3.360455e+11 -2.598905e+11 -1.169103e+15 -3.074278e+09
## [4658,] -2.493118e+11 -2.263736e+11 -8.856020e+14 -2.239821e+09
## [4659,] -4.958496e+09 -3.901517e+09 -1.476809e+13 -9.229035e+07
## [4660,] -3.534384e+06 -2.316522e+06 -7.334892e+10 -5.304701e+06
## [4661,] -3.756379e+04 -3.185265e+03 -3.139595e+10 -6.108334e+06
## [4662,] -1.049955e+08 -9.966964e+07 -1.952324e+11 -1.258784e+07
## [4663,] -3.064712e+11 -2.694799e+11 -1.169103e+15 -3.446648e+09
## [4664,] -2.550144e+11 -2.501225e+11 -8.856020e+14 -2.163699e+09

```

```

## [4665,] -4.682492e+09 -4.167499e+09 -1.477614e+13 -7.581951e+07
## [4666,] -3.365331e+06 -1.882628e+06 -7.338891e+10 -5.540969e+06
## [4667,] -2.839993e+04 -7.065608e+01 -3.141307e+10 -6.107261e+06
## [4668,] -1.069981e+08 -9.732479e+07 -1.954453e+11 -1.269231e+07
## [4669,] -3.760690e+11 -2.694783e+11 -1.170378e+15 -3.084452e+09
## [4670,] -2.649388e+11 -2.420731e+11 -8.865677e+14 -2.201452e+09
## [4671,] -4.582864e+09 -3.606769e+09 -1.478419e+13 -7.933582e+07
## [4672,] -2.888218e+06 -2.090640e+06 -7.342891e+10 -5.576223e+06
## [4673,] -8.870614e+03 -8.150508e+04 -3.143019e+10 -6.159644e+06
## [4674,] -1.008986e+08 -1.045368e+08 -1.954453e+11 -1.278627e+07
## [4675,] -3.075014e+11 -3.095722e+11 -1.171016e+15 -2.791462e+09
## [4676,] -2.388900e+11 -2.501202e+11 -8.870508e+14 -2.379934e+09
## [4677,] -4.484307e+09 -4.303929e+09 -1.479225e+13 -9.273713e+07
## [4678,] -3.065713e+06 -2.541792e+06 -7.346892e+10 -5.373888e+06
## [4679,] -2.171897e+04 -9.774938e+01 -3.144731e+10 -6.362319e+06
## [4680,] -1.062882e+08 -9.039957e+07 -1.956583e+11 -1.233906e+07
## [4681,] -3.338843e+11 -2.504718e+11 -1.171654e+15 -2.597893e+09
## [4682,] -2.484986e+11 -2.187169e+11 -8.880173e+14 -2.118306e+09
## [4683,] -4.498541e+09 -3.772331e+09 -1.480837e+13 -7.697070e+07
## [4684,] -2.931284e+06 -1.874249e+06 -7.354897e+10 -5.647152e+06
## [4685,] -5.425442e+02 -2.298490e+05 -3.148158e+10 -6.195425e+06
## [4686,] -1.053192e+08 -8.815274e+07 -1.957649e+11 -1.272572e+07
## [4687,] -3.210838e+11 -2.504710e+11 -1.172292e+15 -3.348421e+09
## [4688,] -2.460783e+11 -2.187169e+11 -8.880173e+14 -2.095965e+09
## [4689,] -4.769253e+09 -4.033849e+09 -1.480837e+13 -9.036296e+07
## [4690,] -3.351327e+06 -2.302587e+06 -7.358902e+10 -5.506344e+06
## [4691,] -6.155130e+04 -1.384214e+03 -3.149872e+10 -6.196787e+06
## [4692,] -1.045993e+08 -9.042863e+07 -1.958715e+11 -1.236662e+07
## [4693,] -3.147769e+11 -2.792382e+11 -1.172930e+15 -2.420365e+09
## [4694,] -2.616052e+11 -2.341531e+11 -8.889844e+14 -2.270129e+09
## [4695,] -4.345629e+09 -4.168091e+09 -1.482449e+13 -9.259447e+07
## [4696,] -4.819519e+06 -2.532056e+06 -7.362907e+10 -5.520440e+06
## [4697,] -4.536581e+04 -1.809217e+04 -3.151586e+10 -6.269190e+06
## [4698,] -1.075730e+08 -8.818144e+07 -1.959781e+11 -1.277936e+07
## [4699,] -3.535502e+11 -2.992846e+11 -1.173569e+15 -3.063359e+09
## [4700,] -2.517417e+11 -2.111934e+11 -8.894682e+14 -2.231572e+09
## [4701,] -4.526973e+09 -3.772613e+09 -1.483256e+13 -8.685942e+07
## [4702,] -3.342939e+06 -1.667703e+06 -7.370921e+10 -5.357122e+06
## [4703,] -4.896277e+04 -4.008225e+03 -3.155017e+10 -6.181344e+06
## [4704,] -9.932939e+07 -1.022123e+08 -1.961914e+11 -1.300517e+07
## [4705,] -3.480276e+11 -2.891716e+11 -1.175485e+15 -2.920379e+09
## [4706,] -2.428659e+11 -1.965440e+11 -8.904360e+14 -2.007441e+09
## [4707,] -4.755335e+09 -3.520031e+09 -1.484870e+13 -8.825914e+07
## [4708,] -3.819649e+06 -2.767335e+06 -7.374930e+10 -5.496193e+06
## [4709,] -6.004407e+04 -2.293621e+02 -3.156733e+10 -6.288053e+06
## [4710,] -1.046619e+08 -1.046619e+08 -1.962981e+11 -1.256565e+07
## [4711,] -3.355487e+11 -3.122146e+11 -2.831586e+13 -1.571293e+09

```



```

## [4712,] -2.436083e+11 -2.364550e+11 -2.144941e+13 -1.231517e+09
## [4713,] -4.475341e+09 -3.364179e+09 -3.576853e+11 -2.406371e+07
## [4714,] -1.778700e+07 -1.236516e+07 -1.776522e+09 -1.286280e+04
## [4715,] -7.304077e+06 -4.893072e+06 -7.630804e+08 -5.544650e+04
## [4716,] -5.820009e+07 -6.172082e+07 -4.745135e+09 -8.942769e+05
## [4717,] -3.008621e+11 -3.333918e+11 -2.841513e+13 -1.549144e+09
## [4718,] -2.549468e+11 -1.986548e+11 -2.152461e+13 -1.377905e+09
## [4719,] -4.364114e+09 -3.243948e+09 -3.589392e+11 -2.128146e+07
## [4720,] -1.740518e+07 -1.288974e+07 -1.782750e+09 -1.946902e+04
## [4721,] -6.505187e+06 -5.336767e+06 -7.630804e+08 -4.367306e+04
## [4722,] -6.097102e+07 -5.267769e+07 -4.745135e+09 -9.010795e+05
## [4723,] -3.420575e+11 -2.917307e+11 -2.841513e+13 -1.668752e+09
## [4724,] -2.582339e+11 -2.059515e+11 -2.152461e+13 -1.265859e+09
## [4725,] -4.199749e+09 -3.611480e+09 -3.589392e+11 -2.638366e+07
## [4726,] -1.715716e+07 -1.512081e+07 -1.782750e+09 -1.030275e+04
## [4727,] -6.605671e+06 -6.038408e+06 -7.630804e+08 -4.659066e+04
## [4728,] -6.399771e+07 -5.442904e+07 -4.745135e+09 -9.239409e+05
## [4729,] -3.508345e+11 -2.817497e+11 -2.841513e+13 -1.661147e+09
## [4730,] -2.325255e+11 -2.444082e+11 -2.159993e+13 -1.513517e+09
## [4731,] -4.213425e+09 -3.486869e+09 -3.601954e+11 -2.628409e+07
## [4732,] -1.727459e+07 -1.397731e+07 -1.788989e+09 -1.373098e+04
## [4733,] -6.753868e+06 -5.333237e+06 -7.657508e+08 -5.104585e+04
## [4734,] -6.210948e+07 -4.927164e+07 -4.761741e+09 -9.070838e+05
## [4735,] -3.387939e+11 -2.528484e+11 -2.851457e+13 -1.563792e+09
## [4736,] -2.549460e+11 -1.986541e+11 -2.159993e+13 -1.186286e+09
## [4737,] -4.145760e+09 -3.486869e+09 -3.601954e+11 -2.501204e+07
## [4738,] -1.684336e+07 -1.397731e+07 -1.788989e+09 -1.287112e+04
## [4739,] -6.753868e+06 -4.889692e+06 -7.657508e+08 -5.171300e+04
## [4740,] -6.117000e+07 -5.444031e+07 -4.761741e+09 -9.025308e+05
## [4741,] -3.285155e+11 -2.992821e+11 -1.175485e+15 -3.011741e+09
## [4742,] -2.517394e+11 -2.038015e+11 -8.909201e+14 -1.978403e+09
## [4743,] -4.726719e+09 -3.902663e+09 -1.486485e+13 -8.516889e+07
## [4744,] -3.277541e+06 -2.286382e+06 -7.386962e+10 -5.454567e+06
## [4745,] -3.944077e+04 -1.687998e+04 -3.161883e+10 -6.294631e+06
## [4746,] -1.044640e+08 -8.603338e+07 -1.966184e+11 -1.245490e+07
## [4747,] -3.360331e+11 -2.792317e+11 -1.178043e+15 -2.456579e+09
## [4748,] -2.550028e+11 -2.263627e+11 -8.928580e+14 -2.277282e+09
## [4749,] -4.155474e+09 -4.305233e+09 -1.489717e+13 -9.112130e+07
## [4750,] -3.378015e+06 -2.059818e+06 -7.399005e+10 -5.598591e+06
## [4751,] -5.095749e+04 -5.095749e+04 -3.167037e+10 -6.254504e+06
## [4752,] -1.015955e+08 -1.023205e+08 -1.969389e+11 -1.291444e+07
## [4753,] -3.360304e+11 -2.891659e+11 -1.179962e+15 -3.229782e+09
## [4754,] -2.444623e+11 -2.111871e+11 -8.938277e+14 -2.859967e+09
## [4755,] -4.471936e+09 -4.169275e+09 -1.492144e+13 -8.662608e+07
## [4756,] -3.369593e+06 -2.053243e+06 -7.411057e+10 -5.378707e+06
## [4757,] -1.447234e+05 -7.450692e+02 -3.172196e+10 -6.334933e+06
## [4758,] -9.878212e+07 -9.292496e+07 -1.973667e+11 -1.275629e+07

```

```

## [4759,] -3.168599e+11 -3.200154e+11 -1.181884e+15 -2.990481e+09
## [4760,] -2.558189e+11 -2.037953e+11 -8.952832e+14 -2.043259e+09
## [4761,] -4.814311e+09 -4.727560e+09 -1.492953e+13 -8.412584e+07
## [4762,] -4.055683e+06 -2.500540e+06 -7.415076e+10 -5.588355e+06
## [4763,] -1.192469e+05 -3.014626e+04 -3.173917e+10 -6.361032e+06
## [4764,] -1.100270e+08 -9.063221e+07 -1.973667e+11 -1.256893e+07
## [4765,] -3.513253e+11 -2.792269e+11 -1.181884e+15 -2.919553e+09
## [4766,] -2.566401e+11 -2.187062e+11 -8.952832e+14 -1.920493e+09
## [4767,] -4.613118e+09 -3.646243e+09 -1.492953e+13 -8.800958e+07
## [4768,] -3.874444e+06 -2.267933e+06 -7.419097e+10 -5.751820e+06
## [4769,] -5.144853e+04 -2.909429e+04 -3.175638e+10 -6.441853e+06
## [4770,] -1.041001e+08 -1.048339e+08 -1.974737e+11 -1.283023e+07
## [4771,] -3.033656e+11 -2.694632e+11 -1.182525e+15 -3.304010e+09
## [4772,] -2.444593e+11 -2.111842e+11 -8.957687e+14 -2.638524e+09
## [4773,] -4.430345e+09 -4.584934e+09 -1.494572e+13 -8.705895e+07
## [4774,] -3.196375e+06 -2.263332e+06 -7.427141e+10 -5.766315e+06
## [4775,] -6.241115e+04 -1.514051e+04 -3.179081e+10 -6.422233e+06
## [4776,] -1.009806e+08 -9.067586e+07 -1.976878e+11 -1.300465e+07
## [4777,] -3.231840e+11 -2.992712e+11 -1.183807e+15 -3.543747e+09
## [4778,] -2.607636e+11 -2.263569e+11 -8.967400e+14 -2.370538e+09
## [4779,] -4.374889e+09 -3.903713e+09 -1.495382e+13 -9.424707e+07
## [4780,] -4.864177e+06 -1.836778e+06 -7.427141e+10 -5.368674e+06
## [4781,] -3.969611e+04 -1.551889e+04 -3.182526e+10 -6.301259e+06
## [4782,] -1.048965e+08 -8.620357e+07 -1.979020e+11 -1.240986e+07
## [4783,] -2.992695e+11 -3.095535e+11 -1.185090e+15 -3.814871e+09
## [4784,] -2.525418e+11 -2.037905e+11 -8.986841e+14 -2.362348e+09
## [4785,] -3.982966e+09 -4.444798e+09 -1.498624e+13 -9.924828e+07
## [4786,] -2.187461e+06 -4.094308e+06 -7.443244e+10 -5.455767e+06
## [4787,] -2.557807e+03 -7.872274e+02 -3.185973e+10 -6.164371e+06
## [4788,] -1.098882e+08 -9.770208e+07 -1.981164e+11 -1.252205e+07
## [4789,] -3.806317e+11 -2.598695e+11 -1.186374e+15 -3.030804e+09
## [4790,] -2.271265e+11 -2.263540e+11 -8.986841e+14 -2.522685e+09
## [4791,] -3.982966e+09 -5.020556e+09 -1.498624e+13 -9.208358e+07
## [4792,] -3.512926e+06 -2.483652e+06 -7.443244e+10 -5.473201e+06
## [4793,] -5.614753e+04 -4.925777e+03 -3.185973e+10 -6.264652e+06
## [4794,] -1.029758e+08 -9.302811e+07 -1.981164e+11 -1.311323e+07
## [4795,] -3.491127e+11 -3.200094e+11 -1.186374e+15 -4.155853e+09
## [4796,] -2.801627e+11 -2.111800e+11 -8.986841e+14 -2.679880e+09
## [4797,] -4.642326e+09 -3.521572e+09 -1.498624e+13 -8.023803e+07
## [4798,] -3.236171e+06 -1.826436e+06 -7.447272e+10 -5.698899e+06
## [4799,] -8.418821e+04 -4.181978e+02 -3.187698e+10 -6.384465e+06
## [4800,] -1.074095e+08 -9.304285e+07 -1.982236e+11 -1.268892e+07
## [4801,] -3.602122e+11 -2.891568e+11 -1.187016e+15 -2.799297e+09
## [4802,] -2.317885e+11 -2.420535e+11 -8.991705e+14 -2.161709e+09
## [4803,] -4.265324e+09 -4.170163e+09 -1.499435e+13 -1.043319e+08
## [4804,] -3.673875e+06 -1.441847e+06 -7.455332e+10 -5.504910e+06
## [4805,] -9.201558e+04 -3.148750e+04 -3.191148e+10 -6.389710e+06

```

```

## [4806,] -1.084358e+08 -9.307234e+07 -1.984381e+11 -1.261467e+07
## [4807,] -2.891552e+11 -2.891552e+11 -1.188300e+15 -3.061414e+09
## [4808,] -2.844695e+11 -2.500988e+11 -9.006304e+14 -2.176608e+09
## [4809,] -4.786469e+09 -3.904477e+09 -1.501870e+13 -9.294775e+07
## [4810,] -2.542475e+06 -2.962872e+06 -7.463396e+10 -5.435310e+06
## [4811,] -5.802158e+03 -4.404348e+03 -3.194599e+10 -6.278875e+06
## [4812,] -1.089667e+08 -1.025680e+08 -1.986528e+11 -1.260002e+07
## [4813,] -3.013065e+11 -3.095475e+11 -1.189586e+15 -3.133863e+09
## [4814,] -2.428494e+11 -2.037870e+11 -9.011173e+14 -1.926804e+09
## [4815,] -4.445308e+09 -3.774866e+09 -1.502682e+13 -7.862709e+07
## [4816,] -3.171831e+06 -2.024873e+06 -7.463396e+10 -5.763526e+06
## [4817,] -3.921650e+04 -6.665237e+03 -3.196326e+10 -6.461021e+06
## [4818,] -1.028415e+08 -9.780785e+07 -1.988675e+11 -1.275577e+07
## [4819,] -3.392647e+11 -3.200033e+11 -1.190872e+15 -2.888267e+09
## [4820,] -2.566292e+11 -2.111751e+11 -9.020915e+14 -2.168832e+09
## [4821,] -4.376102e+09 -3.904859e+09 -1.505119e+13 -8.744005e+07
## [4822,] -3.379476e+06 -2.018354e+06 -7.475500e+10 -5.607302e+06
## [4823,] -1.392864e+04 -4.105504e+03 -3.199780e+10 -6.354512e+06
## [4824,] -1.057903e+08 -9.314607e+07 -1.989750e+11 -1.274414e+07
## [4825,] -2.891511e+11 -2.792147e+11 -1.191515e+15 -3.238819e+09
## [4826,] -2.460556e+11 -2.263481e+11 -9.025787e+14 -2.275824e+09
## [4827,] -4.586279e+09 -4.445613e+09 -1.505119e+13 -8.607523e+07
## [4828,] -3.058438e+06 -3.216955e+06 -7.475500e+10 -5.607302e+06
## [4829,] -1.634039e+04 -1.748082e+04 -3.199780e+10 -6.344622e+06
## [4830,] -1.053142e+08 -9.316082e+07 -1.990824e+11 -1.237636e+07
## [4831,] -3.327799e+11 -2.694513e+11 -1.192158e+15 -2.828311e+09
## [4832,] -2.436465e+11 -1.965264e+11 -9.030662e+14 -1.905233e+09
## [4833,] -4.714961e+09 -4.171052e+09 -1.506745e+13 -8.417215e+07
## [4834,] -3.679033e+06 -2.011846e+06 -7.487615e+10 -5.646484e+06
## [4835,] -3.048150e+04 -7.303448e+03 -3.204966e+10 -6.465482e+06
## [4836,] -1.046256e+08 -9.090886e+07 -1.994050e+11 -1.240092e+07
## [4837,] -2.962057e+11 -3.095407e+11 -1.194734e+15 -3.101956e+09
## [4838,] -2.396560e+11 -2.263445e+11 -9.050172e+14 -2.275459e+09
## [4839,] -4.729661e+09 -4.307640e+09 -1.509185e+13 -8.595196e+07
## [4840,] -2.667175e+06 -2.224414e+06 -7.495696e+10 -5.636030e+06
## [4841,] -7.186416e+03 -1.441554e+03 -3.208425e+10 -6.299694e+06
## [4842,] -9.789856e+07 -9.789856e+07 -1.995125e+11 -1.292585e+07
## [4843,] -3.392593e+11 -2.694482e+11 -1.194734e+15 -2.867775e+09
## [4844,] -2.615786e+11 -2.263438e+11 -9.055052e+14 -2.191056e+09
## [4845,] -4.572734e+09 -3.522842e+09 -1.509999e+13 -7.986760e+07
## [4846,] -2.913728e+06 -1.799685e+06 -7.499739e+10 -5.710726e+06
## [4847,] -2.330999e+04 -1.500062e+03 -3.210155e+10 -6.514655e+06
## [4848,] -1.022228e+08 -9.093800e+07 -1.996201e+11 -1.246233e+07
## [4849,] -3.252912e+11 -2.694474e+11 -1.195378e+15 -2.547752e+09
## [4850,] -2.492805e+11 -2.037808e+11 -9.055052e+14 -1.883716e+09
## [4851,] -4.502232e+09 -3.775711e+09 -1.509999e+13 -7.837802e+07
## [4852,] -3.068496e+06 -2.005348e+06 -7.499739e+10 -5.803779e+06

```

```

## [4853,] -2.968636e+04 -7.700389e+03 -3.210155e+10 -6.532197e+06
## [4854,] -1.024649e+08 -9.093800e+07 -1.996201e+11 -1.242012e+07
## [4855,] -3.295575e+11 -2.694474e+11 -1.195378e+15 -2.519604e+09
## [4856,] -2.484711e+11 -1.965230e+11 -9.055052e+14 -1.890764e+09
## [4857,] -4.516288e+09 -3.775711e+09 -1.509999e+13 -7.782304e+07
## [4858,] -3.042423e+06 -2.005348e+06 -7.499739e+10 -5.800186e+06
## [4859,] -7.852244e+04 -2.483188e+04 -3.210155e+10 -6.429788e+06
## [4860,] -1.046725e+08 -9.792880e+07 -1.997277e+11 -1.330091e+07
## [4861,] -3.263534e+11 -2.992545e+11 -1.196667e+15 -3.164300e+09
## [4862,] -2.404486e+11 -2.186898e+11 -9.064818e+14 -2.400741e+09
## [4863,] -4.460398e+09 -3.775899e+09 -1.511628e+13 -8.026956e+07
## [4864,] -2.956983e+06 -2.442876e+06 -7.511873e+10 -5.569296e+06
## [4865,] -2.566226e+04 -1.934640e+04 -3.215349e+10 -6.468840e+06
## [4866,] -1.061783e+08 -1.003421e+08 -1.999431e+11 -1.279329e+07
## [4867,] -3.221070e+11 -2.891437e+11 -1.197312e+15 -2.807872e+09
## [4868,] -2.452447e+11 -2.420415e+11 -9.069702e+14 -2.368975e+09
## [4869,] -4.335564e+09 -4.308041e+09 -1.512442e+13 -9.193121e+07
## [4870,] -3.834718e+06 -2.681571e+06 -7.511873e+10 -5.583385e+06
## [4871,] -2.890173e+04 -1.682591e+03 -3.215349e+10 -6.339727e+06
## [4872,] -1.079116e+08 -1.076631e+08 -1.999431e+11 -1.292201e+07
## [4873,] -3.458012e+11 -3.414306e+11 -1.197312e+15 -3.185219e+09
## [4874,] -2.404478e+11 -2.186890e+11 -9.069702e+14 -2.472739e+09
## [4875,] -4.587211e+09 -3.775993e+09 -1.512442e+13 -9.093043e+07
## [4876,] -3.219038e+06 -1.793539e+06 -7.511873e+10 -5.555224e+06
## [4877,] -2.864252e+04 -5.886114e+01 -3.217081e+10 -6.437828e+06
## [4878,] -1.052098e+08 -9.329363e+07 -2.000508e+11 -1.246701e+07
## [4879,] -3.263508e+11 -2.891421e+11 -1.198602e+15 -2.998507e+09
## [4880,] -2.517126e+11 -1.893935e+11 -9.079476e+14 -2.198299e+09
## [4881,] -4.530881e+09 -3.648643e+09 -1.514072e+13 -8.200785e+07
## [4882,] -2.898096e+06 -1.992384e+06 -7.524016e+10 -5.761266e+06
## [4883,] -2.193118e+04 -3.877473e+01 -3.220547e+10 -6.548119e+06
## [4884,] -1.004034e+08 -9.104005e+07 -2.003741e+11 -1.300434e+07
## [4885,] -3.095339e+11 -3.095339e+11 -1.199893e+15 -3.290936e+09
## [4886,] -2.119115e+11 -2.582647e+11 -9.089255e+14 -2.570185e+09
## [4887,] -4.730607e+09 -3.906196e+09 -1.516518e+13 -7.960293e+07
## [4888,] -3.618429e+06 -1.988072e+06 -7.532117e+10 -5.704300e+06
## [4889,] -4.632781e+04 -8.810280e+03 -3.224015e+10 -6.450855e+06
## [4890,] -1.122604e+08 -8.878522e+07 -2.004819e+11 -1.270094e+07
## [4891,] -3.012923e+11 -2.992495e+11 -1.200539e+15 -2.719282e+09
## [4892,] -2.468503e+11 -2.111646e+11 -9.094146e+14 -2.496619e+09
## [4893,] -4.587832e+09 -4.038218e+09 -1.517334e+13 -7.775973e+07
## [4894,] -2.812158e+06 -1.779241e+06 -7.540223e+10 -5.811852e+06
## [4895,] -2.552048e+04 -2.149367e+03 -3.227484e+10 -6.456128e+06
## [4896,] -1.067826e+08 -9.338222e+07 -2.006977e+11 -1.259266e+07
## [4897,] -3.338428e+11 -2.792018e+11 -1.201831e+15 -2.738597e+09
## [4898,] -2.420362e+11 -1.965162e+11 -9.103932e+14 -2.321319e+09
## [4899,] -4.559725e+09 -3.776744e+09 -1.518967e+13 -8.020526e+07

```

```

## [4900,] -2.907887e+06 -2.907887e+06 -7.548333e+10 -5.644247e+06
## [4901,] -2.990794e+04 -2.293242e+03 -3.230955e+10 -6.483868e+06
## [4902,] -1.033794e+08 -9.111297e+07 -2.009135e+11 -1.249330e+07
## [4903,] -3.370790e+11 -2.992453e+11 -1.203770e+15 -2.997837e+09
## [4904,] -2.428328e+11 -2.186819e+11 -9.118622e+14 -2.289939e+09
## [4905,] -4.559931e+09 -3.400852e+09 -1.520600e+13 -8.751585e+07
## [4906,] -2.879913e+06 -3.436012e+06 -7.552390e+10 -5.651424e+06
## [4907,] -4.679606e+04 -2.456899e+03 -3.232692e+10 -6.355983e+06
## [4908,] -9.931446e+07 -9.114215e+07 -2.011295e+11 -1.305159e+07
## [4909,] -3.359968e+11 -2.694363e+11 -1.204417e+15 -2.462716e+09
## [4910,] -2.412358e+11 -2.263336e+11 -9.123521e+14 -1.861728e+09
## [4911,] -4.531807e+09 -3.777026e+09 -1.521417e+13 -8.597042e+07
## [4912,] -3.460873e+06 -1.975164e+06 -7.556447e+10 -5.708389e+06
## [4913,] -8.079113e+04 -2.441788e+03 -3.234429e+10 -6.476663e+06
## [4914,] -9.576908e+07 -9.812551e+07 -2.011295e+11 -1.367269e+07
## [4915,] -3.284761e+11 -2.694363e+11 -1.204417e+15 -3.018200e+09
## [4916,] -2.508924e+11 -2.582593e+11 -9.123521e+14 -2.167337e+09
## [4917,] -4.503770e+09 -4.038800e+09 -1.522234e+13 -8.774042e+07
## [4918,] -3.430349e+06 -2.414297e+06 -7.560506e+10 -5.906167e+06
## [4919,] -3.081859e+04 -2.517812e+03 -3.236166e+10 -6.578330e+06
## [4920,] -1.118669e+08 -8.664400e+07 -2.012376e+11 -1.278184e+07
## [4921,] -3.446943e+11 -3.414190e+11 -1.205711e+15 -3.518506e+09
## [4922,] -2.452348e+11 -2.341161e+11 -9.133324e+14 -2.197510e+09
## [4923,] -4.254555e+09 -4.173026e+09 -1.523051e+13 -9.804042e+07
## [4924,] -3.210160e+06 -2.411922e+06 -7.564566e+10 -5.712128e+06
## [4925,] -2.119747e+03 -9.994912e+03 -3.237904e+10 -6.434571e+06
## [4926,] -1.091158e+08 -9.117133e+07 -2.013456e+11 -1.316664e+07
## [4927,] -3.306118e+11 -2.598437e+11 -1.207653e+15 -3.507187e+09
## [4928,] -2.186776e+11 -2.341139e+11 -9.148037e+14 -2.602254e+09
## [4929,] -4.406377e+09 -3.649935e+09 -1.525505e+13 -9.256818e+07
## [4930,] -3.471571e+06 -2.402438e+06 -7.580816e+10 -5.577811e+06
## [4931,] -1.505040e+04 -1.061525e+04 -3.244859e+10 -6.475029e+06
## [4932,] -1.039913e+08 -1.006025e+08 -2.017782e+11 -1.278349e+07
## [4933,] -3.601820e+11 -3.199800e+11 -1.208301e+15 -2.876044e+09
## [4934,] -2.767111e+11 -2.111562e+11 -9.152944e+14 -2.159365e+09
## [4935,] -4.876958e+09 -4.039286e+09 -1.526323e+13 -8.508728e+07
## [4936,] -2.861787e+06 -2.402438e+06 -7.580816e+10 -5.683994e+06
## [4937,] -9.553469e+04 -2.896508e+01 -3.244859e+10 -6.395383e+06
## [4938,] -1.022899e+08 -9.821636e+07 -2.017782e+11 -1.295521e+07
## [4939,] -3.316826e+11 -2.992386e+11 -1.208949e+15 -3.152193e+09
## [4940,] -2.468397e+11 -1.965081e+11 -9.162762e+14 -2.447160e+09
## [4941,] -4.255153e+09 -4.309947e+09 -1.527961e+13 -9.423088e+07
## [4942,] -3.167151e+06 -1.562831e+06 -7.588948e+10 -6.023366e+06
## [4943,] -4.183728e+04 -2.359550e+04 -3.248340e+10 -6.588156e+06
## [4944,] -1.050011e+08 -9.355952e+07 -2.019946e+11 -1.268338e+07
## [4945,] -3.252720e+11 -2.791921e+11 -1.209597e+15 -3.697079e+09
## [4946,] -2.356843e+11 -2.500743e+11 -9.162762e+14 -2.952379e+09

```

```

## [4947,] -4.646179e+09 -3.777871e+09 -1.528780e+13 -9.202360e+07
## [4948,] -3.325637e+06 -2.170046e+06 -7.593016e+10 -5.648750e+06
## [4949,] -7.692900e+04 -8.273762e+03 -3.250081e+10 -6.387130e+06
## [4950,] -1.112377e+08 -8.900136e+07 -2.021029e+11 -1.304076e+07
## [4951,] -3.199774e+11 -3.306082e+11 -1.210246e+15 -2.986805e+09
## [4952,] -2.404328e+11 -2.263271e+11 -9.167673e+14 -2.495473e+09
## [4953,] -4.575111e+09 -3.650304e+09 -1.528780e+13 -9.222451e+07
## [4954,] -4.040432e+06 -1.752839e+06 -7.593016e+10 -5.702052e+06
## [4955,] -2.244560e+04 -1.758546e+03 -3.250081e+10 -6.436819e+06
## [4956,] -1.074995e+08 -9.827696e+07 -2.022112e+11 -1.282249e+07
## [4957,] -3.501806e+11 -2.992361e+11 -1.210894e+15 -2.865729e+09
## [4958,] -2.516980e+11 -2.341102e+11 -9.172586e+14 -2.174184e+09
## [4959,] -4.761133e+09 -4.173816e+09 -1.529599e+13 -8.437281e+07
## [4960,] -3.188292e+06 -2.629273e+06 -7.597084e+10 -5.730669e+06
## [4961,] -7.381603e+04 -8.202948e+04 -3.251823e+10 -6.543193e+06
## [4962,] -1.104978e+08 -9.827696e+07 -2.022112e+11 -1.276257e+07
## [4963,] -3.306074e+11 -3.199765e+11 -1.210894e+15 -2.885721e+09
## [4964,] -2.590766e+11 -2.263263e+11 -9.172586e+14 -2.181755e+09
## [4965,] -4.833626e+09 -4.039675e+09 -1.529599e+13 -8.514367e+07
## [4966,] -3.600312e+06 -2.629273e+06 -7.597084e+10 -5.762851e+06
## [4967,] -5.177488e+04 -6.820366e+01 -3.251823e+10 -6.515615e+06
## [4968,] -1.052778e+08 -9.358909e+07 -2.022112e+11 -1.291694e+07
## [4969,] -2.982173e+11 -3.199765e+11 -1.210894e+15 -3.089459e+09
## [4970,] -2.508848e+11 -2.341102e+11 -9.172586e+14 -2.685275e+09
## [4971,] -5.448730e+09 -4.173816e+09 -1.529599e+13 -1.055545e+08
## [4972,] -4.756116e+06 -1.750816e+06 -7.597084e+10 -5.375702e+06
## [4973,] -4.707416e+04 -2.430494e+04 -3.253565e+10 -6.625160e+06
## [4974,] -1.006792e+08 -1.130441e+08 -2.023195e+11 -1.345256e+07
## [4975,] -3.053844e+11 -2.992352e+11 -1.211543e+15 -3.685476e+09
## [4976,] -2.574262e+11 -2.037629e+11 -9.182414e+14 -1.989043e+09
## [4977,] -4.533042e+09 -3.650581e+09 -1.531238e+13 -8.173003e+07
## [4978,] -3.399283e+06 -2.163298e+06 -7.605225e+10 -5.766608e+06
## [4979,] -3.279701e+04 -1.174582e+04 -3.257050e+10 -6.577553e+06
## [4980,] -1.102945e+08 -9.596361e+07 -2.025362e+11 -1.308881e+07
## [4981,] -3.189204e+11 -2.992336e+11 -1.212841e+15 -2.517533e+09
## [4982,] -2.557810e+11 -2.111505e+11 -9.192248e+14 -2.257901e+09
## [4983,] -4.632442e+09 -3.908107e+09 -1.532878e+13 -9.290221e+07
## [4984,] -2.838566e+06 -1.943077e+06 -7.617444e+10 -5.900167e+06
## [4985,] -2.558399e+04 -3.704780e+03 -3.260537e+10 -6.462599e+06
## [4986,] -1.090733e+08 -9.136114e+07 -2.027531e+11 -1.337853e+07
## [4987,] -3.435883e+11 -3.095144e+11 -1.214789e+15 -3.088949e+09
## [4988,] -2.500682e+11 -2.037601e+11 -9.202087e+14 -1.945598e+09
## [4989,] -5.040172e+09 -4.310750e+09 -1.534518e+13 -8.717176e+07
## [4990,] -3.198561e+06 -1.940948e+06 -7.621519e+10 -5.911130e+06
## [4991,] -2.231301e+04 -7.329584e+03 -3.262281e+10 -6.424139e+06
## [4992,] -1.031725e+08 -9.836788e+07 -2.028615e+11 -1.294130e+07
## [4993,] -3.501752e+11 -2.891215e+11 -1.214789e+15 -2.945615e+09

```

```

## [4994,] -2.525080e+11 -2.186698e+11 -9.202087e+14 -2.304245e+09
## [4995,] -4.819720e+09 -3.908298e+09 -1.534518e+13 -8.484225e+07
## [4996,] -3.090058e+06 -1.508817e+06 -7.625595e+10 -5.929366e+06
## [4997,] -3.715617e+04 -1.241754e+04 -3.264026e+10 -6.742720e+06
## [4998,] -1.103587e+08 -1.081076e+08 -2.029700e+11 -1.282652e+07
## [4999,] -3.435865e+11 -2.992294e+11 -1.216088e+15 -3.224920e+09
## [5000,] -2.525065e+11 -2.263205e+11 -9.211932e+14 -2.422390e+09
## [5001,] -4.147600e+09 -3.778717e+09 -1.536160e+13 -8.936376e+07
## [5002,] -3.493018e+06 -2.374096e+06 -7.629672e+10 -5.607071e+06
## [5003,] -2.617891e+04 -6.942453e+03 -3.267517e+10 -6.548260e+06
## [5004,] -1.081393e+08 -9.141958e+07 -2.031871e+11 -1.293197e+07
## [5005,] -2.811565e+11 -2.992286e+11 -1.216738e+15 -3.505920e+09
## [5006,] -2.741464e+11 -2.037580e+11 -9.216856e+14 -2.188696e+09
## [5007,] -5.235549e+09 -3.778811e+09 -1.536981e+13 -8.957621e+07
## [5008,] -3.055873e+06 -2.369389e+06 -7.637830e+10 -5.785237e+06
## [5009,] -2.753616e+04 -2.649635e+04 -3.269263e+10 -6.615109e+06
## [5010,] -9.890397e+07 -1.056806e+08 -2.032957e+11 -1.311887e+07
## [5011,] -3.446773e+11 -2.694196e+11 -1.218039e+15 -3.203525e+09
## [5012,] -2.516896e+11 -1.964993e+11 -9.226708e+14 -2.642541e+09
## [5013,] -4.283806e+09 -4.449792e+09 -1.538624e+13 -9.749961e+07
## [5014,] -3.053202e+06 -1.728642e+06 -7.641911e+10 -5.596740e+06
## [5015,] -2.111517e+05 -2.724545e+02 -3.271010e+10 -6.324528e+06
## [5016,] -1.071936e+08 -9.609840e+07 -2.035129e+11 -1.293985e+07
## [5017,] -3.136712e+11 -3.095092e+11 -1.218690e+15 -3.047143e+09
## [5018,] -2.412192e+11 -2.037560e+11 -9.231636e+14 -1.930909e+09
## [5019,] -4.733551e+09 -4.040840e+09 -1.539446e+13 -8.667177e+07
## [5020,] -2.896223e+06 -2.140878e+06 -7.645992e+10 -5.558078e+06
## [5021,] -5.841364e+01 -1.691970e+04 -3.272757e+10 -6.449893e+06
## [5022,] -1.089351e+08 -8.694300e+07 -2.035129e+11 -1.300882e+07
## [5023,] -3.273894e+11 -2.598305e+11 -1.218690e+15 -2.668688e+09
## [5024,] -2.516888e+11 -2.037560e+11 -9.231636e+14 -2.226594e+09
## [5025,] -4.647534e+09 -3.908871e+09 -1.539446e+13 -8.784499e+07
## [5026,] -2.138642e+06 -3.100167e+06 -7.650075e+10 -5.721103e+06
## [5027,] -4.085536e+04 -6.320592e+03 -3.276253e+10 -6.580407e+06
## [5028,] -1.045165e+08 -8.921776e+07 -2.037303e+11 -1.264265e+07
## [5029,] -3.370559e+11 -2.992235e+11 -1.220642e+15 -3.005873e+09
## [5030,] -2.574161e+11 -2.037539e+11 -9.246429e+14 -2.366298e+09
## [5031,] -4.548486e+09 -4.311653e+09 -1.541913e+13 -9.025865e+07
## [5032,] -3.068603e+06 -1.720614e+06 -7.658244e+10 -5.653691e+06
## [5033,] -1.509918e+04 -4.692751e+03 -3.278001e+10 -6.726070e+06
## [5034,] -1.166072e+08 -9.381099e+07 -2.038390e+11 -1.313789e+07
## [5035,] -3.381390e+11 -3.305942e+11 -1.220642e+15 -3.256144e+09
## [5036,] -2.428132e+11 -2.420144e+11 -9.246429e+14 -2.478073e+09
## [5037,] -4.590938e+09 -4.311653e+09 -1.541913e+13 -9.286249e+07
## [5038,] -3.094788e+06 -2.134175e+06 -7.658244e+10 -5.678545e+06
## [5039,] -6.989196e+04 -1.399725e+04 -3.279750e+10 -6.613458e+06
## [5040,] -1.011499e+08 -9.851951e+07 -2.039478e+11 -1.349278e+07

```

```

## [5041,] -3.174423e+11 -2.917299e+11 -2.851457e+13 -1.571172e+09
## [5042,] -2.500547e+11 -1.986541e+11 -2.159993e+13 -1.265805e+09
## [5043,] -4.350397e+09 -3.244035e+09 -3.601954e+11 -2.903551e+07
## [5044,] -1.777411e+07 -1.397731e+07 -1.788989e+09 -7.501134e+03
## [5045,] -6.804961e+06 -4.675140e+06 -7.657508e+08 -4.195927e+04
## [5046,] -6.135732e+07 -4.927164e+07 -4.761741e+09 -1.010149e+06
## [5047,] -3.269645e+11 -2.623082e+11 -2.851457e+13 -1.676313e+09
## [5048,] -2.286304e+11 -2.133790e+11 -2.159993e+13 -1.265805e+09
## [5049,] -4.309075e+09 -3.364356e+09 -3.601954e+11 -2.501204e+07
## [5050,] -1.696601e+07 -1.342522e+07 -1.788989e+09 -1.220326e+04
## [5051,] -7.194296e+06 -5.562229e+06 -7.657508e+08 -5.082442e+04
## [5052,] -6.248728e+07 -5.802929e+07 -4.761741e+09 -9.162242e+05
## [5053,] -3.237748e+11 -2.817489e+11 -2.851457e+13 -1.608331e+09
## [5054,] -2.582331e+11 -2.059508e+11 -2.159993e+13 -1.231409e+09
## [5055,] -4.065286e+09 -3.998826e+09 -3.601954e+11 -2.543255e+07
## [5056,] -1.821703e+07 -1.454053e+07 -1.788989e+09 -1.304087e+04
## [5057,] -6.323506e+06 -5.329708e+06 -7.684259e+08 -4.962779e+04
## [5058,] -6.062164e+07 -5.269988e+07 -4.778375e+09 -9.199818e+05
## [5059,] -3.269637e+11 -2.719409e+11 -2.861418e+13 -1.600803e+09
## [5060,] -2.590574e+11 -2.209382e+11 -2.167539e+13 -1.277320e+09
## [5061,] -4.447683e+09 -3.244122e+09 -3.614537e+11 -2.629192e+07
## [5062,] -1.629075e+07 -1.510892e+07 -1.795238e+09 -9.421706e+03
## [5063,] -6.699011e+06 -6.522428e+06 -7.684259e+08 -4.789469e+04
## [5064,] -6.363975e+07 -5.445159e+07 -4.778375e+09 -9.477343e+05
## [5065,] -3.398789e+11 -2.817481e+11 -2.861418e+13 -1.600803e+09
## [5066,] -2.492434e+11 -2.286297e+11 -2.167539e+13 -1.175085e+09
## [5067,] -4.517758e+09 -3.486959e+09 -3.614537e+11 -2.439540e+07
## [5068,] -1.714450e+07 -1.453470e+07 -1.795238e+09 -1.304505e+04
## [5069,] -6.225201e+06 -5.558625e+06 -7.684259e+08 -5.028565e+04
## [5070,] -5.749523e+07 -5.804094e+07 -4.778375e+09 -9.291868e+05
## [5071,] -3.295224e+11 -2.504129e+11 -1.221294e+15 -2.726457e+09
## [5072,] -2.317495e+11 -2.111421e+11 -9.251362e+14 -2.413811e+09
## [5073,] -5.130827e+09 -4.175396e+09 -1.542735e+13 -8.287364e+07
## [5074,] -3.039865e+06 -2.355296e+06 -7.662330e+10 -5.749944e+06
## [5075,] -1.278620e+05 -4.797971e+03 -3.279750e+10 -6.603369e+06
## [5076,] -1.080018e+08 -9.382579e+07 -2.039478e+11 -1.317816e+07
## [5077,] -3.590458e+11 -2.891133e+11 -1.221294e+15 -2.944786e+09
## [5078,] -2.648758e+11 -2.340977e+11 -9.256297e+14 -2.135324e+09
## [5079,] -4.284406e+09 -4.041326e+09 -1.543558e+13 -1.043196e+08
## [5080,] -2.959717e+06 -2.587314e+06 -7.666417e+10 -5.757188e+06
## [5081,] -3.426887e+04 -1.417861e+04 -3.281500e+10 -6.559466e+06
## [5082,] -1.150946e+08 -1.133043e+08 -2.040566e+11 -1.289850e+07
## [5083,] -3.446710e+11 -2.694140e+11 -1.222597e+15 -2.894263e+09
## [5084,] -2.648751e+11 -2.111407e+11 -9.261233e+14 -2.127764e+09
## [5085,] -4.506540e+09 -3.551559e+09 -1.544381e+13 -7.839032e+07
## [5086,] -2.584856e+06 -2.830230e+06 -7.670505e+10 -5.785943e+06
## [5087,] -7.129966e+02 -7.534074e+02 -3.283249e+10 -6.455739e+06

```



```

## [5088,] -1.033589e+08 -9.854986e+07 -2.041654e+11 -1.319795e+07
## [5089,] -3.305898e+11 -2.891100e+11 -1.223900e+15 -3.277014e+09
## [5090,] -2.792578e+11 -2.263118e+11 -9.271109e+14 -2.303218e+09
## [5091,] -4.662650e+09 -4.041618e+09 -1.546028e+13 -9.293614e+07
## [5092,] -3.652814e+06 -1.708607e+06 -7.682776e+10 -5.850971e+06
## [5093,] -6.287013e+04 -4.897630e+04 -3.288502e+10 -6.623020e+06
## [5094,] -1.051161e+08 -9.389983e+07 -2.044920e+11 -1.345055e+07
## [5095,] -3.413931e+11 -3.095016e+11 -1.224552e+15 -3.171092e+09
## [5096,] -2.574114e+11 -2.263111e+11 -9.276049e+14 -2.357968e+09
## [5097,] -4.563234e+09 -3.779938e+09 -1.546852e+13 -8.180331e+07
## [5098,] -3.261845e+06 -1.907031e+06 -7.686869e+10 -5.800657e+06
## [5099,] -5.534651e+04 -6.180110e+02 -3.290254e+10 -6.606763e+06
## [5100,] -1.051318e+08 -9.391464e+07 -2.046010e+11 -1.284863e+07
## [5101,] -3.043375e+11 -3.305880e+11 -1.225205e+15 -3.244907e+09
## [5102,] -2.715936e+11 -2.247694e+11 -9.280990e+14 -2.060668e+09
## [5103,] -4.549414e+09 -3.910018e+09 -1.549325e+13 -7.940142e+07
## [5104,] -2.666676e+06 -2.336569e+06 -7.695057e+10 -5.743496e+06
## [5105,] -2.410049e+04 -1.548084e+04 -3.293759e+10 -6.777106e+06
## [5106,] -1.049335e+08 -9.165352e+07 -2.049279e+11 -1.268544e+07
## [5107,] -3.252484e+11 -2.694085e+11 -1.227163e+15 -2.591198e+09
## [5108,] -2.396186e+11 -2.111358e+11 -9.295822e+14 -1.944317e+09
## [5109,] -4.549517e+09 -3.780314e+09 -1.550149e+13 -7.904239e+07
## [5110,] -2.913206e+06 -1.700626e+06 -7.699153e+10 -5.970999e+06
## [5111,] -1.443448e+04 -3.035890e+04 -3.295512e+10 -6.704653e+06
## [5112,] -1.041993e+08 -9.165352e+07 -2.049279e+11 -1.266839e+07
## [5113,] -3.252484e+11 -2.694085e+11 -1.227163e+15 -2.562811e+09
## [5114,] -2.380329e+11 -2.037470e+11 -9.295822e+14 -1.965837e+09
## [5115,] -4.354096e+09 -3.283114e+09 -1.550974e+13 -7.998932e+07
## [5116,] -3.091455e+06 -1.698634e+06 -7.703250e+10 -5.923800e+06
## [5117,] -1.675088e+03 -5.914402e+03 -3.297265e+10 -6.464370e+06
## [5118,] -1.032399e+08 -9.397389e+07 -2.050370e+11 -1.275063e+07
## [5119,] -3.147031e+11 -3.199532e+11 -1.228469e+15 -3.297776e+09
## [5120,] -2.508633e+11 -1.964878e+11 -9.310666e+14 -1.894365e+09
## [5121,] -4.692119e+09 -3.780596e+09 -1.552625e+13 -8.650973e+07
## [5122,] -2.656702e+06 -1.894389e+06 -7.711447e+10 -5.693909e+06
## [5123,] -4.422088e+04 -9.114829e+02 -3.302529e+10 -6.616611e+06
## [5124,] -1.082083e+08 -9.171206e+07 -2.053643e+11 -1.303348e+07
## [5125,] -3.457563e+11 -2.992118e+11 -1.229776e+15 -3.014926e+09
## [5126,] -2.468162e+11 -2.111330e+11 -9.315616e+14 -1.873174e+09
## [5127,] -4.578213e+09 -3.780690e+09 -1.553450e+13 -8.153546e+07
## [5128,] -2.928250e+06 -1.692663e+06 -7.715548e+10 -5.797683e+06
## [5129,] -6.848577e+03 -6.272104e+03 -3.302529e+10 -6.596436e+06
## [5130,] -1.127360e+08 -9.401834e+07 -2.053643e+11 -1.293000e+07
## [5131,] -3.590339e+11 -2.504029e+11 -1.229776e+15 -3.149447e+09
## [5132,] -2.163834e+11 -2.749804e+11 -9.315616e+14 -2.558410e+09
## [5133,] -5.072441e+09 -3.653075e+09 -1.553450e+13 -9.046203e+07
## [5134,] -2.629967e+06 -3.057263e+06 -7.715548e+10 -5.729645e+06

```

```

## [5135,] -1.048030e+04 -9.114829e+02 -3.302529e+10 -6.548643e+06
## [5136,] -1.109642e+08 -8.496505e+07 -2.053643e+11 -1.320686e+07
## [5137,] -2.951473e+11 -2.791671e+11 -1.229776e+15 -3.900941e+09
## [5138,] -2.452068e+11 -2.037442e+11 -9.315616e+14 -2.641127e+09
## [5139,] -4.326816e+09 -4.592387e+09 -1.553450e+13 -9.367560e+07
## [5140,] -5.155452e+06 -1.692663e+06 -7.715548e+10 -5.891439e+06
## [5141,] -5.062686e+04 -1.644604e+04 -3.302529e+10 -6.561204e+06
## [5142,] -1.074628e+08 -9.171206e+07 -2.053643e+11 -1.309403e+07
## [5143,] -3.601517e+11 -3.199515e+11 -1.229776e+15 -3.604120e+09
## [5144,] -2.623675e+11 -2.037442e+11 -9.315616e+14 -2.381064e+09
## [5145,] -4.706678e+09 -3.283464e+09 -1.554276e+13 -8.751455e+07
## [5146,] -4.062088e+06 -2.796904e+06 -7.723751e+10 -5.489602e+06
## [5147,] -1.164246e+05 -1.005842e+03 -3.306041e+10 -6.594206e+06
## [5148,] -1.087546e+08 -9.639827e+07 -2.056919e+11 -1.309330e+07
## [5149,] -3.316518e+11 -2.694029e+11 -1.231737e+15 -2.863112e+09
## [5150,] -2.309566e+11 -2.500476e+11 -9.335431e+14 -2.533543e+09
## [5151,] -4.396342e+09 -4.177075e+09 -1.556754e+13 -8.272909e+07
## [5152,] -4.055930e+06 -4.176979e+06 -7.731959e+10 -5.873706e+06
## [5153,] -6.782278e+04 -1.744043e+04 -3.311311e+10 -6.618600e+06
## [5154,] -1.087865e+08 -9.642828e+07 -2.059104e+11 -1.323464e+07
## [5155,] -3.381221e+11 -2.890985e+11 -1.233046e+15 -3.086571e+09
## [5156,] -2.452023e+11 -2.340843e+11 -9.345347e+14 -2.420359e+09
## [5157,] -4.793767e+09 -3.911069e+09 -1.558408e+13 -9.114783e+07
## [5158,] -2.356515e+06 -2.310943e+06 -7.740172e+10 -5.712333e+06
## [5159,] -5.171783e+00 -1.265706e+04 -3.313069e+10 -6.559559e+06
## [5160,] -9.645830e+07 -9.412210e+07 -2.061290e+11 -1.324576e+07
## [5161,] -3.305757e+11 -3.199454e+11 -1.234355e+15 -2.953248e+09
## [5162,] -2.452015e+11 -2.500453e+11 -9.350306e+14 -2.179186e+09
## [5163,] -4.522453e+09 -4.177371e+09 -1.559235e+13 -8.779638e+07
## [5164,] -3.064642e+06 -1.678774e+06 -7.744279e+10 -5.773187e+06
## [5165,] -1.038978e+04 -7.147615e+03 -3.314827e+10 -6.634045e+06
## [5166,] -1.048605e+08 -9.181454e+07 -2.061290e+11 -1.315880e+07
## [5167,] -2.880955e+11 -3.199454e+11 -1.234355e+15 -3.603478e+09
## [5168,] -2.615309e+11 -2.037387e+11 -9.355267e+14 -2.232450e+09
## [5169,] -4.736285e+09 -3.781536e+09 -1.560890e+13 -8.626266e+07
## [5170,] -2.955827e+06 -1.873412e+06 -7.752498e+10 -5.852480e+06
## [5171,] -3.560559e+04 -7.408271e+03 -3.318345e+10 -6.664697e+06
## [5172,] -1.056284e+08 -9.415175e+07 -2.063478e+11 -1.270506e+07
## [5173,] -2.981848e+11 -3.635062e+11 -1.236321e+15 -3.372066e+09
## [5174,] -2.492324e+11 -1.964803e+11 -9.365193e+14 -1.865499e+09
## [5175,] -4.593527e+09 -3.911547e+09 -1.562546e+13 -9.444769e+07
## [5176,] -3.027939e+06 -1.869231e+06 -7.760722e+10 -5.744902e+06
## [5177,] -2.188142e+04 -1.867224e+04 -3.321865e+10 -6.705579e+06
## [5178,] -9.698917e+07 -1.037010e+08 -2.065667e+11 -1.394776e+07
## [5179,] -3.402880e+11 -2.890936e+11 -1.236976e+15 -2.922607e+09
## [5180,] -2.388139e+11 -2.419956e+11 -9.370158e+14 -2.255288e+09
## [5181,] -4.664737e+09 -3.781724e+09 -1.562546e+13 -8.707061e+07

```

```

## [5182,] -3.027939e+06 -1.483618e+06 -7.760722e+10 -5.928681e+06
## [5183,] -2.488007e+04 -3.448420e+04 -3.321865e+10 -6.697959e+06
## [5184,] -1.044334e+08 -1.012781e+08 -2.065667e+11 -1.312023e+07
## [5185,] -3.381167e+11 -2.992026e+11 -1.236976e+15 -2.952916e+09
## [5186,] -2.648577e+11 -2.419956e+11 -9.370158e+14 -2.163781e+09
## [5187,] -4.466728e+09 -3.781724e+09 -1.562546e+13 -8.435750e+07
## [5188,] -3.212351e+06 -2.078724e+06 -7.760722e+10 -5.888798e+06
## [5189,] -1.886484e+04 -1.888163e+04 -3.323626e+10 -6.701915e+06
## [5190,] -1.101504e+08 -8.960794e+07 -2.066762e+11 -1.309977e+07
## [5191,] -3.178359e+11 -2.693958e+11 -1.237632e+15 -3.448081e+09
## [5192,] -2.340799e+11 -2.262965e+11 -9.375125e+14 -2.565693e+09
## [5193,] -4.693584e+09 -4.736706e+09 -1.564202e+13 -8.496343e+07
## [5194,] -3.424124e+06 -2.768860e+06 -7.768949e+10 -5.925228e+06
## [5195,] -1.587882e+04 -8.080349e+03 -3.327149e+10 -6.573290e+06
## [5196,] -1.071885e+08 -9.422591e+07 -2.068952e+11 -1.274085e+07
## [5197,] -3.231102e+11 -2.791558e+11 -1.238943e+15 -3.221884e+09
## [5198,] -2.557493e+11 -2.340770e+11 -9.395003e+14 -1.900300e+09
## [5199,] -4.694003e+09 -4.044144e+09 -1.567518e+13 -8.618182e+07
## [5200,] -3.249491e+06 -1.856715e+06 -7.785418e+10 -5.929217e+06
## [5201,] -1.411681e+04 -1.862435e+03 -3.332436e+10 -6.708998e+06
## [5202,] -1.062469e+08 -9.427042e+07 -2.072240e+11 -1.277433e+07
## [5203,] -3.424608e+11 -2.890886e+11 -1.240912e+15 -3.211052e+09
## [5204,] -2.209229e+11 -2.186412e+11 -9.399976e+14 -2.623147e+09
## [5205,] -4.853087e+09 -4.178359e+09 -1.567518e+13 -9.070931e+07
## [5206,] -2.588002e+06 -2.065525e+06 -7.785418e+10 -5.741855e+06
## [5207,] -3.701491e+04 -4.057316e+01 -3.332436e+10 -6.635501e+06
## [5208,] -1.130120e+08 -8.300987e+07 -2.072240e+11 -1.331017e+07
## [5209,] -3.359472e+11 -2.693918e+11 -1.240912e+15 -3.200498e+09
## [5210,] -2.364369e+11 -2.037325e+11 -9.399976e+14 -2.301312e+09
## [5211,] -4.287308e+09 -4.453361e+09 -1.567518e+13 -8.813605e+07
## [5212,] -2.733979e+06 -1.659031e+06 -7.785418e+10 -6.020366e+06
## [5213,] -8.890771e+03 -1.862435e+03 -3.332436e+10 -6.617821e+06
## [5214,] -1.052625e+08 -9.897512e+07 -2.072240e+11 -1.336261e+07
## [5215,] -3.381114e+11 -2.890886e+11 -1.240912e+15 -2.972709e+09
## [5216,] -2.818146e+11 -2.186412e+11 -9.399976e+14 -2.340389e+09
## [5217,] -4.651077e+09 -4.314764e+09 -1.567518e+13 -1.124063e+08
## [5218,] -2.856102e+06 -1.657063e+06 -7.789537e+10 -5.958399e+06
## [5219,] -2.792295e+04 -8.639032e+03 -3.334199e+10 -6.677415e+06
## [5220,] -1.107499e+08 -9.662347e+07 -2.073337e+11 -1.308965e+07
## [5221,] -3.273579e+11 -2.791518e+11 -1.242226e+15 -3.715122e+09
## [5222,] -2.524757e+11 -2.340747e+11 -9.409926e+14 -2.395502e+09
## [5223,] -4.708565e+09 -4.044338e+09 -1.569177e+13 -9.193876e+07
## [5224,] -2.901532e+06 -1.291818e+06 -7.797780e+10 -5.763584e+06
## [5225,] -1.036488e+04 -2.059879e+04 -3.337728e+10 -6.787176e+06
## [5226,] -1.053252e+08 -9.201967e+07 -2.076628e+11 -1.276196e+07
## [5227,] -3.337854e+11 -2.598001e+11 -1.244197e+15 -2.589176e+09
## [5228,] -2.309434e+11 -2.419874e+11 -9.424860e+14 -2.308734e+09

```

```

## [5229,] -4.412161e+09 -3.912694e+09 -1.572498e+13 -9.482974e+07
## [5230,] -3.423446e+06 -1.647241e+06 -7.810153e+10 -5.846507e+06
## [5231,] -1.791584e+04 -3.797363e+04 -3.343024e+10 -6.781229e+06
## [5232,] -1.026717e+08 -9.435948e+07 -2.078824e+11 -1.351907e+07
## [5233,] -3.053405e+11 -2.791477e+11 -1.245513e+15 -2.821650e+09
## [5234,] -2.598617e+11 -2.186362e+11 -9.434823e+14 -2.132783e+09
## [5235,] -4.651806e+09 -4.179050e+09 -1.573329e+13 -8.608683e+07
## [5236,] -3.019329e+06 -2.269314e+06 -7.814279e+10 -5.717477e+06
## [5237,] -2.983453e+03 -2.148539e+04 -3.344790e+10 -6.713837e+06
## [5238,] -1.078433e+08 -9.671363e+07 -2.079922e+11 -1.305358e+07
## [5239,] -3.668725e+11 -2.890829e+11 -1.245513e+15 -3.147389e+09
## [5240,] -2.640133e+11 -2.665200e+11 -9.434823e+14 -2.193142e+09
## [5241,] -4.609074e+09 -4.179050e+09 -1.573329e+13 -8.922240e+07
## [5242,] -2.942075e+06 -2.050178e+06 -7.814279e+10 -5.900820e+06
## [5243,] -1.162030e+04 -9.661687e+03 -3.346556e+10 -6.840417e+06
## [5244,] -1.081079e+08 -9.672866e+07 -2.081021e+11 -1.335481e+07
## [5245,] -3.262870e+11 -2.597978e+11 -1.246171e+15 -3.783039e+09
## [5246,] -2.557416e+11 -2.186347e+11 -9.444791e+14 -2.324056e+09
## [5247,] -4.552610e+09 -4.045019e+09 -1.574991e+13 -9.044177e+07
## [5248,] -3.526114e+06 -2.045804e+06 -7.822535e+10 -5.970043e+06
## [5249,] -3.785461e+04 -3.917415e+04 -3.350091e+10 -6.669859e+06
## [5250,] -1.032194e+08 -9.675872e+07 -2.083219e+11 -1.351515e+07
## [5251,] -3.125905e+11 -2.890804e+11 -1.247487e+15 -3.316666e+09
## [5252,] -2.492195e+11 -2.262856e+11 -9.449777e+14 -2.418781e+09
## [5253,] -4.752704e+09 -4.315869e+09 -1.576654e+13 -1.000708e+08
## [5254,] -3.060684e+06 -1.277959e+06 -7.830795e+10 -6.235515e+06
## [5255,] -4.863669e+01 -1.534836e+01 -3.353628e+10 -6.644835e+06
## [5256,] -1.049598e+08 -1.089195e+08 -2.085418e+11 -1.335966e+07
## [5257,] -3.512320e+11 -3.199264e+11 -1.248804e+15 -2.821244e+09
## [5258,] -2.532839e+11 -2.262842e+11 -9.459753e+14 -2.647190e+09
## [5259,] -4.695364e+09 -3.655847e+09 -1.578318e+13 -9.250224e+07
## [5260,] -2.775273e+06 -1.633539e+06 -7.839060e+10 -6.003249e+06
## [5261,] -3.490455e+03 -1.058379e+04 -3.357166e+10 -6.574497e+06
## [5262,] -1.037685e+08 -1.089514e+08 -2.087619e+11 -1.359934e+07
## [5263,] -3.337775e+11 -2.791421e+11 -1.250121e+15 -2.971542e+09
## [5264,] -2.372152e+11 -2.419799e+11 -9.474727e+14 -2.139716e+09
## [5265,] -4.553229e+09 -3.783697e+09 -1.579983e+13 -7.915937e+07
## [5266,] -3.316057e+06 -3.235071e+06 -7.847329e+10 -5.753902e+06
## [5267,] -5.066125e+04 -2.331466e+04 -3.358936e+10 -6.681997e+06
## [5268,] -1.112274e+08 -9.449313e+07 -2.088719e+11 -1.319324e+07
## [5269,] -3.380972e+11 -2.890755e+11 -1.251440e+15 -3.136170e+09
## [5270,] -2.286024e+11 -2.186297e+11 -9.479721e+14 -2.531313e+09
## [5271,] -4.884005e+09 -4.045699e+09 -1.580816e+13 -8.543879e+07
## [5272,] -3.259196e+06 -2.477875e+06 -7.851465e+10 -6.062136e+06
## [5273,] -1.850142e+04 -2.354857e+04 -3.360707e+10 -6.744426e+06
## [5274,] -1.045481e+08 -9.452285e+07 -2.090921e+11 -1.291892e+07
## [5275,] -3.241532e+11 -2.597908e+11 -1.252099e+15 -2.616770e+09

```

```

## [5276,] -2.372137e+11 -2.037208e+11 -9.484716e+14 -2.713990e+09
## [5277,] -4.595909e+09 -3.656216e+09 -1.581649e+13 -9.828590e+07
## [5278,] -2.591741e+06 -1.439279e+06 -7.859741e+10 -6.091733e+06
## [5279,] -3.150106e+02 -1.707723e+03 -3.364249e+10 -6.793221e+06
## [5280,] -1.077694e+08 -9.687902e+07 -2.092023e+11 -1.320990e+07
## [5281,] -3.252145e+11 -2.791388e+11 -1.252759e+15 -2.820757e+09
## [5282,] -2.411802e+11 -2.111084e+11 -9.489713e+14 -2.245851e+09
## [5283,] -4.248080e+09 -4.596013e+09 -1.582482e+13 -8.819780e+07
## [5284,] -3.039332e+06 -2.470663e+06 -7.863880e+10 -6.158271e+06
## [5285,] -5.839293e+04 -3.324656e+03 -3.366021e+10 -6.715595e+06
## [5286,] -1.062996e+08 -9.223970e+07 -2.093125e+11 -1.281827e+07
## [5287,] -3.435354e+11 -2.991817e+11 -1.253419e+15 -3.125484e+09
## [5288,] -2.372122e+11 -2.111077e+11 -9.494711e+14 -2.596799e+09
## [5289,] -4.399687e+09 -4.316772e+09 -1.584149e+13 -8.980647e+07
## [5290,] -3.062716e+06 -1.435614e+06 -7.868021e+10 -5.757921e+06
## [5291,] -2.180915e+04 -1.154794e+04 -3.367793e+10 -6.757760e+06
## [5292,] -1.073047e+08 -1.041060e+08 -2.094227e+11 -1.326456e+07
## [5293,] -3.435345e+11 -2.890722e+11 -1.254078e+15 -2.683704e+09
## [5294,] -2.648373e+11 -2.037187e+11 -9.499710e+14 -2.184623e+09
## [5295,] -4.372062e+09 -3.914128e+09 -1.584983e+13 -9.484913e+07
## [5296,] -3.491761e+06 -2.237197e+06 -7.872163e+10 -6.022256e+06
## [5297,] -2.136258e+02 -1.523792e+03 -3.369566e+10 -6.662598e+06
## [5298,] -1.068252e+08 -9.458229e+07 -2.095329e+11 -1.286353e+07
## [5299,] -3.457221e+11 -3.094625e+11 -1.254739e+15 -3.094130e+09
## [5300,] -2.340607e+11 -2.340607e+11 -9.504710e+14 -2.466056e+09
## [5301,] -4.539733e+09 -3.656586e+09 -1.584983e+13 -9.423852e+07
## [5302,] -3.747118e+06 -1.617950e+06 -7.872163e+10 -5.931093e+06
## [5303,] -1.620395e+04 -7.754108e+03 -3.369566e+10 -6.723518e+06
## [5304,] -1.100651e+08 -9.692416e+07 -2.095329e+11 -1.349777e+07
## [5305,] -3.691201e+11 -2.791356e+11 -1.255399e+15 -3.001434e+09
## [5306,] -2.475932e+11 -2.340599e+11 -9.509712e+14 -2.284165e+09
## [5307,] -4.539836e+09 -3.784356e+09 -1.585817e+13 -9.203115e+07
## [5308,] -2.900282e+06 -2.461064e+06 -7.880449e+10 -5.996840e+06
## [5309,] -1.063705e+03 -1.399542e+02 -3.373113e+10 -6.739085e+06
## [5310,] -9.908675e+07 -9.932512e+07 -2.097535e+11 -1.340365e+07
## [5311,] -3.115381e+11 -3.094608e+11 -1.256059e+15 -2.950508e+09
## [5312,] -2.348440e+11 -2.500193e+11 -9.519720e+14 -2.307339e+09
## [5313,] -4.610838e+09 -3.784544e+09 -1.587486e+13 -8.927009e+07
## [5314,] -2.722670e+06 -1.612124e+06 -7.884594e+10 -6.107012e+06
## [5315,] -1.952108e+04 -9.408537e+04 -3.374887e+10 -6.871045e+06
## [5316,] -1.078646e+08 -9.462688e+07 -2.098638e+11 -1.361157e+07
## [5317,] -3.230859e+11 -2.693720e+11 -1.257381e+15 -3.052457e+09
## [5318,] -2.557292e+11 -1.823402e+11 -9.524725e+14 -2.229996e+09
## [5319,] -4.696621e+09 -3.914510e+09 -1.588321e+13 -9.572615e+07
## [5320,] -3.020710e+06 -2.008812e+06 -7.892887e+10 -6.037357e+06
## [5321,] -7.096044e+03 -1.984618e+02 -3.378437e+10 -6.796958e+06
## [5322,] -1.111523e+08 -9.699940e+07 -2.100845e+11 -1.322825e+07

```

```

## [5323,] -3.199143e+11 -2.597838e+11 -1.258042e+15 -2.820108e+09
## [5324,] -2.809330e+11 -2.186226e+11 -9.529733e+14 -2.109031e+09
## [5325,] -4.653891e+09 -3.914702e+09 -1.589991e+13 -9.290980e+07
## [5326,] -3.070103e+06 -3.758249e+06 -7.897035e+10 -6.296725e+06
## [5327,] -3.269193e+04 -1.289887e+04 -3.381988e+10 -6.928337e+06
## [5328,] -1.061947e+08 -9.702951e+07 -2.103054e+11 -1.354591e+07
## [5329,] -3.370036e+11 -2.791308e+11 -1.259364e+15 -2.939977e+09
## [5330,] -2.224304e+11 -2.262725e+11 -9.539751e+14 -2.530391e+09
## [5331,] -4.400498e+09 -4.317576e+09 -1.590826e+13 -9.373343e+07
## [5332,] -2.263608e+06 -2.218947e+06 -7.905335e+10 -6.001032e+06
## [5333,] -4.153774e+04 -2.928212e+02 -3.385542e+10 -6.754130e+06
## [5334,] -1.059796e+08 -9.240123e+07 -2.105263e+11 -1.318089e+07
## [5335,] -3.262678e+11 -3.413440e+11 -1.260688e+15 -2.949927e+09
## [5336,] -2.598438e+11 -2.262711e+11 -9.549774e+14 -2.538404e+09
## [5337,] -4.711502e+09 -4.047060e+09 -1.592498e+13 -8.778076e+07
## [5338,] -2.732160e+06 -2.683072e+06 -7.909486e+10 -5.993816e+06
## [5339,] -3.214166e+04 -6.590614e+03 -3.385542e+10 -6.812905e+06
## [5340,] -1.040333e+08 -9.473098e+07 -2.106369e+11 -1.355397e+07
## [5341,] -3.294689e+11 -2.693672e+11 -1.261349e+15 -2.702178e+09
## [5342,] -2.606707e+11 -2.419678e+11 -9.554788e+14 -2.306825e+09
## [5343,] -4.625894e+09 -3.785296e+09 -1.594170e+13 -8.722192e+07
## [5344,] -3.030705e+06 -1.790675e+06 -7.917792e+10 -6.012269e+06
## [5345,] -8.905183e+03 -1.360236e+04 -3.389097e+10 -6.908287e+06
## [5346,] -1.072468e+08 -9.014401e+07 -2.107474e+11 -1.247191e+07
## [5347,] -3.178040e+11 -3.094531e+11 -1.262011e+15 -3.113963e+09
## [5348,] -2.508251e+11 -2.340526e+11 -9.559803e+14 -2.244837e+09
## [5349,] -4.654413e+09 -4.740493e+09 -1.594170e+13 -8.702654e+07
## [5350,] -2.533612e+06 -2.678068e+06 -7.917792e+10 -5.990344e+06
## [5351,] -4.708743e+04 -3.470078e+02 -3.389097e+10 -6.802959e+06
## [5352,] -1.030902e+08 -9.947749e+07 -2.108580e+11 -1.318884e+07
## [5353,] -3.273308e+11 -2.597783e+11 -1.262674e+15 -2.605995e+09
## [5354,] -2.140900e+11 -2.262689e+11 -9.564819e+14 -2.086250e+09
## [5355,] -4.626310e+09 -4.181916e+09 -1.597517e+13 -9.324445e+07
## [5356,] -2.791284e+06 -2.917276e+06 -7.934417e+10 -5.827543e+06
## [5357,] -1.341766e+04 -4.693948e+02 -3.396213e+10 -6.813790e+06
## [5358,] -1.090525e+08 -9.714998e+07 -2.111899e+11 -1.314469e+07
## [5359,] -3.679756e+11 -2.991675e+11 -1.264661e+15 -3.113622e+09
## [5360,] -2.435628e+11 -2.037077e+11 -9.579876e+14 -1.933338e+09
## [5361,] -4.900784e+09 -4.236238e+09 -1.597517e+13 -8.533437e+07
## [5362,] -2.968452e+06 -3.046050e+06 -7.934417e+10 -6.063942e+06
## [5363,] -1.320272e+03 -1.375813e+05 -3.396213e+10 -6.739720e+06
## [5364,] -1.014424e+08 -1.169379e+08 -2.111899e+11 -1.357330e+07
## [5365,] -3.326821e+11 -2.791243e+11 -1.264661e+15 -2.979876e+09
## [5366,] -2.723919e+11 -2.037077e+11 -9.579876e+14 -2.168345e+09
## [5367,] -4.373679e+09 -3.785766e+09 -1.598355e+13 -8.266255e+07
## [5368,] -2.788732e+06 -2.427613e+06 -7.938576e+10 -6.027357e+06
## [5369,] -8.061133e+03 -1.469263e+04 -3.399774e+10 -6.893713e+06

```

```

## [5370,] -1.098356e+08 -9.483513e+07 -2.114114e+11 -1.328631e+07
## [5371,] -3.464303e+11 -2.817481e+11 -2.861418e+13 -1.527094e+09
## [5372,] -2.607115e+11 -1.986534e+11 -2.167539e+13 -1.163988e+09
## [5373,] -4.240743e+09 -3.738559e+09 -3.614537e+11 -2.460262e+07
## [5374,] -1.702120e+07 -1.629075e+07 -1.795238e+09 -1.373527e+04
## [5375,] -6.955364e+06 -5.792356e+06 -7.684259e+08 -5.250979e+04
## [5376,] -6.118195e+07 -5.445159e+07 -4.778375e+09 -9.477343e+05
## [5377,] -3.519376e+11 -2.528477e+11 -2.861418e+13 -1.706916e+09
## [5378,] -2.468195e+11 -2.444074e+11 -2.167539e+13 -1.294774e+09
## [5379,] -4.240743e+09 -3.611663e+09 -3.614537e+11 -2.661491e+07
## [5380,] -1.641138e+07 -1.569427e+07 -1.795238e+09 -9.860944e+03
## [5381,] -6.079186e+06 -6.522428e+06 -7.684259e+08 -4.577163e+04
## [5382,] -6.306827e+07 -5.445159e+07 -4.778375e+09 -9.384376e+05
## [5383,] -3.420557e+11 -3.018837e+11 -2.861418e+13 -1.699223e+09
## [5384,] -2.648698e+11 -2.059501e+11 -2.167539e+13 -1.288943e+09
## [5385,] -3.998923e+09 -4.268051e+09 -3.614537e+11 -2.704863e+07
## [5386,] -1.635101e+07 -1.397160e+07 -1.795238e+09 -9.860944e+03
## [5387,] -5.982806e+06 -6.274257e+06 -7.684259e+08 -4.984660e+04
## [5388,] -5.822341e+07 -6.174484e+07 -4.778375e+09 -9.245786e+05
## [5389,] -3.420557e+11 -2.719409e+11 -2.861418e+13 -1.585922e+09
## [5390,] -2.325248e+11 -2.607115e+11 -2.167539e+13 -1.197435e+09
## [5391,] -4.132391e+09 -3.611663e+09 -3.614537e+11 -2.481071e+07
## [5392,] -1.808343e+07 -1.569427e+07 -1.795238e+09 -1.426462e+04
## [5393,] -6.497394e+06 -5.792356e+06 -7.684259e+08 -5.139170e+04
## [5394,] -6.231030e+07 -5.445159e+07 -4.778375e+09 -9.131081e+05
## [5395,] -3.237739e+11 -2.623074e+11 -2.861418e+13 -1.608270e+09
## [5396,] -2.380331e+11 -2.364527e+11 -2.167539e+13 -1.214336e+09
## [5397,] -4.281737e+09 -3.611663e+09 -3.614537e+11 -2.470655e+07
## [5398,] -1.776767e+07 -1.510892e+07 -1.795238e+09 -1.373527e+04
## [5399,] -6.623044e+06 -6.030900e+06 -7.684259e+08 -5.161436e+04
## [5400,] -6.421381e+07 -5.269988e+07 -4.778375e+09 -9.085399e+05
## [5401,] -3.402487e+11 -2.693617e+11 -1.265987e+15 -3.218328e+09
## [5402,] -2.548994e+11 -2.186140e+11 -9.589920e+14 -2.424659e+09
## [5403,] -4.683646e+09 -3.658157e+09 -1.599192e+13 -9.307191e+07
## [5404,] -3.198779e+06 -1.231738e+06 -7.942737e+10 -5.958070e+06
## [5405,] -2.831244e+04 -1.469263e+04 -3.399774e+10 -6.819209e+06
## [5406,] -1.061055e+08 -1.019560e+08 -2.114114e+11 -1.356693e+07
## [5407,] -3.490017e+11 -3.199031e+11 -1.266651e+15 -3.082243e+09
## [5408,] -2.732369e+11 -1.964492e+11 -9.594944e+14 -2.361097e+09
## [5409,] -4.291212e+09 -3.785954e+09 -1.600030e+13 -9.450576e+07
## [5410,] -3.412935e+06 -1.776388e+06 -7.946898e+10 -5.987323e+06
## [5411,] -2.310978e+04 -6.512003e+04 -3.403337e+10 -6.852853e+06
## [5412,] -1.088665e+08 -8.800070e+07 -2.116329e+11 -1.332365e+07
## [5413,] -3.273247e+11 -2.890558e+11 -1.267314e+15 -4.399449e+09
## [5414,] -2.491966e+11 -1.964485e+11 -9.599970e+14 -2.005056e+09
## [5415,] -4.584212e+09 -3.658434e+09 -1.601707e+13 -8.598631e+07
## [5416,] -2.978361e+06 -1.995319e+06 -7.959388e+10 -5.965713e+06

```

```

## [5417,] -1.979101e+04 -1.544284e+04 -3.406902e+10 -6.927839e+06
## [5418,] -1.086488e+08 -1.044493e+08 -2.118546e+11 -1.374872e+07
## [5419,] -3.413333e+11 -2.791195e+11 -1.268641e+15 -3.292424e+09
## [5420,] -2.656555e+11 -2.037035e+11 -9.610025e+14 -2.432352e+09
## [5421,] -4.669749e+09 -3.786236e+09 -1.602545e+13 -8.873968e+07
## [5422,] -2.509345e+06 -1.770283e+06 -7.959388e+10 -5.896693e+06
## [5423,] -3.209784e+04 -1.447122e+04 -3.408685e+10 -6.826354e+06
## [5424,] -1.084154e+08 -9.962998e+07 -2.119655e+11 -1.354219e+07
## [5425,] -3.446073e+11 -2.991617e+11 -1.269305e+15 -2.989475e+09
## [5426,] -2.500048e+11 -2.186104e+11 -9.615054e+14 -2.504820e+09
## [5427,] -4.741756e+09 -4.319183e+09 -1.604223e+13 -9.235398e+07
## [5428,] -2.820776e+06 -1.766218e+06 -7.967720e+10 -5.867929e+06
## [5429,] -1.625498e+03 -8.130828e+02 -3.412252e+10 -6.821524e+06
## [5430,] -1.086966e+08 -8.807240e+07 -2.121873e+11 -1.381016e+07
## [5431,] -3.115185e+11 -2.791162e+11 -1.271298e+15 -3.123178e+09
## [5432,] -2.581793e+11 -2.340415e+11 -9.635185e+14 -2.305650e+09
## [5433,] -4.627454e+09 -3.658989e+09 -1.606741e+13 -8.280156e+07
## [5434,] -2.939559e+06 -1.386599e+06 -7.980227e+10 -6.153417e+06
## [5435,] -9.138806e+01 -3.699904e+02 -3.415821e+10 -7.119705e+06
## [5436,] -1.045274e+08 -9.265114e+07 -2.124092e+11 -1.319702e+07
## [5437,] -3.104773e+11 -3.094395e+11 -1.272628e+15 -3.410590e+09
## [5438,] -2.285790e+11 -2.340407e+11 -9.640221e+14 -2.305577e+09
## [5439,] -4.570774e+09 -3.916710e+09 -1.607581e+13 -8.666918e+07
## [5440,] -2.287307e+06 -1.758103e+06 -7.984398e+10 -6.002739e+06
## [5441,] -2.401043e+04 -6.491770e+03 -3.419392e+10 -6.966380e+06
## [5442,] -1.095264e+08 -9.501381e+07 -2.127424e+11 -1.340576e+07
## [5443,] -3.326697e+11 -3.198936e+11 -1.273958e+15 -3.564511e+09
## [5444,] -2.598282e+11 -2.110859e+11 -9.650297e+14 -2.205277e+09
## [5445,] -4.656290e+09 -3.659266e+09 -1.609261e+13 -7.777892e+07
## [5446,] -3.246186e+06 -2.171397e+06 -7.992743e+10 -6.094630e+06
## [5447,] -4.781980e+04 -4.539185e+04 -3.421179e+10 -6.751969e+06
## [5448,] -1.043297e+08 -1.021412e+08 -2.127424e+11 -1.408898e+07
## [5449,] -3.273159e+11 -2.890476e+11 -1.273958e+15 -2.988890e+09
## [5450,] -2.548902e+11 -2.036980e+11 -9.650297e+14 -2.399854e+09
## [5451,] -4.278609e+09 -4.458462e+09 -1.609261e+13 -9.163882e+07
## [5452,] -3.032089e+06 -2.169146e+06 -7.996918e+10 -5.977454e+06
## [5453,] -2.994495e+04 -7.745550e+04 -3.422965e+10 -6.964089e+06
## [5454,] -1.038570e+08 -9.270999e+07 -2.128535e+11 -1.320184e+07
## [5455,] -3.359020e+11 -2.791122e+11 -1.274623e+15 -2.491687e+09
## [5456,] -2.508097e+11 -2.186040e+11 -9.660379e+14 -2.479835e+09
## [5457,] -4.599536e+09 -4.049199e+09 -1.610942e+13 -9.327844e+07
## [5458,] -2.676868e+06 -1.049722e+06 -8.001093e+10 -6.321508e+06
## [5459,] -1.936936e+03 -1.197995e+03 -3.426540e+10 -6.979932e+06
## [5460,] -1.056027e+08 -9.978258e+07 -2.130758e+11 -1.366919e+07
## [5461,] -4.003002e+11 -3.094353e+11 -1.275954e+15 -2.827821e+09
## [5462,] -2.278004e+11 -3.010359e+11 -9.665421e+14 -2.822051e+09
## [5463,] -5.631372e+09 -3.787271e+09 -1.611783e+13 -8.791402e+07

```



```

## [5464,] -2.842687e+06 -2.525154e+06 -8.013626e+10 -5.876136e+06
## [5465,] -1.234953e+04 -3.855007e+03 -3.430117e+10 -6.856358e+06
## [5466,] -1.152044e+08 -9.278358e+07 -2.134095e+11 -1.350084e+07
## [5467,] -3.511912e+11 -2.693466e+11 -1.278619e+15 -2.867281e+09
## [5468,] -2.427469e+11 -2.110810e+11 -9.685605e+14 -2.040369e+09
## [5469,] -4.642745e+09 -3.659914e+09 -1.615149e+13 -8.447280e+07
## [5470,] -4.202254e+06 -1.942225e+06 -8.021986e+10 -6.191386e+06
## [5471,] -7.106037e+04 -1.842252e+04 -3.433696e+10 -6.872078e+06
## [5472,] -1.003225e+08 -9.746657e+07 -2.135207e+11 -1.376274e+07
## [5473,] -3.022155e+11 -3.198866e+11 -1.279285e+15 -3.143018e+09
## [5474,] -2.565247e+11 -2.664797e+11 -9.690654e+14 -2.367574e+09
## [5475,] -4.459278e+09 -3.787741e+09 -1.615991e+13 -8.030691e+07
## [5476,] -3.753155e+06 -2.153419e+06 -8.026168e+10 -6.073279e+06
## [5477,] -4.913199e+04 -1.194941e+02 -3.435486e+10 -6.809355e+06
## [5478,] -1.046994e+08 -1.022648e+08 -2.136321e+11 -1.394659e+07
## [5479,] -3.241175e+11 -3.094310e+11 -1.279285e+15 -3.291021e+09
## [5480,] -2.581707e+11 -2.499933e+11 -9.690654e+14 -2.159234e+09
## [5481,] -4.714545e+09 -3.917762e+09 -1.616833e+13 -8.296852e+07
## [5482,] -1.835535e+06 -2.857548e+06 -8.030351e+10 -5.959951e+06
## [5483,] -5.322449e+04 -7.781038e+03 -3.437276e+10 -6.936828e+06
## [5484,] -1.079389e+08 -9.055075e+07 -2.138548e+11 -1.302631e+07
## [5485,] -3.230546e+11 -3.094285e+11 -1.281286e+15 -2.947354e+09
## [5486,] -2.499910e+11 -2.185976e+11 -9.705809e+14 -2.196877e+09
## [5487,] -4.700392e+09 -4.184387e+09 -1.618518e+13 -8.685424e+07
## [5488,] -3.005536e+06 -1.541127e+06 -8.038720e+10 -6.128815e+06
## [5489,] -1.657647e+03 -8.052905e+03 -3.440859e+10 -6.898417e+06
## [5490,] -1.062211e+08 -9.752693e+07 -2.139662e+11 -1.337970e+07
## [5491,] -3.073574e+11 -3.198832e+11 -1.281953e+15 -3.132235e+09
## [5492,] -2.565216e+11 -2.036898e+11 -9.710864e+14 -2.174053e+09
## [5493,] -4.515778e+09 -3.788117e+09 -1.619361e+13 -8.168063e+07
## [5494,] -2.079429e+06 -2.368448e+06 -8.042907e+10 -5.952938e+06
## [5495,] -2.150782e+03 -6.397854e+04 -3.442651e+10 -6.825316e+06
## [5496,] -1.059903e+08 -1.023267e+08 -2.140776e+11 -1.356099e+07
## [5497,] -3.125452e+11 -3.198823e+11 -1.282621e+15 -3.100932e+09
## [5498,] -2.548794e+11 -2.185954e+11 -9.720977e+14 -2.158808e+09
## [5499,] -3.970828e+09 -4.321192e+09 -1.621047e+13 -1.002529e+08
## [5500,] -2.550767e+06 -1.725830e+06 -8.051283e+10 -6.095898e+06
## [5501,] -1.086862e+04 -5.720988e+04 -3.446236e+10 -6.902729e+06
## [5502,] -1.065310e+08 -9.291612e+07 -2.144120e+11 -1.318393e+07
## [5503,] -3.001637e+11 -3.094251e+11 -1.283956e+15 -3.173844e+09
## [5504,] -2.403489e+11 -2.262456e+11 -9.726035e+14 -2.304330e+09
## [5505,] -4.830973e+09 -4.050561e+09 -1.622734e+13 -9.449991e+07
## [5506,] -3.202279e+06 -1.531655e+06 -8.059663e+10 -6.221937e+06
## [5507,] -6.906857e+03 -2.606890e+01 -3.449823e+10 -6.957267e+06
## [5508,] -1.065468e+08 -9.760240e+07 -2.145236e+11 -1.377825e+07
## [5509,] -3.456808e+11 -2.597518e+11 -1.285292e+15 -3.354697e+09
## [5510,] -2.715211e+11 -2.262442e+11 -9.736156e+14 -2.121072e+09

```

```

## [5511,] -4.530370e+09 -4.050658e+09 -1.623578e+13 -9.676659e+07
## [5512,] -3.012853e+06 -2.131050e+06 -8.068047e+10 -6.151628e+06
## [5513,] -1.343536e+04 -2.077461e+04 -3.453412e+10 -6.965331e+06
## [5514,] -1.118301e+08 -9.763260e+07 -2.147468e+11 -1.341886e+07
## [5515,] -3.478752e+11 -2.890328e+11 -1.285961e+15 -2.886375e+09
## [5516,] -2.491744e+11 -1.964289e+11 -9.746282e+14 -2.543577e+09
## [5517,] -4.587110e+09 -3.918719e+09 -1.625267e+13 -7.970833e+07
## [5518,] -3.298825e+06 -1.914636e+06 -8.076436e+10 -6.118559e+06
## [5519,] -2.833815e+04 -2.563988e+03 -3.457002e+10 -6.934590e+06
## [5520,] -1.029354e+08 -1.048871e+08 -2.149700e+11 -1.378318e+07
## [5521,] -3.219882e+11 -2.991391e+11 -1.287298e+15 -3.194449e+09
## [5522,] -2.524235e+11 -1.964282e+11 -9.751347e+14 -1.656415e+09
## [5523,] -4.730085e+09 -4.601402e+09 -1.626112e+13 -8.620331e+07
## [5524,] -2.799052e+06 -1.341974e+06 -8.084830e+10 -6.070869e+06
## [5525,] -3.295218e+04 -9.631674e+03 -3.460595e+10 -6.937472e+06
## [5526,] -1.093774e+08 -9.534182e+07 -2.151934e+11 -1.367036e+07
## [5527,] -3.456763e+11 -2.790952e+11 -1.288635e+15 -3.131379e+09
## [5528,] -2.499826e+11 -2.036829e+11 -9.761481e+14 -2.068745e+09
## [5529,] -4.158532e+09 -3.919101e+09 -1.628647e+13 -9.644522e+07
## [5530,] -3.103828e+06 -2.119910e+06 -8.089028e+10 -6.174301e+06
## [5531,] -4.206867e+02 -5.632135e+00 -3.462392e+10 -6.946669e+06
## [5532,] -1.066572e+08 -9.535674e+07 -2.153052e+11 -1.378243e+07
## [5533,] -3.315744e+11 -2.991358e+11 -1.289974e+15 -3.017525e+09
## [5534,] -2.483615e+11 -2.185883e+11 -9.771620e+14 -2.234122e+09
## [5535,] -4.559315e+09 -4.322196e+09 -1.629492e+13 -8.880600e+07
## [5536,] -2.183304e+06 -2.117685e+06 -8.093227e+10 -5.943098e+06
## [5537,] -7.838117e+02 -2.211714e+04 -3.464189e+10 -6.948111e+06
## [5538,] -1.037274e+08 -9.537167e+07 -2.154170e+11 -1.368167e+07
## [5539,] -2.910347e+11 -2.991349e+11 -1.290643e+15 -3.172983e+09
## [5540,] -2.698267e+11 -2.340208e+11 -9.776691e+14 -2.150497e+09
## [5541,] -4.630469e+09 -3.789434e+09 -1.631184e+13 -7.980387e+07
## [5542,] -2.641380e+06 -1.701822e+06 -8.101629e+10 -6.357525e+06
## [5543,] -1.430626e+04 -6.168028e+04 -3.467786e+10 -6.974296e+06
## [5544,] -1.142501e+08 -9.775345e+07 -2.156406e+11 -1.355164e+07
## [5545,] -3.219830e+11 -2.991341e+11 -1.291313e+15 -3.332345e+09
## [5546,] -2.581568e+11 -2.185869e+11 -9.781764e+14 -2.429790e+09
## [5547,] -4.716329e+09 -3.536098e+09 -1.631184e+13 -9.424167e+07
## [5548,] -2.763980e+06 -1.901969e+06 -8.101629e+10 -6.060210e+06
## [5549,] -9.041227e+03 -2.720942e+03 -3.467786e+10 -6.917408e+06
## [5550,] -1.114535e+08 -9.307823e+07 -2.156406e+11 -1.378168e+07
## [5551,] -3.167162e+11 -2.790920e+11 -1.291313e+15 -3.397219e+09
## [5552,] -2.371698e+11 -2.262376e+11 -9.781764e+14 -2.272482e+09
## [5553,] -4.545398e+09 -4.185870e+09 -1.631184e+13 -9.022125e+07
## [5554,] -2.198596e+06 -2.111019e+06 -8.105832e+10 -6.067646e+06
## [5555,] -1.412408e+04 -1.039601e+04 -3.469585e+10 -6.942094e+06
## [5556,] -1.112332e+08 -9.081271e+07 -2.158644e+11 -1.376638e+07
## [5557,] -3.114912e+11 -3.304984e+11 -1.292653e+15 -3.353723e+09

```

```

## [5558,] -2.088362e+11 -2.340185e+11 -9.791914e+14 -2.575713e+09
## [5559,] -4.573874e+09 -3.789622e+09 -1.632876e+13 -8.114576e+07
## [5560,] -2.960663e+06 -1.164827e+06 -8.110036e+10 -6.108220e+06
## [5561,] -6.216574e+03 -1.055238e+04 -3.471384e+10 -6.948707e+06
## [5562,] -1.067362e+08 -9.543138e+07 -2.158644e+11 -1.374862e+07
## [5563,] -3.073438e+11 -3.634279e+11 -1.292653e+15 -3.407913e+09
## [5564,] -2.285571e+11 -2.499781e+11 -9.791914e+14 -2.469788e+09
## [5565,] -4.377824e+09 -4.051728e+09 -1.632876e+13 -9.447470e+07
## [5566,] -2.196331e+06 -3.330879e+06 -8.110036e+10 -6.119285e+06
## [5567,] -3.459212e+04 -1.915500e+03 -3.473184e+10 -7.054000e+06
## [5568,] -1.055349e+08 -9.313722e+07 -2.160882e+11 -1.343344e+07
## [5569,] -3.063096e+11 -3.412994e+11 -1.293994e+15 -3.246471e+09
## [5570,] -2.507876e+11 -2.262340e+11 -9.807148e+14 -2.445433e+09
## [5571,] -5.023592e+09 -4.322900e+09 -1.635417e+13 -9.370697e+07
## [5572,] -2.851145e+06 -2.102146e+06 -8.122653e+10 -6.053319e+06
## [5573,] -1.675044e+02 -3.133765e+03 -3.476785e+10 -6.847365e+06
## [5574,] -1.080237e+08 -9.085641e+07 -2.162002e+11 -1.343027e+07
## [5575,] -2.991291e+11 -2.991291e+11 -1.295335e+15 -3.151418e+09
## [5576,] -3.154215e+11 -1.964201e+11 -9.812229e+14 -2.469484e+09
## [5577,] -5.128094e+09 -3.789999e+09 -1.636264e+13 -9.906474e+07
## [5578,] -3.024855e+06 -1.322570e+06 -8.131071e+10 -6.204901e+06
## [5579,] -2.829701e+04 -2.420974e+04 -3.480388e+10 -7.041576e+06
## [5580,] -1.073104e+08 -9.318147e+07 -2.164242e+11 -1.363521e+07
## [5581,] -3.198642e+11 -3.198642e+11 -1.296677e+15 -3.119933e+09
## [5582,] -2.515984e+11 -1.964187e+11 -9.822395e+14 -1.994794e+09
## [5583,] -4.447960e+09 -3.920154e+09 -1.637959e+13 -9.847101e+07
## [5584,] -2.694500e+06 -1.497799e+06 -8.135281e+10 -6.331964e+06
## [5585,] -1.228806e+03 -1.904999e+04 -3.482190e+10 -6.897967e+06
## [5586,] -1.164377e+08 -8.863264e+07 -2.165363e+11 -1.364969e+07
## [5587,] -3.052755e+11 -3.198642e+11 -1.296677e+15 -3.214341e+09
## [5588,] -2.363745e+11 -2.110621e+11 -9.822395e+14 -2.836790e+09
## [5589,] -4.227393e+09 -4.461932e+09 -1.637959e+13 -9.233795e+07
## [5590,] -3.233202e+06 -2.095504e+06 -8.135281e+10 -5.803013e+06
## [5591,] -1.911754e+04 -3.575783e+03 -3.485796e+10 -6.810926e+06
## [5592,] -1.098680e+08 -9.791973e+07 -2.168727e+11 -1.360477e+07
## [5593,] -3.347907e+11 -2.693228e+11 -1.298691e+15 -2.945197e+09
## [5594,] -2.524097e+11 -2.419250e+11 -9.842741e+14 -2.179768e+09
## [5595,] -4.965282e+09 -4.187156e+09 -1.642201e+13 -9.060921e+07
## [5596,] -3.661933e+06 -2.537409e+06 -8.156348e+10 -6.209165e+06
## [5597,] -8.110591e+03 -2.565737e+04 -3.491208e+10 -6.964581e+06
## [5598,] -1.096493e+08 -9.794998e+07 -2.170971e+11 -1.388227e+07
## [5599,] -3.369495e+11 -2.790815e+11 -1.300035e+15 -3.078002e+09
## [5600,] -2.355812e+11 -2.340089e+11 -9.858015e+14 -2.156891e+09
## [5601,] -4.646287e+09 -4.323904e+09 -1.643899e+13 -1.010870e+08
## [5602,] -2.825398e+06 -3.571025e+06 -8.164783e+10 -6.175942e+06
## [5603,] -7.837743e+03 -2.614925e+04 -3.494818e+10 -7.011566e+06
## [5604,] -1.084316e+08 -9.562556e+07 -2.173216e+11 -1.366269e+07

```

```

## [5605,] -3.489547e+11 -2.503203e+11 -1.301379e+15 -3.046887e+09
## [5606,] -2.723480e+11 -2.110571e+11 -9.858015e+14 -2.325836e+09
## [5607,] -4.214488e+09 -4.462647e+09 -1.643899e+13 -9.365229e+07
## [5608,] -3.131568e+06 -1.670072e+06 -8.169002e+10 -6.272787e+06
## [5609,] -6.077640e+03 -4.474301e+04 -3.496624e+10 -6.945622e+06
## [5610,] -1.079497e+08 -8.740017e+07 -2.174339e+11 -1.334292e+07
## [5611,] -3.032124e+11 -2.890130e+11 -1.302052e+15 -3.119250e+09
## [5612,] -2.483478e+11 -2.036691e+11 -9.863109e+14 -2.202264e+09
## [5613,] -4.718113e+09 -3.791034e+09 -1.645598e+13 -8.907985e+07
## [5614,] -2.921350e+06 -1.140217e+06 -8.173222e+10 -6.179831e+06
## [5615,] -4.440628e+02 -4.243656e+03 -3.498430e+10 -7.050891e+06
## [5616,] -1.077329e+08 -9.334382e+07 -2.176585e+11 -1.330166e+07
## [5617,] -3.125187e+11 -2.790775e+11 -1.303397e+15 -3.571629e+09
## [5618,] -2.427191e+11 -2.185740e+11 -9.873301e+14 -2.476640e+09
## [5619,] -4.775908e+09 -4.187650e+09 -1.646448e+13 -9.008494e+07
## [5620,] -2.007339e+06 -3.018904e+06 -8.181666e+10 -6.135597e+06
## [5621,] -5.642307e+04 -9.961962e+02 -3.502044e+10 -7.108626e+06
## [5622,] -1.043144e+08 -1.028530e+08 -2.178833e+11 -1.389538e+07
## [5623,] -3.391107e+11 -2.991174e+11 -1.304743e+15 -2.904132e+09
## [5624,] -2.774476e+11 -2.262231e+11 -9.883498e+14 -2.317650e+09
## [5625,] -4.561586e+09 -4.463157e+09 -1.648149e+13 -9.515021e+07
## [5626,] -2.447465e+06 -1.857965e+06 -8.190113e+10 -6.143171e+06
## [5627,] -2.360993e+03 -4.650990e+03 -3.505660e+10 -7.017662e+06
## [5628,] -1.038417e+08 -1.004554e+08 -2.179958e+11 -1.330966e+07
## [5629,] -3.219639e+11 -3.198521e+11 -1.306090e+15 -2.944285e+09
## [5630,] -2.467289e+11 -2.581397e+11 -9.893700e+14 -2.163935e+09
## [5631,] -4.747441e+09 -4.463361e+09 -1.649850e+13 -8.640638e+07
## [5632,] -2.959401e+06 -1.855883e+06 -8.194339e+10 -6.280812e+06
## [5633,] -2.940268e+04 -7.031277e+04 -3.507469e+10 -7.058157e+06
## [5634,] -1.041013e+08 -9.573020e+07 -2.181083e+11 -1.390678e+07
## [5635,] -3.093970e+11 -3.093970e+11 -1.306090e+15 -3.202571e+09
## [5636,] -2.347885e+11 -2.185704e+11 -9.898803e+14 -2.317430e+09
## [5637,] -4.761980e+09 -4.324708e+09 -1.650701e+13 -9.235709e+07
## [5638,] -2.804885e+06 -1.469875e+06 -8.198566e+10 -6.416201e+06
## [5639,] -8.130828e+02 -4.307168e+02 -3.509278e+10 -7.083092e+06
## [5640,] -1.033856e+08 -1.004861e+08 -2.182208e+11 -1.379667e+07
## [5641,] -3.251439e+11 -2.597269e+11 -1.306764e+15 -2.658198e+09
## [5642,] -2.499612e+11 -2.419160e+11 -9.903908e+14 -2.178912e+09
## [5643,] -4.661505e+09 -4.747651e+09 -1.651552e+13 -8.624029e+07
## [5644,] -2.777412e+06 -2.279916e+06 -8.202793e+10 -6.284735e+06
## [5645,] -3.265050e+03 -9.969805e+04 -3.511088e+10 -7.084548e+06
## [5646,] -1.048665e+08 -1.029150e+08 -2.183333e+11 -1.377569e+07
## [5647,] -3.052620e+11 -3.304791e+11 -1.307438e+15 -3.762953e+09
## [5648,] -2.639402e+11 -2.419160e+11 -9.903908e+14 -2.476184e+09
## [5649,] -4.791020e+09 -3.791692e+09 -1.651552e+13 -9.136859e+07
## [5650,] -2.703337e+06 -1.468023e+06 -8.202793e+10 -6.442769e+06
## [5651,] -5.162260e+03 -9.969805e+04 -3.511088e+10 -7.134254e+06

```

```

## [5652,] -1.058491e+08 -9.113340e+07 -2.183333e+11 -1.344021e+07
## [5653,] -3.622839e+11 -3.093945e+11 -1.308112e+15 -3.537651e+09
## [5654,] -2.631066e+11 -2.262195e+11 -9.909014e+14 -2.178841e+09
## [5655,] -4.675913e+09 -4.604617e+09 -1.652404e+13 -8.762072e+07
## [5656,] -2.900490e+06 -2.277609e+06 -8.207022e+10 -6.288567e+06
## [5657,] -1.818272e+04 -7.285330e+02 -3.512898e+10 -7.101684e+06
## [5658,] -1.105952e+08 -9.813157e+07 -2.184458e+11 -1.372811e+07
## [5659,] -3.032049e+11 -3.304782e+11 -1.308112e+15 -3.373305e+09
## [5660,] -2.170547e+11 -2.664458e+11 -9.909014e+14 -2.673646e+09
## [5661,] -4.449693e+09 -3.921781e+09 -1.652404e+13 -9.481666e+07
## [5662,] -3.160084e+06 -1.849642e+06 -8.207022e+10 -6.299793e+06
## [5663,] -9.140285e+03 -2.867874e+04 -3.512898e+10 -7.075561e+06
## [5664,] -1.095907e+08 -1.103436e+08 -2.184458e+11 -1.365726e+07
## [5665,] -3.011556e+11 -3.304782e+11 -1.308112e+15 -3.005032e+09
## [5666,] -2.293165e+11 -2.499605e+11 -9.909014e+14 -2.516636e+09
## [5667,] -4.849364e+09 -4.054063e+09 -1.653255e+13 -9.688096e+07
## [5668,] -2.649533e+06 -1.125577e+06 -8.211252e+10 -6.088293e+06
## [5669,] -1.147254e+04 -5.661833e+02 -3.516519e+10 -6.927879e+06
## [5670,] -1.116527e+08 -9.581994e+07 -2.187837e+11 -1.438230e+07
## [5671,] -3.369362e+11 -2.790694e+11 -1.310135e+15 -2.964049e+09
## [5672,] -2.515830e+11 -2.110480e+11 -9.924339e+14 -2.178627e+09
## [5673,] -4.067598e+09 -4.893408e+09 -1.654959e+13 -9.062817e+07
## [5674,] -3.178476e+06 -1.843412e+06 -8.219715e+10 -6.247764e+06
## [5675,] -8.707329e+03 -7.276518e+04 -3.518331e+10 -7.168969e+06
## [5676,] -1.068995e+08 -8.892064e+07 -2.187837e+11 -1.357703e+07
## [5677,] -3.326221e+11 -2.790694e+11 -1.310135e+15 -3.097443e+09
## [5678,] -2.475308e+11 -2.036608e+11 -9.924339e+14 -2.372049e+09
## [5679,] -4.576665e+09 -4.325312e+09 -1.655812e+13 -9.224408e+07
## [5680,] -2.789548e+06 -1.284186e+06 -8.223948e+10 -6.288935e+06
## [5681,] -9.348882e+03 -5.635808e+03 -3.521955e+10 -7.075008e+06
## [5682,] -1.096707e+08 -1.054513e+08 -2.190091e+11 -1.384534e+07
## [5683,] -3.304738e+11 -2.890015e+11 -1.311484e+15 -3.035344e+09
## [5684,] -2.515815e+11 -2.262158e+11 -9.934562e+14 -2.483806e+09
## [5685,] -4.534383e+09 -4.605135e+09 -1.656664e+13 -1.034356e+08
## [5686,] -2.177166e+06 -2.737417e+06 -8.228182e+10 -6.158787e+06
## [5687,] -2.682847e+03 -7.203349e+02 -3.523768e+10 -7.110435e+06
## [5688,] -1.066995e+08 -9.822242e+07 -2.191218e+11 -1.329557e+07
## [5689,] -3.156406e+11 -3.198434e+11 -1.312835e+15 -3.191167e+09
## [5690,] -2.564860e+11 -2.185640e+11 -9.944791e+14 -2.371751e+09
## [5691,] -4.619559e+09 -4.054647e+09 -1.658370e+13 -9.309425e+07
## [5692,] -3.220903e+06 -1.835121e+06 -8.236654e+10 -6.248131e+06
## [5693,] -1.686752e+02 -3.051886e+04 -3.525581e+10 -7.031012e+06
## [5694,] -1.079551e+08 -8.897829e+07 -2.192346e+11 -1.392808e+07
## [5695,] -3.294014e+11 -2.616233e+11 -1.312835e+15 -2.552840e+09
## [5696,] -2.515800e+11 -1.964024e+11 -9.944791e+14 -1.935634e+09
## [5697,] -4.492502e+09 -4.054745e+09 -1.659223e+13 -9.050168e+07
## [5698,] -3.164867e+06 -2.488954e+06 -8.240892e+10 -6.251951e+06

```

```

## [5699,] -3.253187e+04 -1.414224e+04 -3.527395e+10 -7.027260e+06
## [5700,] -1.064840e+08 -1.006393e+08 -2.193473e+11 -1.423015e+07
## [5701,] -3.486280e+11 -2.719409e+11 -2.861418e+13 -1.563731e+09
## [5702,] -2.598838e+11 -2.209382e+11 -2.167539e+13 -1.180653e+09
## [5703,] -4.322928e+09 -3.867646e+09 -3.614537e+11 -2.418905e+07
## [5704,] -1.764215e+07 -1.569427e+07 -1.795238e+09 -1.391061e+04
## [5705,] -6.522428e+06 -6.522428e+06 -7.684259e+08 -5.161436e+04
## [5706,] -6.024953e+07 -5.269988e+07 -4.778375e+09 -9.153965e+05
## [5707,] -2.847241e+11 -3.018837e+11 -2.861418e+13 -1.800579e+09
## [5708,] -2.286289e+11 -2.209375e+11 -2.175098e+13 -1.077063e+09
## [5709,] -3.919989e+09 -3.611755e+09 -3.627142e+11 -2.237863e+07
## [5710,] -1.738606e+07 -1.510298e+07 -1.801499e+09 -1.886484e+04
## [5711,] -6.518525e+06 -5.788678e+06 -7.711057e+08 -5.865024e+04
## [5712,] -5.878427e+07 -5.624341e+07 -4.795039e+09 -8.626850e+05
## [5713,] -3.464294e+11 -2.817473e+11 -2.871397e+13 -1.350363e+09
## [5714,] -2.255366e+11 -2.444066e+11 -2.175098e+13 -1.169478e+09
## [5715,] -4.025538e+09 -3.867741e+09 -3.627142e+11 -2.208254e+07
## [5716,] -1.795032e+07 -1.568822e+07 -1.801499e+09 -1.969311e+04
## [5717,] -6.745926e+06 -5.788678e+06 -7.711057e+08 -5.676481e+04
## [5718,] -5.768845e+07 -5.624341e+07 -4.795039e+09 -8.582449e+05
## [5719,] -3.344662e+11 -2.917282e+11 -2.871397e+13 -1.377901e+09
## [5720,] -2.607108e+11 -2.133776e+11 -2.175098e+13 -1.024478e+09
## [5721,] -4.119044e+09 -3.867741e+09 -3.627142e+11 -2.169082e+07
## [5722,] -1.744831e+07 -1.568822e+07 -1.801499e+09 -2.011392e+04
## [5723,] -7.133593e+06 -5.788678e+06 -7.711057e+08 -5.984427e+04
## [5724,] -6.365194e+07 -4.929309e+07 -4.795039e+09 -8.427949e+05
## [5725,] -3.174405e+11 -3.018829e+11 -2.871397e+13 -1.398737e+09
## [5726,] -2.270801e+11 -2.286289e+11 -2.175098e+13 -1.082394e+09
## [5727,] -4.631122e+09 -3.126076e+09 -3.627142e+11 -2.178842e+07
## [5728,] -1.707648e+07 -1.568822e+07 -1.801499e+09 -1.845738e+04
## [5729,] -6.196939e+06 -5.788678e+06 -7.711057e+08 -5.606572e+04
## [5730,] -5.933604e+07 -5.446287e+07 -4.795039e+09 -8.582449e+05
## [5731,] -3.177368e+11 -2.889983e+11 -1.314186e+15 -2.983879e+09
## [5732,] -2.491432e+11 -2.419084e+11 -9.955025e+14 -2.507815e+09
## [5733,] -4.464587e+09 -3.922642e+09 -1.660076e+13 -8.560581e+07
## [5734,] -3.323297e+06 -2.256899e+06 -8.245130e+10 -6.368195e+06
## [5735,] -1.745254e+04 -6.223803e+03 -3.531024e+10 -7.145092e+06
## [5736,] -1.115129e+08 -1.030856e+08 -2.195730e+11 -1.372266e+07
## [5737,] -3.690375e+11 -2.790638e+11 -1.314861e+15 -3.265040e+09
## [5738,] -2.523913e+11 -2.185611e+11 -9.965264e+14 -2.403161e+09
## [5739,] -5.041803e+09 -3.922834e+09 -1.661784e+13 -9.154397e+07
## [5740,] -1.707888e+06 -2.481726e+06 -8.253611e+10 -6.133447e+06
## [5741,] -5.173362e+02 -5.178879e+04 -3.534655e+10 -7.124428e+06
## [5742,] -1.063002e+08 -1.031166e+08 -2.197988e+11 -1.375173e+07
## [5743,] -3.336901e+11 -2.693022e+11 -1.316213e+15 -3.329082e+09
## [5744,] -2.843122e+11 -2.110417e+11 -9.970386e+14 -2.080670e+09
## [5745,] -4.353797e+09 -3.793010e+09 -1.663492e+13 -9.037528e+07

```

```

## [5746,] -2.841554e+06 -1.822720e+06 -8.262095e+10 -6.159515e+06
## [5747,] -3.199389e+04 -1.410035e+05 -3.536471e+10 -7.112799e+06
## [5748,] -1.115613e+08 -1.007160e+08 -2.199117e+11 -1.381071e+07
## [5749,] -3.156355e+11 -2.889950e+11 -1.316890e+15 -2.753967e+09
## [5750,] -2.427033e+11 -2.339912e+11 -9.980633e+14 -2.324067e+09
## [5751,] -4.968082e+09 -4.465097e+09 -1.664347e+13 -9.038981e+07
## [5752,] -2.593217e+06 -2.474508e+06 -8.266339e+10 -6.271164e+06
## [5753,] -9.609116e+02 -2.674796e+02 -3.538288e+10 -7.158816e+06
## [5754,] -1.053469e+08 -9.834363e+07 -2.200247e+11 -1.389657e+07
## [5755,] -3.456368e+11 -2.503012e+11 -1.318243e+15 -2.993568e+09
## [5756,] -2.411067e+11 -2.036525e+11 -9.985758e+14 -1.935096e+09
## [5757,] -4.326417e+09 -4.326417e+09 -1.665201e+13 -1.048733e+08
## [5758,] -2.379186e+06 -2.025308e+06 -8.270585e+10 -6.174514e+06
## [5759,] -1.272592e+04 -1.187461e+03 -3.541922e+10 -7.109326e+06
## [5760,] -9.908736e+07 -9.837394e+07 -2.202507e+11 -1.415900e+07
## [5761,] -3.093809e+11 -2.990998e+11 -1.318920e+15 -3.285851e+09
## [5762,] -2.639269e+11 -2.339897e+11 -9.990885e+14 -2.371082e+09
## [5763,] -4.821846e+09 -3.793292e+09 -1.666056e+13 -9.322701e+07
## [5764,] -2.884272e+06 -2.023134e+06 -8.274831e+10 -6.230326e+06
## [5765,] -3.117912e+04 -3.296882e+04 -3.541922e+10 -7.117177e+06
## [5766,] -1.068733e+08 -1.031942e+08 -2.203638e+11 -1.354125e+07
## [5767,] -3.456350e+11 -2.692982e+11 -1.319597e+15 -2.862292e+09
## [5768,] -2.532024e+11 -1.963957e+11 -9.996013e+14 -2.215646e+09
## [5769,] -4.720738e+09 -4.190024e+09 -1.666912e+13 -8.884790e+07
## [5770,] -2.260941e+06 -2.238569e+06 -8.279078e+10 -6.159879e+06
## [5771,] -7.660222e+03 -3.324688e+04 -3.543740e+10 -7.027309e+06
## [5772,] -1.051484e+08 -9.369853e+07 -2.203638e+11 -1.392259e+07
## [5773,] -3.251273e+11 -2.692982e+11 -1.319597e+15 -3.034333e+09
## [5774,] -2.639261e+11 -2.262071e+11 -9.996013e+14 -2.402711e+09
## [5775,] -4.620702e+09 -4.190123e+09 -1.667767e+13 -9.345878e+07
## [5776,] -1.617173e+06 -3.774859e+06 -8.283327e+10 -6.053079e+06
## [5777,] -9.178303e+03 -5.425183e+04 -3.547378e+10 -7.276876e+06
## [5778,] -1.081616e+08 -9.843459e+07 -2.207031e+11 -1.419102e+07
## [5779,] -3.369211e+11 -2.502974e+11 -1.321629e+15 -2.467795e+09
## [5780,] -2.548354e+11 -2.262049e+11 -1.001141e+15 -2.482664e+09
## [5781,] -4.136294e+09 -4.326920e+09 -1.669478e+13 -1.101614e+08
## [5782,] -2.846089e+06 -1.806251e+06 -8.296078e+10 -6.384373e+06
## [5783,] -2.533166e+02 -1.858882e+04 -3.551017e+10 -7.190099e+06
## [5784,] -1.032563e+08 -9.844975e+07 -2.208162e+11 -1.421482e+07
## [5785,] -3.533449e+11 -2.692951e+11 -1.322306e+15 -2.802446e+09
## [5786,] -2.434971e+11 -2.185533e+11 -1.002167e+15 -1.906188e+09
## [5787,] -4.354704e+09 -3.666018e+09 -1.671191e+13 -9.637337e+07
## [5788,] -1.784218e+06 -2.010112e+06 -8.300331e+10 -6.186276e+06
## [5789,] -2.298202e+02 -3.465468e+04 -3.552837e+10 -7.099770e+06
## [5790,] -1.079446e+08 -9.610439e+07 -2.209294e+11 -1.370195e+07
## [5791,] -3.166750e+11 -2.692935e+11 -1.323662e+15 -3.382096e+09
## [5792,] -2.515669e+11 -2.185519e+11 -1.003195e+15 -2.370486e+09

```

```

## [5793,] -4.592908e+09 -4.466118e+09 -1.672904e+13 -1.030925e+08
## [5794,] -3.118816e+06 -1.603597e+06 -8.313096e+10 -6.317082e+06
## [5795,] -5.853470e+03 -5.640855e+04 -3.558301e+10 -7.156543e+06
## [5796,] -1.079922e+08 -1.009001e+08 -2.212692e+11 -1.405784e+07
## [5797,] -3.390840e+11 -2.990923e+11 -1.325019e+15 -3.147644e+09
## [5798,] -2.507531e+11 -2.110326e+11 -1.003709e+15 -2.238036e+09
## [5799,] -4.925097e+09 -3.924174e+09 -1.673761e+13 -9.074901e+07
## [5800,] -1.776062e+06 -2.445743e+06 -8.317353e+10 -6.487005e+06
## [5801,] -9.219333e+03 -5.447016e+01 -3.560123e+10 -7.123922e+06
## [5802,] -1.072791e+08 -9.154236e+07 -2.214959e+11 -1.389926e+07
## [5803,] -3.445310e+11 -3.093715e+11 -1.326376e+15 -3.680742e+09
## [5804,] -2.403010e+11 -2.110305e+11 -1.005251e+15 -2.237819e+09
## [5805,] -4.536750e+09 -3.924461e+09 -1.676333e+13 -8.090522e+07
## [5806,] -3.137088e+06 -1.997132e+06 -8.325871e+10 -6.287402e+06
## [5807,] -2.762752e+04 -2.981785e+03 -3.563769e+10 -7.087608e+06
## [5808,] -1.009615e+08 -9.857110e+07 -2.217226e+11 -1.395532e+07
## [5809,] -3.177196e+11 -2.889818e+11 -1.327734e+15 -3.064199e+09
## [5810,] -2.499383e+11 -2.339801e+11 -1.005765e+15 -2.284030e+09
## [5811,] -4.383185e+09 -4.056886e+09 -1.678049e+13 -8.474288e+07
## [5812,] -2.553990e+06 -2.208942e+06 -8.334392e+10 -6.385207e+06
## [5813,] -1.481885e+04 -8.867737e+03 -3.567417e+10 -7.227028e+06
## [5814,] -9.858627e+07 -1.083206e+08 -2.218360e+11 -1.423962e+07
## [5815,] -3.379932e+11 -2.790460e+11 -1.329772e+15 -3.241858e+09
## [5816,] -2.467023e+11 -2.036408e+11 -1.007309e+15 -1.912609e+09
## [5817,] -4.509006e+09 -3.666944e+09 -1.679765e+13 -8.554369e+07
## [5818,] -2.645256e+06 -1.236152e+06 -8.342919e+10 -6.472377e+06
## [5819,] -8.240443e+03 -9.157822e+03 -3.571066e+10 -7.062112e+06
## [5820,] -1.098683e+08 -9.626927e+07 -2.221765e+11 -1.474908e+07
## [5821,] -3.261771e+11 -2.889785e+11 -1.330452e+15 -3.337991e+09
## [5822,] -2.507462e+11 -2.036394e+11 -1.008339e+15 -2.393494e+09
## [5823,] -4.509211e+09 -3.925035e+09 -1.681483e+13 -7.818666e+07
## [5824,] -2.449952e+06 -1.232756e+06 -8.351449e+10 -6.362982e+06
## [5825,] -8.864859e+03 -2.322577e+03 -3.574718e+10 -7.180234e+06
## [5826,] -1.025024e+08 -1.010537e+08 -2.224036e+11 -1.405233e+07
## [5827,] -2.879757e+11 -2.790436e+11 -1.331812e+15 -3.327054e+09
## [5828,] -2.630792e+11 -2.185440e+11 -1.008854e+15 -2.530249e+09
## [5829,] -4.882192e+09 -3.667221e+09 -1.682342e+13 -8.871263e+07
## [5830,] -2.066930e+06 -2.197599e+06 -8.355716e+10 -6.348033e+06
## [5831,] -4.144786e+02 -2.472057e+03 -3.578371e+10 -7.312597e+06
## [5832,] -1.042211e+08 -1.034894e+08 -2.225172e+11 -1.401323e+07
## [5833,] -3.489123e+11 -2.889753e+11 -1.333173e+15 -3.294702e+09
## [5834,] -2.572851e+11 -2.499322e+11 -1.009885e+15 -2.101178e+09
## [5835,] -4.824075e+09 -4.057567e+09 -1.684061e+13 -8.756221e+07
## [5836,] -2.466149e+06 -1.398502e+06 -8.364253e+10 -6.359498e+06
## [5837,] -2.770547e+03 -6.084812e+04 -3.580198e+10 -7.108569e+06
## [5838,] -1.101835e+08 -1.084320e+08 -2.226309e+11 -1.406379e+07
## [5839,] -3.369051e+11 -3.093622e+11 -1.333853e+15 -2.890561e+09

```



```

## [5840,] -2.589327e+11 -2.339734e+11 -1.010401e+15 -2.176131e+09
## [5841,] -4.897150e+09 -4.057665e+09 -1.684920e+13 -8.816518e+07
## [5842,] -2.728018e+06 -1.771503e+06 -8.368524e+10 -6.419917e+06
## [5843,] -1.781660e+03 -1.347985e+01 -3.583854e+10 -7.169165e+06
## [5844,] -1.104670e+08 -1.011152e+08 -2.228582e+11 -1.414718e+07
## [5845,] -3.500124e+11 -2.692808e+11 -1.334534e+15 -2.920622e+09
## [5846,] -2.065749e+11 -2.418859e+11 -1.010916e+15 -2.538108e+09
## [5847,] -4.737445e+09 -4.897257e+09 -1.685780e+13 -9.135265e+07
## [5848,] -2.977306e+06 -1.394890e+06 -8.372795e+10 -6.348403e+06
## [5849,] -1.446089e+02 -2.252809e+04 -3.583854e+10 -7.177049e+06
## [5850,] -1.064790e+08 -1.011152e+08 -2.228582e+11 -1.416519e+07
## [5851,] -3.456152e+11 -3.198158e+11 -1.334534e+15 -3.135996e+09
## [5852,] -2.647429e+11 -2.185411e+11 -1.010916e+15 -2.330050e+09
## [5853,] -4.071107e+09 -4.897257e+09 -1.685780e+13 -9.869724e+07
## [5854,] -3.081145e+06 -3.160192e+06 -8.372795e+10 -6.367208e+06
## [5855,] -4.726939e+02 -2.252809e+04 -3.583854e+10 -7.187567e+06
## [5856,] -1.072211e+08 -1.109706e+08 -2.228582e+11 -1.359457e+07
## [5857,] -2.960303e+11 -2.889736e+11 -1.334534e+15 -3.369844e+09
## [5858,] -2.782673e+11 -2.339727e+11 -1.010916e+15 -1.398827e+09
## [5859,] -4.274015e+09 -4.328931e+09 -1.686641e+13 -9.096752e+07
## [5860,] -2.923440e+06 -1.971299e+06 -8.377067e+10 -6.446586e+06
## [5861,] -1.644007e+03 -6.198428e+04 -3.585683e+10 -7.181144e+06
## [5862,] -1.040393e+08 -1.109867e+08 -2.229719e+11 -1.393766e+07
## [5863,] -3.166603e+11 -2.596942e+11 -1.335215e+15 -3.083937e+09
## [5864,] -2.475019e+11 -1.963794e+11 -1.011948e+15 -1.940488e+09
## [5865,] -4.694530e+09 -3.925706e+09 -1.687501e+13 -9.501925e+07
## [5866,] -2.524765e+06 -1.570866e+06 -8.385615e+10 -6.534173e+06
## [5867,] -8.639032e+03 -1.067832e+04 -3.589342e+10 -7.207764e+06
## [5868,] -1.075166e+08 -9.406873e+07 -2.231994e+11 -1.379754e+07
## [5869,] -3.489078e+11 -2.889711e+11 -1.336577e+15 -3.156650e+09
## [5870,] -2.036332e+11 -2.339698e+11 -1.012981e+15 -2.497100e+09
## [5871,] -4.853835e+09 -3.925897e+09 -1.689223e+13 -8.804042e+07
## [5872,] -2.268485e+06 -1.964867e+06 -8.389891e+10 -6.427943e+06
## [5873,] -7.989962e+03 -4.088626e+04 -3.591172e+10 -7.262017e+06
## [5874,] -1.075325e+08 -1.011766e+08 -2.233132e+11 -1.397267e+07
## [5875,] -3.434235e+11 -2.950136e+11 -1.337259e+15 -3.156564e+09
## [5876,] -2.639057e+11 -2.185383e+11 -1.012981e+15 -2.213776e+09
## [5877,] -4.853835e+09 -4.058151e+09 -1.689223e+13 -8.784412e+07
## [5878,] -2.688382e+06 -1.567037e+06 -8.394168e+10 -6.337595e+06
## [5879,] -7.484735e+03 -2.368948e+04 -3.593003e+10 -7.113549e+06
## [5880,] -1.105634e+08 -9.644929e+07 -2.235409e+11 -1.418169e+07
## [5881,] -3.712731e+11 -3.093562e+11 -1.338622e+15 -2.970707e+09
## [5882,] -2.371170e+11 -2.185361e+11 -1.014530e+15 -2.488771e+09
## [5883,] -4.552716e+09 -3.796117e+09 -1.691806e+13 -9.550244e+07
## [5884,] -2.732463e+06 -1.958446e+06 -8.402724e+10 -6.379153e+06
## [5885,] -7.222725e+03 -2.416221e+04 -3.596665e+10 -7.229460e+06
## [5886,] -1.085752e+08 -9.412803e+07 -2.236548e+11 -1.370483e+07

```

```

## [5887,] -3.031653e+11 -2.990739e+11 -1.339987e+15 -3.325996e+09
## [5888,] -2.639018e+11 -2.339661e+11 -1.015564e+15 -2.298171e+09
## [5889,] -4.220245e+09 -4.609596e+09 -1.693530e+13 -9.553231e+07
## [5890,] -2.368072e+06 -1.557486e+06 -8.415568e+10 -6.527206e+06
## [5891,] -2.897451e+04 -1.258264e+05 -3.603996e+10 -7.317391e+06
## [5892,] -9.960527e+07 -1.037072e+08 -2.241107e+11 -1.413839e+07
## [5893,] -2.869641e+11 -2.889646e+11 -1.342034e+15 -3.229690e+09
## [5894,] -2.466886e+11 -2.110150e+11 -1.016598e+15 -2.267022e+09
## [5895,] -3.992426e+09 -5.195828e+09 -1.695255e+13 -9.211513e+07
## [5896,] -2.411828e+06 -1.555580e+06 -8.419851e+10 -6.319387e+06
## [5897,] -1.329473e+02 -1.197880e+04 -3.603996e+10 -7.264406e+06
## [5898,] -1.091384e+08 -9.418735e+07 -2.241107e+11 -1.403061e+07
## [5899,] -3.083161e+11 -2.889646e+11 -1.342034e+15 -3.588723e+09
## [5900,] -2.539940e+11 -2.036284e+11 -1.016598e+15 -2.720228e+09
## [5901,] -4.898541e+09 -4.193388e+09 -1.696117e+13 -9.172839e+07
## [5902,] -2.719846e+06 -1.947767e+06 -8.424135e+10 -6.474150e+06
## [5903,] -1.203853e+01 -4.339566e+04 -3.605830e+10 -7.199913e+06
## [5904,] -1.101729e+08 -9.892039e+07 -2.243388e+11 -1.398831e+07
## [5905,] -3.358116e+11 -2.869624e+11 -1.343400e+15 -2.949841e+09
## [5906,] -2.458820e+11 -1.822567e+11 -1.017633e+15 -2.152493e+09
## [5907,] -4.441035e+09 -5.046253e+09 -1.696980e+13 -8.895750e+07
## [5908,] -2.500540e+06 -1.202402e+06 -8.428421e+10 -6.538925e+06
## [5909,] -8.922609e+02 -6.742537e+04 -3.611334e+10 -7.365857e+06
## [5910,] -1.094685e+08 -9.195224e+07 -2.246812e+11 -1.436601e+07
## [5911,] -3.240323e+11 -2.889605e+11 -1.345450e+15 -2.990225e+09
## [5912,] -2.531731e+11 -2.185297e+11 -1.019186e+15 -2.167359e+09
## [5913,] -4.567781e+09 -4.610322e+09 -1.699570e+13 -8.999089e+07
## [5914,] -2.612449e+06 -1.197380e+06 -8.441284e+10 -6.527768e+06
## [5915,] -1.282955e+04 -2.634731e+04 -3.613170e+10 -7.279721e+06
## [5916,] -1.089683e+08 -9.659944e+07 -2.246812e+11 -1.429354e+07
## [5917,] -3.282904e+11 -2.692681e+11 -1.345450e+15 -2.520980e+09
## [5918,] -2.410759e+11 -1.963693e+11 -1.019704e+15 -1.960972e+09
## [5919,] -4.371964e+09 -4.469387e+09 -1.700434e+13 -9.402105e+07
## [5920,] -2.754029e+06 -1.542265e+06 -8.449864e+10 -6.467122e+06
## [5921,] -2.420023e+04 -4.526828e+03 -3.620518e+10 -7.248597e+06
## [5922,] -9.761811e+07 -1.038629e+08 -2.252524e+11 -1.447683e+07
## [5923,] -3.522024e+11 -2.596786e+11 -1.348871e+15 -3.102972e+09
## [5924,] -2.491043e+11 -2.110080e+11 -1.021777e+15 -2.243183e+09
## [5925,] -4.625066e+09 -3.927525e+09 -1.703891e+13 -9.145936e+07
## [5926,] -2.624220e+06 -1.727035e+06 -8.462744e+10 -6.490181e+06
## [5927,] -2.418926e+02 -1.370950e+04 -3.622356e+10 -7.310960e+06
## [5928,] -1.090481e+08 -8.749106e+07 -2.252524e+11 -1.413287e+07
## [5929,] -3.325719e+11 -2.692641e+11 -1.348871e+15 -3.040985e+09
## [5930,] -2.418694e+11 -2.261751e+11 -1.022295e+15 -2.635409e+09
## [5931,] -4.248781e+09 -4.469898e+09 -1.704756e+13 -1.092829e+08
## [5932,] -2.573664e+06 -1.355463e+06 -8.467039e+10 -6.339165e+06
## [5933,] -4.244340e+02 -4.244340e+02 -3.626033e+10 -7.327192e+06

```

```

## [5934,] -1.078497e+08 -9.908766e+07 -2.255954e+11 -1.433074e+07
## [5935,] -3.758123e+11 -2.596755e+11 -1.351610e+15 -2.779280e+09
## [5936,] -2.556210e+11 -2.110052e+11 -1.023852e+15 -2.367511e+09
## [5937,] -4.442257e+09 -4.754498e+09 -1.707351e+13 -9.272329e+07
## [5938,] -2.711686e+06 -2.355765e+06 -8.479931e+10 -6.463982e+06
## [5939,] -5.074832e+03 -7.145199e+04 -3.629713e+10 -7.370055e+06
## [5940,] -1.088621e+08 -9.910287e+07 -2.257098e+11 -1.420092e+07
## [5941,] -3.368820e+11 -3.304220e+11 -1.351610e+15 -2.948845e+09
## [5942,] -2.482922e+11 -2.185233e+11 -1.023852e+15 -2.447107e+09
## [5943,] -4.372772e+09 -3.927908e+09 -1.707351e+13 -1.026510e+08
## [5944,] -2.808264e+06 -2.353420e+06 -8.484231e+10 -6.555411e+06
## [5945,] -2.564758e+04 -5.164455e+03 -3.631553e+10 -7.294490e+06
## [5946,] -1.129265e+08 -1.015305e+08 -2.259388e+11 -1.414935e+07
## [5947,] -3.208474e+11 -2.790185e+11 -1.352981e+15 -2.586064e+09
## [5948,] -2.458706e+11 -1.970814e+11 -1.025410e+15 -1.953051e+09
## [5949,] -4.640042e+09 -3.798094e+09 -1.709949e+13 -9.317112e+07
## [5950,] -2.582891e+06 -1.344808e+06 -8.492833e+10 -6.655271e+06
## [5951,] -1.170280e+04 -2.940792e+04 -3.635235e+10 -7.395842e+06
## [5952,] -1.066737e+08 -1.089099e+08 -2.260533e+11 -1.429049e+07
## [5953,] -3.347182e+11 -2.692578e+11 -1.354353e+15 -2.999338e+09
## [5954,] -2.442636e+11 -2.036160e+11 -1.025929e+15 -1.881946e+09
## [5955,] -4.871096e+09 -3.798188e+09 -1.710815e+13 -9.097635e+07
## [5956,] -2.848152e+06 -1.709007e+06 -8.501440e+10 -6.563427e+06
## [5957,] -2.285937e+03 -5.446722e+02 -3.638919e+10 -7.398818e+06
## [5958,] -1.104458e+08 -1.040031e+08 -2.262823e+11 -1.404974e+07
## [5959,] -3.444934e+11 -3.093358e+11 -1.355039e+15 -2.888015e+09
## [5960,] -2.499078e+11 -2.261693e+11 -1.026449e+15 -2.181492e+09
## [5961,] -4.697462e+09 -3.928387e+09 -1.711682e+13 -8.959856e+07
## [5962,] -1.612900e+06 -2.121245e+06 -8.501440e+10 -6.483424e+06
## [5963,] -1.035243e+04 -1.536698e+04 -3.638919e+10 -7.401487e+06
## [5964,] -1.081937e+08 -1.040031e+08 -2.262823e+11 -1.410362e+07
## [5965,] -3.434002e+11 -3.197898e+11 -1.355039e+15 -2.888015e+09
## [5966,] -2.482884e+11 -2.110017e+11 -1.026449e+15 -2.227193e+09
## [5967,] -4.387132e+09 -4.331847e+09 -1.711682e+13 -9.099093e+07
## [5968,] -1.631899e+06 -2.121245e+06 -8.501440e+10 -6.479627e+06
## [5969,] -1.850982e+02 -1.536698e+04 -3.638919e+10 -7.255404e+06
## [5970,] -1.132298e+08 -9.917896e+07 -2.262823e+11 -1.400492e+07
## [5971,] -3.455883e+11 -2.889490e+11 -1.355039e+15 -2.888015e+09
## [5972,] -2.539793e+11 -2.339505e+11 -1.026449e+15 -2.121294e+09
## [5973,] -4.654520e+09 -3.670369e+09 -1.711682e+13 -8.920272e+07
## [5974,] -3.001192e+06 -1.341266e+06 -8.501440e+10 -6.682424e+06
## [5975,] -8.171244e+03 -5.727926e+03 -3.640762e+10 -7.357663e+06
## [5976,] -1.072161e+08 -1.040187e+08 -2.263969e+11 -1.373431e+07
## [5977,] -3.052020e+11 -3.304167e+11 -1.355725e+15 -3.813638e+09
## [5978,] -2.638845e+11 -2.418626e+11 -1.026969e+15 -2.503149e+09
## [5979,] -4.415007e+09 -4.195269e+09 -1.712549e+13 -9.180603e+07
## [5980,] -3.076533e+06 -4.036171e+05 -8.505745e+10 -6.449380e+06

```

```

## [5981,] -9.971587e+02 -7.121836e+02 -3.640762e+10 -7.262165e+06
## [5982,] -1.117231e+08 -9.448422e+07 -2.263969e+11 -1.422646e+07
## [5983,] -3.010960e+11 -3.412173e+11 -1.356411e+15 -2.576205e+09
## [5984,] -2.663898e+11 -2.185183e+11 -1.027489e+15 -2.486866e+09
## [5985,] -4.181820e+09 -4.195368e+09 -1.713416e+13 -9.772976e+07
## [5986,] -1.864387e+06 -1.705013e+06 -8.510051e+10 -6.659498e+06
## [5987,] -6.775660e+00 -1.380352e+05 -3.644449e+10 -7.446059e+06
## [5988,] -1.099914e+08 -9.685496e+07 -2.266262e+11 -1.441009e+07
## [5989,] -3.229564e+11 -2.596685e+11 -1.357785e+15 -2.729645e+09
## [5990,] -2.539762e+11 -2.261664e+11 -1.028529e+15 -2.128491e+09
## [5991,] -4.669230e+09 -3.928770e+09 -1.715150e+13 -8.985475e+07
## [5992,] -3.254121e+06 -1.011864e+06 -8.518667e+10 -6.609741e+06
## [5993,] -1.973379e+03 -5.102651e+04 -3.648137e+10 -7.236357e+06
## [5994,] -1.067842e+08 -9.688504e+07 -2.268556e+11 -1.377474e+07
## [5995,] -3.218963e+11 -3.197847e+11 -1.359158e+15 -3.475674e+09
## [5996,] -2.482830e+11 -2.185147e+11 -1.030090e+15 -2.478401e+09
## [5997,] -4.499572e+09 -4.061462e+09 -1.718622e+13 -9.070842e+07
## [5998,] -2.703538e+06 -1.693061e+06 -8.535911e+10 -6.465194e+06
## [5999,] -1.541551e+02 -1.408888e+05 -3.653674e+10 -7.392044e+06
## [6000,] -1.110943e+08 -1.066001e+08 -2.273147e+11 -1.430881e+07
## [6001,] -3.155797e+11 -3.197821e+11 -1.361221e+15 -3.259104e+09
## [6002,] -2.655476e+11 -2.185133e+11 -1.031132e+15 -2.350712e+09
## [6003,] -4.684068e+09 -4.061560e+09 -1.719491e+13 -9.434735e+07
## [6004,] -2.725596e+06 -1.890604e+06 -8.540225e+10 -6.480467e+06
## [6005,] -9.000596e+03 -1.074673e+03 -3.655520e+10 -7.364214e+06
## [6006,] -1.126130e+08 -9.228961e+07 -2.273147e+11 -1.432692e+07
## [6007,] -3.477752e+11 -2.596646e+11 -1.361221e+15 -3.195569e+09
## [6008,] -2.323764e+11 -2.185126e+11 -1.031653e+15 -2.374294e+09
## [6009,] -4.556120e+09 -3.799224e+09 -1.720360e+13 -9.785066e+07
## [6010,] -2.946480e+06 -1.498922e+06 -8.548856e+10 -6.618073e+06
## [6011,] -1.191669e+03 -7.813750e+04 -3.659215e+10 -7.522454e+06
## [6012,] -1.088675e+08 -1.066317e+08 -2.275444e+11 -1.414881e+07
## [6013,] -3.293373e+11 -3.197803e+11 -1.362596e+15 -3.398730e+09
## [6014,] -2.515232e+11 -2.036070e+11 -1.032695e+15 -2.173066e+09
## [6015,] -4.713184e+09 -3.799507e+09 -1.722967e+13 -8.879771e+07
## [6016,] -2.546180e+06 -2.092408e+06 -8.557491e+10 -6.587599e+06
## [6017,] -7.897940e+02 -5.382553e+04 -3.662911e+10 -7.415506e+06
## [6018,] -1.106707e+08 -9.236304e+07 -2.278892e+11 -1.416606e+07
## [6019,] -3.379479e+11 -2.692459e+11 -1.364661e+15 -2.947269e+09
## [6020,] -2.613801e+11 -2.498971e+11 -1.033738e+15 -2.751533e+09
## [6021,] -5.552537e+09 -4.472249e+09 -1.724707e+13 -8.705980e+07
## [6022,] -2.859822e+06 -1.491447e+06 -8.566131e+10 -6.401529e+06
## [6023,] -1.322490e+03 -3.403165e+04 -3.666609e+10 -7.282822e+06
## [6024,] -1.150087e+08 -1.042370e+08 -2.280042e+11 -1.424398e+07
## [6025,] -3.555070e+11 -2.410107e+11 -1.365350e+15 -3.142587e+09
## [6026,] -2.765222e+11 -2.498963e+11 -1.034260e+15 -2.226111e+09
## [6027,] -4.785524e+09 -3.799695e+09 -1.724707e+13 -9.423312e+07

```

```

## [6028,] -2.263976e+06 -2.784650e+06 -8.566131e+10 -6.511441e+06
## [6029,] -4.707131e+02 -2.526722e+04 -3.666609e+10 -7.407800e+06
## [6030,] -1.168123e+08 -9.469231e+07 -2.280042e+11 -1.428918e+07
## [6031,] -3.122112e+11 -2.719401e+11 -2.871397e+13 -1.426761e+09
## [6032,] -2.380324e+11 -2.286289e+11 -2.175098e+13 -1.082394e+09
## [6033,] -3.985793e+09 -4.268150e+09 -3.627142e+11 -2.629976e+07
## [6034,] -1.757314e+07 -1.751067e+07 -1.801499e+09 -1.572975e+04
## [6035,] -6.822593e+06 -4.668533e+06 -7.711057e+08 -4.953115e+04
## [6036,] -6.063354e+07 -5.098771e+07 -4.795039e+09 -9.375999e+05
## [6037,] -3.216553e+11 -2.817473e+11 -2.871397e+13 -1.398737e+09
## [6038,] -2.541259e+11 -1.914877e+11 -2.175098e+13 -1.271474e+09
## [6039,] -4.172958e+09 -4.132490e+09 -3.627142e+11 -2.178842e+07
## [6040,] -1.858784e+07 -1.341402e+07 -1.801499e+09 -1.001325e+04
## [6041,] -6.741958e+06 -5.322654e+06 -7.737901e+08 -5.119511e+04
## [6042,] -5.916359e+07 -5.272207e+07 -4.811732e+09 -9.437245e+05
## [6043,] -3.377072e+11 -2.917274e+11 -2.881393e+13 -1.645739e+09
## [6044,] -2.524921e+11 -1.986520e+11 -2.182670e+13 -1.248386e+09
## [6045,] -3.959502e+09 -3.999116e+09 -3.639769e+11 -2.598648e+07
## [6046,] -1.794384e+07 -1.452305e+07 -1.807770e+09 -1.305343e+04
## [6047,] -6.340504e+06 -5.322654e+06 -7.737901e+08 -4.921671e+04
## [6048,] -6.083196e+07 -5.099863e+07 -4.811732e+09 -9.367625e+05
## [6049,] -3.355442e+11 -2.817465e+11 -2.881393e+13 -1.660897e+09
## [6050,] -2.574070e+11 -2.209368e+11 -2.182670e+13 -1.254124e+09
## [6051,] -4.336903e+09 -3.364622e+09 -3.639769e+11 -2.535017e+07
## [6052,] -1.813389e+07 -1.396018e+07 -1.807770e+09 -1.221541e+04
## [6053,] -6.589969e+06 -5.322654e+06 -7.737901e+08 -4.965299e+04
## [6054,] -6.008760e+07 -5.272207e+07 -4.811732e+09 -9.390803e+05
## [6055,] -3.387913e+11 -2.817465e+11 -2.881393e+13 -1.638186e+09
## [6056,] -2.524921e+11 -2.133769e+11 -2.182670e+13 -1.248386e+09
## [6057,] -4.213722e+09 -3.487139e+09 -3.639769e+11 -2.535017e+07
## [6058,] -1.781770e+07 -1.340843e+07 -1.807770e+09 -1.254728e+04
## [6059,] -6.999124e+06 -5.551421e+06 -7.737901e+08 -5.031101e+04
## [6060,] -6.214562e+07 -5.625487e+07 -4.811732e+09 -9.275199e+05
## [6061,] -3.803781e+11 -2.990430e+11 -1.365350e+15 -3.038962e+09
## [6062,] -2.507080e+11 -2.109912e+11 -1.034260e+15 -2.751453e+09
## [6063,] -4.713499e+09 -3.546102e+09 -1.725577e+13 -8.359359e+07
## [6064,] -2.491558e+06 -1.677190e+06 -8.570452e+10 -6.534392e+06
## [6065,] -2.581560e+02 -1.453162e+03 -3.668459e+10 -7.414632e+06
## [6066,] -1.117124e+08 -9.942263e+07 -2.281192e+11 -1.431306e+07
## [6067,] -3.293330e+11 -2.692443e+11 -1.366039e+15 -2.797271e+09
## [6068,] -2.292543e+11 -2.261577e+11 -1.034781e+15 -2.082982e+09
## [6069,] -4.570983e+09 -4.062339e+09 -1.726447e+13 -8.630869e+07
## [6070,] -1.956393e+06 -2.536435e+06 -8.574775e+10 -6.379091e+06
## [6071,] -7.031844e+03 -3.459781e+04 -3.670309e+10 -7.448220e+06
## [6072,] -1.087135e+08 -1.018387e+08 -2.282343e+11 -1.428264e+07
## [6073,] -3.208301e+11 -2.889350e+11 -1.366727e+15 -3.038794e+09
## [6074,] -2.466605e+11 -2.418498e+11 -1.035825e+15 -2.583655e+09

```

```

## [6075,] -4.542825e+09 -3.799978e+09 -1.727318e+13 -9.065462e+07
## [6076,] -2.257082e+06 -1.309596e+06 -8.579098e+10 -6.584242e+06
## [6077,] -2.378829e+03 -1.896572e+04 -3.672160e+10 -7.460429e+06
## [6078,] -1.097300e+08 -9.013531e+07 -2.283494e+11 -1.357385e+07
## [6079,] -3.293312e+11 -2.889342e+11 -1.367417e+15 -3.474593e+09
## [6080,] -2.442470e+11 -2.498917e+11 -1.037392e+15 -2.405196e+09
## [6081,] -4.829702e+09 -4.333960e+09 -1.729931e+13 -9.129733e+07
## [6082,] -2.550474e+06 -1.865472e+06 -8.592076e+10 -6.531048e+06
## [6083,] -1.449328e+04 -5.669929e+04 -3.677714e+10 -7.350087e+06
## [6084,] -1.077970e+08 -9.479644e+07 -2.288100e+11 -1.405915e+07
## [6085,] -3.346979e+11 -2.502431e+11 -1.370175e+15 -2.728208e+09
## [6086,] -2.531455e+11 -2.418468e+11 -1.037915e+15 -2.119746e+09
## [6087,] -4.991158e+09 -3.672406e+09 -1.730802e+13 -9.332317e+07
## [6088,] -3.017842e+06 -2.290544e+06 -8.600733e+10 -6.696179e+06
## [6089,] -8.723445e+02 -2.024938e+04 -3.683273e+10 -7.604075e+06
## [6090,] -1.034018e+08 -1.019467e+08 -2.290405e+11 -1.455957e+07
## [6091,] -3.113923e+11 -2.596529e+11 -1.371555e+15 -3.408446e+09
## [6092,] -2.588892e+11 -2.185018e+11 -1.039483e+15 -2.302581e+09
## [6093,] -4.642853e+09 -3.930782e+09 -1.733417e+13 -8.897061e+07
## [6094,] -2.331246e+06 -9.798376e+05 -8.609394e+10 -6.611721e+06
## [6095,] -4.213101e+02 -5.816420e+04 -3.685127e+10 -7.524625e+06
## [6096,] -1.103443e+08 -9.718613e+07 -2.291557e+11 -1.453801e+07
## [6097,] -3.261238e+11 -2.990346e+11 -1.372245e+15 -3.038120e+09
## [6098,] -2.284716e+11 -2.833811e+11 -1.039483e+15 -2.420834e+09
## [6099,] -4.642853e+09 -4.197645e+09 -1.733417e+13 -9.055719e+07
## [6100,] -2.660988e+06 -1.659424e+06 -8.609394e+10 -6.642440e+06
## [6101,] -1.886222e+03 -3.690915e+04 -3.685127e+10 -7.476258e+06
## [6102,] -1.088410e+08 -1.043931e+08 -2.291557e+11 -1.429267e+07
## [6103,] -3.433769e+11 -2.889276e+11 -1.372936e+15 -2.885880e+09
## [6104,] -2.638641e+11 -2.185004e+11 -1.040529e+15 -2.649338e+09
## [6105,] -4.279612e+09 -4.197843e+09 -1.735162e+13 -9.502240e+07
## [6106,] -2.512154e+06 -1.852969e+06 -8.618060e+10 -6.638785e+06
## [6107,] -1.569068e+04 -5.890366e+04 -3.688836e+10 -7.530319e+06
## [6108,] -1.136693e+08 -9.721627e+07 -2.293864e+11 -1.444032e+07
## [6109,] -3.346934e+11 -2.692356e+11 -1.373627e+15 -3.152015e+09
## [6110,] -2.394555e+11 -2.109827e+11 -1.040529e+15 -2.558279e+09
## [6111,] -4.600472e+09 -4.063410e+09 -1.736035e+13 -9.957981e+07
## [6112,] -2.460297e+06 -8.321658e+05 -8.626730e+10 -6.716062e+06
## [6113,] -1.258929e+03 -6.192686e+00 -3.692548e+10 -7.511794e+06
## [6114,] -1.114328e+08 -9.491551e+07 -2.297326e+11 -1.451240e+07
## [6115,] -3.261195e+11 -2.596482e+11 -1.375700e+15 -2.679112e+09
## [6116,] -2.458464e+11 -1.963401e+11 -1.042100e+15 -1.929453e+09
## [6117,] -4.947750e+09 -4.063605e+09 -1.737781e+13 -9.609034e+07
## [6118,] -3.290170e+06 -9.722882e+05 -8.631066e+10 -6.547150e+06
## [6119,] -5.352759e+03 -1.182463e+05 -3.696261e+10 -7.576782e+06
## [6120,] -1.059598e+08 -1.020548e+08 -2.298481e+11 -1.458213e+07
## [6121,] -2.990288e+11 -2.990288e+11 -1.377083e+15 -3.386004e+09

```

```

## [6122,] -2.490722e+11 -1.963381e+11 -1.043671e+15 -2.412258e+09
## [6123,] -4.488203e+09 -4.615304e+09 -1.741276e+13 -9.676704e+07
## [6124,] -2.333020e+06 -1.492418e+06 -8.648424e+10 -6.735880e+06
## [6125,] -5.490085e+01 -1.017905e+04 -3.701833e+10 -7.524675e+06
## [6126,] -1.160926e+08 -1.021011e+08 -2.301946e+11 -1.482915e+07
## [6127,] -3.401008e+11 -2.889210e+11 -1.378466e+15 -3.057942e+09
## [6128,] -2.572339e+11 -2.109778e+11 -1.044195e+15 -2.270891e+09
## [6129,] -4.516295e+09 -3.673517e+09 -1.741276e+13 -9.676704e+07
## [6130,] -2.542572e+06 -1.641753e+06 -8.648424e+10 -6.452455e+06
## [6131,] -3.802088e+03 -3.959874e+04 -3.701833e+10 -7.313555e+06
## [6132,] -1.085014e+08 -9.038213e+07 -2.303102e+11 -1.442313e+07
## [6133,] -3.368466e+11 -2.789879e+11 -1.379158e+15 -4.044028e+09
## [6134,] -2.466476e+11 -2.035911e+11 -1.044720e+15 -2.263094e+09
## [6135,] -4.686892e+09 -4.335469e+09 -1.743024e+13 -9.071724e+07
## [6136,] -2.149832e+06 -1.834293e+06 -8.657109e+10 -6.651171e+06
## [6137,] -2.170546e+04 -1.942313e+03 -3.707411e+10 -7.347220e+06
## [6138,] -1.105370e+08 -1.021474e+08 -2.305414e+11 -1.479154e+07
## [6139,] -3.325314e+11 -2.990246e+11 -1.380543e+15 -3.494886e+09
## [6140,] -2.506911e+11 -2.035898e+11 -1.045769e+15 -2.427919e+09
## [6141,] -4.730193e+09 -3.801863e+09 -1.744774e+13 -9.074636e+07
## [6142,] -2.506731e+06 -1.631977e+06 -8.670146e+10 -6.701558e+06
## [6143,] -2.251037e+03 -1.096441e+04 -3.711131e+10 -7.561831e+06
## [6144,] -1.110730e+08 -9.977342e+07 -2.307728e+11 -1.431023e+07
## [6145,] -3.314556e+11 -2.789846e+11 -1.381929e+15 -2.955319e+09
## [6146,] -2.490677e+11 -2.184918e+11 -1.046818e+15 -2.186288e+09
## [6147,] -4.267127e+09 -4.064482e+09 -1.745649e+13 -9.256460e+07
## [6148,] -2.035325e+06 -2.035325e+06 -8.670146e+10 -6.582391e+06
## [6149,] -1.096441e+04 -2.364247e+04 -3.711131e+10 -7.411494e+06
## [6150,] -1.136097e+08 -1.021783e+08 -2.307728e+11 -1.454659e+07
## [6151,] -3.336045e+11 -2.474399e+11 -1.382622e+15 -2.479572e+09
## [6152,] -2.506888e+11 -1.963334e+11 -1.047343e+15 -2.285941e+09
## [6153,] -4.716017e+09 -3.932220e+09 -1.746524e+13 -8.898939e+07
## [6154,] -2.599620e+06 -1.108778e+06 -8.674493e+10 -6.690074e+06
## [6155,] -1.741946e+03 -9.101698e+04 -3.712992e+10 -7.576833e+06
## [6156,] -1.095808e+08 -1.121004e+08 -2.308885e+11 -1.424366e+07
## [6157,] -3.565964e+11 -2.889161e+11 -1.382622e+15 -3.661855e+09
## [6158,] -2.482579e+11 -1.892106e+11 -1.047343e+15 -1.935913e+09
## [6159,] -4.701758e+09 -3.802145e+09 -1.747400e+13 -9.239269e+07
## [6160,] -2.669771e+06 -9.557824e+05 -8.678842e+10 -6.636265e+06
## [6161,] -9.015096e+03 -1.604544e+05 -3.714853e+10 -7.510965e+06
## [6162,] -1.138975e+08 -9.980396e+07 -2.310042e+11 -1.426750e+07
## [6163,] -2.770174e+11 -3.746274e+11 -1.383315e+15 -3.450588e+09
## [6164,] -2.597028e+11 -2.339202e+11 -1.047868e+15 -2.285868e+09
## [6165,] -4.199229e+09 -4.474906e+09 -1.747400e+13 -9.543547e+07
## [6166,] -3.733640e+06 -2.030967e+06 -8.678842e+10 -6.690169e+06
## [6167,] -9.751391e+02 -6.421068e+04 -3.714853e+10 -7.478732e+06
## [6168,] -1.090963e+08 -1.046431e+08 -2.310042e+11 -1.453087e+07

```

```

## [6169,] -3.379230e+11 -2.889145e+11 -1.384008e+15 -3.341874e+09
## [6170,] -2.284592e+11 -2.261388e+11 -1.048393e+15 -2.285795e+09
## [6171,] -4.185774e+09 -5.354631e+09 -1.748276e+13 -9.060524e+07
## [6172,] -2.667275e+06 -1.821895e+06 -8.683191e+10 -6.713433e+06
## [6173,] -1.603323e+04 -1.620580e+03 -3.716715e+10 -7.531300e+06
## [6174,] -1.144253e+08 -1.022247e+08 -2.311200e+11 -1.428232e+07
## [6175,] -3.455505e+11 -3.303807e+11 -1.384008e+15 -2.844661e+09
## [6176,] -2.531301e+11 -2.035863e+11 -1.048393e+15 -2.247177e+09
## [6177,] -4.559421e+09 -4.336073e+09 -1.748276e+13 -9.080460e+07
## [6178,] -2.740857e+06 -1.267958e+06 -8.683191e+10 -6.779295e+06
## [6179,] -7.119228e+03 -4.206890e+04 -3.716715e+10 -7.574444e+06
## [6180,] -1.139301e+08 -9.983449e+07 -2.312358e+11 -1.429714e+07
## [6181,] -3.466462e+11 -2.889136e+11 -1.384701e+15 -2.582490e+09
## [6182,] -2.490646e+11 -2.184890e+11 -1.048919e+15 -2.348193e+09
## [6183,] -4.322400e+09 -4.199427e+09 -1.749152e+13 -9.607990e+07
## [6184,] -2.355296e+06 -1.622230e+06 -8.691894e+10 -6.705895e+06
## [6185,] -2.041061e+04 -2.483188e+04 -3.720440e+10 -7.491275e+06
## [6186,] -1.157418e+08 -1.046900e+08 -2.313517e+11 -1.425770e+07
## [6187,] -3.368368e+11 -3.092967e+11 -1.386783e+15 -3.234639e+09
## [6188,] -2.442281e+11 -2.035835e+11 -1.050495e+15 -2.014817e+09
## [6189,] -4.065164e+09 -4.336475e+09 -1.751781e+13 -1.013241e+08
## [6190,] -2.852797e+06 -1.259369e+06 -8.704957e+10 -6.806986e+06
## [6191,] -1.779084e+03 -9.427297e+04 -3.726031e+10 -7.498455e+06
## [6192,] -1.054730e+08 -9.516880e+07 -2.316993e+11 -1.452021e+07
## [6193,] -3.208041e+11 -3.411771e+11 -1.387477e+15 -3.005532e+09
## [6194,] -2.531262e+11 -2.580473e+11 -1.051021e+15 -2.216161e+09
## [6195,] -4.688043e+09 -4.759980e+09 -1.752658e+13 -8.988241e+07
## [6196,] -2.654809e+06 -1.811596e+06 -8.704957e+10 -6.756489e+06
## [6197,] -2.138059e+03 -1.659498e+02 -3.726031e+10 -7.581974e+06
## [6198,] -1.101947e+08 -9.751787e+07 -2.316993e+11 -1.468482e+07
## [6199,] -3.488401e+11 -2.789774e+11 -1.388171e+15 -3.118906e+09
## [6200,] -2.564009e+11 -2.109680e+11 -1.051547e+15 -2.363571e+09
## [6201,] -4.227098e+09 -4.336677e+09 -1.753535e+13 -9.310050e+07
## [6202,] -2.556042e+06 -1.809539e+06 -8.709313e+10 -6.636927e+06
## [6203,] -8.931154e+03 -2.070009e+05 -3.727896e+10 -7.540312e+06
## [6204,] -1.023174e+08 -1.097088e+08 -2.318153e+11 -1.470903e+07
## [6205,] -3.250402e+11 -2.889095e+11 -1.388171e+15 -3.729099e+09
## [6206,] -2.621836e+11 -2.339151e+11 -1.051547e+15 -2.332128e+09
## [6207,] -4.645248e+09 -3.932986e+09 -1.753535e+13 -9.289863e+07
## [6208,] -2.872863e+06 -1.094342e+06 -8.713670e+10 -6.679358e+06
## [6209,] -2.010178e+04 -2.605050e+04 -3.729761e+10 -7.482652e+06
## [6210,] -1.062432e+08 -9.754806e+07 -2.319313e+11 -1.470572e+07
## [6211,] -3.218581e+11 -2.692174e+11 -1.389561e+15 -2.525430e+09
## [6212,] -2.215271e+11 -2.339128e+11 -1.053126e+15 -2.614166e+09
## [6213,] -4.560350e+09 -3.933274e+09 -1.756168e+13 -9.053692e+07
## [6214,] -2.477779e+06 -1.091147e+06 -8.722388e+10 -6.745244e+06
## [6215,] -4.582493e+03 -1.296838e+04 -3.733493e+10 -7.539431e+06

```



```

## [6216,] -1.110302e+08 -9.524336e+07 -2.322794e+11 -1.421353e+07
## [6217,] -3.124094e+11 -2.789741e+11 -1.390951e+15 -3.244727e+09
## [6218,] -2.284511e+11 -1.963246e+11 -1.054179e+15 -1.978095e+09
## [6219,] -4.717382e+09 -3.933466e+09 -1.757924e+13 -8.878200e+07
## [6220,] -2.661687e+06 -1.419545e+06 -8.735474e+10 -6.679832e+06
## [6221,] -6.697705e+03 -6.934357e+04 -3.739094e+10 -7.533163e+06
## [6222,] -1.125809e+08 -1.000025e+08 -2.325116e+11 -1.457927e+07
## [6223,] -3.144948e+11 -3.197432e+11 -1.392341e+15 -3.107994e+09
## [6224,] -2.245898e+11 -2.498665e+11 -1.054706e+15 -2.466763e+09
## [6225,] -4.268625e+09 -4.760718e+09 -1.758802e+13 -9.542506e+07
## [6226,] -1.817277e+06 -2.219403e+06 -8.735474e+10 -6.672124e+06
## [6227,] -3.982410e+04 -4.506298e+03 -3.739094e+10 -7.492823e+06
## [6228,] -1.135989e+08 -1.000025e+08 -2.325116e+11 -1.457927e+07
## [6229,] -3.444449e+11 -2.596296e+11 -1.392341e+15 -2.843683e+09
## [6230,] -2.245898e+11 -2.339106e+11 -1.054706e+15 -2.246308e+09
## [6231,] -4.935614e+09 -4.200517e+09 -1.758802e+13 -9.339118e+07
## [6232,] -2.936101e+06 -1.797225e+06 -8.735474e+10 -6.691403e+06
## [6233,] -1.979531e+04 -6.934357e+04 -3.739094e+10 -7.428504e+06
## [6234,] -1.118204e+08 -9.295148e+07 -2.325116e+11 -1.489163e+07
## [6235,] -3.389959e+11 -2.789717e+11 -1.393037e+15 -2.543814e+09
## [6236,] -2.547544e+11 -2.184797e+11 -1.055760e+15 -2.154844e+09
## [6237,] -4.703435e+09 -3.933849e+09 -1.761439e+13 -9.102318e+07
## [6238,] -2.440011e+06 -1.597024e+06 -8.748569e+10 -6.925200e+06
## [6239,] -3.553899e+03 -9.902364e+04 -3.744699e+10 -7.724682e+06
## [6240,] -1.010082e+08 -1.000484e+08 -2.328601e+11 -1.492781e+07
## [6241,] -3.400803e+11 -2.692118e+11 -1.394428e+15 -2.984294e+09
## [6242,] -2.531185e+11 -2.035760e+11 -1.056287e+15 -2.261495e+09
## [6243,] -4.589391e+09 -4.200913e+09 -1.762318e+13 -9.548479e+07
## [6244,] -1.973102e+06 -1.595093e+06 -8.752936e+10 -6.703363e+06
## [6245,] -2.669847e+02 -1.710301e+05 -3.746568e+10 -7.536477e+06
## [6246,] -1.068793e+08 -1.000637e+08 -2.329764e+11 -1.447486e+07
## [6247,] -3.292961e+11 -2.990071e+11 -1.395124e+15 -2.953741e+09
## [6248,] -2.466302e+11 -2.184783e+11 -1.056814e+15 -2.200124e+09
## [6249,] -4.689194e+09 -4.617796e+09 -1.762318e+13 -8.806649e+07
## [6250,] -2.673568e+06 -2.208033e+06 -8.757304e+10 -6.808134e+06
## [6251,] -1.007777e+03 -1.334186e+05 -3.748438e+10 -7.665119e+06
## [6252,] -1.091496e+08 -1.025030e+08 -2.332090e+11 -1.477945e+07
## [6253,] -3.477292e+11 -3.303649e+11 -1.396517e+15 -3.470811e+09
## [6254,] -2.245854e+11 -2.339062e+11 -1.057869e+15 -2.458257e+09
## [6255,] -4.689403e+09 -4.066528e+09 -1.764077e+13 -9.166719e+07
## [6256,] -2.453781e+06 -1.589308e+06 -8.766044e+10 -6.781109e+06
## [6257,] -1.456654e+03 -2.909429e+04 -3.752179e+10 -7.627449e+06
## [6258,] -1.104194e+08 -9.537764e+07 -2.333253e+11 -1.449231e+07
## [6259,] -3.314362e+11 -2.789669e+11 -1.397214e+15 -2.994151e+09
## [6260,] -2.506728e+11 -1.822058e+11 -1.058397e+15 -2.245801e+09
## [6261,] -4.603894e+09 -3.676019e+09 -1.764957e+13 -9.148150e+07
## [6262,] -1.646221e+06 -1.987641e+06 -8.766044e+10 -6.603613e+06

```

```

## [6263,] -2.278570e+04 -1.476681e+04 -3.752179e+10 -7.557158e+06
## [6264,] -1.119335e+08 -1.001095e+08 -2.333253e+11 -1.519301e+07
## [6265,] -3.466291e+11 -2.789661e+11 -1.397911e+15 -2.913028e+09
## [6266,] -2.450184e+11 -1.891960e+11 -1.058924e+15 -2.192234e+09
## [6267,] -4.463160e+09 -3.934424e+09 -1.766718e+13 -8.405958e+07
## [6268,] -2.402533e+06 -1.778833e+06 -8.774788e+10 -6.824094e+06
## [6269,] -1.158215e+03 -4.890868e+04 -3.755922e+10 -7.579063e+06
## [6270,] -1.122192e+08 -9.540749e+07 -2.335580e+11 -1.477868e+07
## [6271,] -3.389888e+11 -3.092823e+11 -1.398607e+15 -3.211999e+09
## [6272,] -2.474320e+11 -2.184740e+11 -1.059981e+15 -1.870616e+09
## [6273,] -4.632656e+09 -3.804313e+09 -1.767598e+13 -1.016012e+08
## [6274,] -2.196693e+06 -1.776796e+06 -8.779162e+10 -6.577091e+06
## [6275,] -1.085588e+04 -6.642564e+02 -3.757794e+10 -7.548187e+06
## [6276,] -1.125053e+08 -1.074856e+08 -2.337909e+11 -1.461607e+07
## [6277,] -3.433420e+11 -2.692055e+11 -1.400002e+15 -3.107056e+09
## [6278,] -2.434127e+11 -2.035704e+11 -1.060509e+15 -1.898722e+09
## [6279,] -4.477462e+09 -3.804501e+09 -1.769360e+13 -9.195563e+07
## [6280,] -1.832803e+06 -1.226993e+06 -8.787912e+10 -6.766058e+06
## [6281,] -3.738320e+03 -7.425681e+04 -3.761539e+10 -7.613332e+06
## [6282,] -1.070215e+08 -1.125377e+08 -2.340239e+11 -1.469190e+07
## [6283,] -3.357373e+11 -3.197319e+11 -1.401397e+15 -3.169537e+09
## [6284,] -2.555654e+11 -2.109547e+11 -1.061566e+15 -2.409706e+09
## [6285,] -4.519787e+09 -4.067308e+09 -1.771123e+13 -1.076584e+08
## [6286,] -2.460392e+06 -1.207166e+06 -8.796668e+10 -6.746863e+06
## [6287,] -3.650660e+01 -1.774087e+05 -3.765287e+10 -7.567690e+06
## [6288,] -1.112880e+08 -1.026268e+08 -2.341404e+11 -1.452395e+07
## [6289,] -2.979787e+11 -2.888915e+11 -1.403491e+15 -3.317892e+09
## [6290,] -2.506659e+11 -2.338988e+11 -1.063152e+15 -2.260550e+09
## [6291,] -4.491992e+09 -3.935191e+09 -1.773769e+13 -9.981796e+07
## [6292,] -2.523794e+06 -1.218544e+06 -8.809808e+10 -6.840457e+06
## [6293,] -3.302614e+02 -9.675380e+02 -3.770912e+10 -7.694189e+06
## [6294,] -1.141315e+08 -9.788041e+07 -2.344902e+11 -1.491801e+07
## [6295,] -3.378973e+11 -2.502057e+11 -1.404189e+15 -2.467945e+09
## [6296,] -2.563823e+11 -2.338973e+11 -1.064210e+15 -1.828230e+09
## [6297,] -4.256754e+09 -4.339092e+09 -1.774651e+13 -9.858225e+07
## [6298,] -2.358299e+06 -1.386959e+06 -8.814191e+10 -7.076626e+06
## [6299,] -1.351492e+03 -1.063686e+05 -3.772788e+10 -7.668513e+06
## [6300,] -1.141479e+08 -1.026887e+08 -2.346068e+11 -1.446521e+07
## [6301,] -3.335762e+11 -2.691999e+11 -1.404888e+15 -3.558124e+09
## [6302,] -2.418092e+11 -2.184683e+11 -1.064210e+15 -2.229657e+09
## [6303,] -4.284112e+09 -4.478076e+09 -1.774651e+13 -9.244567e+07
## [6304,] -2.358299e+06 -1.760536e+06 -8.814191e+10 -6.608483e+06
## [6305,] -1.579108e+02 -1.687998e+04 -3.772788e+10 -7.369889e+06
## [6306,] -1.151729e+08 -9.554189e+07 -2.346068e+11 -1.546498e+07
## [6307,] -3.389808e+11 -3.197276e+11 -1.404888e+15 -3.169107e+09
## [6308,] -2.654972e+11 -2.035649e+11 -1.064739e+15 -2.299062e+09
## [6309,] -4.548596e+09 -3.677223e+09 -1.776417e+13 -8.849292e+07

```

```

## [6310,] -2.351263e+06 -1.211805e+06 -8.827345e+10 -6.578126e+06
## [6311,] -9.628378e+01 -3.285793e+04 -3.778418e+10 -7.938952e+06
## [6312,] -1.152222e+08 -1.003237e+08 -2.349569e+11 -1.492313e+07
## [6313,] -2.919008e+11 -3.197250e+11 -1.406984e+15 -3.726579e+09
## [6314,] -2.418062e+11 -2.261141e+11 -1.066328e+15 -2.252408e+09
## [6315,] -4.763038e+09 -4.068088e+09 -1.778183e+13 -9.290756e+07
## [6316,] -2.878772e+06 -9.042041e+05 -8.831731e+10 -6.790313e+06
## [6317,] -1.646483e+03 -1.436556e+05 -3.782174e+10 -7.818095e+06
## [6318,] -1.111807e+08 -1.003544e+08 -2.351905e+11 -1.470461e+07
## [6319,] -3.165683e+11 -2.789532e+11 -1.409083e+15 -3.669624e+09
## [6320,] -2.442039e+11 -2.498482e+11 -1.067387e+15 -2.416850e+09
## [6321,] -4.506751e+09 -4.478690e+09 -1.779950e+13 -1.016059e+08
## [6322,] -2.723880e+06 -1.048469e+06 -8.840508e+10 -6.709125e+06
## [6323,] -2.701861e+03 -3.369420e+04 -3.784052e+10 -7.672170e+06
## [6324,] -1.089530e+08 -1.027972e+08 -2.354242e+11 -1.492826e+07
## [6325,] -3.103062e+11 -2.691944e+11 -1.409782e+15 -2.570236e+09
## [6326,] -2.434021e+11 -2.109462e+11 -1.067917e+15 -1.876646e+09
## [6327,] -4.506854e+09 -3.677687e+09 -1.780834e+13 -8.256320e+07
## [6328,] -2.140967e+06 -1.205085e+06 -8.844898e+10 -7.017913e+06
## [6329,] -2.693930e+03 -1.098862e+05 -3.785931e+10 -7.832135e+06
## [6330,] -1.084539e+08 -9.564649e+07 -2.354242e+11 -1.467047e+07
## [6331,] -3.218321e+11 -2.789515e+11 -1.410482e+15 -2.532498e+09
## [6332,] -2.498466e+11 -2.109455e+11 -1.068448e+15 -2.093339e+09
## [6333,] -4.605968e+09 -4.478996e+09 -1.782602e+13 -8.977970e+07
## [6334,] -2.523211e+06 -1.551008e+06 -8.853682e+10 -6.728742e+06
## [6335,] -7.835038e+03 -8.106937e+04 -3.791572e+10 -7.626663e+06
## [6336,] -1.122733e+08 -9.804680e+07 -2.357749e+11 -1.478910e+07
## [6337,] -3.335674e+11 -2.691920e+11 -1.411883e+15 -3.231511e+09
## [6338,] -2.418017e+11 -2.109441e+11 -1.069508e+15 -2.472698e+09
## [6339,] -4.521226e+09 -3.936246e+09 -1.783487e+13 -7.498866e+07
## [6340,] -2.267012e+06 -1.369019e+06 -8.858075e+10 -6.861033e+06
## [6341,] -7.290541e+04 -1.559737e+03 -3.791572e+10 -7.618537e+06
## [6342,] -6.965948e+07 -8.879674e+07 -2.357749e+11 -1.471556e+07
## [6343,] -3.134264e+11 -3.411458e+11 -1.411883e+15 -3.242116e+09
## [6344,] -2.323234e+11 -2.184611e+11 -1.069508e+15 -2.814519e+09
## [6345,] -4.563550e+09 -4.068673e+09 -1.783487e+13 -9.279421e+07
## [6346,] -2.913936e+06 -1.200057e+06 -8.858075e+10 -6.814229e+06
## [6347,] -3.094780e+01 -3.482558e+04 -3.791572e+10 -7.670079e+06
## [6348,] -9.899701e+07 -1.028437e+08 -2.357749e+11 -1.499228e+07
## [6349,] -3.250105e+11 -2.888816e+11 -1.411883e+15 -4.316536e+09
## [6350,] -2.547336e+11 -2.261090e+11 -1.070039e+15 -2.205945e+09
## [6351,] -4.706160e+09 -3.936342e+09 -1.784372e+13 -9.160291e+07
## [6352,] -2.711283e+06 -1.040660e+06 -8.862470e+10 -6.822114e+06
## [6353,] -1.800595e+04 -5.626346e+04 -3.795334e+10 -7.705758e+06
## [6354,] -1.095331e+08 -9.572123e+07 -2.360088e+11 -1.463559e+07
## [6355,] -3.103019e+11 -2.691904e+11 -1.413284e+15 -3.095059e+09
## [6356,] -2.253368e+11 -2.035567e+11 -1.071100e+15 -2.553798e+09

```

```

## [6357,] -4.822061e+09 -4.069063e+09 -1.787027e+13 -9.386439e+07
## [6358,] -2.464038e+06 -1.035988e+06 -8.875659e+10 -6.877055e+06
## [6359,] -3.597564e+04 -4.113383e+04 -3.799098e+10 -7.651695e+06
## [6360,] -1.095651e+08 -1.029057e+08 -2.362429e+11 -1.464729e+07
## [6361,] -3.464285e+11 -2.719393e+11 -2.881393e+13 -1.630650e+09
## [6362,] -2.590559e+11 -2.209368e+11 -2.182670e+13 -1.225562e+09
## [6363,] -4.406104e+09 -3.611847e+09 -3.639769e+11 -2.513982e+07
## [6364,] -1.813389e+07 -1.340843e+07 -1.807770e+09 -1.271489e+04
## [6365,] -7.129511e+06 -5.098700e+06 -7.737901e+08 -5.097336e+04
## [6366,] -6.158091e+07 -5.625487e+07 -4.811732e+09 -9.367625e+05
## [6367,] -3.453323e+11 -2.528461e+11 -2.881393e+13 -1.660897e+09
## [6368,] -2.468179e+11 -2.364513e+11 -2.182670e+13 -1.254124e+09
## [6369,] -4.295646e+09 -3.487139e+09 -3.639769e+11 -2.535017e+07
## [6370,] -1.744193e+07 -1.509705e+07 -1.807770e+09 -1.288360e+04
## [6371,] -7.051134e+06 -5.098700e+06 -7.737901e+08 -5.097336e+04
## [6372,] -6.027326e+07 -5.447415e+07 -4.811732e+09 -9.437245e+05
## [6373,] -3.409646e+11 -2.623059e+11 -2.881393e+13 -1.660897e+09
## [6374,] -2.500524e+11 -2.364513e+11 -2.182670e+13 -1.248386e+09
## [6375,] -3.999116e+09 -3.999116e+09 -3.639769e+11 -2.545568e+07
## [6376,] -1.750428e+07 -1.568217e+07 -1.807770e+09 -2.033122e+04
## [6377,] -6.439712e+06 -6.023396e+06 -7.737901e+08 -5.783517e+04
## [6378,] -5.934782e+07 -5.806423e+07 -4.811732e+09 -8.641050e+05
## [6379,] -3.248337e+11 -2.817465e+11 -2.881393e+13 -1.412656e+09
## [6380,] -2.484326e+11 -2.286282e+11 -2.182670e+13 -1.034840e+09
## [6381,] -4.336903e+09 -3.867836e+09 -3.639769e+11 -2.160054e+07
## [6382,] -1.756674e+07 -1.452305e+07 -1.807770e+09 -1.928184e+04
## [6383,] -6.767458e+06 -6.023396e+06 -7.737901e+08 -5.830803e+04
## [6384,] -6.008760e+07 -5.447415e+07 -4.811732e+09 -8.618818e+05
## [6385,] -3.431450e+11 -3.018820e+11 -2.881393e+13 -1.350307e+09
## [6386,] -2.565846e+11 -2.286282e+11 -2.182670e+13 -1.034840e+09
## [6387,] -4.420009e+09 -3.487139e+09 -3.639769e+11 -2.140641e+07
## [6388,] -1.725554e+07 -1.452305e+07 -1.807770e+09 -1.846236e+04
## [6389,] -6.999124e+06 -5.785002e+06 -7.737901e+08 -5.925951e+04
## [6390,] -5.842953e+07 -5.447415e+07 -4.811732e+09 -9.812904e+05
## [6391,] -3.113394e+11 -2.691888e+11 -1.414685e+15 -3.424698e+09
## [6392,] -2.292024e+11 -2.261061e+11 -1.072163e+15 -2.048556e+09
## [6393,] -4.592394e+09 -4.203786e+09 -1.787913e+13 -9.186195e+07
## [6394,] -2.580043e+06 -1.191701e+06 -8.880058e+10 -6.877151e+06
## [6395,] -8.443372e+01 -8.325961e+04 -3.800981e+10 -7.748504e+06
## [6396,] -1.126081e+08 -1.029212e+08 -2.363600e+11 -1.470815e+07
## [6397,] -3.000029e+11 -3.092619e+11 -1.415386e+15 -3.402827e+09
## [6398,] -2.482213e+11 -2.184568e+11 -1.072694e+15 -2.376391e+09
## [6399,] -4.635153e+09 -4.479712e+09 -1.788799e+13 -9.531923e+07
## [6400,] -2.601591e+06 -1.537714e+06 -8.884458e+10 -6.826490e+06
## [6401,] -8.667456e+03 -5.772276e+04 -3.802864e+10 -7.649294e+06
## [6402,] -1.232785e+08 -1.078503e+08 -2.364771e+11 -1.469566e+07
## [6403,] -3.218252e+11 -2.789451e+11 -1.416088e+15 -3.252215e+09

```

```

## [6404,] -2.425956e+11 -2.184568e+11 -1.072694e+15 -2.376391e+09
## [6405,] -4.793245e+09 -3.936821e+09 -1.788799e+13 -9.430012e+07
## [6406,] -2.389569e+06 -1.728241e+06 -8.884458e+10 -6.775921e+06
## [6407,] -9.755024e+03 -5.809051e+04 -3.804748e+10 -7.683408e+06
## [6408,] -1.081149e+08 -1.078662e+08 -2.365943e+11 -1.491334e+07
## [6409,] -3.314116e+11 -2.596023e+11 -1.416789e+15 -2.636027e+09
## [6410,] -2.514642e+11 -1.963002e+11 -1.073225e+15 -1.968445e+09
## [6411,] -4.578426e+09 -4.621016e+09 -1.789685e+13 -9.169069e+07
## [6412,] -1.803459e+06 -2.361867e+06 -8.893261e+10 -6.644740e+06
## [6413,] -1.470746e+04 -2.372343e+05 -3.806632e+10 -7.873746e+06
## [6414,] -1.131817e+08 -1.078979e+08 -2.368286e+11 -1.463074e+07
## [6415,] -3.239401e+11 -2.888734e+11 -1.418895e+15 -3.348235e+09
## [6416,] -2.539085e+11 -2.184540e+11 -1.074820e+15 -2.282143e+09
## [6417,] -4.621328e+09 -3.540555e+09 -1.792345e+13 -8.255353e+07
## [6418,] -2.199593e+06 -1.183374e+06 -8.902068e+10 -7.278393e+06
## [6419,] -1.678482e+04 -1.165706e+05 -3.810402e+10 -7.745195e+06
## [6420,] -1.079297e+08 -1.005995e+08 -2.370631e+11 -1.494620e+07
## [6421,] -3.186564e+11 -2.789411e+11 -1.419597e+15 -2.771390e+09
## [6422,] -2.506483e+11 -2.035511e+11 -1.075352e+15 -2.026173e+09
## [6423,] -4.163760e+09 -4.069745e+09 -1.793232e+13 -1.016259e+08
## [6424,] -2.444883e+06 -1.180051e+06 -8.910880e+10 -6.924846e+06
## [6425,] -1.375964e+04 -2.153021e+04 -3.814174e+10 -7.750972e+06
## [6426,] -1.069532e+08 -1.006148e+08 -2.371804e+11 -1.493361e+07
## [6427,] -3.271288e+11 -2.789402e+11 -1.420299e+15 -3.305055e+09
## [6428,] -2.449942e+11 -2.035504e+11 -1.075884e+15 -2.220419e+09
## [6429,] -4.522459e+09 -4.621536e+09 -1.794119e+13 -9.705152e+07
## [6430,] -3.383972e+06 -1.023581e+06 -8.910880e+10 -6.873913e+06
## [6431,] -1.153031e+03 -5.994675e+04 -3.814174e+10 -7.701881e+06
## [6432,] -1.114548e+08 -9.587081e+07 -2.371804e+11 -1.488740e+07
## [6433,] -3.357134e+11 -2.789402e+11 -1.420299e+15 -3.230469e+09
## [6434,] -2.705198e+11 -2.035504e+11 -1.075884e+15 -2.305306e+09
## [6435,] -5.133023e+09 -4.204480e+09 -1.794119e+13 -1.026993e+08
## [6436,] -2.489339e+06 -1.524476e+06 -8.915288e+10 -6.932795e+06
## [6437,] -1.074058e+02 -6.032150e+04 -3.816061e+10 -7.779837e+06
## [6438,] -1.109661e+08 -1.030452e+08 -2.372977e+11 -1.464497e+07
## [6439,] -3.281950e+11 -3.092551e+11 -1.421002e+15 -2.970954e+09
## [6440,] -2.596608e+11 -1.891741e+11 -1.076416e+15 -2.847991e+09
## [6441,] -4.664535e+09 -4.204678e+09 -1.795894e+13 -9.894676e+07
## [6442,] -2.190536e+06 -1.176733e+06 -8.919696e+10 -7.007714e+06
## [6443,] -1.061717e+03 -1.191941e+05 -3.819835e+10 -7.739156e+06
## [6444,] -1.112506e+08 -1.006608e+08 -2.375324e+11 -1.468417e+07
## [6445,] -3.271262e+11 -2.691801e+11 -1.422407e+15 -2.568842e+09
## [6446,] -2.276443e+11 -2.747529e+11 -1.077481e+15 -2.344196e+09
## [6447,] -4.110298e+09 -4.621848e+09 -1.796782e+13 -9.709669e+07
## [6448,] -2.057888e+06 -1.342328e+06 -8.924106e+10 -6.714795e+06
## [6449,] -4.988275e+02 -8.818090e+04 -3.821723e+10 -7.667150e+06
## [6450,] -1.112828e+08 -1.055518e+08 -2.377673e+11 -1.460428e+07

```

```

## [6451,] -3.281914e+11 -2.789362e+11 -1.423813e+15 -2.950336e+09
## [6452,] -2.807362e+11 -2.184490e+11 -1.078546e+15 -2.166872e+09
## [6453,] -4.523076e+09 -3.781917e+09 -1.799446e+13 -1.030046e+08
## [6454,] -2.115907e+06 -1.904499e+06 -8.937342e+10 -6.894058e+06
## [6455,] -9.179360e+02 -6.221278e+04 -3.825501e+10 -7.626765e+06
## [6456,] -1.093042e+08 -9.597559e+07 -2.380022e+11 -1.479032e+07
## [6457,] -3.324750e+11 -2.989711e+11 -1.425220e+15 -3.021467e+09
## [6458,] -2.425858e+11 -2.338759e+11 -1.079612e+15 -2.297011e+09
## [6459,] -4.693800e+09 -4.070623e+09 -1.801224e+13 -9.532375e+07
## [6460,] -2.639393e+06 -8.668149e+05 -8.946171e+10 -6.874683e+06
## [6461,] -2.442504e+02 -2.336135e+04 -3.829280e+10 -7.812447e+06
## [6462,] -1.083375e+08 -9.836485e+07 -2.382373e+11 -1.431809e+07
## [6463,] -3.292567e+11 -2.691753e+11 -1.426628e+15 -2.502677e+09
## [6464,] -2.425843e+11 -2.035442e+11 -1.080678e+15 -2.062157e+09
## [6465,] -4.594051e+09 -4.070720e+09 -1.802113e+13 -9.656896e+07
## [6466,] -1.297522e+06 -3.609249e+06 -8.950587e+10 -6.800672e+06
## [6467,] -1.371756e+03 -1.597207e+05 -3.833061e+10 -7.678961e+06
## [6468,] -1.101042e+08 -1.056303e+08 -2.383548e+11 -1.468848e+07
## [6469,] -3.324723e+11 -3.092474e+11 -1.427332e+15 -2.929708e+09
## [6470,] -2.323071e+11 -1.891681e+11 -1.081211e+15 -2.265796e+09
## [6471,] -4.809444e+09 -3.938356e+09 -1.803003e+13 -8.991446e+07
## [6472,] -2.085428e+06 -1.507541e+06 -8.955004e+10 -6.914040e+06
## [6473,] -1.345890e+03 -1.229161e+05 -3.833061e+10 -7.738893e+06
## [6474,] -1.118692e+08 -9.602051e+07 -2.383548e+11 -1.467931e+07
## [6475,] -3.335480e+11 -2.409440e+11 -1.427332e+15 -2.909565e+09
## [6476,] -2.506399e+11 -2.260937e+11 -1.081211e+15 -2.091661e+09
## [6477,] -4.679679e+09 -4.622575e+09 -1.803003e+13 -9.051092e+07
## [6478,] -2.514770e+06 -1.329962e+06 -8.955004e+10 -6.863147e+06
## [6479,] -6.340039e+03 -1.570325e+05 -3.836844e+10 -7.747398e+06
## [6480,] -1.084011e+08 -1.106553e+08 -2.387077e+11 -1.507546e+07
## [6481,] -3.454921e+11 -3.196974e+11 -1.429445e+15 -3.261195e+09
## [6482,] -2.747449e+11 -1.962880e+11 -1.082812e+15 -2.158759e+09
## [6483,] -4.651500e+09 -4.342717e+09 -1.806562e+13 -1.037674e+08
## [6484,] -3.236501e+06 -1.322922e+06 -8.972685e+10 -6.758428e+06
## [6485,] -6.666129e+02 -4.295112e+04 -3.842522e+10 -7.847874e+06
## [6486,] -1.076866e+08 -9.845581e+07 -2.389432e+11 -1.508733e+07
## [6487,] -3.346209e+11 -2.789281e+11 -1.430855e+15 -2.939392e+09
## [6488,] -2.425798e+11 -2.260901e+11 -1.083880e+15 -2.319807e+09
## [6489,] -4.781088e+09 -4.071403e+09 -1.808344e+13 -9.626292e+07
## [6490,] -2.717024e+06 -1.684323e+06 -8.981531e+10 -6.926391e+06
## [6491,] -2.526722e+04 -2.526722e+04 -3.844415e+10 -7.767157e+06
## [6492,] -1.145129e+08 -9.847098e+07 -2.390609e+11 -1.527045e+07
## [6493,] -2.808997e+11 -3.092423e+11 -1.431560e+15 -3.677958e+09
## [6494,] -2.514474e+11 -2.184404e+11 -1.084948e+15 -2.390516e+09
## [6495,] -4.897795e+09 -4.206263e+09 -1.810126e+13 -8.923771e+07
## [6496,] -1.961955e+06 -1.680358e+06 -8.990382e+10 -6.942295e+06
## [6497,] -1.134849e+04 -1.818321e+02 -3.848204e+10 -7.838731e+06

```

```

## [6498,] -1.099814e+08 -9.380803e+07 -2.392965e+11 -1.480896e+07
## [6499,] -3.196931e+11 -2.989619e+11 -1.432971e+15 -3.134282e+09
## [6500,] -2.522608e+11 -1.962846e+11 -1.085483e+15 -2.211487e+09
## [6501,] -4.609288e+09 -4.071695e+09 -1.811017e+13 -9.426459e+07
## [6502,] -1.856799e+06 -1.678378e+06 -8.994809e+10 -6.910986e+06
## [6503,] -1.141415e+05 -1.772410e+04 -3.850099e+10 -7.736214e+06
## [6504,] -1.102647e+08 -9.617032e+07 -2.395322e+11 -1.478390e+07
## [6505,] -3.313896e+11 -3.092389e+11 -1.434382e+15 -2.898696e+09
## [6506,] -2.571719e+11 -2.260865e+11 -1.086552e+15 -2.296059e+09
## [6507,] -4.781510e+09 -3.680931e+09 -1.811909e+13 -9.427943e+07
## [6508,] -2.374285e+06 -1.676398e+06 -8.999237e+10 -6.930703e+06
## [6509,] -1.034252e+02 -6.766367e+04 -3.851994e+10 -7.847291e+06
## [6510,] -1.133010e+08 -1.033402e+08 -2.395322e+11 -1.473792e+07
## [6511,] -3.335391e+11 -2.789241e+11 -1.434382e+15 -3.543192e+09
## [6512,] -2.555291e+11 -1.962833e+11 -1.086552e+15 -2.584443e+09
## [6513,] -4.098551e+09 -4.071793e+09 -1.811909e+13 -1.175084e+08
## [6514,] -2.128196e+06 -1.312396e+06 -8.999237e+10 -6.954284e+06
## [6515,] -7.821520e+03 -4.454927e+04 -3.851994e+10 -7.850040e+06
## [6516,] -1.117939e+08 -1.009370e+08 -2.396501e+11 -1.516022e+07
## [6517,] -3.443902e+11 -2.691658e+11 -1.435088e+15 -3.335428e+09
## [6518,] -2.498199e+11 -1.891608e+11 -1.087087e+15 -2.272724e+09
## [6519,] -4.956892e+09 -4.206561e+09 -1.812800e+13 -9.227254e+07
## [6520,] -2.233815e+06 -1.143810e+06 -9.008097e+10 -6.985981e+06
## [6521,] -9.703849e+02 -2.724545e+02 -3.855786e+10 -7.883380e+06
## [6522,] -1.021582e+08 -1.058189e+08 -2.397680e+11 -1.540008e+07
## [6523,] -3.454841e+11 -2.691650e+11 -1.435794e+15 -3.367713e+09
## [6524,] -2.547073e+11 -1.891595e+11 -1.088157e+15 -2.241747e+09
## [6525,] -4.072085e+09 -3.939602e+09 -1.814585e+13 -9.534319e+07
## [6526,] -2.387868e+06 -2.528166e+06 -9.016961e+10 -7.021703e+06
## [6527,] -5.895620e+03 -1.346017e+04 -3.859581e+10 -7.875435e+06
## [6528,] -1.120956e+08 -1.133661e+08 -2.400039e+11 -1.474301e+07
## [6529,] -3.207427e+11 -3.411137e+11 -1.437207e+15 -2.958890e+09
## [6530,] -2.596429e+11 -2.498176e+11 -1.088692e+15 -2.120460e+09
## [6531,] -4.738606e+09 -4.206858e+09 -1.815477e+13 -8.932435e+07
## [6532,] -2.387868e+06 -1.140543e+06 -9.016961e+10 -6.998008e+06
## [6533,] -3.268541e+03 -1.305316e+05 -3.859581e+10 -7.847925e+06
## [6534,] -1.100776e+08 -8.931594e+07 -2.400039e+11 -1.471546e+07
## [6535,] -3.389381e+11 -2.691619e+11 -1.438621e+15 -2.700981e+09
## [6536,] -2.393859e+11 -2.260821e+11 -1.089763e+15 -2.350353e+09
## [6537,] -4.179945e+09 -4.624238e+09 -1.817263e+13 -9.993875e+07
## [6538,] -1.740397e+06 -8.399912e+05 -9.030265e+10 -6.782956e+06
## [6539,] -9.082097e+01 -9.892748e+04 -3.865275e+10 -7.729287e+06
## [6540,] -1.088736e+08 -1.034490e+08 -2.403581e+11 -1.530811e+07
## [6541,] -3.281713e+11 -2.888488e+11 -1.440035e+15 -3.249253e+09
## [6542,] -2.354321e+11 -2.184326e+11 -1.090834e+15 -2.445532e+09
## [6543,] -4.782356e+09 -3.940082e+09 -1.819049e+13 -9.562241e+07
## [6544,] -2.220131e+06 -1.660606e+06 -9.034702e+10 -6.935403e+06

```

```

## [6545,] -1.276306e+03 -9.940874e+04 -3.867174e+10 -7.900871e+06
## [6546,] -1.073962e+08 -1.083906e+08 -2.404762e+11 -1.478489e+07
## [6547,] -3.030442e+11 -2.989536e+11 -1.440035e+15 -3.367180e+09
## [6548,] -2.637895e+11 -1.962778e+11 -1.090834e+15 -2.358076e+09
## [6549,] -5.166137e+09 -3.555755e+09 -1.819049e+13 -9.460167e+07
## [6550,] -2.614030e+06 -2.287307e+06 -9.034702e+10 -6.998396e+06
## [6551,] -4.904359e+03 -4.716705e+04 -3.867174e+10 -7.801900e+06
## [6552,] -1.149657e+08 -1.034645e+08 -2.404762e+11 -1.501585e+07
## [6553,] -3.144366e+11 -3.092321e+11 -1.440035e+15 -3.324054e+09
## [6554,] -2.230056e+11 -2.498146e+11 -1.090834e+15 -2.469660e+09
## [6555,] -4.724732e+09 -4.483293e+09 -1.819943e+13 -9.299462e+07
## [6556,] -2.399123e+06 -1.296686e+06 -9.039140e+10 -6.849349e+06
## [6557,] -8.312720e+03 -7.169731e+04 -3.870974e+10 -7.912225e+06
## [6558,] -1.074437e+08 -1.084383e+08 -2.408306e+11 -1.509865e+07
## [6559,] -2.928674e+11 -3.092296e+11 -1.442158e+15 -3.609067e+09
## [6560,] -2.588114e+11 -2.109139e+11 -1.092442e+15 -2.534349e+09
## [6561,] -4.667771e+09 -3.940562e+09 -1.823519e+13 -9.487980e+07
## [6562,] -2.298322e+06 -9.731926e+05 -9.056903e+10 -7.050274e+06
## [6563,] -1.170280e+04 -7.293017e+04 -3.876677e+10 -7.900287e+06
## [6564,] -9.849130e+07 -1.059919e+08 -2.410671e+11 -1.532526e+07
## [6565,] -3.249713e+11 -3.520790e+11 -1.443574e+15 -3.081049e+09
## [6566,] -2.385876e+11 -1.962745e+11 -1.093515e+15 -2.279589e+09
## [6567,] -4.413893e+09 -4.483703e+09 -1.823519e+13 -9.590203e+07
## [6568,] -2.056310e+06 -1.650773e+06 -9.056903e+10 -6.834127e+06
## [6569,] -4.669694e+04 -1.510293e+04 -3.876677e+10 -7.836986e+06
## [6570,] -1.047635e+08 -1.135126e+08 -2.410671e+11 -1.512914e+07
## [6571,] -3.165262e+11 -2.595727e+11 -1.443574e+15 -3.185383e+09
## [6572,] -2.417679e+11 -2.035277e+11 -1.093515e+15 -2.608231e+09
## [6573,] -4.710774e+09 -3.810254e+09 -1.823519e+13 -9.692974e+07
## [6574,] -1.767762e+06 -1.125901e+06 -9.056903e+10 -6.865357e+06
## [6575,] -4.101590e+03 -1.355482e+05 -3.876677e+10 -7.817771e+06
## [6576,] -1.092192e+08 -1.011213e+08 -2.410671e+11 -1.533463e+07
## [6577,] -3.303060e+11 -2.989494e+11 -1.443574e+15 -3.227603e+09
## [6578,] -2.385876e+11 -2.184290e+11 -1.093515e+15 -2.437138e+09
## [6579,] -5.002501e+09 -4.344631e+09 -1.823519e+13 -9.285177e+07
## [6580,] -2.745514e+06 -1.648810e+06 -9.061347e+10 -7.105928e+06
## [6581,] -9.309109e+02 -1.361115e+05 -3.878579e+10 -7.937720e+06
## [6582,] -1.120040e+08 -9.638026e+07 -2.411854e+11 -1.484783e+07
## [6583,] -3.165253e+11 -2.989486e+11 -1.444282e+15 -3.280681e+09
## [6584,] -2.441662e+11 -2.035270e+11 -1.094051e+15 -2.453107e+09
## [6585,] -4.667875e+09 -4.207849e+09 -1.824414e+13 -9.673879e+07
## [6586,] -2.696306e+06 -1.287999e+06 -9.061347e+10 -6.924203e+06
## [6587,] -1.914713e+04 -4.917943e+04 -3.878579e+10 -7.833025e+06
## [6588,] -1.092352e+08 -1.035578e+08 -2.411854e+11 -1.516303e+07
## [6589,] -3.335268e+11 -2.691555e+11 -1.444282e+15 -3.070627e+09
## [6590,] -2.276217e+11 -2.338559e+11 -1.094051e+15 -2.575117e+09
## [6591,] -4.086529e+09 -4.073158e+09 -1.824414e+13 -1.019544e+08

```



```

## [6592,] -2.364311e+06 -1.648810e+06 -9.061347e+10 -6.830324e+06
## [6593,] -8.137098e+00 -7.375792e+04 -3.880482e+10 -7.873051e+06
## [6594,] -1.047948e+08 -9.875933e+07 -2.413037e+11 -1.522496e+07
## [6595,] -3.154766e+11 -3.196784e+11 -1.444990e+15 -2.978286e+09
## [6596,] -2.393785e+11 -2.260748e+11 -1.095124e+15 -2.381173e+09
## [6597,] -4.841392e+09 -4.073451e+09 -1.827099e+13 -9.130352e+07
## [6598,] -2.615908e+06 -2.266552e+06 -9.074684e+10 -7.106222e+06
## [6599,] -1.420777e+03 -1.037926e+05 -3.884288e+10 -7.873368e+06
## [6600,] -1.125598e+08 -1.036045e+08 -2.415403e+11 -1.497643e+07
## [6601,] -3.400143e+11 -2.989461e+11 -1.446408e+15 -3.091065e+09
## [6602,] -2.546965e+11 -2.184261e+11 -1.095661e+15 -2.310384e+09
## [6603,] -4.885186e+09 -4.073451e+09 -1.827099e+13 -9.392228e+07
## [6604,] -2.426470e+06 -1.282801e+06 -9.074684e+10 -7.019014e+06
## [6605,] -5.469411e+04 -3.062574e+04 -3.884288e+10 -7.873368e+06
## [6606,] -1.123060e+08 -1.011828e+08 -2.415403e+11 -1.489319e+07
## [6607,] -3.154749e+11 -2.691531e+11 -1.446408e+15 -3.060053e+09
## [6608,] -2.579821e+11 -2.035249e+11 -1.095661e+15 -2.310384e+09
## [6609,] -4.812412e+09 -4.208246e+09 -1.827995e+13 -8.932873e+07
## [6610,] -1.878269e+06 -1.640970e+06 -9.079132e+10 -6.975709e+06
## [6611,] -4.605269e+03 -1.042855e+05 -3.886192e+10 -8.040970e+06
## [6612,] -1.105537e+08 -9.644028e+07 -2.416587e+11 -1.448629e+07
## [6613,] -3.196758e+11 -2.595688e+11 -1.447117e+15 -2.585051e+09
## [6614,] -2.481878e+11 -2.184254e+11 -1.096198e+15 -2.202429e+09
## [6615,] -4.526365e+09 -4.208246e+09 -1.827995e+13 -9.312731e+07
## [6616,] -2.424090e+06 -1.640970e+06 -9.079132e+10 -7.078513e+06
## [6617,] -6.032469e+03 -1.042855e+05 -3.886192e+10 -7.935593e+06
## [6618,] -1.105537e+08 -9.644028e+07 -2.416587e+11 -1.495457e+07
## [6619,] -3.165219e+11 -2.888405e+11 -1.447117e+15 -2.998415e+09
## [6620,] -2.506184e+11 -1.891495e+11 -1.096198e+15 -3.011762e+09
## [6621,] -4.740184e+09 -3.941137e+09 -1.828890e+13 -9.971896e+07
## [6622,] -2.083839e+06 -1.451773e+06 -9.088031e+10 -6.881673e+06
## [6623,] -2.643171e+04 -6.272104e+03 -3.890001e+10 -7.850460e+06
## [6624,] -1.126084e+08 -9.647030e+07 -2.418956e+11 -1.511490e+07
## [6625,] -3.281608e+11 -2.501575e+11 -1.448535e+15 -2.353402e+09
## [6626,] -2.679627e+11 -2.035229e+11 -1.097273e+15 -2.501097e+09
## [6627,] -4.812624e+09 -4.484419e+09 -1.829786e+13 -9.973422e+07
## [6628,] -1.240710e+06 -2.255062e+06 -9.096934e+10 -6.676041e+06
## [6629,] -5.748755e+03 -1.406594e+05 -3.893812e+10 -8.019368e+06
## [6630,] -1.151952e+08 -9.886568e+07 -2.421326e+11 -1.487651e+07
## [6631,] -2.769410e+11 -3.632179e+11 -1.449954e+15 -3.420228e+09
## [6632,] -2.506146e+11 -2.035208e+11 -1.098885e+15 -2.081946e+09
## [6633,] -4.798537e+09 -3.557213e+09 -1.833372e+13 -9.443238e+07
## [6634,] -1.553979e+06 -1.629245e+06 -9.105842e+10 -6.936949e+06
## [6635,] -5.982739e+03 -1.418081e+05 -3.897624e+10 -7.950376e+06
## [6636,] -1.136918e+08 -1.086453e+08 -2.423697e+11 -1.508286e+07
## [6637,] -3.432766e+11 -2.691476e+11 -1.451374e+15 -3.163432e+09
## [6638,] -2.449602e+11 -2.184204e+11 -1.099961e+15 -2.240156e+09

```

```

## [6639,] -4.456937e+09 -4.074231e+09 -1.834269e+13 -9.835201e+07
## [6640,] -2.477394e+06 -1.106526e+06 -9.110297e+10 -7.166776e+06
## [6641,] -2.300768e+04 -3.280255e+04 -3.899532e+10 -7.929800e+06
## [6642,] -1.111865e+08 -1.013212e+08 -2.426069e+11 -1.532808e+07
## [6643,] -2.989385e+11 -3.196689e+11 -1.452794e+15 -3.607690e+09
## [6644,] -2.555082e+11 -1.891435e+11 -1.101037e+15 -2.171439e+09
## [6645,] -4.332353e+09 -4.209238e+09 -1.836962e+13 -1.053690e+08
## [6646,] -2.087724e+06 -1.101708e+06 -9.123670e+10 -6.960927e+06
## [6647,] -1.000408e+04 -1.441194e+05 -3.905256e+10 -8.039791e+06
## [6648,] -1.104628e+08 -9.895687e+07 -2.428442e+11 -1.536819e+07
## [6649,] -3.421818e+11 -3.196671e+11 -1.454216e+15 -2.967040e+09
## [6650,] -2.322792e+11 -2.184183e+11 -1.101576e+15 -2.270757e+09
## [6651,] -4.770002e+09 -3.811669e+09 -1.836962e+13 -9.146422e+07
## [6652,] -2.400354e+06 -2.241313e+06 -9.123670e+10 -7.091400e+06
## [6653,] -9.856394e+02 -3.363812e+04 -3.905256e+10 -7.973162e+06
## [6654,] -1.153101e+08 -1.037913e+08 -2.429629e+11 -1.482550e+07
## [6655,] -3.050821e+11 -3.196663e+11 -1.454926e+15 -2.987298e+09
## [6656,] -2.116470e+11 -2.417559e+11 -1.102114e+15 -2.516660e+09
## [6657,] -4.527496e+09 -3.683621e+09 -1.837860e+13 -9.268405e+07
## [6658,] -1.755106e+06 -1.619506e+06 -9.128130e+10 -6.847365e+06
## [6659,] -5.092258e+03 -1.447002e+05 -3.907165e+10 -7.861511e+06
## [6660,] -1.112509e+08 -9.405005e+07 -2.430816e+11 -1.456530e+07
## [6661,] -3.378315e+11 -2.989344e+11 -1.456349e+15 -3.089875e+09
## [6662,] -2.362028e+11 -2.184161e+11 -1.103192e+15 -1.900464e+09
## [6663,] -4.034828e+09 -4.770318e+09 -1.839656e+13 -1.024287e+08
## [6664,] -2.234455e+06 -9.462441e+05 -9.137053e+10 -7.008523e+06
## [6665,] -1.165986e+04 -1.464494e+05 -3.912894e+10 -7.982114e+06
## [6666,] -1.085233e+08 -1.038380e+08 -2.433192e+11 -1.544855e+07
## [6667,] -3.345882e+11 -2.888290e+11 -1.457060e+15 -2.976868e+09
## [6668,] -2.530501e+11 -2.338426e+11 -1.103730e+15 -2.262742e+09
## [6669,] -4.712767e+09 -3.942385e+09 -1.840555e+13 -1.166786e+08
## [6670,] -1.993765e+06 -1.429760e+06 -9.141516e+10 -6.957379e+06
## [6671,] -2.672069e+04 -5.619099e+04 -3.916716e+10 -7.957505e+06
## [6672,] -1.123277e+08 -1.014443e+08 -2.435569e+11 -1.505857e+07
## [6673,] -3.196619e+11 -3.092100e+11 -1.458483e+15 -3.375696e+09
## [6674,] -2.481757e+11 -2.035132e+11 -1.104809e+15 -2.800578e+09
## [6675,] -4.528113e+09 -4.209932e+09 -1.843252e+13 -9.196762e+07
## [6676,] -2.203131e+06 -9.841992e+05 -9.154911e+10 -7.036581e+06
## [6677,] -2.645021e+03 -5.655383e+04 -3.918628e+10 -8.025619e+06
## [6678,] -1.221901e+08 -1.063383e+08 -2.436758e+11 -1.539137e+07
## [6679,] -3.260156e+11 -2.501460e+11 -1.459195e+15 -3.719679e+09
## [6680,] -2.409529e+11 -2.108957e+11 -1.106427e+15 -2.459405e+09
## [6681,] -4.713292e+09 -3.558398e+09 -1.845051e+13 -1.010432e+08
## [6682,] -2.176535e+06 -1.248416e+06 -9.163847e+10 -7.148001e+06
## [6683,] -1.040224e+04 -1.493882e+05 -3.922453e+10 -8.014825e+06
## [6684,] -1.111114e+08 -9.438620e+07 -2.439136e+11 -1.502994e+07
## [6685,] -3.270790e+11 -3.410842e+11 -1.460619e+15 -3.257356e+09

```

```

## [6686,] -2.555005e+11 -2.108957e+11 -1.106427e+15 -2.308915e+09
## [6687,] -4.528319e+09 -3.942865e+09 -1.845051e+13 -9.605629e+07
## [6688,] -2.130515e+06 -2.001887e+06 -9.168317e+10 -6.977646e+06
## [6689,] -1.159067e+04 -1.928883e+03 -3.924366e+10 -7.916679e+06
## [6690,] -1.108753e+08 -9.674068e+07 -2.440326e+11 -1.559783e+07
## [6691,] -3.154869e+11 -3.020231e+11 -1.445699e+13 -1.618460e+09
## [6692,] -2.421320e+11 -2.365761e+11 -1.095124e+13 -1.211871e+09
## [6693,] -4.292538e+09 -3.851884e+09 -1.826204e+11 -2.305782e+07
## [6694,] -1.814743e+07 -1.611113e+07 -9.070237e+08 -2.051499e+02
## [6695,] -7.371723e+06 -5.931480e+06 -3.882385e+08 -9.777975e+03
## [6696,] -6.219696e+07 -4.427525e+07 -2.414220e+09 -6.828164e+05
## [6697,] -3.175844e+11 -2.818828e+11 -1.445699e+13 -1.625968e+09
## [6698,] -2.675118e+11 -1.987665e+11 -1.095124e+13 -1.200602e+09
## [6699,] -4.430780e+09 -3.229689e+09 -1.826204e+11 -2.305782e+07
## [6700,] -1.826821e+07 -1.325108e+07 -9.114754e+08 -3.510895e+02
## [6701,] -7.799842e+06 -5.927758e+06 -3.901439e+08 -8.427336e+03
## [6702,] -5.559907e+07 -5.794318e+07 -2.426069e+09 -6.412249e+05
## [6703,] -3.144391e+11 -3.335347e+11 -1.459907e+13 -1.633369e+09
## [6704,] -2.534357e+11 -2.365746e+11 -1.105887e+13 -1.048264e+09
## [6705,] -4.197270e+09 -3.983089e+09 -1.844152e+11 -2.565468e+07
## [6706,] -1.857519e+07 -1.549993e+07 -9.204113e+08 -3.147938e+01
## [6707,] -7.492965e+06 -6.161457e+06 -3.939688e+08 -1.094298e+04
## [6708,] -5.350059e+07 -5.796644e+07 -2.449854e+09 -6.398403e+05
## [6709,] -3.389372e+11 -2.624342e+11 -1.474185e+13 -1.338992e+09
## [6710,] -2.526181e+11 -1.951638e+11 -1.116703e+13 -1.112141e+09
## [6711,] -4.238253e+09 -4.116491e+09 -1.862187e+11 -2.308719e+07
## [6712,] -1.767323e+07 -1.668417e+07 -9.293909e+08 -1.465417e+01
## [6713,] -7.484601e+06 -6.399674e+06 -3.978124e+08 -1.265913e+04
## [6714,] -5.636106e+07 -5.265107e+07 -2.473754e+09 -6.911334e+05
## [6715,] -3.367694e+11 -2.918620e+11 -1.481350e+13 -1.551373e+09
## [6716,] -2.526173e+11 -1.915960e+11 -1.122130e+13 -1.194723e+09
## [6717,] -4.293039e+09 -3.386635e+09 -1.871238e+11 -2.380407e+07
## [6718,] -1.849781e+07 -1.433612e+07 -9.293909e+08 -4.058657e+02
## [6719,] -7.271402e+06 -6.153872e+06 -3.978124e+08 -9.564615e+03
## [6720,] -5.817211e+07 -5.265107e+07 -2.473754e+09 -6.911334e+05
## [6721,] -3.142960e+11 -2.817457e+11 -2.891406e+13 -1.370877e+09
## [6722,] -2.444051e+11 -1.986514e+11 -2.190255e+13 -1.202897e+09
## [6723,] -4.282037e+09 -3.364711e+09 -3.652418e+11 -2.493798e+07
## [6724,] -1.681828e+07 -1.451722e+07 -1.814053e+09 -1.688156e+04
## [6725,] -6.336656e+06 -5.319129e+06 -7.764792e+08 -5.424898e+04
## [6726,] -5.991405e+07 -4.931456e+07 -4.828454e+09 -8.856812e+05
## [6727,] -3.301664e+11 -2.817457e+11 -2.891406e+13 -1.462065e+09
## [6728,] -2.404114e+11 -2.059480e+11 -2.190255e+13 -1.136323e+09
## [6729,] -4.337004e+09 -3.487230e+09 -3.652418e+11 -2.199862e+07
## [6730,] -1.615213e+07 -1.567612e+07 -1.814053e+09 -1.846735e+04
## [6731,] -6.287356e+06 -6.763483e+06 -7.764792e+08 -5.726034e+04
## [6732,] -6.310468e+07 -5.807587e+07 -4.828454e+09 -8.522185e+05

```

```

## [6733,] -3.122095e+11 -3.122095e+11 -2.891406e+13 -1.683703e+09
## [6734,] -2.574055e+11 -2.059473e+11 -2.197854e+13 -1.202844e+09
## [6735,] -4.159742e+09 -3.364800e+09 -3.665089e+11 -2.557686e+07
## [6736,] -1.724285e+07 -1.285684e+07 -1.820346e+09 -1.887995e+04
## [6737,] -6.632565e+06 -5.544222e+06 -7.791730e+08 -5.369230e+04
## [6738,] -6.293896e+07 -4.603124e+07 -4.861985e+09 -1.009743e+06
## [6739,] -3.344627e+11 -2.817441e+11 -2.911486e+13 -1.880212e+09
## [6740,] -2.549414e+11 -1.914850e+11 -2.205466e+13 -1.353528e+09
## [6741,] -3.599553e+09 -4.833128e+09 -3.677782e+11 -2.687093e+07
## [6742,] -1.650140e+07 -1.566402e+07 -1.826650e+09 -1.255961e+04
## [6743,] -6.806635e+06 -5.312082e+06 -7.818714e+08 -5.067983e+04
## [6744,] -5.919886e+07 -5.993771e+07 -4.861985e+09 -9.528503e+05
## [6745,] -3.486235e+11 -2.623035e+11 -2.911486e+13 -1.622947e+09
## [6746,] -2.380294e+11 -2.209346e+11 -2.205466e+13 -1.294499e+09
## [6747,] -4.518272e+09 -3.364888e+09 -3.677782e+11 -2.505792e+07
## [6748,] -1.644086e+07 -1.625992e+07 -1.826650e+09 -1.189999e+04
## [6749,] -6.578204e+06 -6.012149e+06 -7.818714e+08 -5.045920e+04
## [6750,] -6.086773e+07 -5.103137e+07 -4.861985e+09 -9.481837e+05
## [6751,] -3.711092e+11 -3.302841e+11 -1.461332e+15 -2.935830e+09
## [6752,] -2.911023e+11 -2.035105e+11 -1.106966e+15 -2.185799e+09
## [6753,] -4.360962e+09 -4.627564e+09 -1.845951e+13 -1.033866e+08
## [6754,] -2.174281e+06 -1.085726e+06 -9.168317e+10 -7.032917e+06
## [6755,] -6.240687e+03 -1.505719e+05 -3.926280e+10 -8.023480e+06
## [6756,] -1.129168e+08 -1.064014e+08 -2.441516e+11 -1.494911e+07
## [6757,] -3.292128e+11 -2.989277e+11 -1.462044e+15 -3.267829e+09
## [6758,] -2.587897e+11 -2.035098e+11 -1.107506e+15 -2.200923e+09
## [6759,] -4.917063e+09 -3.890844e+09 -1.848652e+13 -9.045586e+07
## [6760,] -2.301288e+06 -1.413361e+06 -9.181733e+10 -7.017394e+06
## [6761,] -7.429326e+03 -2.385760e+05 -3.932024e+10 -7.851196e+06
## [6762,] -1.091822e+08 -1.015675e+08 -2.445087e+11 -1.506886e+07
## [6763,] -3.553785e+11 -2.989252e+11 -1.464183e+15 -3.068256e+09
## [6764,] -2.489784e+11 -2.108922e+11 -1.109126e+15 -2.292984e+09
## [6765,] -5.154832e+09 -4.210626e+09 -1.849553e+13 -9.307726e+07
## [6766,] -2.507021e+06 -1.239893e+06 -9.186206e+10 -6.848613e+06
## [6767,] -4.535053e+03 -1.169884e+05 -3.933939e+10 -7.985258e+06
## [6768,] -1.210054e+08 -9.681586e+07 -2.446278e+11 -1.496350e+07
## [6769,] -3.711046e+11 -2.888200e+11 -1.464896e+15 -2.825378e+09
## [6770,] -2.354054e+11 -2.108908e+11 -1.110207e+15 -2.292838e+09
## [6771,] -4.656713e+09 -3.943536e+09 -1.851355e+13 -9.250178e+07
## [6772,] -2.339748e+06 -1.076192e+06 -9.195158e+10 -7.176631e+06
## [6773,] -7.910951e+03 -5.987194e+04 -3.935855e+10 -8.092519e+06
## [6774,] -1.137788e+08 -9.450502e+07 -2.448662e+11 -1.509596e+07
## [6775,] -3.249417e+11 -2.788862e+11 -1.467751e+15 -3.016428e+09
## [6776,] -2.465520e+11 -2.184047e+11 -1.111829e+15 -2.058134e+09
## [6777,] -4.888498e+09 -4.076475e+09 -1.854962e+13 -9.642657e+07
## [6778,] -1.957248e+06 -1.398863e+06 -9.217555e+10 -7.053781e+06
## [6779,] -2.248141e+03 -2.261993e+04 -3.945442e+10 -8.086347e+06

```

```

## [6780,] -1.028855e+08 -1.041029e+08 -2.453431e+11 -1.560751e+07
## [6781,] -3.356523e+11 -2.888151e+11 -1.469180e+15 -2.995821e+09
## [6782,] -2.153811e+11 -2.497832e+11 -1.112911e+15 -2.555973e+09
## [6783,] -4.614477e+09 -3.813651e+09 -1.855865e+13 -8.859097e+07
## [6784,] -2.755754e+06 -1.398863e+06 -9.217555e+10 -7.030031e+06
## [6785,] -2.116851e+04 -2.261993e+04 -3.945442e+10 -7.972359e+06
## [6786,] -1.108004e+08 -1.016753e+08 -2.453431e+11 -1.552253e+07
## [6787,] -3.270685e+11 -2.888151e+11 -1.469180e+15 -3.277618e+09
## [6788,] -2.563119e+11 -2.184033e+11 -1.112911e+15 -2.680483e+09
## [6789,] -4.714551e+09 -4.348258e+09 -1.855865e+13 -9.521210e+07
## [6790,] -1.895146e+06 -1.068279e+06 -9.217555e+10 -7.037943e+06
## [6791,] -1.145291e+04 -8.899965e+04 -3.947361e+10 -8.230835e+06
## [6792,] -1.108164e+08 -9.457932e+07 -2.454624e+11 -1.463637e+07
## [6793,] -3.217593e+11 -2.691270e+11 -1.469894e+15 -2.526042e+09
## [6794,] -2.629240e+11 -2.184026e+11 -1.113453e+15 -2.177365e+09
## [6795,] -4.238632e+09 -4.348359e+09 -1.856767e+13 -9.563599e+07
## [6796,] -1.143483e+06 -3.431481e+06 -9.226521e+10 -7.121483e+06
## [6797,] -1.642645e+04 -1.583798e+05 -3.951199e+10 -8.085434e+06
## [6798,] -1.167198e+08 -1.017216e+08 -2.457012e+11 -1.521214e+07
## [6799,] -3.454391e+11 -2.888126e+11 -1.471324e+15 -3.161025e+09
## [6800,] -2.425369e+11 -2.260487e+11 -1.114535e+15 -1.920334e+09
## [6801,] -4.758085e+09 -3.944304e+09 -1.858573e+13 -9.546125e+07
## [6802,] -2.253410e+06 -2.412872e+06 -9.231006e+10 -7.205417e+06
## [6803,] -1.770782e+04 -8.991382e+04 -3.951199e+10 -7.965914e+06
## [6804,] -1.108486e+08 -9.695124e+07 -2.457012e+11 -1.545581e+07
## [6805,] -3.091947e+11 -3.091947e+11 -1.471324e+15 -3.256048e+09
## [6806,] -2.563096e+11 -2.108852e+11 -1.114535e+15 -2.418214e+09
## [6807,] -4.714866e+09 -4.348561e+09 -1.858573e+13 -9.587074e+07
## [6808,] -2.745615e+06 -1.765812e+06 -9.235492e+10 -7.301930e+06
## [6809,] -2.853916e+04 -4.132001e+04 -3.955040e+10 -8.136053e+06
## [6810,] -1.111330e+08 -9.935254e+07 -2.459400e+11 -1.534570e+07
## [6811,] -3.410691e+11 -2.691238e+11 -1.472754e+15 -3.129493e+09
## [6812,] -2.385570e+11 -2.183997e+11 -1.115619e+15 -2.482307e+09
## [6813,] -3.711401e+09 -5.066357e+09 -1.860380e+13 -1.049179e+08
## [6814,] -2.431329e+06 -1.967439e+06 -9.239979e+10 -7.149668e+06
## [6815,] -7.509011e+02 -2.012015e+05 -3.955040e+10 -8.032834e+06
## [6816,] -1.227764e+08 -9.463878e+07 -2.459400e+11 -1.514014e+07
## [6817,] -3.487318e+11 -2.595408e+11 -1.472754e+15 -3.171342e+09
## [6818,] -2.579534e+11 -2.338264e+11 -1.115619e+15 -2.331106e+09
## [6819,] -4.758296e+09 -3.814123e+09 -1.860380e+13 -9.754762e+07
## [6820,] -1.763782e+06 -1.571249e+06 -9.239979e+10 -7.082026e+06
## [6821,] -9.239883e+03 -6.405587e+04 -3.956961e+10 -8.009374e+06
## [6822,] -1.129223e+08 -1.041965e+08 -2.460595e+11 -1.503452e+07
## [6823,] -3.378102e+11 -2.989143e+11 -1.473469e+15 -2.904209e+09
## [6824,] -2.563073e+11 -2.183990e+11 -1.116161e+15 -2.307593e+09
## [6825,] -4.743973e+09 -3.814217e+09 -1.861283e+13 -9.653165e+07
## [6826,] -1.423408e+06 -2.405755e+06 -9.244467e+10 -7.086094e+06

```

```

## [6827,] -5.718795e+04 -6.444324e+04 -3.958883e+10 -8.005370e+06
## [6828,] -1.104095e+08 -1.017832e+08 -2.461790e+11 -1.551754e+07
## [6829,] -3.378093e+11 -2.788789e+11 -1.474185e+15 -3.277006e+09
## [6830,] -2.481589e+11 -2.183983e+11 -1.116703e+15 -2.547237e+09
## [6831,] -4.889353e+09 -4.077256e+09 -1.862187e+13 -9.147308e+07
## [6832,] -2.026352e+06 -9.094433e+05 -9.248957e+10 -7.030712e+06
## [6833,] -5.348290e+03 -1.614354e+05 -3.960805e+10 -8.051400e+06
## [6834,] -1.137192e+08 -1.042277e+08 -2.462985e+11 -1.527000e+07
## [6835,] -3.324133e+11 -2.888085e+11 -1.474901e+15 -3.150125e+09
## [6836,] -2.629185e+11 -2.260450e+11 -1.117245e+15 -2.330885e+09
## [6837,] -4.488206e+09 -4.349064e+09 -1.863091e+13 -9.779981e+07
## [6838,] -1.878352e+06 -1.757698e+06 -9.253447e+10 -7.114111e+06
## [6839,] -9.836683e+03 -6.561234e+04 -3.964650e+10 -8.104706e+06
## [6840,] -1.104577e+08 -9.705661e+07 -2.465376e+11 -1.516989e+07
## [6841,] -3.206951e+11 -3.091888e+11 -1.476333e+15 -3.025666e+09
## [6842,] -2.738424e+11 -1.962433e+11 -1.118330e+15 -2.449702e+09
## [6843,] -4.474398e+09 -3.944976e+09 -1.864900e+13 -9.991144e+07
## [6844,] -2.325183e+06 -2.168696e+06 -9.266925e+10 -7.266391e+06
## [6845,] -1.204578e+04 -1.260433e+05 -3.966574e+10 -8.246540e+06
## [6846,] -1.191919e+08 -1.092195e+08 -2.466572e+11 -1.488819e+07
## [6847,] -3.410637e+11 -2.501269e+11 -1.477049e+15 -3.384223e+09
## [6848,] -2.441314e+11 -2.034953e+11 -1.118872e+15 -2.671222e+09
## [6849,] -4.730196e+09 -4.077744e+09 -1.866710e+13 -9.518679e+07
## [6850,] -2.345642e+06 -1.557868e+06 -9.271419e+10 -7.194296e+06
## [6851,] -4.771292e+04 -1.265865e+05 -3.968498e+10 -8.043692e+06
## [6852,] -1.142955e+08 -1.018603e+08 -2.467768e+11 -1.525649e+07
## [6853,] -3.378049e+11 -2.788749e+11 -1.477765e+15 -3.191766e+09
## [6854,] -2.489639e+11 -1.962420e+11 -1.119415e+15 -2.027835e+09
## [6855,] -4.335673e+09 -4.488616e+09 -1.866710e+13 -9.295354e+07
## [6856,] -2.750074e+06 -1.952462e+06 -9.271419e+10 -7.286608e+06
## [6857,] -5.921453e+03 -9.455472e+04 -3.970422e+10 -8.204654e+06
## [6858,] -1.132906e+08 -1.043057e+08 -2.468965e+11 -1.508533e+07
## [6859,] -3.324089e+11 -2.595346e+11 -1.478482e+15 -2.735391e+09
## [6860,] -2.522116e+11 -1.891202e+11 -1.119958e+15 -2.473622e+09
## [6861,] -4.516811e+09 -4.077841e+09 -1.867615e+13 -1.016386e+08
## [6862,] -2.096654e+06 -9.134703e+05 -9.280412e+10 -7.335204e+06
## [6863,] -2.920909e+04 -4.416305e+04 -3.972347e+10 -8.225908e+06
## [6864,] -1.120367e+08 -9.477263e+07 -2.470162e+11 -1.512847e+07
## [6865,] -2.908105e+11 -3.196369e+11 -1.479199e+15 -3.276393e+09
## [6866,] -2.457342e+11 -2.034925e+11 -1.121044e+15 -2.260416e+09
## [6867,] -4.744920e+09 -4.078036e+09 -1.869426e+13 -9.239313e+07
## [6868,] -2.137838e+06 -1.552150e+06 -9.284910e+10 -7.234655e+06
## [6869,] -2.619870e+04 -6.758419e+04 -3.974272e+10 -8.090154e+06
## [6870,] -1.097844e+08 -9.950493e+07 -2.471359e+11 -1.557518e+07
## [6871,] -3.081490e+11 -3.302612e+11 -1.479915e+15 -3.118220e+09
## [6872,] -2.457335e+11 -2.034918e+11 -1.121587e+15 -2.473394e+09
## [6873,] -4.875687e+09 -4.489026e+09 -1.870332e+13 -8.981041e+07

```

```

## [6874,] -2.092231e+06 -1.043156e+06 -9.289409e+10 -7.142772e+06
## [6875,] -3.555720e+03 -1.663851e+05 -3.976198e+10 -8.066611e+06
## [6876,] -1.078033e+08 -1.169346e+08 -2.472557e+11 -1.544923e+07
## [6877,] -3.620558e+11 -2.691151e+11 -1.480633e+15 -3.118135e+09
## [6878,] -2.330344e+11 -2.260392e+11 -1.121587e+15 -2.425220e+09
## [6879,] -4.363789e+09 -4.078232e+09 -1.871238e+13 -9.444588e+07
## [6880,] -2.177166e+06 -1.041595e+06 -9.293909e+10 -7.347626e+06
## [6881,] -9.924770e+03 -1.293198e+05 -3.978124e+10 -8.031976e+06
## [6882,] -1.088315e+08 -1.195703e+08 -2.474953e+11 -1.574486e+07
## [6883,] -3.102193e+11 -3.091820e+11 -1.482067e+15 -3.340369e+09
## [6884,] -2.441262e+11 -2.108746e+11 -1.122674e+15 -2.562788e+09
## [6885,] -4.531405e+09 -4.350072e+09 -1.872144e+13 -1.053362e+08
## [6886,] -2.329286e+06 -1.038478e+06 -9.302913e+10 -7.155030e+06
## [6887,] -2.719741e+04 -9.739531e+04 -3.981978e+10 -8.132714e+06
## [6888,] -1.123711e+08 -1.068590e+08 -2.476151e+11 -1.585558e+07
## [6889,] -3.217428e+11 -3.302568e+11 -1.483503e+15 -3.004356e+09
## [6890,] -2.361746e+11 -2.338153e+11 -1.123761e+15 -2.832178e+09
## [6891,] -4.817820e+09 -3.687332e+09 -1.873957e+13 -9.592017e+07
## [6892,] -2.061924e+06 -1.542645e+06 -9.307416e+10 -7.211096e+06
## [6893,] -3.929327e+03 -2.745001e+04 -3.983905e+10 -8.064467e+06
## [6894,] -1.136595e+08 -9.720723e+07 -2.477350e+11 -1.525750e+07
## [6895,] -3.270511e+11 -2.788684e+11 -1.483503e+15 -3.014582e+09
## [6896,] -2.489578e+11 -1.962365e+11 -1.123761e+15 -2.236974e+09
## [6897,] -4.503574e+09 -4.774436e+09 -1.874864e+13 -9.248130e+07
## [6898,] -2.256899e+06 -1.540747e+06 -9.311920e+10 -7.115383e+06
## [6899,] -3.281916e+04 -1.315274e+05 -3.985834e+10 -8.250982e+06
## [6900,] -1.108863e+08 -9.722229e+07 -2.478549e+11 -1.480875e+07
## [6901,] -3.454221e+11 -2.989009e+11 -1.484939e+15 -2.862859e+09
## [6902,] -2.562949e+11 -2.260349e+11 -1.124849e+15 -2.012565e+09
## [6903,] -4.574190e+09 -3.946128e+09 -1.875771e+13 -8.950083e+07
## [6904,] -2.187913e+06 -8.877132e+05 -9.316426e+10 -7.368354e+06
## [6905,] -5.206116e+00 -1.396112e+04 -3.987762e+10 -8.218765e+06
## [6906,] -1.144590e+08 -9.723736e+07 -2.479748e+11 -1.549472e+07
## [6907,] -3.487164e+11 -2.989009e+11 -1.484939e+15 -3.169879e+09
## [6908,] -2.457282e+11 -2.260342e+11 -1.125393e+15 -2.168235e+09
## [6909,] -4.602653e+09 -3.815822e+09 -1.876679e+13 -9.230946e+07
## [6910,] -1.970699e+06 -1.189366e+06 -9.320933e+10 -7.223413e+06
## [6911,] -7.155367e+03 -1.326382e+05 -3.989691e+10 -8.175386e+06
## [6912,] -1.144753e+08 -1.044618e+08 -2.480947e+11 -1.513543e+07
## [6913,] -3.302542e+11 -2.989001e+11 -1.485657e+15 -3.045110e+09
## [6914,] -2.449239e+11 -2.183861e+11 -1.125937e+15 -2.432613e+09
## [6915,] -4.688360e+09 -4.489845e+09 -1.877586e+13 -9.252539e+07
## [6916,] -1.885732e+06 -1.030706e+06 -9.325440e+10 -7.287796e+06
## [6917,] -1.432454e+04 -4.743294e+04 -3.991621e+10 -8.165731e+06
## [6918,] -1.139801e+08 -1.020455e+08 -2.482147e+11 -1.517865e+07
## [6919,] -3.388785e+11 -2.788652e+11 -1.486376e+15 -3.096672e+09
## [6920,] -2.093824e+11 -2.746800e+11 -1.126482e+15 -2.545849e+09

```

```

## [6921,] -4.420089e+09 -4.489947e+09 -1.878494e+13 -9.375225e+07
## [6922,] -2.225417e+06 -1.186035e+06 -9.329949e+10 -7.275820e+06
## [6923,] -1.571366e+04 -2.873052e+04 -3.993551e+10 -8.189742e+06
## [6924,] -1.127223e+08 -1.044931e+08 -2.483347e+11 -1.539986e+07
## [6925,] -3.465158e+11 -2.788644e+11 -1.487094e+15 -2.892610e+09
## [6926,] -2.546526e+11 -2.183854e+11 -1.126482e+15 -2.198415e+09
## [6927,] -4.950011e+09 -3.816011e+09 -1.878494e+13 -9.681715e+07
## [6928,] -2.027483e+06 -1.531277e+06 -9.334459e+10 -7.163699e+06
## [6929,] -3.605685e+04 -2.158546e+05 -3.995481e+10 -8.023688e+06
## [6930,] -1.074811e+08 -1.094752e+08 -2.485748e+11 -1.544006e+07
## [6931,] -3.620457e+11 -3.091743e+11 -1.488532e+15 -2.983373e+09
## [6932,] -2.199029e+11 -2.417206e+11 -1.127571e+15 -2.432387e+09
## [6933,] -4.818563e+09 -3.816199e+09 -1.880310e+13 -1.010111e+08
## [6934,] -3.040931e+06 -8.805282e+05 -9.338970e+10 -7.028702e+06
## [6935,] -2.004982e+04 -1.348739e+05 -3.997412e+10 -8.240686e+06
## [6936,] -1.114877e+08 -9.496614e+07 -2.485748e+11 -1.571398e+07
## [6937,] -3.367091e+11 -2.788628e+11 -1.488532e+15 -3.044773e+09
## [6938,] -2.385406e+11 -2.260312e+11 -1.127571e+15 -2.329483e+09
## [6939,] -4.406386e+09 -3.687982e+09 -1.880310e+13 -1.189991e+08
## [6940,] -3.172375e+06 -2.132836e+06 -9.338970e+10 -7.267973e+06
## [6941,] -1.491800e+03 -1.348739e+05 -3.997412e+10 -7.875847e+06
## [6942,] -1.102438e+08 -1.045399e+08 -2.486949e+11 -1.554027e+07
## [6943,] -3.421380e+11 -2.988959e+11 -1.489251e+15 -2.695345e+09
## [6944,] -2.497619e+11 -2.260305e+11 -1.128116e+15 -2.221078e+09
## [6945,] -4.448374e+09 -4.214197e+09 -1.882128e+13 -9.523605e+07
## [6946,] -2.216307e+06 -1.715406e+06 -9.347996e+10 -7.260131e+06
## [6947,] -3.149292e+04 -1.359987e+05 -4.001275e+10 -8.134327e+06
## [6948,] -1.127872e+08 -9.734288e+07 -2.488151e+11 -1.481896e+07
## [6949,] -3.476094e+11 -2.691040e+11 -1.490690e+15 -2.892199e+09
## [6950,] -2.260283e+11 -2.260283e+11 -1.129751e+15 -2.496513e+09
## [6951,] -4.746604e+09 -3.946992e+09 -1.883946e+13 -9.711357e+07
## [6952,] -2.189632e+06 -1.019873e+06 -9.357025e+10 -7.220193e+06
## [6953,] -1.563331e+04 -1.563331e+04 -4.005140e+10 -8.218817e+06
## [6954,] -1.128197e+08 -1.021536e+08 -2.490554e+11 -1.527643e+07
## [6955,] -3.270414e+11 -2.988934e+11 -1.491410e+15 -3.200663e+09
## [6956,] -2.457221e+11 -2.260283e+11 -1.129751e+15 -2.432086e+09
## [6957,] -5.024681e+09 -4.079696e+09 -1.884855e+13 -1.112217e+08
## [6958,] -1.930656e+06 -1.341620e+06 -9.361542e+10 -7.172276e+06
## [6959,] -9.434761e+03 -2.693690e+05 -4.009007e+10 -8.286789e+06
## [6960,] -1.198378e+08 -1.046337e+08 -2.494161e+11 -1.570895e+07
## [6961,] -3.665394e+11 -3.091684e+11 -1.493570e+15 -3.403894e+09
## [6962,] -2.473309e+11 -2.034794e+11 -1.131387e+15 -2.190171e+09
## [6963,] -4.407096e+09 -4.079891e+09 -1.886674e+13 -9.166763e+07
## [6964,] -2.358017e+06 -1.334549e+06 -9.379619e+10 -7.293012e+06
## [6965,] -7.777134e+01 -1.056720e+05 -4.014811e+10 -8.204164e+06
## [6966,] -1.154582e+08 -1.022308e+08 -2.496568e+11 -1.539070e+07
## [6967,] -3.367002e+11 -2.788547e+11 -1.495732e+15 -3.524299e+09

```



```

## [6968,] -2.538253e+11 -1.962250e+11 -1.133025e+15 -2.228081e+09
## [6969,] -4.936583e+09 -4.214990e+09 -1.889405e+13 -9.131104e+07
## [6970,] -2.198143e+06 -1.699430e+06 -9.384141e+10 -7.289084e+06
## [6971,] -1.674715e+05 -6.491770e+03 -4.016746e+10 -8.099277e+06
## [6972,] -1.136814e+08 -1.022463e+08 -2.497771e+11 -1.536853e+07
## [6973,] -3.334632e+11 -2.788547e+11 -1.495732e+15 -2.656066e+09
## [6974,] -2.481361e+11 -2.260240e+11 -1.133025e+15 -2.375956e+09
## [6975,] -4.435238e+09 -4.351988e+09 -1.889405e+13 -8.715878e+07
## [6976,] -2.262688e+06 -1.508667e+06 -9.388664e+10 -7.269061e+06
## [6977,] -5.841788e+03 -1.066679e+05 -4.018682e+10 -8.246698e+06
## [6978,] -1.099180e+08 -1.022772e+08 -2.500179e+11 -1.534300e+07
## [6979,] -3.356177e+11 -3.091641e+11 -1.497174e+15 -3.306282e+09
## [6980,] -2.465201e+11 -2.034753e+11 -1.134663e+15 -2.694135e+09
## [6981,] -4.533669e+09 -3.947856e+09 -1.892138e+13 -9.849168e+07
## [6982,] -2.169326e+06 -1.504915e+06 -9.397713e+10 -7.245150e+06
## [6983,] -2.149884e+04 -2.749498e+05 -4.022556e+10 -8.131904e+06
## [6984,] -1.074548e+08 -1.047432e+08 -2.502589e+11 -1.557143e+07
## [6985,] -3.196136e+11 -3.520092e+11 -1.498617e+15 -3.381556e+09
## [6986,] -2.620615e+11 -2.183740e+11 -1.135210e+15 -2.367757e+09
## [6987,] -4.491688e+09 -4.633075e+09 -1.893961e+13 -9.583945e+07
## [6988,] -2.099488e+06 -1.157910e+06 -9.406767e+10 -7.398719e+06
## [6989,] -2.051991e+04 -1.086737e+05 -4.026431e+10 -8.264262e+06
## [6990,] -1.104686e+08 -1.047588e+08 -2.503794e+11 -1.533283e+07
## [6991,] -3.280987e+11 -2.690945e+11 -1.499338e+15 -2.961798e+09
## [6992,] -2.554588e+11 -2.260203e+11 -1.135756e+15 -2.144287e+09
## [6993,] -4.805632e+09 -4.352492e+09 -1.893961e+13 -9.686683e+07
## [6994,] -1.206562e+06 -1.888924e+06 -9.406767e+10 -7.181250e+06
## [6995,] -1.913867e+04 -7.873671e+04 -4.026431e+10 -8.137823e+06
## [6996,] -1.137628e+08 -1.047588e+08 -2.503794e+11 -1.546432e+07
## [6997,] -3.498000e+11 -2.887806e+11 -1.499338e+15 -3.115917e+09
## [6998,] -2.554588e+11 -2.108578e+11 -1.135756e+15 -2.328377e+09
## [6999,] -4.762197e+09 -4.215486e+09 -1.893961e+13 -9.727931e+07
## [7000,] -2.231166e+06 -1.323977e+06 -9.406767e+10 -7.289579e+06
## [7001,] -8.873492e+03 -1.434240e+05 -4.026431e+10 -8.174250e+06
## [7002,] -1.064805e+08 -1.173646e+08 -2.503794e+11 -1.563419e+07
## [7003,] -2.847878e+11 -3.302375e+11 -1.499338e+15 -3.424963e+09
## [7004,] -2.409123e+11 -2.337990e+11 -1.135756e+15 -2.495673e+09
## [7005,] -4.690244e+09 -4.491688e+09 -1.893961e+13 -9.624974e+07
## [7006,] -1.575159e+06 -2.099488e+06 -9.406767e+10 -7.277502e+06
## [7007,] -7.973583e+03 -5.361301e+04 -4.026431e+10 -8.165836e+06
## [7008,] -1.109883e+08 -1.097312e+08 -2.504999e+11 -1.530135e+07
## [7009,] -3.323816e+11 -2.887789e+11 -1.500782e+15 -2.891049e+09
## [7010,] -2.473233e+11 -2.108564e+11 -1.136850e+15 -1.917589e+09
## [7011,] -4.633284e+09 -3.439642e+09 -1.895784e+13 -9.281964e+07
## [7012,] -1.864303e+06 -9.999081e+05 -9.415825e+10 -7.173454e+06
## [7013,] -8.522901e+04 -3.386271e+04 -4.030308e+10 -8.046041e+06
## [7014,] -1.102653e+08 -1.048058e+08 -2.507411e+11 -1.535079e+07

```

```

## [7015,] -3.432139e+11 -2.690921e+11 -1.501504e+15 -2.941295e+09
## [7016,] -2.628895e+11 -2.108557e+11 -1.137397e+15 -2.136569e+09
## [7017,] -4.791449e+09 -4.080965e+09 -1.896697e+13 -9.162817e+07
## [7018,] -2.475758e+06 -1.318706e+06 -9.420355e+10 -7.334243e+06
## [7019,] -7.513842e+03 -8.002843e+04 -4.032248e+10 -8.187363e+06
## [7020,] -1.143230e+08 -9.996280e+07 -2.507411e+11 -1.576615e+07
## [7021,] -3.217212e+11 -2.887781e+11 -1.501504e+15 -3.501478e+09
## [7022,] -2.361561e+11 -2.497489e+11 -1.137397e+15 -2.503555e+09
## [7023,] -5.496666e+09 -3.689652e+09 -1.896697e+13 -1.044725e+08
## [7024,] -1.105433e+06 -2.092850e+06 -9.420355e+10 -7.085931e+06
## [7025,] -8.388110e+03 -1.101904e+05 -4.032248e+10 -8.266160e+06
## [7026,] -1.148353e+08 -1.072702e+08 -2.507411e+11 -1.529458e+07
## [7027,] -3.081235e+11 -2.988817e+11 -1.501504e+15 -3.074182e+09
## [7028,] -2.562771e+11 -1.890990e+11 -1.137397e+15 -2.618489e+09
## [7029,] -4.619254e+09 -3.817993e+09 -1.897609e+13 -8.964985e+07
## [7030,] -1.662261e+06 -1.316952e+06 -9.424887e+10 -7.261811e+06
## [7031,] -2.918298e+04 -3.442747e+04 -4.034187e+10 -8.222656e+06
## [7032,] -1.055735e+08 -1.024009e+08 -2.509823e+11 -1.573079e+07
## [7033,] -3.280943e+11 -2.690905e+11 -1.502949e+15 -2.971534e+09
## [7034,] -2.433034e+11 -2.260167e+11 -1.138492e+15 -2.943290e+09
## [7035,] -4.849903e+09 -4.081258e+09 -1.899434e+13 -9.067269e+07
## [7036,] -2.107822e+06 -9.938046e+05 -9.433954e+10 -7.399317e+06
## [7037,] -2.042808e+04 -2.317579e+05 -4.038068e+10 -8.273702e+06
## [7038,] -1.090602e+08 -1.024164e+08 -2.511030e+11 -1.468231e+07
## [7039,] -3.410298e+11 -2.887748e+11 -1.504394e+15 -3.167556e+09
## [7040,] -2.369421e+11 -2.337938e+11 -1.139586e+15 -2.446753e+09
## [7041,] -4.648064e+09 -3.818277e+09 -1.900348e+13 -9.779844e+07
## [7042,] -1.656355e+06 -2.084016e+06 -9.438489e+10 -7.266128e+06
## [7043,] -3.346457e+04 -1.926148e+04 -4.040009e+10 -8.173979e+06
## [7044,] -1.123498e+08 -1.048683e+08 -2.512237e+11 -1.550641e+07
## [7045,] -3.112320e+11 -3.196066e+11 -1.504394e+15 -3.273332e+09
## [7046,] -2.645527e+11 -1.821073e+11 -1.139586e+15 -2.351402e+09
## [7047,] -4.339397e+09 -4.216181e+09 -1.900348e+13 -1.009282e+08
## [7048,] -2.149115e+06 -1.488089e+06 -9.438489e+10 -7.310423e+06
## [7049,] -9.102346e+03 -1.882550e+05 -4.041951e+10 -8.276849e+06
## [7050,] -1.151739e+08 -1.048840e+08 -2.513445e+11 -1.550301e+07
## [7051,] -3.387886e+11 -2.623035e+11 -2.911486e+13 -1.660711e+09
## [7052,] -2.557612e+11 -2.059466e+11 -2.205466e+13 -1.248224e+09
## [7053,] -4.186887e+09 -3.999406e+09 -3.677782e+11 -2.558459e+07
## [7054,] -1.748510e+07 -1.339164e+07 -1.826650e+09 -1.239304e+04
## [7055,] -6.679248e+06 -4.869437e+06 -7.818714e+08 -5.023905e+04
## [7056,] -6.312897e+07 -5.103137e+07 -4.861985e+09 -9.365672e+05
## [7057,] -3.323102e+11 -3.018795e+11 -2.911486e+13 -1.645553e+09
## [7058,] -2.557612e+11 -2.059466e+11 -2.205466e+13 -1.248224e+09
## [7059,] -4.092610e+09 -3.612123e+09 -3.677782e+11 -2.579678e+07
## [7060,] -1.686695e+07 -1.507924e+07 -1.826650e+09 -1.272730e+04
## [7061,] -6.477931e+06 -5.312082e+06 -7.818714e+08 -5.001939e+04

```

```

## [7062,] -5.993771e+07 -5.628926e+07 -4.861985e+09 -9.412052e+05
## [7063,] -3.333856e+11 -2.917249e+11 -2.911486e+13 -1.660711e+09
## [7064,] -2.582285e+11 -1.914850e+11 -2.205466e+13 -1.253962e+09
## [7065,] -3.907276e+09 -4.132883e+09 -3.677782e+11 -2.643864e+07
## [7066,] -1.856149e+07 -1.394305e+07 -1.826650e+09 -1.375677e+04
## [7067,] -6.704629e+06 -5.312082e+06 -7.818714e+08 -5.112253e+04
## [7068,] -6.293896e+07 -5.450799e+07 -4.861985e+09 -9.412052e+05
## [7069,] -3.269593e+11 -2.917249e+11 -2.911486e+13 -1.683577e+09
## [7070,] -2.294024e+11 -2.209346e+11 -2.205466e+13 -1.306199e+09
## [7071,] -4.106012e+09 -4.268550e+09 -3.677782e+11 -2.569058e+07
## [7072,] -1.773548e+07 -1.450558e+07 -1.826650e+09 -1.289609e+04
## [7073,] -6.883645e+06 -5.540624e+06 -7.818714e+08 -5.156715e+04
## [7074,] -6.012314e+07 -5.628926e+07 -4.861985e+09 -9.458546e+05
## [7075,] -3.205955e+11 -2.917249e+11 -2.911486e+13 -1.683577e+09
## [7076,] -2.364490e+11 -2.444036e+11 -2.205466e+13 -1.288669e+09
## [7077,] -4.295946e+09 -3.868121e+09 -3.677782e+11 -2.558459e+07
## [7078,] -1.742278e+07 -1.507924e+07 -1.826650e+09 -1.255961e+04
## [7079,] -6.781061e+06 -6.012149e+06 -7.818714e+08 -5.067983e+04
## [7080,] -6.105459e+07 -4.933602e+07 -4.861985e+09 -9.458546e+05
## [7081,] -3.185529e+11 -2.788442e+11 -1.505117e+15 -3.348321e+09
## [7082,] -2.538153e+11 -1.890957e+11 -1.140134e+15 -2.312158e+09
## [7083,] -4.577188e+09 -4.216380e+09 -1.902174e+13 -1.007487e+08
## [7084,] -1.994455e+06 -7.147785e+05 -9.447562e+10 -7.444316e+06
## [7085,] -7.590848e+03 -3.614976e+04 -4.045836e+10 -8.302599e+06
## [7086,] -1.106293e+08 -1.000698e+08 -2.515860e+11 -1.543972e+07
## [7087,] -3.070838e+11 -2.887724e+11 -1.506564e+15 -2.991473e+09
## [7088,] -2.481247e+11 -2.260131e+11 -1.141230e+15 -2.151097e+09
## [7089,] -4.549011e+09 -4.777710e+09 -1.903088e+13 -9.394921e+07
## [7090,] -1.358097e+06 -1.867978e+06 -9.452100e+10 -7.383495e+06
## [7091,] -2.742470e+04 -8.308332e+04 -4.045836e+10 -8.271530e+06
## [7092,] -1.147099e+08 -1.024937e+08 -2.517068e+11 -1.553993e+07
## [7093,] -3.280890e+11 -2.988750e+11 -1.507287e+15 -3.156730e+09
## [7094,] -2.465103e+11 -2.260124e+11 -1.141778e+15 -2.366865e+09
## [7095,] -4.879636e+09 -4.216578e+09 -1.904002e+13 -9.518544e+07
## [7096,] -1.444564e+06 -1.304704e+06 -9.456640e+10 -7.254466e+06
## [7097,] -8.775896e+03 -8.610654e+03 -4.047779e+10 -8.292870e+06
## [7098,] -1.020097e+08 -1.049310e+08 -2.517068e+11 -1.571970e+07
## [7099,] -3.323727e+11 -2.690849e+11 -1.508011e+15 -2.493968e+09
## [7100,] -2.465095e+11 -1.890930e+11 -1.142326e+15 -1.895670e+09
## [7101,] -4.339901e+09 -4.216677e+09 -1.904916e+13 -1.074149e+08
## [7102,] -1.154229e+06 -1.863803e+06 -9.461180e+10 -7.222460e+06
## [7103,] -3.130878e+04 -1.909167e+05 -4.049722e+10 -8.184609e+06
## [7104,] -1.094062e+08 -9.772021e+07 -2.518277e+11 -1.547055e+07
## [7105,] -3.442987e+11 -2.988742e+11 -1.508011e+15 -3.272895e+09
## [7106,] -2.797819e+11 -1.890930e+11 -1.142326e+15 -3.121356e+09
## [7107,] -4.821534e+09 -4.081941e+09 -1.905831e+13 -9.562422e+07
## [7108,] -2.157547e+06 -1.301215e+06 -9.465722e+10 -7.420318e+06

```

```

## [7109,] -1.531399e+04 -5.831172e+04 -4.051666e+10 -8.296022e+06
## [7110,] -1.139748e+08 -9.538361e+07 -2.519486e+11 -1.584594e+07
## [7111,] -2.948111e+11 -3.196015e+11 -1.508735e+15 -3.770260e+09
## [7112,] -2.337879e+11 -2.416980e+11 -1.143972e+15 -2.584455e+09
## [7113,] -4.493225e+09 -3.949489e+09 -1.907660e+13 -8.881996e+07
## [7114,] -2.219220e+06 -1.473212e+06 -9.474808e+10 -7.355648e+06
## [7115,] -2.731851e+04 -3.791410e+04 -4.057501e+10 -8.454099e+06
## [7116,] -1.147918e+08 -9.542839e+07 -2.523114e+11 -1.559841e+07
## [7117,] -3.345219e+11 -2.988709e+11 -1.510908e+15 -3.042159e+09
## [7118,] -2.424955e+11 -2.034629e+11 -1.144520e+15 -1.945168e+09
## [7119,] -4.015636e+09 -4.778344e+09 -1.908575e+13 -1.010665e+08
## [7120,] -2.000417e+06 -1.295990e+06 -9.479353e+10 -7.371939e+06
## [7121,] -1.607970e+04 -1.534319e+05 -4.059446e+10 -8.254336e+06
## [7122,] -1.137847e+08 -9.544332e+07 -2.524324e+11 -1.470088e+07
## [7123,] -3.259519e+11 -2.887666e+11 -1.511632e+15 -3.219360e+09
## [7124,] -2.489281e+11 -2.337865e+11 -1.145069e+15 -2.350661e+09
## [7125,] -4.271724e+09 -4.634844e+09 -1.909490e+13 -9.982304e+07
## [7126,] -2.212396e+06 -1.467653e+06 -9.488446e+10 -7.469657e+06
## [7127,] -6.960286e+03 -2.406707e+05 -4.061393e+10 -8.208052e+06
## [7128,] -1.115148e+08 -1.001921e+08 -2.525534e+11 -1.542194e+07
## [7129,] -3.164437e+11 -3.410200e+11 -1.512357e+15 -2.849793e+09
## [7130,] -2.612168e+11 -2.108452e+11 -1.145618e+15 -2.195907e+09
## [7131,] -4.793036e+09 -3.949777e+09 -1.910406e+13 -9.366214e+07
## [7132,] -1.851305e+06 -1.653917e+06 -9.488446e+10 -7.263195e+06
## [7133,] -1.386739e+04 -1.949442e+05 -4.061393e+10 -8.318046e+06
## [7134,] -1.143285e+08 -9.782599e+07 -2.526745e+11 -1.557871e+07
## [7135,] -3.291506e+11 -2.594972e+11 -1.513082e+15 -3.293643e+09
## [7136,] -2.538061e+11 -2.497359e+11 -1.146717e+15 -2.366196e+09
## [7137,] -4.578326e+09 -3.949969e+09 -1.912238e+13 -9.903384e+07
## [7138,] -2.598240e+06 -9.710830e+05 -9.502093e+10 -7.291659e+06
## [7139,] -1.109599e+04 -1.969738e+05 -4.067234e+10 -8.288848e+06
## [7140,] -1.100677e+08 -1.075711e+08 -2.530378e+11 -1.592938e+07
## [7141,] -2.847698e+11 -2.887625e+11 -1.515258e+15 -3.401220e+09
## [7142,] -2.465019e+11 -2.416928e+11 -1.147816e+15 -2.583912e+09
## [7143,] -4.606905e+09 -3.819693e+09 -1.914070e+13 -1.073564e+08
## [7144,] -1.987468e+06 -2.270235e+06 -9.506645e+10 -7.267611e+06
## [7145,] -3.935074e+03 -1.570446e+05 -4.071131e+10 -8.365620e+06
## [7146,] -1.172435e+08 -1.076028e+08 -2.532802e+11 -1.558998e+07
## [7147,] -3.302164e+11 -2.690754e+11 -1.516709e+15 -3.031214e+09
## [7148,] -2.670485e+11 -2.337813e+11 -1.148915e+15 -2.256712e+09
## [7149,] -4.258751e+09 -4.083015e+09 -1.915903e+13 -9.743467e+07
## [7150,] -1.585303e+06 -1.118777e+06 -9.515751e+10 -7.087982e+06
## [7151,] -2.478856e+04 -1.582582e+05 -4.075030e+10 -8.428497e+06
## [7152,] -1.121503e+08 -1.051659e+08 -2.535227e+11 -1.543236e+07
## [7153,] -3.334359e+11 -2.887592e+11 -1.518161e+15 -3.229163e+09
## [7154,] -2.637040e+11 -2.337798e+11 -1.150015e+15 -2.248867e+09
## [7155,] -4.925211e+09 -4.494352e+09 -1.917738e+13 -1.052611e+08

```

```

## [7156,] -2.063680e+06 -1.115547e+06 -9.524861e+10 -7.552218e+06
## [7157,] -4.712059e+04 -1.588668e+05 -4.076980e+10 -8.381726e+06
## [7158,] -1.185760e+08 -1.051659e+08 -2.535227e+11 -1.560205e+07
## [7159,] -3.597684e+11 -2.988625e+11 -1.518161e+15 -3.010556e+09
## [7160,] -2.529840e+11 -2.337791e+11 -1.150565e+15 -2.119908e+09
## [7161,] -4.593225e+09 -3.950641e+09 -1.918655e+13 -8.528046e+07
## [7162,] -2.061485e+06 -9.620680e+05 -9.529418e+10 -7.466483e+06
## [7163,] -8.780916e+04 -2.373654e+04 -4.078930e+10 -8.278529e+06
## [7164,] -1.103992e+08 -1.051816e+08 -2.536440e+11 -1.561755e+07
## [7165,] -3.185356e+11 -2.887576e+11 -1.519614e+15 -3.123938e+09
## [7166,] -2.497298e+11 -1.962027e+11 -1.151115e+15 -2.218054e+09
## [7167,] -4.550866e+09 -3.691973e+09 -1.919573e+13 -9.564369e+07
## [7168,] -2.102323e+06 -6.904399e+05 -9.533976e+10 -7.609917e+06
## [7169,] -9.210533e+03 -1.232378e+05 -4.080881e+10 -8.370695e+06
## [7170,] -1.167918e+08 -1.027569e+08 -2.537653e+11 -1.545378e+07
## [7171,] -3.029508e+11 -3.302129e+11 -1.519614e+15 -3.082404e+09
## [7172,] -2.849413e+11 -1.962027e+11 -1.151115e+15 -2.149821e+09
## [7173,] -4.881451e+09 -3.950738e+09 -1.919573e+13 -9.259757e+07
## [7174,] -2.100108e+06 -9.590723e+05 -9.538535e+10 -7.758871e+06
## [7175,] -6.687886e+04 -1.135175e+04 -4.082833e+10 -8.298628e+06
## [7176,] -1.122150e+08 -1.027879e+08 -2.540080e+11 -1.575894e+07
## [7177,] -2.978410e+11 -3.091361e+11 -1.521067e+15 -3.422281e+09
## [7178,] -2.645346e+11 -1.820923e+11 -1.152216e+15 -2.381259e+09
## [7179,] -4.837887e+09 -3.692159e+09 -1.921409e+13 -9.773204e+07
## [7180,] -2.012366e+06 -8.171772e+05 -9.543095e+10 -7.300608e+06
## [7181,] -8.573832e+03 -1.613126e+05 -4.084784e+10 -8.325664e+06
## [7182,] -1.150375e+08 -1.028034e+08 -2.541294e+11 -1.543417e+07
## [7183,] -3.216969e+11 -2.988583e+11 -1.521794e+15 -2.979534e+09
## [7184,] -2.546156e+11 -2.337761e+11 -1.152767e+15 -2.263916e+09
## [7185,] -4.314271e+09 -4.355618e+09 -1.922327e+13 -9.982767e+07
## [7186,] -2.074143e+06 -1.107491e+06 -9.547656e+10 -7.292649e+06
## [7187,] -2.786680e+04 -3.020304e+05 -4.086737e+10 -8.214375e+06
## [7188,] -1.067384e+08 -1.052600e+08 -2.542508e+11 -1.568565e+07
## [7189,] -3.475697e+11 -2.887543e+11 -1.522522e+15 -2.878575e+09
## [7190,] -2.529802e+11 -2.183504e+11 -1.153318e+15 -2.349550e+09
## [7191,] -4.838099e+09 -3.442332e+09 -1.923246e+13 -9.185218e+07
## [7192,] -2.029225e+06 -2.029225e+06 -9.552218e+10 -7.548724e+06
## [7193,] -5.665665e+03 -9.352370e+04 -4.090643e+10 -8.407036e+06
## [7194,] -1.155843e+08 -1.077456e+08 -2.543723e+11 -1.547441e+07
## [7195,] -3.270030e+11 -2.690683e+11 -1.523249e+15 -2.878493e+09
## [7196,] -2.505366e+11 -2.183490e+11 -1.154420e+15 -2.126891e+09
## [7197,] -4.867477e+09 -4.083992e+09 -1.925084e+13 -9.614345e+07
## [7198,] -2.242686e+06 -1.102671e+06 -9.561346e+10 -7.548926e+06
## [7199,] -1.444182e+04 -1.264778e+05 -4.092597e+10 -8.343312e+06
## [7200,] -1.115203e+08 -1.102602e+08 -2.544938e+11 -1.572622e+07
## [7201,] -3.091327e+11 -3.302077e+11 -1.523976e+15 -3.270972e+09
## [7202,] -2.670398e+11 -2.108332e+11 -1.154971e+15 -2.333627e+09

```

```

## [7203,] -4.070723e+09 -4.356021e+09 -1.926003e+13 -9.595328e+07
## [7204,] -1.676161e+06 -1.434516e+06 -9.570478e+10 -7.406370e+06
## [7205,] -1.481141e+04 -2.543552e+05 -4.096505e+10 -8.437426e+06
## [7206,] -1.138391e+08 -1.028809e+08 -2.547369e+11 -1.612042e+07
## [7207,] -3.442772e+11 -2.690659e+11 -1.525432e+15 -2.898282e+09
## [7208,] -2.244543e+11 -2.259942e+11 -1.155523e+15 -2.325723e+09
## [7209,] -4.665373e+09 -3.692716e+09 -1.926922e+13 -9.372579e+07
## [7210,] -1.195307e+06 -2.238111e+06 -9.570478e+10 -7.317333e+06
## [7211,] -3.950418e+03 -1.275671e+05 -4.096505e+10 -8.352143e+06
## [7212,] -1.120587e+08 -1.053227e+08 -2.547369e+11 -1.554903e+07
## [7213,] -3.453718e+11 -2.887510e+11 -1.525432e+15 -3.196600e+09
## [7214,] -2.712473e+11 -1.961973e+11 -1.155523e+15 -2.286768e+09
## [7215,] -4.622578e+09 -4.219059e+09 -1.926922e+13 -9.699632e+07
## [7216,] -1.656905e+06 -9.486242e+05 -9.570478e+10 -7.398253e+06
## [7217,] -4.007456e+04 -9.493103e+04 -4.096505e+10 -8.329474e+06
## [7218,] -1.048320e+08 -1.128200e+08 -2.547369e+11 -1.592881e+07
## [7219,] -2.907577e+11 -3.302059e+11 -1.525432e+15 -3.335072e+09
## [7220,] -2.546109e+11 -2.259935e+11 -1.156074e+15 -2.476675e+09
## [7221,] -4.882412e+09 -3.692809e+09 -1.927842e+13 -1.054337e+08
## [7222,] -1.772073e+06 -9.471363e+05 -9.575046e+10 -7.504214e+06
## [7223,] -1.073523e+04 -3.079383e+05 -4.100416e+10 -8.326969e+06
## [7224,] -1.036415e+08 -1.053541e+08 -2.549801e+11 -1.571250e+07
## [7225,] -3.497656e+11 -2.887494e+11 -1.526888e+15 -2.868092e+09
## [7226,] -2.175887e+11 -2.183461e+11 -1.156626e+15 -2.632374e+09
## [7227,] -4.397871e+09 -3.821205e+09 -1.928762e+13 -1.024615e+08
## [7228,] -2.145263e+06 -1.257997e+06 -9.579615e+10 -7.627398e+06
## [7229,] -5.617475e+03 -6.830121e+04 -4.102372e+10 -8.354051e+06
## [7230,] -1.123608e+08 -9.812854e+07 -2.551017e+11 -1.555767e+07
## [7231,] -3.366612e+11 -2.887486e+11 -1.527617e+15 -2.948425e+09
## [7232,] -2.578944e+11 -1.890751e+11 -1.157178e+15 -2.333332e+09
## [7233,] -4.665686e+09 -4.219357e+09 -1.929682e+13 -9.417603e+07
## [7234,] -1.651009e+06 -1.429030e+06 -9.584184e+10 -7.406669e+06
## [7235,] -8.039201e+03 -1.668842e+05 -4.102372e+10 -8.476439e+06
## [7236,] -1.169736e+08 -1.029274e+08 -2.551017e+11 -1.550108e+07
## [7237,] -3.323490e+11 -2.988516e+11 -1.527617e+15 -3.324051e+09
## [7238,] -2.440786e+11 -2.259920e+11 -1.157178e+15 -2.224908e+09
## [7239,] -4.342720e+09 -3.951890e+09 -1.930602e+13 -1.056959e+08
## [7240,] -2.364593e+06 -1.254571e+06 -9.588755e+10 -7.488180e+06
## [7241,] -6.870118e+04 -2.689583e+04 -4.104329e+10 -8.347127e+06
## [7242,] -1.116333e+08 -1.029584e+08 -2.553451e+11 -1.517563e+07
## [7243,] -3.248677e+11 -2.887469e+11 -1.529074e+15 -3.454084e+09
## [7244,] -2.554271e+11 -2.108290e+11 -1.158281e+15 -2.476371e+09
## [7245,] -4.637341e+09 -3.951986e+09 -1.931523e+13 -1.037835e+08
## [7246,] -1.967610e+06 -1.252860e+06 -9.593328e+10 -7.342060e+06
## [7247,] -8.023608e+04 -9.777723e+04 -4.108243e+10 -8.316300e+06
## [7248,] -1.124094e+08 -1.005596e+08 -2.554668e+11 -1.574624e+07
## [7249,] -3.377409e+11 -2.690612e+11 -1.529803e+15 -3.248988e+09

```

```

## [7250,] -2.440763e+11 -2.337680e+11 -1.158834e+15 -2.682237e+09
## [7251,] -4.495991e+09 -4.356728e+09 -1.932444e+13 -9.978649e+07
## [7252,] -2.158176e+06 -9.397142e+05 -9.597901e+10 -7.451690e+06
## [7253,] -7.577543e+03 -9.777723e+04 -4.108243e+10 -8.378665e+06
## [7254,] -1.049259e+08 -1.129174e+08 -2.554668e+11 -1.586994e+07
## [7255,] -3.508653e+11 -2.988491e+11 -1.529803e+15 -3.070878e+09
## [7256,] -2.687136e+11 -2.259898e+11 -1.158834e+15 -2.317464e+09
## [7257,] -4.467963e+09 -3.693274e+09 -1.932444e+13 -1.006247e+08
## [7258,] -1.457524e+06 -1.421731e+06 -9.602475e+10 -7.718805e+06
## [7259,] -1.175746e+05 -6.990812e+04 -4.110201e+10 -8.210696e+06
## [7260,] -1.116656e+08 -9.818910e+07 -2.555885e+11 -1.563853e+07
## [7261,] -3.280610e+11 -3.091251e+11 -1.530532e+15 -3.280853e+09
## [7262,] -2.678717e+11 -2.183418e+11 -1.159938e+15 -2.301724e+09
## [7263,] -4.709204e+09 -4.084969e+09 -1.934286e+13 -9.960800e+07
## [7264,] -1.919630e+06 -9.367536e+05 -9.607050e+10 -7.419352e+06
## [7265,] -3.484840e+04 -2.128828e+05 -4.112160e+10 -8.444442e+06
## [7266,] -1.126957e+08 -9.820425e+07 -2.557103e+11 -1.558782e+07
## [7267,] -3.431772e+11 -3.091242e+11 -1.531261e+15 -3.699018e+09
## [7268,] -2.529709e+11 -2.108269e+11 -1.159938e+15 -2.435943e+09
## [7269,] -4.370757e+09 -4.219854e+09 -1.934286e+13 -1.008654e+08
## [7270,] -1.876426e+06 -9.352750e+05 -9.611627e+10 -7.443849e+06
## [7271,] -2.816350e+04 -1.706511e+05 -4.114119e+10 -8.346526e+06
## [7272,] -1.101854e+08 -1.030204e+08 -2.558321e+11 -1.591684e+07
## [7273,] -3.216848e+11 -2.887436e+11 -1.531991e+15 -3.291363e+09
## [7274,] -2.570665e+11 -2.183411e+11 -1.160491e+15 -2.395997e+09
## [7275,] -4.824930e+09 -3.952371e+09 -1.935207e+13 -9.754487e+07
## [7276,] -1.697041e+06 -1.418089e+06 -9.611627e+10 -7.407268e+06
## [7277,] -7.129544e+03 -2.613393e+05 -4.114119e+10 -8.403314e+06
## [7278,] -1.074393e+08 -1.006056e+08 -2.558321e+11 -1.589775e+07
## [7279,] -3.377383e+11 -2.887436e+11 -1.531991e+15 -3.112079e+09
## [7280,] -2.603673e+11 -2.183411e+11 -1.160491e+15 -2.325059e+09
## [7281,] -4.709309e+09 -4.219953e+09 -1.935207e+13 -9.816609e+07
## [7282,] -1.795587e+06 -2.001022e+06 -9.611627e+10 -7.460136e+06
## [7283,] -1.653237e+04 -9.921610e+04 -4.114119e+10 -8.400470e+06
## [7284,] -1.129662e+08 -1.104368e+08 -2.558321e+11 -1.624314e+07
## [7285,] -3.143269e+11 -3.195738e+11 -1.531991e+15 -3.813160e+09
## [7286,] -2.377034e+11 -2.578889e+11 -1.161044e+15 -2.163612e+09
## [7287,] -4.152334e+09 -4.496401e+09 -1.936129e+13 -1.021617e+08
## [7288,] -1.561838e+06 -1.599342e+06 -9.616204e+10 -7.366827e+06
## [7289,] -7.376622e+04 -9.969805e+04 -4.116078e+10 -8.328275e+06
## [7290,] -1.079519e+08 -1.079519e+08 -2.559540e+11 -1.609530e+07
## [7291,] -3.080870e+11 -3.301971e+11 -1.532720e+15 -3.039631e+09
## [7292,] -2.562438e+11 -2.183404e+11 -1.161044e+15 -2.178731e+09
## [7293,] -4.623617e+09 -4.220052e+09 -1.936129e+13 -9.367110e+07
## [7294,] -2.020005e+06 -1.416270e+06 -9.616204e+10 -7.578852e+06
## [7295,] -4.952571e+04 -1.712830e+05 -4.116078e+10 -8.444770e+06
## [7296,] -1.137469e+08 -9.823454e+07 -2.559540e+11 -1.595160e+07

```

```

## [7297,] -3.519666e+11 -2.788135e+11 -1.532720e+15 -3.541825e+09
## [7298,] -2.377027e+11 -2.259862e+11 -1.161596e+15 -2.573733e+09
## [7299,] -4.510551e+09 -4.085262e+09 -1.937051e+13 -1.030253e+08
## [7300,] -1.327144e+06 -1.791493e+06 -9.620783e+10 -7.423715e+06
## [7301,] -6.570785e+03 -2.150034e+05 -4.118038e+10 -8.406487e+06
## [7302,] -1.181607e+08 -1.030670e+08 -2.561977e+11 -1.550812e+07
## [7303,] -3.111970e+11 -3.091208e+11 -1.534180e+15 -3.778425e+09
## [7304,] -2.595370e+11 -2.259847e+11 -1.162702e+15 -2.340435e+09
## [7305,] -4.638174e+09 -4.220350e+09 -1.938895e+13 -9.657396e+07
## [7306,] -1.464470e+06 -1.239212e+06 -9.629943e+10 -7.444249e+06
## [7307,] -2.754630e+04 -2.164230e+05 -4.121959e+10 -8.446689e+06
## [7308,] -1.077668e+08 -9.360683e+07 -2.564416e+11 -1.564297e+07
## [7309,] -3.259231e+11 -2.690548e+11 -1.535640e+15 -2.509710e+09
## [7310,] -2.788937e+11 -2.108227e+11 -1.163256e+15 -2.073726e+09
## [7311,] -5.120665e+09 -3.694017e+09 -1.939818e+13 -9.679482e+07
## [7312,] -1.988072e+06 -1.407190e+06 -9.639108e+10 -7.399750e+06
## [7313,] -8.135681e+04 -1.021254e+05 -4.125882e+10 -8.330507e+06
## [7314,] -1.151251e+08 -1.007129e+08 -2.566856e+11 -1.575940e+07
## [7315,] -3.185149e+11 -2.988408e+11 -1.537102e+15 -3.248117e+09
## [7316,] -2.321945e+11 -2.259826e+11 -1.164362e+15 -2.451378e+09
## [7317,] -4.357736e+09 -4.357736e+09 -1.941663e+13 -1.009883e+08
## [7318,] -2.223867e+06 -1.405378e+06 -9.643692e+10 -7.505722e+06
## [7319,] -3.348135e+04 -2.668368e+05 -4.127844e+10 -8.394509e+06
## [7320,] -1.102977e+08 -1.055738e+08 -2.566856e+11 -1.583550e+07
## [7321,] -3.185141e+11 -2.788079e+11 -1.537832e+15 -2.219571e+09
## [7322,] -2.587080e+11 -2.497107e+11 -1.164916e+15 -2.201006e+09
## [7323,] -4.913423e+09 -4.085848e+09 -1.942586e+13 -9.540334e+07
## [7324,] -2.045105e+06 -1.230720e+06 -9.652863e+10 -7.666143e+06
## [7325,] -2.882903e+04 -1.035958e+05 -4.131769e+10 -8.409057e+06
## [7326,] -1.113377e+08 -1.080790e+08 -2.569297e+11 -1.565769e+07
## [7327,] -3.122326e+11 -2.690517e+11 -1.538563e+15 -3.069862e+09
## [7328,] -2.488999e+11 -2.183347e+11 -1.165470e+15 -2.193330e+09
## [7329,] -4.710253e+09 -3.694388e+09 -1.943510e+13 -7.901520e+07
## [7330,] -2.331806e+06 -1.583918e+06 -9.652863e+10 -7.620781e+06
## [7331,] -1.341766e+04 -1.375813e+05 -4.131769e+10 -8.494629e+06
## [7332,] -1.167040e+08 -9.366598e+07 -2.569297e+11 -1.570508e+07
## [7333,] -3.344875e+11 -3.195652e+11 -1.539294e+15 -2.906760e+09
## [7334,] -2.416680e+11 -2.337584e+11 -1.166024e+15 -2.223755e+09
## [7335,] -4.469291e+09 -3.822811e+09 -1.944433e+13 -9.299507e+07
## [7336,] -2.150908e+06 -1.775166e+06 -9.657451e+10 -7.542847e+06
## [7337,] -3.460918e+04 -2.214284e+05 -4.135697e+10 -8.529309e+06
## [7338,] -1.093585e+08 -1.106135e+08 -2.571739e+11 -1.566979e+07
## [7339,] -3.291181e+11 -3.195643e+11 -1.540026e+15 -2.876607e+09
## [7340,] -2.545963e+11 -2.183333e+11 -1.166578e+15 -2.170453e+09
## [7341,] -4.696107e+09 -3.953428e+09 -1.945357e+13 -9.240515e+07
## [7342,] -2.304442e+06 -1.067648e+06 -9.662039e+10 -7.645710e+06
## [7343,] -8.619162e+03 -2.214284e+05 -4.135697e+10 -8.472096e+06

```



```

## [7344,] -1.126363e+08 -1.031911e+08 -2.571739e+11 -1.628198e+07
## [7345,] -3.377276e+11 -2.690493e+11 -1.540757e+15 -3.142324e+09
## [7346,] -2.456706e+11 -2.108178e+11 -1.167132e+15 -2.639212e+09
## [7347,] -4.567994e+09 -3.694667e+09 -1.946281e+13 -1.036061e+08
## [7348,] -1.871739e+06 -1.396334e+06 -9.666629e+10 -7.428779e+06
## [7349,] -2.500557e+04 -7.610046e+04 -4.139626e+10 -8.595674e+06
## [7350,] -1.134322e+08 -1.008050e+08 -2.574183e+11 -1.578631e+07
## [7351,] -3.070431e+11 -3.631009e+11 -1.541489e+15 -3.354688e+09
## [7352,] -2.190906e+11 -2.578796e+11 -1.167686e+15 -2.531899e+09
## [7353,] -4.441754e+09 -4.221343e+09 -1.948130e+13 -9.631291e+07
## [7354,] -2.098514e+06 -1.062916e+06 -9.675811e+10 -7.604825e+06
## [7355,] -4.530724e+04 -1.060698e+05 -4.141592e+10 -8.340311e+06
## [7356,] -1.096730e+08 -9.608641e+07 -2.576628e+11 -1.623907e+07
## [7357,] -3.409825e+11 -3.195609e+11 -1.542953e+15 -3.463339e+09
## [7358,] -2.529579e+11 -2.034319e+11 -1.169350e+15 -1.543214e+09
## [7359,] -4.625280e+09 -3.695131e+09 -1.950905e+13 -1.024090e+08
## [7360,] -2.379374e+06 -1.215509e+06 -9.694189e+10 -7.597005e+06
## [7361,] -1.628574e+04 -2.264910e+05 -4.149458e+10 -8.488964e+06
## [7362,] -1.119888e+08 -1.158201e+08 -2.580297e+11 -1.578815e+07
## [7363,] -2.867291e+11 -2.887288e+11 -1.545150e+15 -3.343459e+09
## [7364,] -2.620114e+11 -2.259746e+11 -1.170459e+15 -2.308118e+09
## [7365,] -4.167511e+09 -4.783310e+09 -1.951830e+13 -1.017899e+08
## [7366,] -1.778752e+06 -1.385520e+06 -9.694189e+10 -7.494572e+06
## [7367,] -8.380731e+04 -1.080700e+05 -4.149458e+10 -8.468965e+06
## [7368,] -1.119888e+08 -1.008817e+08 -2.580297e+11 -1.581669e+07
## [7369,] -3.008713e+11 -3.091064e+11 -1.546616e+15 -2.946268e+09
## [7370,] -2.595237e+11 -2.183261e+11 -1.172125e+15 -2.292337e+09
## [7371,] -4.827160e+09 -3.954389e+09 -1.954608e+13 -9.786210e+07
## [7372,] -1.976796e+06 -7.681990e+05 -9.707983e+10 -7.527577e+06
## [7373,] -4.171858e+04 -2.294096e+05 -4.157332e+10 -8.685133e+06
## [7374,] -1.135787e+08 -1.009431e+08 -2.585193e+11 -1.623396e+07
## [7375,] -3.778409e+11 -2.787966e+11 -1.548082e+15 -3.353891e+09
## [7376,] -2.537699e+11 -2.183254e+11 -1.172680e+15 -2.638427e+09
## [7377,] -4.683028e+09 -3.954581e+09 -1.956460e+13 -8.722321e+07
## [7378,] -1.670784e+06 -1.557105e+06 -9.717185e+10 -7.787811e+06
## [7379,] -1.995041e+04 -1.854803e+05 -4.159301e+10 -8.519832e+06
## [7380,] -1.182328e+08 -1.009585e+08 -2.586418e+11 -1.563819e+07
## [7381,] -3.227098e+11 -3.018795e+11 -2.911486e+13 -1.683577e+09
## [7382,] -2.460103e+11 -1.986500e+11 -2.205466e+13 -1.277047e+09
## [7383,] -4.351002e+09 -3.612123e+09 -3.677782e+11 -2.600986e+07
## [7384,] -1.590104e+07 -1.686695e+07 -1.826650e+09 -1.157686e+04
## [7385,] -7.012958e+06 -4.869437e+06 -7.818714e+08 -5.179018e+04
## [7386,] -6.199319e+07 -5.103137e+07 -4.861985e+09 -9.412052e+05
## [7387,] -3.090911e+11 -3.018795e+11 -2.911486e+13 -1.737540e+09
## [7388,] -2.541229e+11 -2.059466e+11 -2.205466e+13 -1.265478e+09
## [7389,] -4.282237e+09 -3.487410e+09 -3.677782e+11 -2.558459e+07
## [7390,] -1.638043e+07 -1.748510e+07 -1.826650e+09 -1.239304e+04

```

```

## [7391,] -6.755536e+06 -6.255131e+06 -7.818714e+08 -5.179018e+04
## [7392,] -6.180490e+07 -5.275536e+07 -4.861985e+09 -9.481837e+05
## [7393,] -3.366222e+11 -2.817441e+11 -2.911486e+13 -1.645553e+09
## [7394,] -2.484303e+11 -2.209346e+11 -2.205466e+13 -1.236787e+09
## [7395,] -3.933490e+09 -3.868121e+09 -3.677782e+11 -2.633112e+07
## [7396,] -1.680574e+07 -1.507924e+07 -1.826650e+09 -1.206323e+04
## [7397,] -6.986999e+06 -6.012149e+06 -7.818714e+08 -5.246217e+04
## [7398,] -6.237064e+07 -4.933602e+07 -4.861985e+09 -9.435285e+05
## [7399,] -3.269593e+11 -2.817441e+11 -2.911486e+13 -1.675938e+09
## [7400,] -2.541229e+11 -2.286260e+11 -2.205466e+13 -1.248224e+09
## [7401,] -4.025926e+09 -3.612123e+09 -3.677782e+11 -2.654638e+07
## [7402,] -1.742278e+07 -1.394305e+07 -1.826650e+09 -1.239304e+04
## [7403,] -6.961089e+06 -4.869437e+06 -7.818714e+08 -5.134460e+04
## [7404,] -6.293896e+07 -5.450799e+07 -4.861985e+09 -9.296317e+05
## [7405,] -3.398744e+11 -2.719369e+11 -2.911486e+13 -1.630465e+09
## [7406,] -2.631986e+11 -2.059466e+11 -2.205466e+13 -1.248224e+09
## [7407,] -4.200442e+09 -3.739026e+09 -3.677782e+11 -2.579678e+07
## [7408,] -1.692826e+07 -1.507924e+07 -1.826650e+09 -1.255961e+04
## [7409,] -6.255131e+06 -5.773980e+06 -7.818714e+08 -4.980020e+04
## [7410,] -5.919886e+07 -5.809917e+07 -4.861985e+09 -9.412052e+05
## [7411,] -3.301778e+11 -2.690406e+11 -1.548816e+15 -3.321497e+09
## [7412,] -2.337480e+11 -2.259702e+11 -1.173792e+15 -2.531053e+09
## [7413,] -4.842033e+09 -3.824134e+09 -1.957387e+13 -9.401161e+07
## [7414,] -2.119643e+06 -1.047218e+06 -9.721788e+10 -7.507430e+06
## [7415,] -6.786258e+04 -8.124352e+04 -4.163242e+10 -8.448714e+06
## [7416,] -1.133889e+08 -1.058724e+08 -2.590094e+11 -1.613339e+07
## [7417,] -2.768284e+11 -3.519439e+11 -1.551017e+15 -3.484320e+09
## [7418,] -2.554032e+11 -2.259680e+11 -1.175459e+15 -2.409880e+09
## [7419,] -4.612093e+09 -3.087139e+09 -1.960168e+13 -1.025637e+08
## [7420,] -1.943077e+06 -1.042531e+06 -9.735602e+10 -7.466917e+06
## [7421,] -2.082310e+04 -8.211704e+04 -4.167184e+10 -8.517628e+06
## [7422,] -1.151962e+08 -1.034397e+08 -2.591320e+11 -1.600520e+07
## [7423,] -3.387975e+11 -2.988232e+11 -1.552485e+15 -2.452254e+09
## [7424,] -2.416544e+11 -2.496954e+11 -1.176016e+15 -2.260863e+09
## [7425,] -4.769899e+09 -4.087802e+09 -1.961096e+13 -9.386797e+07
## [7426,] -1.879106e+06 -1.940948e+06 -9.740209e+10 -7.663943e+06
## [7427,] -1.573665e+04 -2.338225e+05 -4.169156e+10 -8.547887e+06
## [7428,] -1.098811e+08 -9.864394e+07 -2.592546e+11 -1.574430e+07
## [7429,] -3.301734e+11 -2.787917e+11 -1.552485e+15 -2.498624e+09
## [7430,] -2.562229e+11 -2.108066e+11 -1.176016e+15 -2.191970e+09
## [7431,] -4.726732e+09 -4.359956e+09 -1.962024e+13 -9.653801e+07
## [7432,] -1.796160e+06 -1.039413e+06 -9.744817e+10 -7.805085e+06
## [7433,] -8.874452e+04 -8.441367e+03 -4.171129e+10 -8.586822e+06
## [7434,] -1.119135e+08 -1.010506e+08 -2.593772e+11 -1.592179e+07
## [7435,] -3.398824e+11 -2.988224e+11 -1.553220e+15 -2.727165e+09
## [7436,] -2.695299e+11 -1.820636e+11 -1.176572e+15 -2.124073e+09
## [7437,] -4.741134e+09 -3.570077e+09 -1.962024e+13 -9.307324e+07

```

```

## [7438,] -2.108532e+06 -8.929045e+05 -9.744817e+10 -7.651661e+06
## [7439,] -4.393213e+04 -2.345621e+05 -4.171129e+10 -8.392428e+06
## [7440,] -1.109191e+08 -1.186097e+08 -2.594999e+11 -1.620609e+07
## [7441,] -3.323172e+11 -2.988216e+11 -1.553954e+15 -3.047469e+09
## [7442,] -2.521311e+11 -1.961702e+11 -1.177685e+15 -1.835390e+09
## [7443,] -4.784790e+09 -4.360259e+09 -1.964808e+13 -9.231124e+07
## [7444,] -2.415531e+06 -8.885774e+05 -9.758648e+10 -7.755465e+06
## [7445,] -8.719436e+04 -1.152180e+05 -4.177049e+10 -8.565769e+06
## [7446,] -1.101963e+08 -1.059667e+08 -2.597454e+11 -1.585421e+07
## [7447,] -3.387939e+11 -2.690334e+11 -1.555424e+15 -2.915003e+09
## [7448,] -2.236567e+11 -2.661690e+11 -1.178242e+15 -2.563187e+09
## [7449,] -4.799281e+09 -3.824890e+09 -1.964808e+13 -1.064939e+08
## [7450,] -2.143115e+06 -1.033190e+06 -9.763260e+10 -7.619094e+06
## [7451,] -2.365186e+04 -1.515223e+05 -4.179023e+10 -8.450029e+06
## [7452,] -1.178788e+08 -1.084606e+08 -2.598681e+11 -1.628245e+07
## [7453,] -3.377081e+11 -3.090945e+11 -1.556895e+15 -2.894745e+09
## [7454,] -2.670051e+11 -2.108024e+11 -1.179356e+15 -2.116251e+09
## [7455,] -4.429848e+09 -3.696711e+09 -1.966666e+13 -9.053912e+07
## [7456,] -2.140878e+06 -1.536198e+06 -9.767873e+10 -7.631552e+06
## [7457,] -9.157822e+03 -2.382775e+05 -4.180998e+10 -8.577590e+06
## [7458,] -1.025766e+08 -1.059982e+08 -2.599909e+11 -1.613443e+07
## [7459,] -3.344663e+11 -2.887157e+11 -1.556895e+15 -2.965372e+09
## [7460,] -2.619989e+11 -2.259630e+11 -1.179356e+15 -2.161267e+09
## [7461,] -4.785002e+09 -4.223329e+09 -1.966666e+13 -1.003521e+08
## [7462,] -2.119109e+06 -1.188700e+06 -9.767873e+10 -7.722474e+06
## [7463,] -3.568060e+04 -1.162578e+05 -4.180998e+10 -8.609229e+06
## [7464,] -1.176357e+08 -1.059982e+08 -2.599909e+11 -1.573320e+07
## [7465,] -2.957692e+11 -2.988182e+11 -1.556895e+15 -3.119583e+09
## [7466,] -2.496908e+11 -2.034195e+11 -1.179356e+15 -2.229680e+09
## [7467,] -4.388150e+09 -4.088388e+09 -1.966666e+13 -9.702505e+07
## [7468,] -1.687657e+06 -1.356887e+06 -9.767873e+10 -7.590402e+06
## [7469,] -1.162578e+05 -8.521117e+04 -4.180998e+10 -8.366265e+06
## [7470,] -1.163414e+08 -1.059982e+08 -2.599909e+11 -1.590454e+07
## [7471,] -3.312401e+11 -3.090945e+11 -1.556895e+15 -3.067745e+09
## [7472,] -2.275080e+11 -2.259630e+11 -1.179356e+15 -1.976825e+09
## [7473,] -4.513836e+09 -4.223329e+09 -1.966666e+13 -1.073914e+08
## [7474,] -2.140878e+06 -1.031637e+06 -9.767873e+10 -7.467618e+06
## [7475,] -6.383946e+04 -1.162578e+05 -4.180998e+10 -8.520215e+06
## [7476,] -1.094919e+08 -1.109996e+08 -2.601138e+11 -1.629478e+07
## [7477,] -3.301673e+11 -2.690310e+11 -1.557630e+15 -3.320440e+09
## [7478,] -2.251917e+11 -2.259622e+11 -1.179913e+15 -2.662461e+09
## [7479,] -4.458063e+09 -4.500091e+09 -1.969454e+13 -1.018717e+08
## [7480,] -2.090816e+06 -8.813889e+05 -9.781720e+10 -7.648347e+06
## [7481,] -8.131323e+04 -6.047173e+04 -4.188901e+10 -8.518012e+06
## [7482,] -1.130747e+08 -1.085402e+08 -2.604824e+11 -1.586214e+07
## [7483,] -3.205955e+11 -3.301646e+11 -1.559838e+15 -3.406656e+09
## [7484,] -2.368856e+11 -2.337377e+11 -1.181585e+15 -2.473178e+09

```

```

## [7485,] -4.655986e+09 -3.825457e+09 -1.970384e+13 -9.957611e+07
## [7486,] -2.131943e+06 -1.182044e+06 -9.786338e+10 -7.607253e+06
## [7487,] -1.178559e+04 -4.075101e+05 -4.188901e+10 -8.535202e+06
## [7488,] -1.135843e+08 -1.060611e+08 -2.604824e+11 -1.605334e+07
## [7489,] -3.355416e+11 -2.594474e+11 -1.559838e+15 -3.341691e+09
## [7490,] -2.329540e+11 -2.259600e+11 -1.181585e+15 -2.521823e+09
## [7491,] -4.347052e+09 -4.641714e+09 -1.970384e+13 -1.014649e+08
## [7492,] -2.022264e+06 -1.348000e+06 -9.790957e+10 -7.669190e+06
## [7493,] -7.091379e+04 -1.961607e+05 -4.190878e+10 -8.531068e+06
## [7494,] -1.151362e+08 -9.411024e+07 -2.606053e+11 -1.604029e+07
## [7495,] -3.237687e+11 -2.690279e+11 -1.560574e+15 -3.245331e+09
## [7496,] -2.456501e+11 -2.259593e+11 -1.182143e+15 -2.198784e+09
## [7497,] -4.570783e+09 -4.641818e+09 -1.971314e+13 -9.362539e+07
## [7498,] -1.793621e+06 -1.022344e+06 -9.795577e+10 -7.582791e+06
## [7499,] -4.541139e+04 -1.968381e+05 -4.192856e+10 -8.769298e+06
## [7500,] -1.136168e+08 -9.882617e+07 -2.607283e+11 -1.557064e+07
## [7501,] -3.312348e+11 -2.787821e+11 -1.561310e+15 -2.975031e+09
## [7502,] -2.464541e+11 -2.259586e+11 -1.182701e+15 -2.505403e+09
## [7503,] -4.500399e+09 -4.361066e+09 -1.972244e+13 -1.023410e+08
## [7504,] -1.771666e+06 -1.177065e+06 -9.800198e+10 -7.574679e+06
## [7505,] -9.429174e+04 -1.975168e+05 -4.194834e+10 -8.491324e+06
## [7506,] -1.149123e+08 -1.085880e+08 -2.608513e+11 -1.610052e+07
## [7507,] -3.431396e+11 -2.787813e+11 -1.562047e+15 -3.287769e+09
## [7508,] -2.360944e+11 -2.259579e+11 -1.183259e+15 -2.448806e+09
## [7509,] -4.814748e+09 -3.571173e+09 -1.973174e+13 -1.006693e+08
## [7510,] -1.831727e+06 -1.522967e+06 -9.800198e+10 -7.599330e+06
## [7511,] -6.657095e+04 -2.435281e+05 -4.194834e+10 -8.611830e+06
## [7512,] -1.138884e+08 -9.884136e+07 -2.608513e+11 -1.513589e+07
## [7513,] -3.111646e+11 -2.988124e+11 -1.562047e+15 -3.330660e+09
## [7514,] -2.480668e+11 -2.578579e+11 -1.183259e+15 -2.221521e+09
## [7515,] -4.292322e+09 -4.089072e+09 -1.973174e+13 -9.754350e+07
## [7516,] -1.633461e+06 -1.710606e+06 -9.804820e+10 -7.661235e+06
## [7517,] -8.026205e+04 -1.036488e+04 -4.196812e+10 -8.544465e+06
## [7518,] -1.154424e+08 -1.061241e+08 -2.609743e+11 -1.593422e+07
## [7519,] -3.398709e+11 -2.887091e+11 -1.562784e+15 -3.150208e+09
## [7520,] -2.480660e+11 -2.259571e+11 -1.183817e+15 -2.400799e+09
## [7521,] -4.627879e+09 -4.361268e+09 -1.974105e+13 -9.942828e+07
## [7522,] -1.730170e+06 -1.342682e+06 -9.804820e+10 -7.582993e+06
## [7523,] -3.250432e+04 -2.442829e+05 -4.196812e+10 -8.564552e+06
## [7524,] -1.083546e+08 -1.061241e+08 -2.609743e+11 -1.616433e+07
## [7525,] -2.998313e+11 -2.988115e+11 -1.562784e+15 -3.341338e+09
## [7526,] -2.244174e+11 -2.183111e+11 -1.183817e+15 -2.546015e+09
## [7527,] -4.585257e+09 -4.224124e+09 -1.974105e+13 -9.963712e+07
## [7528,] -1.809539e+06 -1.521082e+06 -9.804820e+10 -7.640606e+06
## [7529,] -3.996450e+04 -1.981965e+05 -4.196812e+10 -8.564552e+06
## [7530,] -1.083546e+08 -1.061241e+08 -2.609743e+11 -1.620284e+07
## [7531,] -3.486199e+11 -2.988115e+11 -1.562784e+15 -3.160679e+09

```

```

## [7532,] -2.368819e+11 -2.496840e+11 -1.184375e+15 -2.175736e+09
## [7533,] -4.528836e+09 -4.224223e+09 -1.975036e+13 -9.757369e+07
## [7534,] -1.909142e+06 -8.728012e+05 -9.809444e+10 -7.877528e+06
## [7535,] -7.521771e+04 -2.450388e+05 -4.198791e+10 -8.537461e+06
## [7536,] -1.172660e+08 -1.012658e+08 -2.610974e+11 -1.584492e+07
## [7537,] -3.376992e+11 -2.500352e+11 -1.564258e+15 -2.460280e+09
## [7538,] -2.562106e+11 -1.961614e+11 -1.184933e+15 -2.376861e+09
## [7539,] -4.251576e+09 -4.786059e+09 -1.975967e+13 -1.045321e+08
## [7540,] -2.228519e+06 -1.016173e+06 -9.814068e+10 -7.669698e+06
## [7541,] -2.630764e+04 -1.995596e+05 -4.200771e+10 -8.590746e+06
## [7542,] -1.183216e+08 -9.888695e+07 -2.612205e+11 -1.619588e+07
## [7543,] -3.442297e+11 -2.887075e+11 -1.564258e+15 -3.139583e+09
## [7544,] -2.160402e+11 -2.661580e+11 -1.186050e+15 -2.611612e+09
## [7545,] -4.585671e+09 -3.826213e+09 -1.977830e+13 -8.794397e+07
## [7546,] -1.587844e+06 -1.335608e+06 -9.823320e+10 -7.711266e+06
## [7547,] -1.824046e+04 -2.016130e+05 -4.206712e+10 -8.676290e+06
## [7548,] -1.168143e+08 -1.013273e+08 -2.615899e+11 -1.596474e+07
## [7549,] -3.301558e+11 -2.887042e+11 -1.567208e+15 -3.212773e+09
## [7550,] -2.537491e+11 -2.337296e+11 -1.187727e+15 -2.321450e+09
## [7551,] -4.501321e+09 -4.089854e+09 -1.980625e+13 -9.953498e+07
## [7552,] -1.896493e+06 -1.163837e+06 -9.837206e+10 -7.682604e+06
## [7553,] -3.091525e+04 -3.010234e+05 -4.210675e+10 -8.653517e+06
## [7554,] -1.155574e+08 -9.896295e+07 -2.618364e+11 -1.649771e+07
## [7555,] -3.398646e+11 -2.787748e+11 -1.567946e+15 -3.593110e+09
## [7556,] -2.611575e+11 -1.961580e+11 -1.187727e+15 -2.305843e+09
## [7557,] -4.714554e+09 -4.089952e+09 -1.981558e+13 -1.041981e+08
## [7558,] -1.833300e+06 -1.506040e+06 -9.841837e+10 -7.550975e+06
## [7559,] -1.386019e+04 -4.244588e+04 -4.212657e+10 -8.634933e+06
## [7560,] -1.148032e+08 -1.037975e+08 -2.619596e+11 -1.632937e+07
## [7561,] -3.290839e+11 -2.690192e+11 -1.568684e+15 -3.449235e+09
## [7562,] -2.376669e+11 -2.107911e+11 -1.188286e+15 -2.344885e+09
## [7563,] -4.728938e+09 -4.501424e+09 -1.981558e+13 -1.059145e+08
## [7564,] -1.910747e+06 -1.325032e+06 -9.851102e+10 -7.786617e+06
## [7565,] -1.552089e+05 -1.258264e+05 -4.216623e+10 -8.551855e+06
## [7566,] -1.174150e+08 -9.430307e+07 -2.622062e+11 -1.609115e+07
## [7567,] -3.301523e+11 -2.690176e+11 -1.570160e+15 -2.515453e+09
## [7568,] -2.644819e+11 -2.416364e+11 -1.189405e+15 -2.114985e+09
## [7569,] -4.714764e+09 -4.643171e+09 -1.983423e+13 -9.999894e+07
## [7570,] -1.931421e+06 -8.599986e+05 -9.851102e+10 -7.937178e+06
## [7571,] -1.161223e+05 -1.636535e+05 -4.218606e+10 -8.639757e+06
## [7572,] -1.105335e+08 -1.038442e+08 -2.623296e+11 -1.600140e+07
## [7573,] -3.333724e+11 -2.690168e+11 -1.570899e+15 -3.254737e+09
## [7574,] -2.321606e+11 -2.416357e+11 -1.189964e+15 -2.197781e+09
## [7575,] -4.830558e+09 -3.957465e+09 -1.984356e+13 -9.161531e+07
## [7576,] -2.096389e+06 -1.000825e+06 -9.860372e+10 -7.786821e+06
## [7577,] -9.483688e+04 -2.542010e+05 -4.222575e+10 -8.657402e+06
## [7578,] -1.161713e+08 -9.905419e+07 -2.625764e+11 -1.609994e+07

```

```

## [7579,] -3.080412e+11 -3.195263e+11 -1.572377e+15 -3.201611e+09
## [7580,] -2.562021e+11 -2.034050e+11 -1.191084e+15 -2.423727e+09
## [7581,] -4.572436e+09 -4.090440e+09 -1.986223e+13 -9.858454e+07
## [7582,] -1.802884e+06 -1.883886e+06 -9.865008e+10 -7.737056e+06
## [7583,] -1.360593e+04 -1.648923e+05 -4.222575e+10 -8.519386e+06
## [7584,] -1.123342e+08 -9.905419e+07 -2.625764e+11 -1.625395e+07
## [7585,] -3.070067e+11 -2.886976e+11 -1.573116e+15 -3.096925e+09
## [7586,] -2.545616e+11 -2.337244e+11 -1.191644e+15 -2.594278e+09
## [7587,] -5.111267e+09 -3.827159e+09 -1.987157e+13 -9.694387e+07
## [7588,] -1.902306e+06 -1.152325e+06 -9.869645e+10 -7.791189e+06
## [7589,] -1.496056e+04 -9.530810e+04 -4.224560e+10 -8.644582e+06
## [7590,] -1.182607e+08 -1.190428e+08 -2.626998e+11 -1.584779e+07
## [7591,] -3.630613e+11 -3.301488e+11 -1.573116e+15 -2.862938e+09
## [7592,] -2.771418e+11 -2.107869e+11 -1.191644e+15 -2.313125e+09
## [7593,] -4.729569e+09 -3.827159e+09 -1.987157e+13 -9.859972e+07
## [7594,] -2.889777e+06 -9.977698e+05 -9.869645e+10 -7.778704e+06
## [7595,] -4.858477e+04 -1.280041e+05 -4.224560e+10 -8.624401e+06
## [7596,] -1.180172e+08 -1.039065e+08 -2.628233e+11 -1.586340e+07
## [7597,] -3.333688e+11 -2.787683e+11 -1.573855e+15 -2.953320e+09
## [7598,] -2.221069e+11 -2.416327e+11 -1.192204e+15 -2.553049e+09
## [7599,] -4.198443e+09 -4.502142e+09 -1.988091e+13 -1.038802e+08
## [7600,] -1.839015e+06 -8.529269e+05 -9.874284e+10 -7.691688e+06
## [7601,] -1.786270e+04 -1.667593e+05 -4.228531e+10 -8.728777e+06
## [7602,] -1.182940e+08 -1.014966e+08 -2.629467e+11 -1.587903e+07
## [7603,] -3.431244e+11 -2.886960e+11 -1.574595e+15 -2.933013e+09
## [7604,] -2.448324e+11 -1.932884e+11 -1.192764e+15 -2.250980e+09
## [7605,] -4.488210e+09 -4.225713e+09 -1.989025e+13 -9.594602e+07
## [7606,] -1.857215e+06 -7.194375e+05 -9.878924e+10 -7.967242e+06
## [7607,] -5.601001e+04 -6.822135e+04 -4.228531e+10 -8.656458e+06
## [7608,] -1.098760e+08 -9.674670e+07 -2.630703e+11 -1.584698e+07
## [7609,] -3.312181e+11 -2.690120e+11 -1.575335e+15 -3.437490e+09
## [7610,] -2.537414e+11 -2.107848e+11 -1.193324e+15 -2.694147e+09
## [7611,] -4.474299e+09 -4.502347e+09 -1.989959e+13 -9.534681e+07
## [7612,] -1.916582e+06 -1.312746e+06 -9.883564e+10 -7.791496e+06
## [7613,] -4.326206e+04 -1.296497e+05 -4.230518e+10 -8.704321e+06
## [7614,] -1.108979e+08 -1.114025e+08 -2.631938e+11 -1.621724e+07
## [7615,] -3.008378e+11 -2.987965e+11 -1.576074e+15 -3.307510e+09
## [7616,] -2.321554e+11 -2.107841e+11 -1.193885e+15 -2.455402e+09
## [7617,] -4.037550e+09 -4.644005e+09 -1.990894e+13 -1.024385e+08
## [7618,] -1.772724e+06 -8.486979e+05 -9.888206e+10 -7.733418e+06
## [7619,] -1.337649e+05 -2.580683e+05 -4.232504e+10 -8.607785e+06
## [7620,] -1.134325e+08 -1.015274e+08 -2.631938e+11 -1.618834e+07
## [7621,] -3.420316e+11 -2.500230e+11 -1.576074e+15 -3.148664e+09
## [7622,] -2.432280e+11 -2.107841e+11 -1.193885e+15 -2.383583e+09
## [7623,] -4.601308e+09 -3.827537e+09 -1.990894e+13 -1.005406e+08
## [7624,] -1.976882e+06 -7.168473e+05 -9.888206e+10 -7.812430e+06
## [7625,] -6.226616e+04 -2.120375e+05 -4.236479e+10 -8.651351e+06

```

```

## [7626,] -1.127016e+08 -1.139755e+08 -2.634410e+11 -1.613328e+07
## [7627,] -3.258725e+11 -2.787635e+11 -1.578295e+15 -2.724452e+09
## [7628,] -2.737304e+11 -2.182961e+11 -1.195567e+15 -2.189467e+09
## [7629,] -4.644421e+09 -3.958522e+09 -1.994634e+13 -1.035628e+08
## [7630,] -1.968297e+06 -1.139238e+06 -9.906784e+10 -7.792008e+06
## [7631,] -9.052892e+04 -2.141539e+05 -4.242446e+10 -8.687962e+06
## [7632,] -1.242091e+08 -1.140245e+08 -2.638120e+11 -1.590259e+07
## [7633,] -3.585744e+11 -2.886903e+11 -1.579776e+15 -2.792821e+09
## [7634,] -2.545546e+11 -2.259404e+11 -1.196689e+15 -2.527902e+09
## [7635,] -4.890211e+09 -4.502962e+09 -1.995570e+13 -9.646158e+07
## [7636,] -2.008206e+06 -5.902358e+05 -9.911432e+10 -7.800440e+06
## [7637,] -5.427319e+04 -1.335302e+05 -4.244435e+10 -8.756224e+06
## [7638,] -1.100042e+08 -1.065181e+08 -2.640595e+11 -1.636668e+07
## [7639,] -3.153153e+11 -2.987907e+11 -1.581258e+15 -3.425855e+09
## [7640,] -2.521034e+11 -2.033967e+11 -1.197811e+15 -2.181596e+09
## [7641,] -4.963999e+09 -4.226706e+09 -1.998378e+13 -9.243765e+07
## [7642,] -1.980666e+06 -1.132722e+06 -9.925380e+10 -7.964068e+06
## [7643,] -4.205010e+04 -2.162809e+05 -4.248416e+10 -8.678343e+06
## [7644,] -1.218707e+08 -1.040779e+08 -2.641833e+11 -1.586363e+07
## [7645,] -3.574563e+11 -3.090656e+11 -1.582000e+15 -2.802438e+09
## [7646,] -2.529179e+11 -2.182926e+11 -1.198373e+15 -2.718751e+09
## [7647,] -4.687735e+09 -3.828293e+09 -1.998378e+13 -1.015051e+08
## [7648,] -1.488760e+06 -1.295294e+06 -9.930031e+10 -7.734336e+06
## [7649,] -5.534651e+04 -1.352108e+05 -4.250407e+10 -8.766891e+06
## [7650,] -1.138342e+08 -9.926725e+07 -2.643071e+11 -1.600348e+07
## [7651,] -3.226829e+11 -2.987890e+11 -1.582741e+15 -2.922018e+09
## [7652,] -2.408268e+11 -2.259375e+11 -1.198934e+15 -2.196635e+09
## [7653,] -4.730935e+09 -3.959003e+09 -1.999315e+13 -9.386663e+07
## [7654,] -2.193885e+06 -1.131097e+06 -9.930031e+10 -7.888582e+06
## [7655,] -2.457729e+04 -1.736949e+05 -4.250407e+10 -8.732064e+06
## [7656,] -1.133241e+08 -9.689708e+07 -2.643071e+11 -1.602263e+07
## [7657,] -3.387610e+11 -2.690041e+11 -1.582741e+15 -3.179345e+09
## [7658,] -2.545515e+11 -2.259375e+11 -1.198934e+15 -2.503185e+09
## [7659,] -4.890638e+09 -3.699964e+09 -1.999315e+13 -1.079464e+08
## [7660,] -1.978516e+06 -1.131097e+06 -9.930031e+10 -7.614505e+06
## [7661,] -9.891787e+04 -1.020277e+05 -4.252399e+10 -8.672896e+06
## [7662,] -1.177132e+08 -9.457040e+07 -2.644309e+11 -1.624989e+07
## [7663,] -3.279980e+11 -2.594225e+11 -1.583483e+15 -2.743385e+09
## [7664,] -2.480447e+11 -2.107771e+11 -1.199496e+15 -2.503108e+09
## [7665,] -4.745449e+09 -4.091907e+09 -2.000252e+13 -1.057983e+08
## [7666,] -2.125878e+06 -9.765123e+05 -9.934684e+10 -7.763503e+06
## [7667,] -2.204901e+04 -1.025164e+05 -4.254391e+10 -8.697640e+06
## [7668,] -1.123397e+08 -9.929771e+07 -2.645548e+11 -1.591053e+07
## [7669,] -3.080276e+11 -2.787571e+11 -1.584224e+15 -3.613469e+09
## [7670,] -2.488511e+11 -2.259346e+11 -1.201182e+15 -2.511002e+09
## [7671,] -4.702602e+09 -3.700336e+09 -2.003063e+13 -1.034897e+08
## [7672,] -1.409585e+06 -1.124604e+06 -9.948649e+10 -7.738893e+06

```

```

## [7673,] -1.762519e+05 -1.762519e+05 -4.258376e+10 -8.663285e+06
## [7674,] -1.133892e+08 -1.066127e+08 -2.648026e+11 -1.643289e+07
## [7675,] -2.728819e+11 -3.301339e+11 -1.585708e+15 -3.806274e+09
## [7676,] -2.448210e+11 -1.961418e+11 -1.201182e+15 -2.454417e+09
## [7677,] -4.832789e+09 -4.227303e+09 -2.004001e+13 -1.056459e+08
## [7678,] -1.320673e+06 -1.967782e+06 -9.953306e+10 -8.006840e+06
## [7679,] -9.375492e+03 -2.690518e+05 -4.260369e+10 -8.780806e+06
## [7680,] -1.123883e+08 -1.091142e+08 -2.649266e+11 -1.667280e+07
## [7681,] -3.279945e+11 -2.787546e+11 -1.586451e+15 -3.231679e+09
## [7682,] -2.529133e+11 -2.182883e+11 -1.201745e+15 -2.446311e+09
## [7683,] -4.688363e+09 -4.092298e+09 -2.004001e+13 -9.659672e+07
## [7684,] -2.052367e+06 -1.286612e+06 -9.953306e+10 -7.763912e+06
## [7685,] -1.039896e+05 -7.475738e+04 -4.260369e+10 -8.725652e+06
## [7686,] -1.159685e+08 -1.091142e+08 -2.649266e+11 -1.657522e+07
## [7687,] -3.163560e+11 -2.787538e+11 -1.587193e+15 -2.421105e+09
## [7688,] -2.512834e+11 -1.961404e+11 -1.202307e+15 -2.543471e+09
## [7689,] -4.746081e+09 -3.574370e+09 -2.005877e+13 -9.973792e+07
## [7690,] -1.183773e+06 -1.643320e+06 -9.962623e+10 -7.814071e+06
## [7691,] -3.127094e+04 -1.781819e+05 -4.264358e+10 -8.685457e+06
## [7692,] -1.144599e+08 -1.042027e+08 -2.651746e+11 -1.645148e+07
## [7693,] -3.142618e+11 -3.090588e+11 -1.587936e+15 -3.403267e+09
## [7694,] -2.504700e+11 -1.961397e+11 -1.202870e+15 -2.617563e+09
## [7695,] -4.659950e+09 -3.829050e+09 -2.005877e+13 -1.022623e+08
## [7696,] -2.473643e+06 -8.263207e+05 -9.962623e+10 -7.851642e+06
## [7697,] -1.391782e+04 -1.781819e+05 -4.264358e+10 -8.743385e+06
## [7698,] -1.196382e+08 -1.091461e+08 -2.651746e+11 -1.608467e+07
## [7699,] -3.732212e+11 -2.886812e+11 -1.587936e+15 -2.931523e+09
## [7700,] -2.935901e+11 -2.337096e+11 -1.202870e+15 -2.105848e+09
## [7701,] -5.218770e+09 -4.364700e+09 -2.005877e+13 -9.765834e+07
## [7702,] -1.901294e+06 -6.962937e+05 -9.962623e+10 -7.793237e+06
## [7703,] -4.286249e+04 -1.788276e+05 -4.266352e+10 -8.672617e+06
## [7704,] -1.246807e+08 -1.042183e+08 -2.652986e+11 -1.668175e+07
## [7705,] -2.827026e+11 -3.630420e+11 -1.588679e+15 -3.033231e+09
## [7706,] -2.496580e+11 -2.107722e+11 -1.203432e+15 -2.526980e+09
## [7707,] -4.490155e+09 -4.092591e+09 -2.006815e+13 -1.031263e+08
## [7708,] -2.024525e+06 -1.118131e+06 -9.967284e+10 -7.760063e+06
## [7709,] -1.672153e+04 -1.794745e+05 -4.268348e+10 -8.842640e+06
## [7710,] -1.139810e+08 -9.468933e+07 -2.654227e+11 -1.628955e+07
## [7711,] -3.333856e+11 -2.528438e+11 -2.911486e+13 -1.653123e+09
## [7712,] -2.565823e+11 -1.986500e+11 -2.205466e+13 -1.253962e+09
## [7713,] -3.894203e+09 -3.739026e+09 -3.677782e+11 -2.654638e+07
## [7714,] -1.698969e+07 -1.339164e+07 -1.826650e+09 -1.206323e+04
## [7715,] -6.730058e+06 -5.540624e+06 -7.818714e+08 -5.067983e+04
## [7716,] -6.087965e+07 -4.934676e+07 -4.878794e+09 -9.380468e+05
## [7717,] -3.269584e+11 -2.623027e+11 -2.921551e+13 -1.668253e+09
## [7718,] -2.444029e+11 -2.059459e+11 -2.213090e+13 -1.259659e+09
## [7719,] -3.933586e+09 -3.739120e+09 -3.690497e+11 -2.361983e+07

```



```

## [7720,] -1.766629e+07 -1.393734e+07 -1.832966e+09 -1.889003e+04
## [7721,] -6.474042e+06 -5.537027e+06 -7.845745e+08 -5.788958e+04
## [7722,] -5.829340e+07 -5.811082e+07 -4.878794e+09 -8.832407e+05
## [7723,] -3.344618e+11 -2.719361e+11 -2.921551e+13 -1.447670e+09
## [7724,] -2.396143e+11 -2.209339e+11 -2.213090e+13 -1.125258e+09
## [7725,] -4.241341e+09 -3.364977e+09 -3.690497e+11 -2.271309e+07
## [7726,] -1.741641e+07 -1.507330e+07 -1.832966e+09 -1.868561e+04
## [7727,] -6.751564e+06 -5.084906e+06 -7.845745e+08 -5.812587e+04
## [7728,] -6.106653e+07 -4.934676e+07 -4.878794e+09 -9.921173e+05
## [7729,] -3.049589e+11 -2.917241e+11 -2.921551e+13 -1.683514e+09
## [7730,] -2.607061e+11 -2.059452e+11 -2.220728e+13 -1.152582e+09
## [7731,] -4.268750e+09 -3.868311e+09 -3.703234e+11 -2.413874e+07
## [7732,] -1.784842e+07 -1.393164e+07 -1.839292e+09 -1.538517e+04
## [7733,] -6.875628e+06 -5.081460e+06 -7.872823e+08 -5.453054e+04
## [7734,] -6.089157e+07 -5.105321e+07 -4.895632e+09 -9.279645e+05
## [7735,] -3.366204e+11 -2.817424e+11 -2.931634e+13 -1.800125e+09
## [7736,] -2.516738e+11 -2.059452e+11 -2.220728e+13 -1.300232e+09
## [7737,] -4.268750e+09 -3.868311e+09 -3.703234e+11 -3.024162e+07
## [7738,] -1.387602e+07 -1.747232e+07 -1.839292e+09 -1.018522e+04
## [7739,] -6.296633e+06 -6.247489e+06 -7.872823e+08 -4.659462e+04
## [7740,] -6.239478e+07 -5.105321e+07 -4.895632e+09 -9.841204e+05
## [7741,] -3.226751e+11 -2.787514e+11 -1.589422e+15 -3.147121e+09
## [7742,] -2.220918e+11 -2.416169e+11 -1.203995e+15 -2.617407e+09
## [7743,] -4.351083e+09 -4.227700e+09 -2.007754e+13 -1.050641e+08
## [7744,] -1.601430e+06 -9.644679e+05 -9.971945e+10 -7.553797e+06
## [7745,] -8.195946e+04 -2.234466e+05 -4.268348e+10 -8.564767e+06
## [7746,] -1.086785e+08 -1.091780e+08 -2.654227e+11 -1.657088e+07
## [7747,] -3.507910e+11 -2.594155e+11 -1.590165e+15 -2.871036e+09
## [7748,] -2.313604e+11 -1.961377e+11 -1.204558e+15 -2.311435e+09
## [7749,] -4.660263e+09 -3.829334e+09 -2.008693e+13 -8.071953e+07
## [7750,] -1.811678e+06 -8.207731e+05 -9.981271e+10 -7.772840e+06
## [7751,] -8.327725e+04 -2.256191e+05 -4.274336e+10 -8.739870e+06
## [7752,] -1.160837e+08 -9.945006e+07 -2.657951e+11 -1.626942e+07
## [7753,] -3.279884e+11 -2.500069e+11 -1.591651e+15 -3.022637e+09
## [7754,] -2.456183e+11 -2.033871e+11 -1.205684e+15 -1.756528e+09
## [7755,] -4.994944e+09 -3.829523e+09 -2.010571e+13 -9.794092e+07
## [7756,] -1.257723e+06 -2.725798e+06 -9.985936e+10 -7.677589e+06
## [7757,] -2.918820e+04 -1.420384e+05 -4.274336e+10 -8.736969e+06
## [7758,] -1.150709e+08 -1.067548e+08 -2.659193e+11 -1.654706e+07
## [7759,] -3.355026e+11 -2.987781e+11 -1.592395e+15 -3.188742e+09
## [7760,] -2.464215e+11 -2.107680e+11 -1.206811e+15 -2.461703e+09
## [7761,] -4.617907e+09 -3.829712e+09 -2.012450e+13 -1.034323e+08
## [7762,] -1.785525e+06 -1.108456e+06 -9.995268e+10 -7.731616e+06
## [7763,] -3.686219e+04 -1.431926e+05 -4.278331e+10 -8.754713e+06
## [7764,] -1.107640e+08 -9.948054e+07 -2.660435e+11 -1.643663e+07
## [7765,] -3.311970e+11 -2.886755e+11 -1.593139e+15 -3.424424e+09
## [7766,] -2.376416e+11 -2.259266e+11 -1.207375e+15 -2.518294e+09

```

```

## [7767,] -4.848416e+09 -3.575101e+09 -2.013390e+13 -9.267290e+07
## [7768,] -2.160062e+06 -1.442948e+06 -9.999936e+10 -7.974146e+06
## [7769,] -2.997669e+04 -1.833801e+05 -4.280329e+10 -8.855324e+06
## [7770,] -1.151037e+08 -1.043275e+08 -2.661677e+11 -1.587524e+07
## [7771,] -3.311961e+11 -3.090520e+11 -1.593883e+15 -2.981534e+09
## [7772,] -2.408156e+11 -2.182812e+11 -1.207375e+15 -2.389717e+09
## [7773,] -4.618010e+09 -4.365508e+09 -2.013390e+13 -9.881689e+07
## [7774,] -3.450418e+06 -9.554836e+05 -9.999936e+10 -7.595455e+06
## [7775,] -4.721352e+04 -2.278021e+05 -4.280329e+10 -8.814495e+06
## [7776,] -1.163912e+08 -1.018973e+08 -2.661677e+11 -1.628792e+07
## [7777,] -3.420102e+11 -2.987765e+11 -1.593883e+15 -3.209655e+09
## [7778,] -2.553591e+11 -1.961343e+11 -1.207375e+15 -2.429536e+09
## [7779,] -4.718123e+09 -3.575101e+09 -2.013390e+13 -1.002789e+08
## [7780,] -1.106847e+06 -1.106847e+06 -9.999936e+10 -7.636619e+06
## [7781,] -6.580821e+04 -2.770373e+05 -4.280329e+10 -8.802847e+06
## [7782,] -1.115371e+08 -1.067864e+08 -2.661677e+11 -1.642343e+07
## [7783,] -3.069830e+11 -2.987765e+11 -1.593883e+15 -3.326869e+09
## [7784,] -2.480341e+11 -1.961343e+11 -1.207375e+15 -2.453585e+09
## [7785,] -4.365508e+09 -4.365508e+09 -2.013390e+13 -1.030224e+08
## [7786,] -1.841669e+06 -8.138649e+05 -1.000461e+11 -8.109605e+06
## [7787,] -6.874926e+04 -1.813330e+04 -4.282327e+10 -8.795739e+06
## [7788,] -1.060772e+08 -1.169412e+08 -2.664163e+11 -1.653299e+07
## [7789,] -3.398317e+11 -2.689906e+11 -1.595372e+15 -2.860485e+09
## [7790,] -2.464185e+11 -2.496504e+11 -1.209066e+15 -2.287510e+09
## [7791,] -4.352092e+09 -3.960830e+09 -2.017151e+13 -9.639564e+07
## [7792,] -2.148846e+06 -5.623932e+05 -1.002329e+11 -8.135530e+06
## [7793,] -2.034081e+04 -2.314637e+05 -4.290326e+10 -8.883926e+06
## [7794,] -1.146726e+08 -1.093538e+08 -2.667894e+11 -1.606838e+07
## [7795,] -3.301190e+11 -2.787417e+11 -1.598351e+15 -3.251512e+09
## [7796,] -2.480295e+11 -2.336993e+11 -1.210759e+15 -2.421094e+09
## [7797,] -4.519588e+09 -3.830374e+09 -2.019033e+13 -1.037542e+08
## [7798,] -1.996355e+06 -9.465414e+05 -1.002797e+11 -7.857261e+06
## [7799,] -4.922688e+04 -5.597384e+04 -4.292327e+10 -8.786395e+06
## [7800,] -1.162319e+08 -9.958727e+07 -2.669138e+11 -1.660658e+07
## [7801,] -3.376575e+11 -2.787409e+11 -1.599096e+15 -3.198499e+09
## [7802,] -2.569960e+11 -2.259215e+11 -1.211324e+15 -2.349709e+09
## [7803,] -4.718858e+09 -4.228992e+09 -2.019975e+13 -9.892326e+07
## [7804,] -1.729768e+06 -1.614065e+06 -1.003264e+11 -7.823951e+06
## [7805,] -6.108962e+04 -1.478564e+05 -4.294328e+10 -8.869646e+06
## [7806,] -1.121564e+08 -1.144491e+08 -2.670383e+11 -1.694612e+07
## [7807,] -3.452811e+11 -2.886681e+11 -1.599841e+15 -3.135474e+09
## [7808,] -2.619536e+11 -2.182754e+11 -1.211888e+15 -2.412968e+09
## [7809,] -4.647442e+09 -3.702195e+09 -2.021858e+13 -9.300712e+07
## [7810,] -1.785035e+06 -9.420861e+05 -1.004200e+11 -8.332836e+06
## [7811,] -9.459231e+04 -1.893174e+05 -4.298332e+10 -8.829121e+06
## [7812,] -1.183718e+08 -1.020517e+08 -2.674118e+11 -1.665103e+07
## [7813,] -3.333362e+11 -2.987681e+11 -1.601333e+15 -3.478188e+09

```

```

## [7814,] -2.512681e+11 -2.107596e+11 -1.213583e+15 -2.325881e+09
## [7815,] -4.284018e+09 -3.702381e+09 -2.023742e+13 -1.036189e+08
## [7816,] -1.702221e+06 -2.006647e+06 -1.005136e+11 -7.899643e+06
## [7817,] -1.993139e+05 -1.906497e+05 -4.302338e+10 -8.748013e+06
## [7818,] -1.183884e+08 -1.069602e+08 -2.675364e+11 -1.633649e+07
## [7819,] -3.563181e+11 -2.787377e+11 -1.602079e+15 -3.093608e+09
## [7820,] -2.586404e+11 -2.033774e+11 -1.213583e+15 -2.373063e+09
## [7821,] -5.266342e+09 -4.094351e+09 -2.023742e+13 -9.650070e+07
## [7822,] -2.070535e+06 -1.422825e+06 -1.005136e+11 -7.912225e+06
## [7823,] -1.048489e+05 -1.906497e+05 -4.302338e+10 -8.785779e+06
## [7824,] -1.114619e+08 -1.094497e+08 -2.675364e+11 -1.643336e+07
## [7825,] -3.142446e+11 -3.090418e+11 -1.602825e+15 -2.970365e+09
## [7826,] -2.456070e+11 -2.416034e+11 -1.214148e+15 -2.194701e+09
## [7827,] -4.436259e+09 -3.961696e+09 -2.025628e+13 -1.021635e+08
## [7828,] -1.877682e+06 -1.086044e+06 -1.006072e+11 -7.983919e+06
## [7829,] -5.162894e+04 -1.919866e+05 -4.306346e+10 -8.870657e+06
## [7830,] -1.181780e+08 -9.970932e+07 -2.679102e+11 -1.613317e+07
## [7831,] -3.279735e+11 -2.689811e+11 -1.604318e+15 -3.208443e+09
## [7832,] -2.464094e+11 -2.259157e+11 -1.215844e+15 -2.396532e+09
## [7833,] -4.850012e+09 -4.229787e+09 -2.027514e+13 -9.800601e+07
## [7834,] -2.040386e+06 -1.082861e+06 -1.007009e+11 -7.870735e+06
## [7835,] -3.228977e+04 -2.388747e+05 -4.310356e+10 -8.830129e+06
## [7836,] -1.133027e+08 -1.021289e+08 -2.680349e+11 -1.650673e+07
## [7837,] -3.419950e+11 -3.194866e+11 -1.606558e+15 -3.444659e+09
## [7838,] -2.400074e+11 -2.259143e+11 -1.216976e+15 -2.690816e+09
## [7839,] -4.792087e+09 -3.452561e+09 -2.029401e+13 -9.638518e+07
## [7840,] -1.688292e+06 -1.786587e+06 -1.008415e+11 -7.891982e+06
## [7841,] -5.148320e+04 -2.925315e+05 -4.318381e+10 -8.769678e+06
## [7842,] -1.167046e+08 -1.021907e+08 -2.685339e+11 -1.616388e+07
## [7843,] -3.059350e+11 -2.886590e+11 -1.608052e+15 -3.314454e+09
## [7844,] -2.282321e+11 -2.107539e+11 -1.218108e+15 -2.682249e+09
## [7845,] -4.521026e+09 -3.962369e+09 -2.032233e+13 -8.976609e+07
## [7846,] -1.945379e+06 -7.878800e+05 -1.009352e+11 -7.993077e+06
## [7847,] -4.126411e+04 -1.555945e+05 -4.320388e+10 -9.002360e+06
## [7848,] -1.073503e+08 -1.022061e+08 -2.686588e+11 -1.660599e+07
## [7849,] -3.163310e+11 -2.787304e+11 -1.608800e+15 -3.000250e+09
## [7850,] -2.602862e+11 -2.107532e+11 -1.218674e+15 -2.148769e+09
## [7851,] -4.535112e+09 -4.367528e+09 -2.032233e+13 -9.540515e+07
## [7852,] -1.924630e+06 -7.878800e+05 -1.009352e+11 -8.005733e+06
## [7853,] -7.388248e+04 -1.967026e+05 -4.320388e+10 -8.905475e+06
## [7854,] -1.121134e+08 -1.172388e+08 -2.686588e+11 -1.617965e+07
## [7855,] -3.463664e+11 -2.787304e+11 -1.608800e+15 -2.919127e+09
## [7856,] -2.290070e+11 -2.496374e+11 -1.218674e+15 -2.239961e+09
## [7857,] -4.749030e+09 -4.095231e+09 -2.032233e+13 -9.458905e+07
## [7858,] -1.903993e+06 -1.074924e+06 -1.009352e+11 -8.009954e+06
## [7859,] -2.875124e+04 -2.433773e+05 -4.322396e+10 -8.869082e+06
## [7860,] -1.159797e+08 -1.046712e+08 -2.689085e+11 -1.640450e+07

```

```

## [7861,] -3.333256e+11 -2.787288e+11 -1.610295e+15 -3.134277e+09
## [7862,] -2.472093e+11 -2.107511e+11 -1.220374e+15 -2.516531e+09
## [7863,] -4.691817e+09 -4.095525e+09 -2.035067e+13 -1.048747e+08
## [7864,] -1.736850e+06 -1.401033e+06 -1.010760e+11 -7.867374e+06
## [7865,] -5.986446e+04 -8.918211e+04 -4.326413e+10 -8.875264e+06
## [7866,] -1.098924e+08 -1.096416e+08 -2.690334e+11 -1.694826e+07
## [7867,] -3.354796e+11 -2.987564e+11 -1.611792e+15 -3.082147e+09
## [7868,] -2.480158e+11 -2.182640e+11 -1.220941e+15 -2.340595e+09
## [7869,] -4.176395e+09 -4.095622e+09 -2.036012e+13 -1.053196e+08
## [7870,] -1.997478e+06 -7.811119e+05 -1.011699e+11 -8.035823e+06
## [7871,] -2.812761e+04 -1.219535e+05 -4.330432e+10 -8.984083e+06
## [7872,] -1.188821e+08 -1.071816e+08 -2.692833e+11 -1.614302e+07
## [7873,] -3.463619e+11 -2.987556e+11 -1.612540e+15 -2.868580e+09
## [7874,] -2.569820e+11 -2.182633e+11 -1.221507e+15 -2.103534e+09
## [7875,] -4.663393e+09 -4.230781e+09 -2.036957e+13 -9.344533e+07
## [7876,] -2.147771e+06 -6.548462e+05 -1.011699e+11 -8.056978e+06
## [7877,] -5.358471e+04 -2.001062e+05 -4.330432e+10 -8.945892e+06
## [7878,] -1.094231e+08 -1.121943e+08 -2.692833e+11 -1.625861e+07
## [7879,] -3.247692e+11 -3.090308e+11 -1.612540e+15 -2.928793e+09
## [7880,] -2.545207e+11 -2.107497e+11 -1.221507e+15 -2.224270e+09
## [7881,] -4.836508e+09 -3.577386e+09 -2.036957e+13 -9.547980e+07
## [7882,] -2.607215e+06 -1.579305e+06 -1.011699e+11 -8.099372e+06
## [7883,] -5.358471e+04 -4.141711e+05 -4.330432e+10 -8.925362e+06
## [7884,] -1.178572e+08 -1.022988e+08 -2.694083e+11 -1.652642e+07
## [7885,] -3.343991e+11 -3.090299e+11 -1.613289e+15 -3.576368e+09
## [7886,] -2.392058e+11 -2.259070e+11 -1.222642e+15 -1.775053e+09
## [7887,] -4.635055e+09 -4.230980e+09 -2.038848e+13 -9.964497e+07
## [7888,] -1.519800e+06 -1.223272e+06 -1.012638e+11 -7.943276e+06
## [7889,] -1.709906e+04 -4.171270e+05 -4.336464e+10 -8.903898e+06
## [7890,] -1.153062e+08 -1.072290e+08 -2.696584e+11 -1.644167e+07
## [7891,] -3.376388e+11 -2.787240e+11 -1.614786e+15 -3.520668e+09
## [7892,] -2.384122e+11 -2.415913e+11 -1.223209e+15 -2.356022e+09
## [7893,] -4.836827e+09 -3.703962e+09 -2.039794e+13 -9.675609e+07
## [7894,] -1.499595e+06 -1.392003e+06 -1.013108e+11 -7.801089e+06
## [7895,] -2.156133e+05 -1.235599e+05 -4.336464e+10 -8.763922e+06
## [7896,] -1.107267e+08 -1.122429e+08 -2.696584e+11 -1.681250e+07
## [7897,] -3.663867e+11 -2.886517e+11 -1.614786e+15 -3.020033e+09
## [7898,] -2.753914e+11 -2.107476e+11 -1.223209e+15 -2.262473e+09
## [7899,] -4.635159e+09 -4.507783e+09 -2.039794e+13 -9.903430e+07
## [7900,] -2.341992e+06 -1.392003e+06 -1.013108e+11 -8.015006e+06
## [7901,] -3.104768e+03 -2.021623e+05 -4.336464e+10 -9.009607e+06
## [7902,] -1.207661e+08 -1.147927e+08 -2.696584e+11 -1.627710e+07
## [7903,] -3.237052e+11 -2.689700e+11 -1.614786e+15 -3.238978e+09
## [7904,] -2.480120e+11 -2.336823e+11 -1.223776e+15 -2.193484e+09
## [7905,] -4.807860e+09 -3.963235e+09 -2.040741e+13 -9.821794e+07
## [7906,] -1.804034e+06 -7.757184e+05 -1.013578e+11 -7.905692e+06
## [7907,] -1.538872e+05 -2.502101e+05 -4.340487e+10 -8.807881e+06

```

```

## [7908,] -1.148255e+08 -1.023607e+08 -2.699086e+11 -1.607763e+07
## [7909,] -3.163224e+11 -2.787224e+11 -1.616284e+15 -2.958718e+09
## [7910,] -2.392035e+11 -2.415898e+11 -1.224344e+15 -2.524138e+09
## [7911,] -4.424055e+09 -4.793463e+09 -2.041687e+13 -1.056287e+08
## [7912,] -1.963582e+06 -9.097348e+05 -1.014518e+11 -7.952099e+06
## [7913,] -5.119235e+04 -2.042290e+05 -4.342500e+10 -8.985100e+06
## [7914,] -1.163859e+08 -1.122915e+08 -2.700338e+11 -1.617988e+07
## [7915,] -3.408933e+11 -2.689676e+11 -1.617034e+15 -2.878080e+09
## [7916,] -2.376185e+11 -2.033636e+11 -1.224912e+15 -2.715007e+09
## [7917,] -4.299734e+09 -4.368639e+09 -2.042634e+13 -9.333166e+07
## [7918,] -1.439792e+06 -9.097348e+05 -1.014518e+11 -7.851470e+06
## [7919,] -2.183623e+04 -1.622962e+05 -4.342500e+10 -9.011589e+06
## [7920,] -1.095191e+08 -1.097697e+08 -2.700338e+11 -1.688043e+07
## [7921,] -3.038656e+11 -2.886484e+11 -1.617783e+15 -3.029949e+09
## [7922,] -2.472024e+11 -1.961127e+11 -1.225479e+15 -2.363606e+09
## [7923,] -4.707110e+09 -4.056311e+09 -2.043581e+13 -1.035194e+08
## [7924,] -1.797881e+06 -7.716856e+05 -1.014989e+11 -7.977460e+06
## [7925,] -4.100376e+04 -2.049202e+05 -4.344513e+10 -8.895791e+06
## [7926,] -1.151149e+08 -9.998420e+07 -2.701589e+11 -1.659296e+07
## [7927,] -3.048931e+11 -2.987489e+11 -1.618533e+15 -3.377911e+09
## [7928,] -2.463957e+11 -1.961120e+11 -1.226047e+15 -2.216050e+09
## [7929,] -4.607219e+09 -3.704427e+09 -2.044528e+13 -9.703737e+07
## [7930,] -2.468934e+06 -1.213151e+06 -1.015459e+11 -8.011303e+06
## [7931,] -1.132140e+05 -6.655518e+04 -4.348540e+10 -9.001792e+06
## [7932,] -1.115803e+08 -1.098177e+08 -2.704094e+11 -1.676182e+07
## [7933,] -3.300944e+11 -2.787191e+11 -1.619283e+15 -2.978698e+09
## [7934,] -2.455903e+11 -2.415868e+11 -1.226615e+15 -2.316372e+09
## [7935,] -4.341313e+09 -3.963716e+09 -2.045475e+13 -1.067703e+08
## [7936,] -1.999120e+06 -9.053671e+05 -1.015930e+11 -7.906208e+06
## [7937,] -5.450128e+04 -1.268041e+05 -4.348540e+10 -8.884427e+06
## [7938,] -1.131023e+08 -1.048590e+08 -2.704094e+11 -1.672265e+07
## [7939,] -3.430707e+11 -2.499787e+11 -1.619283e+15 -3.302414e+09
## [7940,] -2.463950e+11 -2.336786e+11 -1.226615e+15 -2.491335e+09
## [7941,] -4.410549e+09 -4.231676e+09 -2.045475e+13 -1.027002e+08
## [7942,] -1.329116e+06 -1.211468e+06 -1.015930e+11 -8.066386e+06
## [7943,] -4.397057e+04 -2.070009e+05 -4.350555e+10 -8.927051e+06
## [7944,] -1.159359e+08 -1.024380e+08 -2.705346e+11 -1.653369e+07
## [7945,] -3.279551e+11 -2.886459e+11 -1.620033e+15 -3.164543e+09
## [7946,] -2.391998e+11 -2.107427e+11 -1.227184e+15 -2.450936e+09
## [7947,] -4.123538e+09 -4.096698e+09 -2.046422e+13 -1.083057e+08
## [7948,] -1.578844e+06 -9.039135e+05 -1.016400e+11 -7.860243e+06
## [7949,] -6.734603e+04 -1.653892e+05 -4.352569e+10 -8.823454e+06
## [7950,] -1.159523e+08 -1.073557e+08 -2.706599e+11 -1.624920e+07
## [7951,] -3.290226e+11 -2.689637e+11 -1.620784e+15 -2.326937e+09
## [7952,] -2.553313e+11 -2.259005e+11 -1.227752e+15 -2.308423e+09
## [7953,] -4.410752e+09 -4.940131e+09 -2.047370e+13 -1.025191e+08
## [7954,] -1.484661e+06 -1.558249e+06 -1.016871e+11 -7.977875e+06

```

```

## [7955,] -1.492320e+04 -2.070569e+02 -4.352569e+10 -8.701472e+06
## [7956,] -1.172610e+08 -1.073715e+08 -2.707853e+11 -1.665338e+07
## [7957,] -3.131792e+11 -2.987456e+11 -1.621534e+15 -3.009044e+09
## [7958,] -2.321105e+11 -2.182547e+11 -1.228320e+15 -2.418764e+09
## [7959,] -4.314074e+09 -4.231974e+09 -2.048318e+13 -1.016885e+08
## [7960,] -2.142757e+06 -9.010099e+05 -1.017342e+11 -8.045530e+06
## [7961,] -4.885462e+04 -3.644217e+05 -4.354585e+10 -8.903952e+06
## [7962,] -1.206543e+08 -1.000606e+08 -2.707853e+11 -1.653639e+07
## [7963,] -3.343894e+11 -2.886443e+11 -1.621534e+15 -3.421026e+09
## [7964,] -2.652626e+11 -2.336764e+11 -1.228320e+15 -2.402833e+09
## [7965,] -4.259353e+09 -4.794309e+09 -2.049266e+13 -1.066173e+08
## [7966,] -1.845903e+06 -1.204749e+06 -1.017813e+11 -7.915011e+06
## [7967,] -7.336001e+04 -1.666345e+05 -4.356601e+10 -8.876329e+06
## [7968,] -1.193769e+08 -1.000912e+08 -2.710360e+11 -1.678331e+07
## [7969,] -3.236957e+11 -2.787151e+11 -1.623035e+15 -2.491372e+09
## [7970,] -2.455865e+11 -2.107399e+11 -1.229458e+15 -1.829371e+09
## [7971,] -4.411057e+09 -3.964197e+09 -2.050215e+13 -1.029900e+08
## [7972,] -1.781525e+06 -8.966631e+05 -1.018755e+11 -8.117929e+06
## [7973,] -4.149415e+04 -1.678846e+05 -4.360634e+10 -9.035222e+06
## [7974,] -1.155032e+08 -1.074190e+08 -2.711614e+11 -1.631249e+07
## [7975,] -3.048872e+11 -3.090180e+11 -1.623786e+15 -3.698736e+09
## [7976,] -2.274424e+11 -2.660965e+11 -1.230027e+15 -2.912172e+09
## [7977,] -4.466945e+09 -3.964294e+09 -2.051163e+13 -9.693657e+07
## [7978,] -1.457303e+06 -8.952166e+05 -1.019226e+11 -8.029031e+06
## [7979,] -8.006302e+04 -4.300572e+05 -4.362651e+10 -9.140393e+06
## [7980,] -1.132161e+08 -1.025308e+08 -2.712868e+11 -1.585790e+07
## [7981,] -3.279499e+11 -2.689597e+11 -1.624538e+15 -2.787978e+09
## [7982,] -2.536906e+11 -2.107385e+11 -1.230596e+15 -2.547801e+09
## [7983,] -4.523185e+09 -3.964390e+09 -2.052112e+13 -1.017502e+08
## [7984,] -1.457303e+06 -8.952166e+05 -1.019226e+11 -8.050178e+06
## [7985,] -4.415663e+04 -3.118517e+05 -4.364668e+10 -8.964918e+06
## [7986,] -1.064607e+08 -1.124697e+08 -2.714123e+11 -1.677268e+07
## [7987,] -3.430635e+11 -2.593789e+11 -1.625289e+15 -3.090974e+09
## [7988,] -2.660949e+11 -2.033561e+11 -1.231165e+15 -2.147211e+09
## [7989,] -4.650881e+09 -4.097383e+09 -2.053061e+13 -1.015545e+08
## [7990,] -1.777447e+06 -1.040348e+06 -1.019697e+11 -7.852601e+06
## [7991,] -6.717956e+04 -2.118968e+05 -4.364668e+10 -8.839041e+06
## [7992,] -1.117095e+08 -1.176032e+08 -2.714123e+11 -1.665527e+07
## [7993,] -3.343841e+11 -2.987405e+11 -1.626040e+15 -3.163856e+09
## [7994,] -2.644230e+11 -2.033554e+11 -1.231734e+15 -2.300122e+09
## [7995,] -4.594057e+09 -4.097481e+09 -2.054011e+13 -9.574879e+07
## [7996,] -1.815382e+06 -5.196848e+05 -1.020169e+11 -8.177851e+06
## [7997,] -7.015077e+04 -2.126008e+05 -4.366686e+10 -8.951872e+06
## [7998,] -1.168424e+08 -1.049999e+08 -2.715378e+11 -1.662245e+07
## [7999,] -3.142181e+11 -2.886393e+11 -1.626040e+15 -3.333833e+09
## [8000,] -2.488099e+11 -2.258954e+11 -1.231734e+15 -2.410341e+09
## [8001,] -4.314676e+09 -3.964582e+09 -2.054011e+13 -1.041173e+08

```

```

## [8002,] -1.382571e+06 -1.196377e+06 -1.020169e+11 -7.940726e+06
## [8003,] -1.145446e+05 -2.126008e+05 -4.366686e+10 -8.919610e+06
## [8004,] -1.109680e+08 -1.074666e+08 -2.715378e+11 -1.674954e+07
## [8005,] -3.354628e+11 -3.090155e+11 -1.626040e+15 -3.163856e+09
## [8006,] -2.415801e+11 -2.182505e+11 -1.231734e+15 -2.426298e+09
## [8007,] -4.383700e+09 -4.509323e+09 -2.054011e+13 -1.043310e+08
## [8008,] -1.793294e+06 -1.194706e+06 -1.020641e+11 -8.135356e+06
## [8009,] -5.812735e+04 -2.133061e+05 -4.368705e+10 -9.053606e+06
## [8010,] -1.285196e+08 -1.025773e+08 -2.716633e+11 -1.625989e+07
## [8011,] -3.354619e+11 -2.886385e+11 -1.626792e+15 -3.519217e+09
## [8012,] -2.471933e+11 -2.336712e+11 -1.232303e+15 -2.671878e+09
## [8013,] -4.044156e+09 -4.097579e+09 -2.054960e+13 -1.058488e+08
## [8014,] -1.618028e+06 -1.037233e+06 -1.020641e+11 -7.970279e+06
## [8015,] -1.736383e+04 -2.133061e+05 -4.368705e+10 -8.795675e+06
## [8016,] -1.122484e+08 -1.025773e+08 -2.716633e+11 -1.652150e+07
## [8017,] -3.452478e+11 -2.767456e+11 -1.627544e+15 -3.497046e+09
## [8018,] -2.197668e+11 -2.258932e+11 -1.233443e+15 -2.580274e+09
## [8019,] -4.608567e+09 -3.834158e+09 -2.056860e+13 -1.009841e+08
## [8020,] -1.574546e+06 -8.865617e+05 -1.022056e+11 -7.957962e+06
## [8021,] -9.434806e+04 -2.633745e+05 -4.374764e+10 -8.932011e+06
## [8022,] -1.158757e+08 -1.075299e+08 -2.720401e+11 -1.702052e+07
## [8023,] -3.290120e+11 -2.886352e+11 -1.629800e+15 -3.652791e+09
## [8024,] -2.504272e+11 -2.182469e+11 -1.234582e+15 -2.169396e+09
## [8025,] -4.398077e+09 -4.370356e+09 -2.058760e+13 -1.027049e+08
## [8026,] -1.765243e+06 -1.031016e+06 -1.022528e+11 -8.055139e+06
## [8027,] -6.957718e+04 -2.161387e+05 -4.376784e+10 -8.992394e+06
## [8028,] -1.172005e+08 -1.002442e+08 -2.722914e+11 -1.673810e+07
## [8029,] -3.322265e+11 -2.787070e+11 -1.630553e+15 -3.344074e+09
## [8030,] -2.471895e+11 -2.033512e+11 -1.235152e+15 -2.362343e+09
## [8031,] -4.780988e+09 -3.834442e+09 -2.059711e+13 -1.006098e+08
## [8032,] -1.337092e+06 -1.533547e+06 -1.023000e+11 -8.004522e+06
## [8033,] -8.355974e+04 -7.260038e+04 -4.378805e+10 -8.991093e+06
## [8034,] -1.164409e+08 -1.051095e+08 -2.724171e+11 -1.633556e+07
## [8035,] -3.300803e+11 -2.987347e+11 -1.631306e+15 -2.886528e+09
## [8036,] -2.569627e+11 -2.182455e+11 -1.235723e+15 -2.169254e+09
## [8037,] -4.737770e+09 -5.089881e+09 -2.060662e+13 -9.401789e+07
## [8038,] -1.923104e+06 -1.184704e+06 -1.023472e+11 -8.148752e+06
## [8039,] -7.119895e+04 -3.783917e+05 -4.384870e+10 -9.143757e+06
## [8040,] -1.164739e+08 -1.027011e+08 -2.726685e+11 -1.661998e+07
## [8041,] -3.475220e+11 -2.719353e+11 -2.931634e+13 -1.800125e+09
## [8042,] -2.476208e+11 -2.133734e+11 -2.220728e+13 -1.395516e+09
## [8043,] -4.365022e+09 -3.244732e+09 -3.703234e+11 -2.809399e+07
## [8044,] -1.654961e+07 -1.506737e+07 -1.839292e+09 -9.158992e+03
## [8045,] -6.570367e+06 -6.247489e+06 -7.872823e+08 -4.659462e+04
## [8046,] -6.127762e+07 -5.106413e+07 -4.912499e+09 -8.637300e+05
## [8047,] -3.398717e+11 -2.623012e+11 -2.941735e+13 -1.377504e+09
## [8048,] -2.574024e+11 -2.059445e+11 -2.228379e+13 -1.029334e+09

```

```

## [8049,] -4.282537e+09 -3.487681e+09 -3.715993e+11 -2.497615e+07
## [8050,] -1.690940e+07 -1.448812e+07 -1.845628e+09 -2.015034e+04
## [8051,] -6.537424e+06 -5.074572e+06 -7.927118e+08 -5.971499e+04
## [8052,] -6.072878e+07 -5.107505e+07 -4.929395e+09 -8.408375e+05
## [8053,] -3.280225e+11 -2.719337e+11 -2.951852e+13 -1.322659e+09
## [8054,] -2.492365e+11 -2.133720e+11 -2.236044e+13 -1.003425e+09
## [8055,] -4.241639e+09 -3.612490e+09 -3.728773e+11 -2.087810e+07
## [8056,] -1.764702e+07 -1.336928e+07 -1.851976e+09 -2.322887e+04
## [8057,] -6.944969e+06 -4.855956e+06 -7.927118e+08 -6.410848e+04
## [8058,] -6.260815e+07 -4.771153e+07 -4.929395e+09 -8.430335e+05
## [8059,] -3.355380e+11 -2.817408e+11 -2.951852e+13 -1.309135e+09
## [8060,] -2.444006e+11 -1.986473e+11 -2.236044e+13 -1.371266e+09
## [8061,] -3.999793e+09 -4.268949e+09 -3.728773e+11 -2.354044e+07
## [8062,] -1.739728e+07 -1.282946e+07 -1.851976e+09 -1.870065e+04
## [8063,] -6.688809e+06 -4.642154e+06 -7.927118e+08 -5.781239e+04
## [8064,] -6.054242e+07 -4.937897e+07 -4.929395e+09 -9.943014e+05
## [8065,] -3.237661e+11 -3.122044e+11 -2.951852e+13 -1.823799e+09
## [8066,] -2.420004e+11 -2.364460e+11 -2.236044e+13 -1.407549e+09
## [8067,] -4.255283e+09 -3.365243e+09 -3.728773e+11 -2.508853e+07
## [8068,] -1.827918e+07 -1.448231e+07 -1.851976e+09 -1.595438e+04
## [8069,] -7.127145e+06 -5.074572e+06 -7.927118e+08 -5.478635e+04
## [8070,] -6.110236e+07 -5.107505e+07 -4.929395e+09 -9.332218e+05
## [8071,] -3.343761e+11 -2.787046e+11 -1.632812e+15 -3.142150e+09
## [8072,] -2.212862e+11 -2.336653e+11 -1.236863e+15 -2.079389e+09
## [8073,] -4.454291e+09 -4.233565e+09 -2.063515e+13 -1.006711e+08
## [8074,] -1.715807e+06 -7.437502e+05 -1.024890e+11 -8.136297e+06
## [8075,] -1.410150e+05 -1.033991e+05 -4.386893e+10 -8.856943e+06
## [8076,] -1.180620e+08 -9.558372e+07 -2.729201e+11 -1.668129e+07
## [8077,] -3.474337e+11 -2.787030e+11 -1.634318e+15 -3.110712e+09
## [8078,] -2.399797e+11 -2.415718e+11 -1.238005e+15 -2.441476e+09
## [8079,] -4.045128e+09 -4.652132e+09 -2.064467e+13 -1.057906e+08
## [8080,] -1.210661e+06 -1.178060e+06 -1.025362e+11 -7.975527e+06
## [8081,] -2.204228e+05 -1.038911e+05 -4.388916e+10 -8.808997e+06
## [8082,] -1.167654e+08 -1.101382e+08 -2.729201e+11 -1.664221e+07
## [8083,] -3.279385e+11 -2.787030e+11 -1.634318e+15 -3.247331e+09
## [8084,] -2.577826e+11 -2.258874e+11 -1.238005e+15 -2.299316e+09
## [8085,] -4.738191e+09 -4.370963e+09 -2.064467e+13 -1.002668e+08
## [8086,] -1.873580e+06 -1.178060e+06 -1.025362e+11 -8.081185e+06
## [8087,] -1.108203e+05 -2.211408e+05 -4.390940e+10 -9.190316e+06
## [8088,] -1.188601e+08 -9.795300e+07 -2.730460e+11 -1.660941e+07
## [8089,] -3.540563e+11 -2.886295e+11 -1.635072e+15 -3.007535e+09
## [8090,] -2.711287e+11 -2.336623e+11 -1.239146e+15 -2.322566e+09
## [8091,] -4.581225e+09 -4.371165e+09 -2.066371e+13 -9.925195e+07
## [8092,] -1.359309e+06 -1.341974e+06 -1.026308e+11 -7.812294e+06
## [8093,] -1.017253e+05 -2.218601e+05 -4.392964e+10 -8.850149e+06
## [8094,] -1.168149e+08 -1.027786e+08 -2.732978e+11 -1.669024e+07
## [8095,] -3.343717e+11 -2.593672e+11 -1.636579e+15 -2.434504e+09

```



```

## [8096,] -2.439676e+11 -2.182405e+11 -1.239717e+15 -2.417261e+09
## [8097,] -4.385116e+09 -4.510760e+09 -2.067324e+13 -9.968474e+07
## [8098,] -1.721336e+06 -7.345528e+05 -1.028201e+11 -8.018330e+06
## [8099,] -8.559525e+04 -2.736692e+05 -4.401066e+10 -9.006203e+06
## [8100,] -1.181783e+08 -1.052819e+08 -2.738016e+11 -1.643267e+07
## [8101,] -3.332912e+11 -3.090002e+11 -1.639597e+15 -4.236497e+09
## [8102,] -2.487954e+11 -2.182369e+11 -1.242575e+15 -2.329948e+09
## [8103,] -4.884231e+09 -4.371771e+09 -2.072089e+13 -1.072130e+08
## [8104,] -1.434808e+06 -7.306286e+05 -1.029621e+11 -8.014418e+06
## [8105,] -7.045061e+04 -3.888034e+05 -4.407147e+10 -8.940582e+06
## [8106,] -1.169141e+08 -1.028716e+08 -2.740538e+11 -1.703254e+07
## [8107,] -3.279306e+11 -2.786957e+11 -1.641107e+15 -3.528558e+09
## [8108,] -2.561301e+11 -2.258801e+11 -1.243719e+15 -2.306368e+09
## [8109,] -4.696110e+09 -3.835862e+09 -2.073996e+13 -9.895689e+07
## [8110,] -1.617095e+06 -8.622677e+05 -1.030095e+11 -7.955513e+06
## [8111,] -2.229989e+05 -1.436556e+05 -4.409175e+10 -8.989223e+06
## [8112,] -1.125887e+08 -1.029026e+08 -2.743060e+11 -1.695634e+07
## [8113,] -3.028103e+11 -2.886205e+11 -1.643373e+15 -3.539366e+09
## [8114,] -2.520398e+11 -2.182340e+11 -1.244863e+15 -2.213677e+09
## [8115,] -4.681985e+09 -3.966796e+09 -2.075905e+13 -8.944081e+07
## [8116,] -1.709327e+06 -8.594318e+05 -1.031043e+11 -8.069719e+06
## [8117,] -5.951350e+04 -1.852171e+05 -4.415261e+10 -9.144839e+06
## [8118,] -1.144060e+08 -1.005198e+08 -2.745583e+11 -1.652819e+07
## [8119,] -3.131527e+11 -3.089942e+11 -1.644884e+15 -3.256740e+09
## [8120,] -2.577718e+11 -2.258772e+11 -1.246008e+15 -2.167973e+09
## [8121,] -4.525960e+09 -4.797484e+09 -2.077814e+13 -1.152562e+08
## [8122,] -1.722860e+06 -9.986859e+05 -1.032466e+11 -7.972868e+06
## [8123,] -7.028035e+04 -3.353203e+05 -4.419321e+10 -8.918140e+06
## [8124,] -1.152080e+08 -1.005504e+08 -2.748108e+11 -1.681428e+07
## [8125,] -3.607294e+11 -2.499519e+11 -1.645640e+15 -2.884969e+09
## [8126,] -2.652366e+11 -2.174740e+11 -1.247154e+15 -2.267139e+09
## [8127,] -4.668091e+09 -4.100123e+09 -2.079724e+13 -1.049672e+08
## [8128,] -1.386671e+06 -8.537740e+05 -1.032940e+11 -8.032045e+06
## [8129,] -9.965945e+04 -2.825342e+05 -4.423383e+10 -9.003653e+06
## [8130,] -1.134494e+08 -1.129402e+08 -2.750634e+11 -1.654331e+07
## [8131,] -3.311336e+11 -2.689359e+11 -1.647153e+15 -3.161449e+09
## [8132,] -2.536675e+11 -2.336512e+11 -1.247727e+15 -2.352833e+09
## [8133,] -4.625387e+09 -3.836524e+09 -2.080680e+13 -1.009473e+08
## [8134,] -1.758184e+06 -9.956337e+05 -1.033415e+11 -8.142436e+06
## [8135,] -1.632087e+05 -1.124338e+05 -4.423383e+10 -9.036067e+06
## [8136,] -1.175647e+08 -1.029956e+08 -2.750634e+11 -1.670921e+07
## [8137,] -3.441302e+11 -2.886164e+11 -1.647153e+15 -3.140523e+09
## [8138,] -2.610747e+11 -2.033361e+11 -1.247727e+15 -2.360709e+09
## [8139,] -4.696843e+09 -4.100221e+09 -2.080680e+13 -1.013684e+08
## [8140,] -2.198052e+06 -1.492194e+06 -1.033415e+11 -8.227784e+06
## [8141,] -1.366420e+05 -1.124338e+05 -4.423383e+10 -9.127728e+06
## [8142,] -1.154979e+08 -1.054388e+08 -2.750634e+11 -1.652385e+07

```

```

## [8143,] -3.141941e+11 -3.089917e+11 -1.647153e+15 -3.461717e+09
## [8144,] -2.745062e+11 -1.960863e+11 -1.247727e+15 -2.290300e+09
## [8145,] -4.554479e+09 -4.235355e+09 -2.080680e+13 -1.020016e+08
## [8146,] -1.797963e+06 -8.523624e+05 -1.033415e+11 -8.176522e+06
## [8147,] -5.626346e+04 -4.606492e+05 -4.423383e+10 -9.121801e+06
## [8148,] -1.196499e+08 -1.054388e+08 -2.750634e+11 -1.671900e+07
## [8149,] -3.289919e+11 -2.886164e+11 -1.647153e+15 -3.256478e+09
## [8150,] -2.297467e+11 -1.960863e+11 -1.247727e+15 -2.512852e+09
## [8151,] -4.754508e+09 -4.100318e+09 -2.081635e+13 -1.035024e+08
## [8152,] -1.180582e+06 -9.941094e+05 -1.033889e+11 -8.083062e+06
## [8153,] -9.150636e+04 -3.388695e+05 -4.427447e+10 -9.089575e+06
## [8154,] -1.160458e+08 -1.129727e+08 -2.753161e+11 -1.683935e+07
## [8155,] -3.173346e+11 -2.689343e+11 -1.648666e+15 -3.047045e+09
## [8156,] -2.528487e+11 -1.960842e+11 -1.249446e+15 -2.137439e+09
## [8157,] -4.512710e+09 -4.100710e+09 -2.085460e+13 -1.027143e+08
## [8158,] -1.482874e+06 -8.453223e+05 -1.035789e+11 -8.211204e+06
## [8159,] -7.582247e+04 -1.911839e+05 -4.433546e+10 -9.023649e+06
## [8160,] -1.030887e+08 -1.155965e+08 -2.758218e+11 -1.729967e+07
## [8161,] -2.946510e+11 -3.408522e+11 -1.651694e+15 -3.560577e+09
## [8162,] -2.495939e+11 -1.889641e+11 -1.251167e+15 -2.553216e+09
## [8163,] -4.856720e+09 -4.236051e+09 -2.087374e+13 -8.511460e+07
## [8164,] -1.590002e+06 -1.138586e+06 -1.036739e+11 -8.130405e+06
## [8165,] -1.406250e+05 -2.379792e+05 -4.437614e+10 -9.041682e+06
## [8166,] -1.166445e+08 -1.055487e+08 -2.759484e+11 -1.678237e+07
## [8167,] -3.194339e+11 -2.689304e+11 -1.652452e+15 -2.553911e+09
## [8168,] -2.512167e+11 -2.033312e+11 -1.251741e+15 -2.004288e+09
## [8169,] -4.526988e+09 -4.654634e+09 -2.087374e+13 -9.647841e+07
## [8170,] -1.389840e+06 -1.138586e+06 -1.036739e+11 -8.041334e+06
## [8171,] -1.165706e+05 -3.442284e+05 -4.439649e+10 -9.313819e+06
## [8172,] -1.195218e+08 -9.831635e+07 -2.760749e+11 -1.672985e+07
## [8173,] -3.268501e+11 -3.089849e+11 -1.653210e+15 -3.363008e+09
## [8174,] -2.544791e+11 -2.182247e+11 -1.252315e+15 -2.375904e+09
## [8175,] -4.597787e+09 -3.968047e+09 -2.088331e+13 -9.383881e+07
## [8176,] -1.821648e+06 -5.897662e+05 -1.037215e+11 -8.096519e+06
## [8177,] -7.709016e+04 -3.442284e+05 -4.439649e+10 -9.075812e+06
## [8178,] -1.166776e+08 -9.597259e+07 -2.762015e+11 -1.687345e+07
## [8179,] -3.226005e+11 -2.689288e+11 -1.653968e+15 -3.341335e+09
## [8180,] -2.235606e+11 -2.495908e+11 -1.253463e+15 -2.367855e+09
## [8181,] -4.457147e+09 -3.968240e+09 -2.090246e+13 -9.549790e+07
## [8182,] -1.601121e+06 -9.789301e+05 -1.038642e+11 -8.109571e+06
## [8183,] -9.270295e+04 -2.409707e+05 -4.445757e+10 -9.101466e+06
## [8184,] -1.156787e+08 -9.836182e+07 -2.764547e+11 -1.682705e+07
## [8185,] -3.183778e+11 -2.786804e+11 -1.655484e+15 -3.108326e+09
## [8186,] -2.512122e+11 -2.107083e+11 -1.255187e+15 -2.685507e+09
## [8187,] -6.078263e+09 -4.101493e+09 -2.093120e+13 -1.104022e+08
## [8188,] -2.558192e+06 -1.128822e+06 -1.039594e+11 -8.118277e+06
## [8189,] -9.363590e+04 -4.090725e+05 -4.449831e+10 -9.101807e+06

```

```

## [8190,] -1.116291e+08 -1.081171e+08 -2.767080e+11 -1.702671e+07
## [8191,] -3.204830e+11 -2.786788e+11 -1.657001e+15 -3.717343e+09
## [8192,] -2.447492e+11 -2.415493e+11 -1.255187e+15 -2.359744e+09
## [8193,] -4.655259e+09 -3.968529e+09 -2.093120e+13 -1.028382e+08
## [8194,] -1.616162e+06 -1.292860e+06 -1.039594e+11 -8.135286e+06
## [8195,] -1.028592e+05 -1.965670e+05 -4.449831e+10 -9.101807e+06
## [8196,] -1.170023e+08 -1.056429e+08 -2.767080e+11 -1.717516e+07
## [8197,] -3.162760e+11 -2.987063e+11 -1.657001e+15 -3.901403e+09
## [8198,] -2.727985e+11 -2.182212e+11 -1.255187e+15 -2.528144e+09
## [8199,] -4.626738e+09 -4.236648e+09 -2.093120e+13 -1.003067e+08
## [8200,] -1.066322e+06 -1.292860e+06 -1.039594e+11 -8.067358e+06
## [8201,] -1.674525e+04 -1.191941e+05 -4.449831e+10 -9.196776e+06
## [8202,] -1.134061e+08 -1.007804e+08 -2.767080e+11 -1.709591e+07
## [8203,] -2.826287e+11 -3.974294e+11 -1.657001e+15 -3.298024e+09
## [8204,] -2.391632e+11 -2.830614e+11 -1.255187e+15 -1.515098e+09
## [8205,] -4.727050e+09 -4.101591e+09 -2.094079e+13 -9.453726e+07
## [8206,] -1.769388e+06 -9.743991e+05 -1.040070e+11 -8.212150e+06
## [8207,] -8.818090e+04 -5.167364e+05 -4.451868e+10 -9.359826e+06
## [8208,] -1.170189e+08 -9.371628e+07 -2.768347e+11 -1.662070e+07
## [8209,] -3.685939e+11 -2.886049e+11 -1.657760e+15 -2.873654e+09
## [8210,] -2.503981e+11 -2.258642e+11 -1.256337e+15 -2.181822e+09
## [8211,] -4.712774e+09 -4.101689e+09 -2.095037e+13 -9.414547e+07
## [8212,] -1.867894e+06 -8.313295e+05 -1.040546e+11 -8.306563e+06
## [8213,] -6.429590e+04 -1.979245e+05 -4.453906e+10 -9.152540e+06
## [8214,] -1.185940e+08 -1.106521e+08 -2.769615e+11 -1.686196e+07
## [8215,] -3.386712e+11 -2.987046e+11 -1.658519e+15 -3.223344e+09
## [8216,] -2.552927e+11 -2.107069e+11 -1.256337e+15 -2.391223e+09
## [8217,] -4.727155e+09 -4.236847e+09 -2.095037e+13 -1.011778e+08
## [8218,] -1.629323e+06 -6.996133e+05 -1.041022e+11 -8.080385e+06
## [8219,] -1.207823e+05 -3.514389e+05 -4.455945e+10 -9.151227e+06
## [8220,] -1.165511e+08 -1.081807e+08 -2.772150e+11 -1.702231e+07
## [8221,] -3.386694e+11 -2.786756e+11 -1.660037e+15 -3.265639e+09
## [8222,] -2.487756e+11 -2.258627e+11 -1.257487e+15 -2.438909e+09
## [8223,] -4.556232e+09 -4.513942e+09 -2.096955e+13 -9.994893e+07
## [8224,] -1.570789e+06 -1.460625e+06 -1.041498e+11 -8.229573e+06
## [8225,] -7.818877e+04 -2.454929e+05 -4.457984e+10 -9.132115e+06
## [8226,] -1.137263e+08 -1.032594e+08 -2.772150e+11 -1.685486e+07
## [8227,] -3.225935e+11 -2.689225e+11 -1.660037e+15 -3.202040e+09
## [8228,] -2.463540e+11 -2.258627e+11 -1.257487e+15 -2.351573e+09
## [8229,] -4.945718e+09 -3.968914e+09 -2.096955e+13 -9.848938e+07
## [8230,] -1.478708e+06 -1.460625e+06 -1.041498e+11 -8.221017e+06
## [8231,] -1.112787e+05 -3.523455e+05 -4.457984e+10 -9.343843e+06
## [8232,] -1.142374e+08 -1.008418e+08 -2.772150e+11 -1.651272e+07
## [8233,] -3.332665e+11 -2.886016e+11 -1.660797e+15 -2.943694e+09
## [8234,] -2.423435e+11 -2.258620e+11 -1.258062e+15 -2.568708e+09
## [8235,] -4.727470e+09 -4.101982e+09 -2.097915e+13 -1.046216e+08
## [8236,] -1.284186e+06 -8.271544e+05 -1.041975e+11 -8.148578e+06

```

```

## [8237,] -9.598870e+04 -4.139745e+05 -4.460024e+10 -9.258734e+06
## [8238,] -1.155364e+08 -1.008571e+08 -2.773419e+11 -1.650921e+07
## [8239,] -3.007431e+11 -3.194244e+11 -1.660797e+15 -4.077510e+09
## [8240,] -2.512076e+11 -2.033230e+11 -1.258638e+15 -2.406816e+09
## [8241,] -4.641613e+09 -3.709731e+09 -2.098874e+13 -1.035694e+08
## [8242,] -1.680992e+06 -5.769267e+05 -1.042452e+11 -8.276920e+06
## [8243,] -1.513795e+05 -1.223809e+05 -4.462064e+10 -9.099871e+06
## [8244,] -1.150388e+08 -1.032905e+08 -2.774687e+11 -1.706457e+07
## [8245,] -3.152235e+11 -3.089755e+11 -1.661556e+15 -3.449053e+09
## [8246,] -2.391579e+11 -2.107034e+11 -1.259213e+15 -2.446701e+09
## [8247,] -4.570683e+09 -3.969203e+09 -2.099834e+13 -1.025224e+08
## [8248,] -1.757212e+06 -9.653686e+05 -1.042928e+11 -8.204234e+06
## [8249,] -1.597207e+05 -9.092480e+04 -4.464104e+10 -9.172700e+06
## [8250,] -1.178964e+08 -1.057529e+08 -2.775956e+11 -1.735885e+07
## [8251,] -3.618296e+11 -3.089747e+11 -1.662316e+15 -3.492890e+09
## [8252,] -2.375738e+11 -2.107034e+11 -1.259213e+15 -2.486989e+09
## [8253,] -4.916641e+09 -4.102178e+09 -2.099834e+13 -9.544270e+07
## [8254,] -1.617639e+06 -8.216040e+05 -1.043882e+11 -8.127720e+06
## [8255,] -1.009857e+05 -3.568959e+05 -4.468187e+10 -9.352207e+06
## [8256,] -1.158595e+08 -1.009185e+08 -2.778495e+11 -1.733171e+07
## [8257,] -3.300417e+11 -2.583900e+11 -1.664597e+15 -2.793546e+09
## [8258,] -2.668914e+11 -2.182140e+11 -1.260941e+15 -2.257678e+09
## [8259,] -4.556954e+09 -4.102570e+09 -2.103676e+13 -9.652800e+07
## [8260,] -1.632758e+06 -8.188359e+05 -1.044836e+11 -8.230309e+06
## [8261,] -1.115745e+05 -2.508220e+05 -4.472271e+10 -9.259766e+06
## [8262,] -1.151372e+08 -1.009646e+08 -2.782305e+11 -1.624258e+07
## [8263,] -3.289691e+11 -2.885950e+11 -1.666879e+15 -3.243587e+09
## [8264,] -2.577493e+11 -2.106992e+11 -1.262669e+15 -2.120845e+09
## [8265,] -4.873346e+09 -3.969780e+09 -2.105598e+13 -9.491949e+07
## [8266,] -1.444050e+06 -1.824784e+06 -1.045791e+11 -8.368025e+06
## [8267,] -5.873317e+04 -3.040495e+05 -4.476357e+10 -9.301957e+06
## [8268,] -1.177361e+08 -1.058472e+08 -2.783575e+11 -1.661741e+07
## [8269,] -3.027842e+11 -3.300391e+11 -1.666879e+15 -2.953151e+09
## [8270,] -2.455426e+11 -2.182119e+11 -1.262669e+15 -2.165910e+09
## [8271,] -4.742716e+09 -4.102765e+09 -2.105598e+13 -9.491949e+07
## [8272,] -1.865305e+06 -5.688296e+05 -1.045791e+11 -8.368025e+06
## [8273,] -7.386587e+04 -3.605572e+05 -4.476357e+10 -9.287001e+06
## [8274,] -1.138731e+08 -1.108290e+08 -2.783575e+11 -1.666622e+07
## [8275,] -3.551280e+11 -2.986954e+11 -1.666879e+15 -2.803163e+09
## [8276,] -2.336320e+11 -2.495786e+11 -1.262669e+15 -2.510860e+09
## [8277,] -5.169989e+09 -4.375308e+09 -2.105598e+13 -9.821059e+07
## [8278,] -1.426181e+06 -1.444050e+06 -1.045791e+11 -8.243362e+06
## [8279,] -1.093296e+05 -2.523551e+05 -4.476357e+10 -9.170756e+06
## [8280,] -1.161832e+08 -1.033993e+08 -2.783575e+11 -1.693107e+07
## [8281,] -3.430134e+11 -2.499298e+11 -1.667640e+15 -2.862608e+09
## [8282,] -2.660507e+11 -1.960680e+11 -1.263246e+15 -2.090995e+09
## [8283,] -4.728416e+09 -3.584062e+09 -2.106559e+13 -1.022071e+08

```

```

## [8284,] -1.665178e+06 -1.822720e+06 -1.046268e+11 -8.355191e+06
## [8285,] -1.002973e+05 -4.890807e+05 -4.478401e+10 -9.357573e+06
## [8286,] -1.164743e+08 -9.861966e+07 -2.786117e+11 -1.692395e+07
## [8287,] -3.089679e+11 -2.986938e+11 -1.668401e+15 -3.514232e+09
## [8288,] -2.415380e+11 -2.033168e+11 -1.263823e+15 -2.422084e+09
## [8289,] -4.642550e+09 -3.710569e+09 -2.107521e+13 -8.853430e+07
## [8290,] -1.680517e+06 -1.102992e+06 -1.047224e+11 -8.290855e+06
## [8291,] -1.385239e+05 -1.652649e+05 -4.482490e+10 -9.154935e+06
## [8292,] -1.136667e+08 -1.034459e+08 -2.787389e+11 -1.708816e+07
## [8293,] -3.173105e+11 -2.986921e+11 -1.669924e+15 -3.003681e+09
## [8294,] -2.618808e+11 -2.258533e+11 -1.264976e+15 -2.535000e+09
## [8295,] -4.251978e+09 -4.657032e+09 -2.109444e+13 -9.952019e+07
## [8296,] -9.504112e+05 -1.436713e+06 -1.047701e+11 -8.235221e+06
## [8297,] -1.049083e+05 -3.074296e+05 -4.484535e+10 -9.132854e+06
## [8298,] -1.149624e+08 -1.034614e+08 -2.788661e+11 -1.679892e+07
## [8299,] -3.068975e+11 -2.593329e+11 -1.669924e+15 -3.106707e+09
## [8300,] -2.479564e+11 -2.336283e+11 -1.265553e+15 -2.173110e+09
## [8301,] -4.585984e+09 -4.375814e+09 -2.110407e+13 -9.540243e+07
## [8302,] -1.600193e+06 -6.805704e+05 -1.048179e+11 -8.359927e+06
## [8303,] -1.585989e+05 -2.649635e+04 -4.486581e+10 -9.232627e+06
## [8304,] -1.180956e+08 -1.160241e+08 -2.791205e+11 -1.724598e+07
## [8305,] -3.375722e+11 -2.593314e+11 -1.671448e+15 -4.076144e+09
## [8306,] -2.204871e+11 -2.336276e+11 -1.266130e+15 -2.397891e+09
## [8307,] -4.529662e+09 -3.970454e+09 -2.112332e+13 -9.218847e+07
## [8308,] -1.112256e+06 -9.459468e+05 -1.049135e+11 -8.214148e+06
## [8309,] -7.722600e+04 -1.683859e+05 -4.492720e+10 -9.288380e+06
## [8310,] -1.165732e+08 -1.109577e+08 -2.793751e+11 -1.691245e+07
## [8311,] -3.451940e+11 -2.689090e+11 -1.672972e+15 -3.106366e+09
## [8312,] -2.258504e+11 -2.336261e+11 -1.267285e+15 -2.453672e+09
## [8313,] -4.932832e+09 -3.839744e+09 -2.113295e+13 -9.853948e+07
## [8314,] -1.465284e+06 -1.613288e+06 -1.049614e+11 -8.308572e+06
## [8315,] -5.695430e+04 -3.679359e+05 -4.492720e+10 -9.321302e+06
## [8316,] -1.067292e+08 -1.135093e+08 -2.795024e+11 -1.713599e+07
## [8317,] -3.246987e+11 -2.593291e+11 -1.673734e+15 -3.436681e+09
## [8318,] -2.511953e+11 -1.960626e+11 -1.267863e+15 -2.172825e+09
## [8319,] -4.845121e+09 -3.711221e+09 -2.114258e+13 -9.876257e+07
## [8320,] -1.357171e+06 -1.254913e+06 -1.050092e+11 -8.120576e+06
## [8321,] -9.192289e+04 -2.117561e+05 -4.494768e+10 -9.251211e+06
## [8322,] -1.124917e+08 -1.135093e+08 -2.795024e+11 -1.701732e+07
## [8323,] -3.397381e+11 -2.855906e+11 -1.674497e+15 -3.382173e+09
## [8324,] -2.471454e+11 -1.960619e+11 -1.268440e+15 -2.421482e+09
## [8325,] -4.103744e+09 -4.515893e+09 -2.115221e+13 -1.079262e+08
## [8326,] -1.744593e+06 -8.023248e+05 -1.050570e+11 -8.124932e+06
## [8327,] -1.047005e+05 -1.696424e+05 -4.496816e+10 -9.113135e+06
## [8328,] -1.135419e+08 -1.035703e+08 -2.797571e+11 -1.679372e+07
## [8329,] -3.354053e+11 -2.593275e+11 -1.675260e+15 -3.147804e+09
## [8330,] -2.415298e+11 -2.415298e+11 -1.270174e+15 -2.334240e+09

```

```

## [8331,] -4.544483e+09 -4.658075e+09 -2.119077e+13 -1.060409e+08
## [8332,] -1.454205e+06 -1.601662e+06 -1.052485e+11 -8.202063e+06
## [8333,] -5.448701e+04 -7.169731e+04 -4.505012e+10 -9.223741e+06
## [8334,] -1.205821e+08 -1.060674e+08 -2.801394e+11 -1.692063e+07
## [8335,] -3.268221e+11 -2.689042e+11 -1.677549e+15 -3.263631e+09
## [8336,] -2.415290e+11 -2.495679e+11 -1.270752e+15 -2.172469e+09
## [8337,] -4.212119e+09 -4.104136e+09 -2.119077e+13 -1.051804e+08
## [8338,] -1.658795e+06 -1.246368e+06 -1.052485e+11 -8.339331e+06
## [8339,] -1.901695e+05 -2.167075e+05 -4.509113e+10 -9.316692e+06
## [8340,] -1.138786e+08 -1.060989e+08 -2.803945e+11 -1.707136e+07
## [8341,] -3.162511e+11 -2.786554e+11 -1.679076e+15 -3.274113e+09
## [8342,] -2.281634e+11 -2.495664e+11 -1.271909e+15 -2.445038e+09
## [8343,] -4.321806e+09 -3.971417e+09 -2.121970e+13 -1.065197e+08
## [8344,] -1.325736e+06 -9.311412e+05 -1.053923e+11 -8.253721e+06
## [8345,] -6.519805e+04 -2.174195e+05 -4.511165e+10 -9.306386e+06
## [8346,] -1.182783e+08 -9.884744e+07 -2.805220e+11 -1.702826e+07
## [8347,] -3.397319e+11 -2.689018e+11 -1.679840e+15 -3.126410e+09
## [8348,] -2.577361e+11 -2.106873e+11 -1.272488e+15 -2.349647e+09
## [8349,] -4.715712e+09 -3.711965e+09 -2.121970e+13 -1.020311e+08
## [8350,] -1.175672e+06 -1.080636e+06 -1.053923e+11 -8.253721e+06
## [8351,] -7.560381e+04 -3.185441e+05 -4.511165e+10 -9.261543e+06
## [8352,] -1.238074e+08 -1.012412e+08 -2.805220e+11 -1.701839e+07
## [8353,] -3.236305e+11 -2.499175e+11 -1.679840e+15 -3.327571e+09
## [8354,] -2.479473e+11 -2.181998e+11 -1.272488e+15 -2.381208e+09
## [8355,] -4.802355e+09 -4.104430e+09 -2.121970e+13 -1.018198e+08
## [8356,] -1.672127e+06 -7.927710e+05 -1.053923e+11 -8.300926e+06
## [8357,] -1.057122e+04 -3.185441e+05 -4.511165e+10 -9.378360e+06
## [8358,] -1.128755e+08 -1.036636e+08 -2.805220e+11 -1.716681e+07
## [8359,] -3.110299e+11 -2.885802e+11 -1.680604e+15 -2.694229e+09
## [8360,] -2.528172e+11 -2.181990e+11 -1.273066e+15 -2.333871e+09
## [8361,] -4.963357e+09 -4.239732e+09 -2.122936e+13 -9.931609e+07
## [8362,] -2.013927e+06 -1.593935e+06 -1.054402e+11 -8.408817e+06
## [8363,] -1.361115e+05 -3.772644e+05 -4.513216e+10 -9.266195e+06
## [8364,] -1.093598e+08 -1.214392e+08 -2.806496e+11 -1.710378e+07
## [8365,] -3.386454e+11 -2.885802e+11 -1.680604e+15 -3.392310e+09
## [8366,] -2.643656e+11 -2.181983e+11 -1.273645e+15 -2.112045e+09
## [8367,] -4.212615e+09 -4.516817e+09 -2.123901e+13 -9.870643e+07
## [8368,] -1.866391e+06 -9.281941e+05 -1.054881e+11 -8.465247e+06
## [8369,] -6.103675e+04 -5.085080e+05 -4.515268e+10 -9.306731e+06
## [8370,] -1.177915e+08 -1.061462e+08 -2.807772e+11 -1.688317e+07
## [8371,] -3.195375e+11 -3.227064e+11 -2.951852e+13 -1.615201e+09
## [8372,] -2.665352e+11 -2.286231e+11 -2.236044e+13 -1.163519e+09
## [8373,] -4.106404e+09 -3.612490e+09 -3.728773e+11 -2.529867e+07
## [8374,] -1.721113e+07 -1.392023e+07 -1.851976e+09 -1.466301e+04
## [8375,] -6.093664e+06 -5.759300e+06 -7.927118e+08 -5.341716e+04
## [8376,] -6.374952e+07 -5.279977e+07 -4.929395e+09 -9.148175e+05
## [8377,] -3.508245e+11 -2.528407e+11 -2.951852e+13 -1.555826e+09

```

```

## [8378,] -2.224595e+11 -2.444006e+11 -2.236044e+13 -1.253746e+09
## [8379,] -4.255283e+09 -3.612490e+09 -3.728773e+11 -2.467089e+07
## [8380,] -1.522964e+07 -1.684185e+07 -1.851976e+09 -1.308278e+04
## [8381,] -6.790696e+06 -5.298002e+06 -7.927118e+08 -5.364416e+04
## [8382,] -6.279766e+07 -4.771153e+07 -4.929395e+09 -9.682237e+05
## [8383,] -3.142909e+11 -2.917216e+11 -2.951852e+13 -1.752859e+09
## [8384,] -2.557581e+11 -1.986473e+11 -2.236044e+13 -1.311848e+09
## [8385,] -4.296347e+09 -3.487771e+09 -3.728773e+11 -2.636250e+07
## [8386,] -1.847100e+07 -1.282946e+07 -1.851976e+09 -1.191600e+04
## [8387,] -7.022756e+06 -5.298002e+06 -7.927118e+08 -5.139586e+04
## [8388,] -6.241893e+07 -5.455313e+07 -4.929395e+09 -9.658702e+05
## [8389,] -3.301611e+11 -2.917216e+11 -2.951852e+13 -1.729525e+09
## [8390,] -2.435985e+11 -2.209310e+11 -2.243721e+13 -1.092640e+09
## [8391,] -3.986662e+09 -3.612582e+09 -3.741576e+11 -2.626296e+07
## [8392,] -1.764061e+07 -1.336370e+07 -1.858335e+09 -1.466746e+04
## [8393,] -8.868308e+06 -5.071130e+06 -7.954336e+08 -4.259146e+04
## [8394,] -6.186499e+07 -4.938971e+07 -4.946320e+09 -9.697281e+05
## [8395,] -3.453251e+11 -2.622996e+11 -2.961987e+13 -1.792031e+09
## [8396,] -2.325174e+11 -2.443998e+11 -2.243721e+13 -1.383251e+09
## [8397,] -4.504725e+09 -3.365332e+09 -3.741576e+11 -2.701925e+07
## [8398,] -1.708128e+07 -1.563379e+07 -1.858335e+09 -1.143656e+04
## [8399,] -6.735689e+06 -5.755633e+06 -7.954336e+08 -5.241458e+04
## [8400,] -6.112626e+07 -6.000872e+07 -4.963274e+09 -9.154520e+05
## [8401,] -3.300215e+11 -2.986787e+11 -1.682133e+15 -3.316563e+09
## [8402,] -2.391385e+11 -2.106852e+11 -1.274224e+15 -2.210011e+09
## [8403,] -4.788177e+09 -3.585800e+09 -2.124866e+13 -9.583128e+07
## [8404,] -1.252791e+06 -1.075875e+06 -1.055361e+11 -8.219790e+06
## [8405,] -6.637395e+04 -3.211370e+05 -4.517321e+10 -9.305407e+06
## [8406,] -1.185887e+08 -1.086421e+08 -2.809048e+11 -1.722552e+07
## [8407,] -3.506806e+11 -3.089526e+11 -1.682133e+15 -2.901075e+09
## [8408,] -2.495633e+11 -2.106852e+11 -1.274224e+15 -2.501209e+09
## [8409,] -4.773809e+09 -3.971803e+09 -2.125832e+13 -1.037919e+08
## [8410,] -1.216250e+06 -6.593060e+05 -1.056320e+11 -8.232835e+06
## [8411,] -1.074780e+05 -2.695276e+05 -4.521428e+10 -9.365709e+06
## [8412,] -1.292775e+08 -1.162876e+08 -2.811602e+11 -1.688234e+07
## [8413,] -3.310905e+11 -2.688971e+11 -1.684427e+15 -3.252207e+09
## [8414,] -2.585557e+11 -2.106831e+11 -1.275962e+15 -2.134190e+09
## [8415,] -4.817508e+09 -4.240230e+09 -2.127764e+13 -9.981008e+07
## [8416,] -1.349633e+06 -1.584303e+06 -1.056800e+11 -8.323062e+06
## [8417,] -8.091280e+04 -4.450179e+05 -4.523482e+10 -9.355376e+06
## [8418,] -1.134823e+08 -1.013335e+08 -2.812879e+11 -1.804879e+07
## [8419,] -3.440862e+11 -3.089500e+11 -1.684427e+15 -3.556657e+09
## [8420,] -2.415222e+11 -2.033023e+11 -1.275962e+15 -2.775884e+09
## [8421,] -4.659118e+09 -4.105115e+09 -2.128731e+13 -1.074965e+08
## [8422,] -1.526591e+06 -5.415028e+05 -1.057280e+11 -8.284484e+06
## [8423,] -1.217935e+05 -4.460380e+05 -4.525536e+10 -9.276190e+06
## [8424,] -1.152904e+08 -1.137537e+08 -2.814157e+11 -1.696383e+07

```

```

## [8425,] -2.966415e+11 -3.193967e+11 -1.685192e+15 -3.125812e+09
## [8426,] -2.544467e+11 -2.033016e+11 -1.276542e+15 -2.202104e+09
## [8427,] -4.573783e+09 -3.972092e+09 -2.128731e+13 -1.049079e+08
## [8428,] -1.561761e+06 -7.819225e+05 -1.057760e+11 -8.422544e+06
## [8429,] -2.278166e+05 -3.254818e+05 -4.527591e+10 -9.334726e+06
## [8430,] -1.077259e+08 -1.137700e+08 -2.815435e+11 -1.731695e+07
## [8431,] -3.451787e+11 -3.300171e+11 -1.685957e+15 -3.230808e+09
## [8432,] -2.391348e+11 -2.660318e+11 -1.277121e+15 -2.582615e+09
## [8433,] -4.573990e+09 -4.659327e+09 -2.130664e+13 -9.694888e+07
## [8434,] -1.692982e+06 -6.543516e+05 -1.058241e+11 -8.288989e+06
## [8435,] -1.716373e+05 -2.238802e+05 -4.529647e+10 -9.264585e+06
## [8436,] -1.171293e+08 -1.013797e+08 -2.816713e+11 -1.652585e+07
## [8437,] -3.310879e+11 -2.688947e+11 -1.686722e+15 -3.209566e+09
## [8438,] -2.415200e+11 -2.415200e+11 -1.277701e+15 -1.830820e+09
## [8439,] -4.227008e+09 -4.659431e+09 -2.131631e+13 -1.150515e+08
## [8440,] -1.650459e+06 -5.370137e+05 -1.059201e+11 -8.496616e+06
## [8441,] -9.832276e+04 -2.260548e+05 -4.535816e+10 -9.201003e+06
## [8442,] -1.143465e+08 -1.038504e+08 -2.820549e+11 -1.732247e+07
## [8443,] -3.215028e+11 -2.786449e+11 -1.689020e+15 -3.369655e+09
## [8444,] -2.487451e+11 -2.181898e+11 -1.280602e+15 -2.340754e+09
## [8445,] -4.876654e+09 -4.241026e+09 -2.135502e+13 -1.005610e+08
## [8446,] -1.625502e+06 -9.106096e+05 -1.060643e+11 -8.354060e+06
## [8447,] -9.928350e+04 -4.532113e+05 -4.539931e+10 -9.477194e+06
## [8448,] -1.203419e+08 -1.014566e+08 -2.823108e+11 -1.703755e+07
## [8449,] -2.996891e+11 -3.089433e+11 -1.690552e+15 -3.347873e+09
## [8450,] -2.359675e+11 -2.336091e+11 -1.280602e+15 -2.427890e+09
## [8451,] -4.746084e+09 -4.241126e+09 -2.136470e+13 -1.033240e+08
## [8452,] -1.421221e+06 -1.215846e+06 -1.061124e+11 -8.324015e+06
## [8453,] -8.487246e+04 -3.316137e+05 -4.541989e+10 -9.322450e+06
## [8454,] -1.180072e+08 -1.038972e+08 -2.824388e+11 -1.703398e+07
## [8455,] -3.353867e+11 -2.688900e+11 -1.691318e+15 -3.166948e+09
## [8456,] -2.084488e+11 -2.415155e+11 -1.281183e+15 -2.582072e+09
## [8457,] -4.688576e+09 -3.972862e+09 -2.136470e+13 -1.056778e+08
## [8458,] -1.859632e+06 -6.469552e+05 -1.061124e+11 -8.393013e+06
## [8459,] -1.880031e+05 -1.837730e+05 -4.541989e+10 -9.304484e+06
## [8460,] -1.222206e+08 -1.088493e+08 -2.825668e+11 -1.699092e+07
## [8461,] -2.956196e+11 -3.408049e+11 -1.692085e+15 -3.390975e+09
## [8462,] -2.519907e+11 -2.181883e+11 -1.281763e+15 -2.475938e+09
## [8463,] -4.731779e+09 -3.842111e+09 -2.137438e+13 -1.048344e+08
## [8464,] -1.528026e+06 -1.055366e+06 -1.061605e+11 -8.371526e+06
## [8465,] -1.097849e+05 -2.783258e+05 -4.544048e+10 -9.348104e+06
## [8466,] -1.193274e+08 -9.909070e+07 -2.825668e+11 -1.717888e+07
## [8467,] -2.986679e+11 -2.986679e+11 -1.692085e+15 -3.326161e+09
## [8468,] -2.320413e+11 -2.258315e+11 -1.282344e+15 -2.557245e+09
## [8469,] -4.378847e+09 -4.241424e+09 -2.139375e+13 -1.031578e+08
## [8470,] -1.636744e+06 -9.047855e+05 -1.062567e+11 -8.406300e+06
## [8471,] -7.507528e+04 -2.304355e+05 -4.548166e+10 -9.381477e+06

```



```

## [8472,] -1.170192e+08 -1.088812e+08 -2.828229e+11 -1.715188e+07
## [8473,] -3.364644e+11 -3.089399e+11 -1.693619e+15 -3.114461e+09
## [8474,] -2.536205e+11 -1.960450e+11 -1.282925e+15 -2.348313e+09
## [8475,] -4.560772e+09 -4.378847e+09 -2.139375e+13 -1.014640e+08
## [8476,] -1.598801e+06 -1.052228e+06 -1.062567e+11 -8.401976e+06
## [8477,] -1.242484e+05 -2.799407e+05 -4.548166e+10 -9.369460e+06
## [8478,] -1.126594e+08 -1.039439e+08 -2.828229e+11 -1.723126e+07
## [8479,] -3.506670e+11 -2.499038e+11 -1.693619e+15 -3.093691e+09
## [8480,] -2.552572e+11 -2.258308e+11 -1.282925e+15 -2.316972e+09
## [8481,] -4.775287e+09 -4.378847e+09 -2.139375e+13 -9.999338e+07
## [8482,] -1.598801e+06 -1.561303e+06 -1.062567e+11 -8.419279e+06
## [8483,] -9.812160e+04 -3.342591e+05 -4.548166e+10 -9.324465e+06
## [8484,] -1.172948e+08 -1.015336e+08 -2.829510e+11 -1.674436e+07
## [8485,] -3.662896e+11 -2.885655e+11 -1.694386e+15 -2.899758e+09
## [8486,] -2.343895e+11 -2.415117e+11 -1.284087e+15 -2.316825e+09
## [8487,] -4.575127e+09 -4.106388e+09 -2.141314e+13 -1.079200e+08
## [8488,] -1.576157e+06 -1.049095e+06 -1.063530e+11 -8.419492e+06
## [8489,] -1.053543e+05 -2.319051e+05 -4.552287e+10 -9.363801e+06
## [8490,] -1.186276e+08 -1.039906e+08 -2.832073e+11 -1.689431e+07
## [8491,] -3.484602e+11 -2.593065e+11 -1.695921e+15 -3.083077e+09
## [8492,] -2.296998e+11 -2.106726e+11 -1.284669e+15 -2.193495e+09
## [8493,] -4.674880e+09 -3.973440e+09 -2.142283e+13 -9.630608e+07
## [8494,] -1.630884e+06 -7.644530e+05 -1.064011e+11 -8.337566e+06
## [8495,] -1.156437e+05 -1.123313e+05 -4.554348e+10 -9.455771e+06
## [8496,] -1.168265e+08 -1.114574e+08 -2.833355e+11 -1.698926e+07
## [8497,] -3.321499e+11 -2.786368e+11 -1.696688e+15 -2.809881e+09
## [8498,] -2.471227e+11 -2.106712e+11 -1.285832e+15 -2.475406e+09
## [8499,] -4.790398e+09 -4.106780e+09 -2.145193e+13 -1.043173e+08
## [8500,] -1.625034e+06 -6.359393e+05 -1.065457e+11 -8.368060e+06
## [8501,] -1.854672e+05 -3.395816e+05 -4.560534e+10 -9.268660e+06
## [8502,] -1.079798e+08 -1.064928e+08 -2.835920e+11 -1.762925e+07
## [8503,] -3.236087e+11 -2.593034e+11 -1.698992e+15 -3.271840e+09
## [8504,] -2.585409e+11 -2.258257e+11 -1.286995e+15 -2.193209e+09
## [8505,] -4.761571e+09 -3.973825e+09 -2.146163e+13 -1.095275e+08
## [8506,] -1.367946e+06 -5.214491e+05 -1.065939e+11 -8.094293e+06
## [8507,] -1.177319e+05 -2.856295e+05 -4.562597e+10 -9.288259e+06
## [8508,] -1.062618e+08 -1.115058e+08 -2.837203e+11 -1.812139e+07
## [8509,] -3.799465e+11 -2.786344e+11 -1.698992e+15 -3.588344e+09
## [8510,] -2.351711e+11 -2.258249e+11 -1.287578e+15 -2.262049e+09
## [8511,] -5.054951e+09 -4.805109e+09 -2.147134e+13 -1.007450e+08
## [8512,] -1.197380e+06 -1.039724e+06 -1.066421e+11 -8.472150e+06
## [8513,] -1.399381e+05 -4.666850e+05 -4.566724e+10 -9.291594e+06
## [8514,] -1.115380e+08 -9.925812e+07 -2.839769e+11 -1.735813e+07
## [8515,] -3.332206e+11 -2.593018e+11 -1.700529e+15 -3.165916e+09
## [8516,] -2.439042e+11 -2.106684e+11 -1.288160e+15 -2.355514e+09
## [8517,] -4.922000e+09 -4.242320e+09 -2.148105e+13 -9.763316e+07
## [8518,] -1.560845e+06 -6.310737e+05 -1.067385e+11 -8.377116e+06

```

```

## [8519,] -9.676677e+04 -2.880850e+05 -4.568788e+10 -9.434372e+06
## [8520,] -1.164086e+08 -1.065559e+08 -2.841053e+11 -1.725497e+07
## [8521,] -2.885581e+11 -3.299996e+11 -1.701298e+15 -3.239671e+09
## [8522,] -2.560698e+11 -2.258235e+11 -1.288742e+15 -2.647421e+09
## [8523,] -4.819948e+09 -4.379960e+09 -2.150047e+13 -1.005810e+08
## [8524,] -1.830569e+06 -7.538007e+05 -1.067867e+11 -8.446440e+06
## [8525,] -1.930595e+05 -1.523562e+05 -4.570853e+10 -9.387891e+06
## [8526,] -1.153945e+08 -1.115703e+08 -2.842337e+11 -1.700376e+07
## [8527,] -3.332188e+11 -2.688789e+11 -1.702067e+15 -3.155265e+09
## [8528,] -2.351689e+11 -2.258228e+11 -1.289324e+15 -2.434760e+09
## [8529,] -4.120696e+09 -5.100026e+09 -2.150047e+13 -1.046093e+08
## [8530,] -1.995578e+06 -8.888655e+05 -1.067867e+11 -8.507239e+06
## [8531,] -1.008110e+05 -2.897279e+05 -4.572918e+10 -9.516265e+06
## [8532,] -1.156681e+08 -1.041310e+08 -2.843621e+11 -1.774834e+07
## [8533,] -3.321428e+11 -2.885564e+11 -1.702836e+15 -2.898852e+09
## [8534,] -2.463115e+11 -1.889196e+11 -1.289907e+15 -2.564449e+09
## [8535,] -4.407914e+09 -4.380162e+09 -2.151990e+13 -9.852293e+07
## [8536,] -1.727035e+06 -1.031947e+06 -1.068833e+11 -8.577205e+06
## [8537,] -2.352880e+05 -3.458442e+05 -4.574984e+10 -9.358199e+06
## [8538,] -1.121088e+08 -1.066033e+08 -2.844906e+11 -1.711524e+07
## [8539,] -3.172727e+11 -2.786296e+11 -1.703605e+15 -3.030703e+09
## [8540,] -2.399108e+11 -2.181769e+11 -1.291072e+15 -2.207928e+09
## [8541,] -4.297533e+09 -4.107563e+09 -2.152962e+13 -1.102981e+08
## [8542,] -1.220096e+06 -1.355463e+06 -1.069315e+11 -8.308607e+06
## [8543,] -1.836027e+05 -1.553534e+05 -4.581184e+10 -9.495787e+06
## [8544,] -1.201522e+08 -1.041933e+08 -2.848761e+11 -1.695636e+07
## [8545,] -3.299943e+11 -2.885531e+11 -1.705914e+15 -2.888497e+09
## [8546,] -2.479214e+11 -2.415012e+11 -1.292238e+15 -2.354995e+09
## [8547,] -4.676239e+09 -4.380465e+09 -2.154906e+13 -1.017105e+08
## [8548,] -1.512499e+06 -7.471809e+05 -1.070281e+11 -8.481690e+06
## [8549,] -8.475675e+04 -1.964315e+05 -4.581184e+10 -9.450489e+06
## [8550,] -1.096691e+08 -1.042245e+08 -2.851332e+11 -1.755559e+07
## [8551,] -3.321375e+11 -2.885515e+11 -1.707454e+15 -3.217793e+09
## [8552,] -2.585324e+11 -2.181741e+11 -1.293405e+15 -2.177255e+09
## [8553,] -4.777188e+09 -3.974885e+09 -2.156852e+13 -1.013194e+08
## [8554,] -1.620673e+06 -1.180715e+06 -1.071247e+11 -8.464536e+06
## [8555,] -8.000249e+04 -2.946846e+05 -4.585319e+10 -9.453853e+06
## [8556,] -1.204483e+08 -9.939520e+07 -2.851332e+11 -1.707756e+07
## [8557,] -3.047944e+11 -3.193717e+11 -1.707454e+15 -3.367526e+09
## [8558,] -2.503492e+11 -2.032816e+11 -1.293405e+15 -2.378524e+09
## [8559,] -4.733882e+09 -4.520310e+09 -2.156852e+13 -9.735560e+07
## [8560,] -1.637761e+06 -7.432231e+05 -1.071730e+11 -8.391029e+06
## [8561,] -1.241084e+05 -4.771836e+05 -4.587388e+10 -9.509920e+06
## [8562,] -1.173335e+08 -1.066980e+08 -2.852619e+11 -1.730220e+07
## [8563,] -3.396989e+11 -2.786247e+11 -1.708224e+15 -3.154579e+09
## [8564,] -2.281357e+11 -2.414990e+11 -1.293988e+15 -2.482418e+09
## [8565,] -4.676552e+09 -4.380769e+09 -2.157825e+13 -1.013348e+08

```

```

## [8566,] -1.562296e+06 -8.773761e+05 -1.071730e+11 -8.586589e+06
## [8567,] -1.772156e+05 -2.445851e+05 -4.587388e+10 -9.443471e+06
## [8568,] -1.152687e+08 -9.941044e+07 -2.852619e+11 -1.704433e+07
## [8569,] -3.235983e+11 -2.786247e+11 -1.708224e+15 -2.948668e+09
## [8570,] -2.181733e+11 -2.258170e+11 -1.293988e+15 -2.833517e+09
## [8571,] -4.762836e+09 -4.108053e+09 -2.157825e+13 -1.055930e+08
## [8572,] -1.734595e+06 -1.915905e+06 -1.071730e+11 -8.516799e+06
## [8573,] -2.955148e+05 -8.899965e+04 -4.587388e+10 -9.476667e+06
## [8574,] -1.196783e+08 -1.066980e+08 -2.852619e+11 -1.720279e+07
## [8575,] -3.640202e+11 -3.193708e+11 -1.708224e+15 -2.908320e+09
## [8576,] -3.167534e+11 -1.889149e+11 -1.293988e+15 -2.072495e+09
## [8577,] -4.422432e+09 -4.662248e+09 -2.157825e+13 -1.043064e+08
## [8578,] -1.541810e+06 -8.759452e+05 -1.072214e+11 -8.451735e+06
## [8579,] -1.947958e+05 -1.991502e+05 -4.589457e+10 -9.421045e+06
## [8580,] -1.134934e+08 -1.168321e+08 -2.853905e+11 -1.729860e+07
## [8581,] -3.089220e+11 -3.193691e+11 -1.709765e+15 -3.498308e+09
## [8582,] -2.367376e+11 -2.258155e+11 -1.295156e+15 -2.215054e+09
## [8583,] -4.691087e+09 -4.243515e+09 -2.159771e+13 -1.082218e+08
## [8584,] -1.870652e+06 -7.405904e+05 -1.072697e+11 -8.378284e+06
## [8585,] -1.363822e+05 -4.147615e+05 -4.593596e+10 -9.328265e+06
## [8586,] -1.150611e+08 -1.018572e+08 -2.856479e+11 -1.741104e+07
## [8587,] -3.183157e+11 -2.786223e+11 -1.710536e+15 -2.978862e+09
## [8588,] -2.503454e+11 -2.335892e+11 -1.296324e+15 -2.378151e+09
## [8589,] -4.591471e+09 -3.844480e+09 -2.161719e+13 -8.756956e+07
## [8590,] -1.031575e+06 -1.016481e+06 -1.073665e+11 -8.534648e+06
## [8591,] -3.934977e+04 -9.083266e+04 -4.595667e+10 -9.589451e+06
## [8592,] -1.192386e+08 -1.143249e+08 -2.859054e+11 -1.736390e+07
## [8593,] -3.162142e+11 -2.688686e+11 -1.712078e+15 -2.150719e+09
## [8594,] -2.406986e+11 -2.335885e+11 -1.296908e+15 -2.696631e+09
## [8595,] -4.938308e+09 -3.715877e+09 -2.162693e+13 -1.014118e+08
## [8596,] -1.607083e+06 -6.129942e+05 -1.074632e+11 -8.482651e+06
## [8597,] -1.608220e+05 -2.025748e+05 -4.599809e+10 -9.465633e+06
## [8598,] -1.143413e+08 -1.143413e+08 -2.860342e+11 -1.704267e+07
## [8599,] -3.685271e+11 -2.885457e+11 -1.712849e+15 -2.938058e+09
## [8600,] -2.463017e+11 -2.258126e+11 -1.297492e+15 -2.425707e+09
## [8601,] -4.997432e+09 -4.108641e+09 -2.163667e+13 -9.995680e+07
## [8602,] -1.965467e+06 -8.688081e+05 -1.074632e+11 -8.543580e+06
## [8603,] -1.077186e+05 -3.013589e+05 -4.601880e+10 -9.431124e+06
## [8604,] -1.164142e+08 -1.019189e+08 -2.861631e+11 -1.748656e+07
## [8605,] -3.342824e+11 -2.885449e+11 -1.713620e+15 -3.174949e+09
## [8606,] -2.359452e+11 -2.181684e+11 -1.298076e+15 -2.612886e+09
## [8607,] -4.634538e+09 -4.381578e+09 -2.165616e+13 -1.100671e+08
## [8608,] -1.419909e+06 -8.659614e+05 -1.075600e+11 -8.327190e+06
## [8609,] -1.319934e+05 -4.070810e+05 -4.603953e+10 -9.447877e+06
## [8610,] -1.213890e+08 -1.169478e+08 -2.862919e+11 -1.722373e+07
## [8611,] -3.418681e+11 -2.786183e+11 -1.714392e+15 -3.132990e+09
## [8612,] -2.383145e+11 -2.106557e+11 -1.298661e+15 -2.094152e+09

```

```

## [8613,] -4.763680e+09 -4.381578e+09 -2.165616e+13 -9.625519e+07
## [8614,] -1.547052e+06 -3.997427e+05 -1.075600e+11 -8.508951e+06
## [8615,] -1.255013e+05 -2.046436e+05 -4.606025e+10 -9.582732e+06
## [8616,] -1.123517e+08 -9.717408e+07 -2.864208e+11 -1.696289e+07
## [8617,] -3.027313e+11 -3.089161e+11 -1.715164e+15 -3.608783e+09
## [8618,] -2.519676e+11 -2.181669e+11 -1.299246e+15 -2.713188e+09
## [8619,] -4.663292e+09 -4.381780e+09 -2.167566e+13 -1.010674e+08
## [8620,] -6.677712e+05 -1.506415e+06 -1.076569e+11 -8.444024e+06
## [8621,] -1.331062e+05 -3.038810e+05 -4.608098e+10 -9.469348e+06
## [8622,] -1.164802e+08 -1.068717e+08 -2.866787e+11 -1.750212e+07
## [8623,] -3.225293e+11 -3.628864e+11 -1.716708e+15 -3.366462e+09
## [8624,] -2.471037e+11 -2.181655e+11 -1.300415e+15 -2.497771e+09
## [8625,] -4.865777e+09 -3.976138e+09 -2.169517e+13 -9.631517e+07
## [8626,] -1.448313e+06 -6.058359e+05 -1.077538e+11 -8.803400e+06
## [8627,] -1.732111e+05 -2.545093e+05 -4.614321e+10 -9.556116e+06
## [8628,] -1.178250e+08 -1.020270e+08 -2.870657e+11 -1.746125e+07
## [8629,] -3.407737e+11 -2.592831e+11 -1.719026e+15 -2.837240e+09
## [8630,] -2.511501e+11 -2.032713e+11 -1.302171e+15 -2.441110e+09
## [8631,] -4.437789e+09 -3.845428e+09 -2.171469e+13 -1.101634e+08
## [8632,] -1.610494e+06 -1.001131e+06 -1.078507e+11 -8.527006e+06
## [8633,] -1.178997e+05 -9.549691e+04 -4.616396e+10 -9.551741e+06
## [8634,] -1.181182e+08 -1.119581e+08 -2.873238e+11 -1.720495e+07
## [8635,] -3.037518e+11 -2.986370e+11 -1.720571e+15 -3.366019e+09
## [8636,] -2.544112e+11 -2.181619e+11 -1.303342e+15 -2.424954e+09
## [8637,] -4.550254e+09 -4.382387e+09 -2.173422e+13 -9.637517e+07
## [8638,] -1.839430e+06 -8.532092e+05 -1.079962e+11 -8.689250e+06
## [8639,] -1.194792e+05 -3.098068e+05 -4.622624e+10 -9.605407e+06
## [8640,] -1.168377e+08 -1.094561e+08 -2.874530e+11 -1.749042e+07
## [8641,] -3.257076e+11 -2.986361e+11 -1.721345e+15 -3.237410e+09
## [8642,] -2.487146e+11 -2.106494e+11 -1.303928e+15 -2.521694e+09
## [8643,] -4.550357e+09 -3.976620e+09 -2.174399e+13 -1.037174e+08
## [8644,] -1.368447e+06 -5.999028e+05 -1.079962e+11 -8.527328e+06
## [8645,] -1.031241e+05 -3.668244e+05 -4.622624e+10 -9.484158e+06
## [8646,] -1.181348e+08 -1.069665e+08 -2.874530e+11 -1.751044e+07
## [8647,] -3.225241e+11 -3.193561e+11 -1.721345e+15 -3.153119e+09
## [8648,] -2.422841e+11 -2.414862e+11 -1.303928e+15 -2.337797e+09
## [8649,] -4.607014e+09 -4.522160e+09 -2.174399e+13 -1.011750e+08
## [8650,] -1.880112e+06 -7.209939e+05 -1.079962e+11 -8.584046e+06
## [8651,] -2.380687e+05 -3.668244e+05 -4.622624e+10 -9.453966e+06
## [8652,] -1.171131e+08 -9.730971e+07 -2.875821e+11 -1.720770e+07
## [8653,] -3.089084e+11 -3.299758e+11 -1.722118e+15 -3.344248e+09
## [8654,] -2.495229e+11 -2.032679e+11 -1.305099e+15 -1.848614e+09
## [8655,] -4.635683e+09 -3.845902e+09 -2.176353e+13 -1.039619e+08
## [8656,] -1.617795e+06 -9.919772e+05 -1.081418e+11 -8.562531e+06
## [8657,] -1.279932e+05 -3.696064e+05 -4.628856e+10 -9.619622e+06
## [8658,] -1.102566e+08 -1.045524e+08 -2.878405e+11 -1.770039e+07
## [8659,] -3.289042e+11 -2.986336e+11 -1.723665e+15 -3.563128e+09

```

```

## [8660,] -2.375142e+11 -2.258024e+11 -1.305685e+15 -2.670232e+09
## [8661,] -4.438400e+09 -3.976909e+09 -2.177330e+13 -1.069872e+08
## [8662,] -1.083116e+06 -9.919772e+05 -1.081418e+11 -8.371562e+06
## [8663,] -9.229394e+04 -3.696064e+05 -4.628856e+10 -9.471088e+06
## [8664,] -1.163704e+08 -1.021196e+08 -2.878405e+11 -1.755971e+07
## [8665,] -3.364298e+11 -2.786086e+11 -1.723665e+15 -2.916730e+09
## [8666,] -2.576918e+11 -2.258024e+11 -1.305685e+15 -2.823264e+09
## [8667,] -4.822920e+09 -4.110012e+09 -2.177330e+13 -1.089448e+08
## [8668,] -1.243912e+06 -7.171061e+05 -1.081418e+11 -8.619366e+06
## [8669,] -1.110443e+05 -3.123640e+05 -4.628856e+10 -9.543695e+06
## [8670,] -1.187056e+08 -1.070139e+08 -2.878405e+11 -1.747957e+07
## [8671,] -3.235809e+11 -2.786086e+11 -1.723665e+15 -3.311812e+09
## [8672,] -2.390982e+11 -2.106473e+11 -1.305685e+15 -2.521463e+09
## [8673,] -6.170576e+09 -3.845996e+09 -2.177330e+13 -9.459400e+07
## [8674,] -2.062100e+06 -2.083574e+06 -1.081418e+11 -8.606233e+06
## [8675,] -1.576144e+05 -4.316622e+05 -4.628856e+10 -9.513408e+06
## [8676,] -1.210807e+08 -1.128002e+08 -2.879697e+11 -1.748596e+07
## [8677,] -3.068374e+11 -3.089059e+11 -1.724439e+15 -3.441697e+09
## [8678,] -2.651564e+11 -1.889010e+11 -1.306272e+15 -2.252018e+09
## [8679,] -4.245406e+09 -4.110110e+09 -2.178308e+13 -1.102757e+08
## [8680,] -1.769063e+06 -1.307848e+06 -1.082390e+11 -8.606449e+06
## [8681,] -1.707773e+05 -3.140746e+05 -4.633013e+10 -9.534953e+06
## [8682,] -1.164034e+08 -1.021505e+08 -2.880990e+11 -1.720327e+07
## [8683,] -3.141067e+11 -3.193518e+11 -1.725213e+15 -3.474491e+09
## [8684,] -2.487108e+11 -2.106459e+11 -1.306858e+15 -2.562205e+09
## [8685,] -4.693286e+09 -3.977198e+09 -2.180264e+13 -8.784150e+07
## [8686,] -1.392725e+06 -5.928217e+05 -1.082875e+11 -8.571585e+06
## [8687,] -1.296387e+05 -5.017737e+05 -4.635092e+10 -9.557864e+06
## [8688,] -1.138519e+08 -1.120713e+08 -2.882283e+11 -1.750875e+07
## [8689,] -3.310431e+11 -2.786062e+11 -1.725988e+15 -3.300831e+09
## [8690,] -2.422788e+11 -2.257995e+11 -1.308031e+15 -2.360869e+09
## [8691,] -4.693391e+09 -3.717647e+09 -2.181242e+13 -1.048956e+08
## [8692,] -1.390922e+06 -8.433562e+05 -1.083361e+11 -8.576060e+06
## [8693,] -1.164142e+05 -2.151452e+05 -4.637172e+10 -9.580802e+06
## [8694,] -1.172124e+08 -1.070772e+08 -2.883576e+11 -1.745510e+07
## [8695,] -3.321155e+11 -2.885310e+11 -1.726762e+15 -2.977110e+09
## [8696,] -2.454835e+11 -2.003492e+11 -1.308031e+15 -2.360869e+09
## [8697,] -4.969819e+09 -4.110404e+09 -2.181242e+13 -9.897854e+07
## [8698,] -1.171632e+06 -1.304355e+06 -1.083361e+11 -8.089563e+06
## [8699,] -8.294242e+04 -3.166493e+05 -4.639252e+10 -9.658577e+06
## [8700,] -1.216754e+08 -1.021968e+08 -2.884870e+11 -1.717267e+07
## [8701,] -3.205903e+11 -2.719321e+11 -2.972140e+13 -1.607596e+09
## [8702,] -2.533011e+11 -1.986459e+11 -2.251411e+13 -1.174509e+09
## [8703,] -4.160432e+09 -3.612674e+09 -3.754401e+11 -2.846043e+07
## [8704,] -1.801201e+07 -1.562775e+07 -1.864705e+09 -9.606500e+03
## [8705,] -6.702334e+06 -5.064249e+06 -8.008911e+08 -5.891998e+04
## [8706,] -5.946561e+07 -5.110782e+07 -4.980257e+09 -9.192080e+05

```

```

## [8707,] -3.290883e+11 -2.719313e+11 -2.982310e+13 -1.482995e+09
## [8708,] -2.484249e+11 -2.059417e+11 -2.259115e+13 -1.141334e+09
## [8709,] -4.269249e+09 -3.365509e+09 -3.767247e+11 -2.315800e+07
## [8710,] -1.731603e+07 -1.384757e+07 -1.871085e+09 -1.005365e+04
## [8711,] -6.804323e+06 -4.845859e+06 -8.008911e+08 -5.586471e+04
## [8712,] -6.170089e+07 -4.941119e+07 -4.980257e+09 -8.450469e+05
## [8713,] -3.280199e+11 -2.528384e+11 -2.982310e+13 -1.329279e+09
## [8714,] -2.476170e+11 -2.059417e+11 -2.259115e+13 -1.377110e+09
## [8715,] -4.187579e+09 -3.365509e+09 -3.767247e+11 -2.802358e+07
## [8716,] -1.744039e+07 -1.335252e+07 -1.871085e+09 -1.066064e+04
## [8717,] -6.702334e+06 -5.064249e+06 -8.008911e+08 -4.890733e+04
## [8718,] -6.076451e+07 -4.774320e+07 -4.980257e+09 -9.539486e+05
## [8719,] -3.216457e+11 -2.622980e+11 -2.982310e+13 -1.690794e+09
## [8720,] -2.607022e+11 -1.986452e+11 -2.259115e+13 -1.097908e+09
## [8721,] -4.269249e+09 -3.488042e+09 -3.767247e+11 -2.346119e+07
## [8722,] -2.042351e+07 -1.281304e+07 -1.871085e+09 -1.933280e+04
## [8723,] -7.219980e+06 -5.064249e+06 -8.008911e+08 -5.609684e+04
## [8724,] -5.619001e+07 -6.002056e+07 -4.980257e+09 -9.633215e+05
## [8725,] -3.530334e+11 -2.719313e+11 -2.982310e+13 -1.592622e+09
## [8726,] -2.524845e+11 -1.986452e+11 -2.259115e+13 -1.401297e+09
## [8727,] -4.241938e+09 -3.868786e+09 -3.767247e+11 -2.285678e+07
## [8728,] -1.725402e+07 -1.446487e+07 -1.871085e+09 -1.892029e+04
## [8729,] -6.727759e+06 -5.287454e+06 -8.008911e+08 -5.939724e+04
## [8730,] -6.551801e+07 -5.283309e+07 -4.980257e+09 -8.738895e+05
## [8731,] -3.353451e+11 -2.592746e+11 -1.727537e+15 -3.618518e+09
## [8732,] -2.430773e+11 -2.257988e+11 -1.308618e+15 -2.720370e+09
## [8733,] -4.765474e+09 -4.383298e+09 -2.182220e+13 -9.651025e+07
## [8734,] -1.406755e+06 -4.814158e+05 -1.083847e+11 -8.646200e+06
## [8735,] -1.237426e+05 -2.158546e+05 -4.639252e+10 -9.670778e+06
## [8736,] -1.164693e+08 -1.046462e+08 -2.886164e+11 -1.751792e+07
## [8737,] -3.583941e+11 -3.193475e+11 -1.729086e+15 -3.079429e+09
## [8738,] -2.752711e+11 -2.032623e+11 -1.309792e+15 -2.267005e+09
## [8739,] -4.137584e+09 -4.110698e+09 -2.184178e+13 -1.047282e+08
## [8740,] -1.719572e+06 -7.080755e+05 -1.084819e+11 -8.402543e+06
## [8741,] -2.272480e+05 -5.072011e+05 -4.645495e+10 -9.617982e+06
## [8742,] -1.222547e+08 -9.983755e+07 -2.888752e+11 -1.712228e+07
## [8743,] -3.256980e+11 -2.786022e+11 -1.729861e+15 -2.946345e+09
## [8744,] -2.651508e+11 -2.106417e+11 -1.310379e+15 -2.085338e+09
## [8745,] -4.495177e+09 -4.246103e+09 -2.185157e+13 -9.779339e+07
## [8746,] -1.490999e+06 -9.798376e+05 -1.085306e+11 -8.458952e+06
## [8747,] -7.103593e+04 -3.200986e+05 -4.647577e+10 -9.683690e+06
## [8748,] -1.157615e+08 -1.034879e+08 -2.891342e+11 -1.760372e+07
## [8749,] -3.267610e+11 -3.037400e+11 -1.731412e+15 -3.278834e+09
## [8750,] -2.462835e+11 -2.032603e+11 -1.311554e+15 -2.415920e+09
## [8751,] -4.766001e+09 -3.977873e+09 -2.187116e+13 -1.049895e+08
## [8752,] -1.413579e+06 -8.335605e+05 -1.086765e+11 -8.712764e+06
## [8753,] -8.275767e+04 -3.218302e+05 -4.651742e+10 -9.538039e+06

```

```

## [8754,] -1.157780e+08 -9.750580e+07 -2.892637e+11 -1.758001e+07
## [8755,] -3.429382e+11 -2.986244e+11 -1.732188e+15 -2.865713e+09
## [8756,] -2.351400e+11 -2.335693e+11 -1.312141e+15 -2.212969e+09
## [8757,] -4.679793e+09 -4.246402e+09 -2.188096e+13 -9.598412e+07
## [8758,] -1.413579e+06 -1.128173e+06 -1.086765e+11 -8.730384e+06
## [8759,] -1.101092e+05 -2.685764e+05 -4.651742e+10 -9.687095e+06
## [8760,] -1.186280e+08 -1.096800e+08 -2.892637e+11 -1.719084e+07
## [8761,] -3.203983e+11 -2.785997e+11 -1.732188e+15 -3.193916e+09
## [8762,] -2.543997e+11 -2.032596e+11 -1.312141e+15 -2.391982e+09
## [8763,] -4.751666e+09 -3.977969e+09 -2.188096e+13 -9.536986e+07
## [8764,] -1.559012e+06 -1.467282e+06 -1.086765e+11 -8.651234e+06
## [8765,] -7.185289e+04 -3.798974e+05 -4.651742e+10 -9.626117e+06
## [8766,] -1.215295e+08 -9.752089e+07 -2.893932e+11 -1.739624e+07
## [8767,] -3.299636e+11 -2.688472e+11 -1.732964e+15 -2.480399e+09
## [8768,] -2.511363e+11 -2.106389e+11 -1.312729e+15 -2.439751e+09
## [8769,] -4.708581e+09 -3.978066e+09 -2.189076e+13 -1.043783e+08
## [8770,] -1.613444e+06 -7.016601e+05 -1.087252e+11 -8.576919e+06
## [8771,] -1.078792e+05 -3.235665e+05 -4.655910e+10 -9.788485e+06
## [8772,] -1.241992e+08 -1.097120e+08 -2.895228e+11 -1.730292e+07
## [8773,] -3.639898e+11 -2.785981e+11 -1.733740e+15 -3.027423e+09
## [8774,] -2.242538e+11 -2.414742e+11 -1.313317e+15 -2.455728e+09
## [8775,] -4.751877e+09 -3.591935e+09 -2.190056e+13 -1.018431e+08
## [8776,] -8.158515e+05 -3.750150e+05 -1.088226e+11 -8.507382e+06
## [8777,] -1.910903e+05 -4.458339e+05 -4.657994e+10 -9.643393e+06
## [8778,] -1.173779e+08 -9.520160e+07 -2.896524e+11 -1.758920e+07
## [8779,] -2.935506e+11 -3.407559e+11 -1.734516e+15 -2.966116e+09
## [8780,] -2.609857e+11 -2.032575e+11 -1.313905e+15 -2.328706e+09
## [8781,] -4.766423e+09 -4.384209e+09 -2.191036e+13 -1.001755e+08
## [8782,] -1.321024e+06 -1.461734e+06 -1.088226e+11 -8.647171e+06
## [8783,] -1.321711e+05 -2.222922e+05 -4.657994e+10 -9.600785e+06
## [8784,] -1.122493e+08 -1.199851e+08 -2.896524e+11 -1.744896e+07
## [8785,] -3.331818e+11 -3.088948e+11 -1.734516e+15 -2.986454e+09
## [8786,] -2.543974e+11 -2.106375e+11 -1.313905e+15 -2.352252e+09
## [8787,] -4.580400e+09 -3.718579e+09 -2.191036e+13 -1.041957e+08
## [8788,] -1.824454e+06 -5.799487e+05 -1.088226e+11 -8.669116e+06
## [8789,] -1.256747e+05 -3.836745e+05 -4.660079e+10 -9.541769e+06
## [8790,] -1.072512e+08 -1.097440e+08 -2.897821e+11 -1.811133e+07
## [8791,] -3.267566e+11 -2.688448e+11 -1.735292e+15 -3.120260e+09
## [8792,] -2.503217e+11 -2.106368e+11 -1.314493e+15 -2.383756e+09
## [8793,] -4.510044e+09 -4.111580e+09 -2.192998e+13 -1.059436e+08
## [8794,] -1.549486e+06 -8.265986e+05 -1.089200e+11 -8.638616e+06
## [8795,] -1.485860e+05 -2.733495e+05 -4.664250e+10 -9.502758e+06
## [8796,] -1.140803e+08 -1.097761e+08 -2.900415e+11 -1.759839e+07
## [8797,] -3.088923e+11 -2.885203e+11 -1.736845e+15 -3.462164e+09
## [8798,] -2.609833e+11 -2.106354e+11 -1.315669e+15 -2.352029e+09
## [8799,] -4.510147e+09 -4.247000e+09 -2.193979e+13 -1.125222e+08
## [8800,] -9.942922e+05 -1.639796e+06 -1.090175e+11 -8.581933e+06

```

```

## [8801,] -3.288035e+05 -4.509507e+05 -4.668423e+10 -9.657988e+06
## [8802,] -1.221760e+08 -1.000056e+08 -2.903009e+11 -1.745089e+07
## [8803,] -3.418404e+11 -2.688416e+11 -1.738399e+15 -3.119919e+09
## [8804,] -2.543927e+11 -2.257879e+11 -1.317435e+15 -2.375469e+09
## [8805,] -4.883380e+09 -4.111972e+09 -2.196924e+13 -1.000578e+08
## [8806,] -1.872827e+06 -4.656415e+05 -1.091150e+11 -8.709336e+06
## [8807,] -2.038838e+05 -4.519775e+05 -4.670510e+10 -9.635308e+06
## [8808,] -1.141292e+08 -1.073303e+08 -2.904307e+11 -1.823573e+07
## [8809,] -3.385769e+11 -2.986161e+11 -1.739954e+15 -2.965533e+09
## [8810,] -2.446675e+11 -2.106326e+11 -1.318024e+15 -2.568952e+09
## [8811,] -4.971650e+09 -3.978933e+09 -2.197906e+13 -1.088428e+08
## [8812,] -1.653052e+06 -1.274851e+06 -1.091638e+11 -8.547333e+06
## [8813,] -8.151381e+04 -5.214491e+05 -4.672598e+10 -9.658339e+06
## [8814,] -1.131251e+08 -1.098401e+08 -2.905605e+11 -1.756382e+07
## [8815,] -3.256867e+11 -2.688400e+11 -1.739954e+15 -3.277872e+09
## [8816,] -2.486963e+11 -2.414682e+11 -1.318024e+15 -2.304765e+09
## [8817,] -4.652239e+09 -4.247398e+09 -2.197906e+13 -1.090613e+08
## [8818,] -1.770120e+06 -1.633930e+06 -1.091638e+11 -8.560420e+06
## [8819,] -1.360889e+05 -3.305585e+05 -4.672598e+10 -9.588335e+06
## [8820,] -1.172511e+08 -1.175104e+08 -2.906904e+11 -1.750007e+07
## [8821,] -2.955673e+11 -3.299548e+11 -1.740731e+15 -3.450756e+09
## [8822,] -2.414674e+11 -2.576748e+11 -1.318613e+15 -2.770009e+09
## [8823,] -5.001430e+09 -4.112266e+09 -2.199870e+13 -1.015751e+08
## [8824,] -1.554741e+06 -5.695214e+05 -1.092613e+11 -8.547547e+06
## [8825,] -1.521416e+05 -2.288244e+05 -4.676774e+10 -9.652593e+06
## [8826,] -1.209241e+08 -1.073778e+08 -2.908203e+11 -1.783847e+07
## [8827,] -3.385752e+11 -2.592606e+11 -1.741509e+15 -3.192880e+09
## [8828,] -2.527565e+11 -1.960030e+11 -1.319202e+15 -2.406978e+09
## [8829,] -4.796323e+09 -3.848177e+09 -2.199870e+13 -1.030572e+08
## [8830,] -1.630025e+06 -6.876490e+05 -1.092613e+11 -8.652528e+06
## [8831,] -1.559926e+05 -1.842975e+05 -4.676774e+10 -9.664790e+06
## [8832,] -1.196118e+08 -1.073778e+08 -2.908203e+11 -1.775770e+07
## [8833,] -3.484070e+11 -2.885154e+11 -1.741509e+15 -3.088423e+09
## [8834,] -2.327770e+11 -2.181427e+11 -1.319202e+15 -2.511562e+09
## [8835,] -4.206768e+09 -4.247597e+09 -2.199870e+13 -1.069178e+08
## [8836,] -1.046843e+06 -9.572771e+05 -1.092613e+11 -8.586840e+06
## [8837,] -1.001522e+05 -2.781646e+05 -4.676774e+10 -9.652593e+06
## [8838,] -1.136673e+08 -1.073778e+08 -2.908203e+11 -1.771738e+07
## [8839,] -3.440190e+11 -2.885146e+11 -1.742287e+15 -3.067655e+09
## [8840,] -2.593229e+11 -2.257850e+11 -1.319791e+15 -2.304545e+09
## [8841,] -4.510865e+09 -3.979222e+09 -2.200853e+13 -1.039246e+08
## [8842,] -1.803870e+06 -1.107169e+06 -1.093101e+11 -8.811310e+06
## [8843,] -1.684611e+05 -3.922415e+05 -4.678863e+10 -9.730658e+06
## [8844,] -1.180630e+08 -1.124113e+08 -2.909502e+11 -1.745282e+07
## [8845,] -2.905196e+11 -2.986127e+11 -1.743065e+15 -3.277522e+09
## [8846,] -2.543889e+11 -2.032499e+11 -1.320381e+15 -2.327895e+09
## [8847,] -4.468889e+09 -4.666945e+09 -2.201836e+13 -1.022399e+08

```



```

## [8848,] -1.842084e+06 -1.441480e+06 -1.093590e+11 -8.740719e+06
## [8849,] -5.276012e+04 -1.856120e+05 -4.680953e+10 -9.707893e+06
## [8850,] -1.230726e+08 -1.099042e+08 -2.910801e+11 -1.749923e+07
## [8851,] -3.342489e+11 -2.885137e+11 -1.743065e+15 -3.182184e+09
## [8852,] -2.727091e+11 -2.181412e+11 -1.320381e+15 -2.304471e+09
## [8853,] -4.288824e+09 -4.957332e+09 -2.201836e+13 -1.043674e+08
## [8854,] -2.337130e+06 -1.445839e+05 -1.093590e+11 -8.718684e+06
## [8855,] -9.497812e+04 -5.994295e+05 -4.680953e+10 -9.665142e+06
## [8856,] -1.303456e+08 -1.025061e+08 -2.910801e+11 -1.729957e+07
## [8857,] -3.256832e+11 -2.885137e+11 -1.743065e+15 -3.203248e+09
## [8858,] -2.511264e+11 -2.257843e+11 -1.320381e+15 -2.343576e+09
## [8859,] -4.811149e+09 -4.247896e+09 -2.202819e+13 -1.048112e+08
## [8860,] -1.334266e+06 -5.660667e+05 -1.094078e+11 -8.556593e+06
## [8861,] -1.212394e+05 -2.805879e+05 -4.683043e+10 -9.700428e+06
## [8862,] -1.209913e+08 -1.099363e+08 -2.913401e+11 -1.724265e+07
## [8863,] -3.057837e+11 -2.986111e+11 -1.744622e+15 -2.572938e+09
## [8864,] -2.511248e+11 -2.181398e+11 -1.321560e+15 -2.219455e+09
## [8865,] -4.667154e+09 -3.979512e+09 -2.203802e+13 -9.870366e+07
## [8866,] -2.424471e+06 -4.583701e+05 -1.094566e+11 -8.847094e+06
## [8867,] -1.431811e+05 -3.358515e+05 -4.685133e+10 -9.732717e+06
## [8868,] -1.202196e+08 -9.776251e+07 -2.914701e+11 -1.781011e+07
## [8869,] -3.068145e+11 -3.193294e+11 -1.745400e+15 -3.406561e+09
## [8870,] -2.390765e+11 -2.106270e+11 -1.322740e+15 -2.438468e+09
## [8871,] -4.696008e+09 -3.848745e+09 -2.205769e+13 -1.048581e+08
## [8872,] -8.770898e+05 -9.483265e+05 -1.095543e+11 -8.719117e+06
## [8873,] -2.726787e+05 -3.376251e+05 -4.689315e+10 -9.614058e+06
## [8874,] -1.173670e+08 -1.050061e+08 -2.916001e+11 -1.759501e+07
## [8875,] -3.278107e+11 -2.986094e+11 -1.746179e+15 -3.224035e+09
## [8876,] -2.250111e+11 -2.576693e+11 -1.322740e+15 -2.502979e+09
## [8877,] -4.681675e+09 -3.848745e+09 -2.205769e+13 -1.046439e+08
## [8878,] -1.524854e+06 -6.800661e+05 -1.095543e+11 -8.604978e+06
## [8879,] -9.734762e+04 -3.980054e+05 -4.691407e+10 -9.808386e+06
## [8880,] -1.155755e+08 -1.099843e+08 -2.917302e+11 -1.779271e+07
## [8881,] -3.299478e+11 -2.688329e+11 -1.746958e+15 -3.181753e+09
## [8882,] -2.543850e+11 -2.576686e+11 -1.323330e+15 -2.120997e+09
## [8883,] -4.511584e+09 -4.248394e+09 -2.207737e+13 -1.063955e+08
## [8884,] -1.308337e+06 -6.775479e+05 -1.096521e+11 -8.675344e+06
## [8885,] -1.344925e+05 -4.633500e+05 -4.693499e+10 -9.696725e+06
## [8886,] -1.148212e+08 -1.100004e+08 -2.918603e+11 -1.774871e+07
## [8887,] -3.407407e+11 -2.885088e+11 -1.747737e+15 -2.904118e+09
## [8888,] -2.618010e+11 -1.959970e+11 -1.324510e+15 -2.280656e+09
## [8889,] -4.797382e+09 -4.194192e+09 -2.209706e+13 -9.631381e+07
## [8890,] -6.750343e+05 -1.805430e+06 -1.097499e+11 -8.539900e+06
## [8891,] -2.606366e+05 -1.148033e+05 -4.697685e+10 -9.639113e+06
## [8892,] -1.182125e+08 -1.026299e+08 -2.921206e+11 -1.792334e+07
## [8893,] -3.278072e+11 -2.785820e+11 -1.749296e+15 -2.974692e+09
## [8894,] -2.113694e+11 -2.181355e+11 -1.325101e+15 -2.510796e+09

```

```

## [8895,] -4.413902e+09 -4.248593e+09 -2.209706e+13 -1.079440e+08
## [8896,] -1.535743e+06 -5.580465e+05 -1.097499e+11 -8.622920e+06
## [8897,] -1.398238e+05 -4.664762e+05 -4.699779e+10 -9.671300e+06
## [8898,] -1.237571e+08 -1.075521e+08 -2.922508e+11 -1.747668e+07
## [8899,] -3.119927e+11 -3.299434e+11 -1.750855e+15 -3.959830e+09
## [8900,] -2.560203e+11 -2.335515e+11 -1.326282e+15 -1.966656e+09
## [8901,] -4.498047e+09 -4.113540e+09 -2.212662e+13 -1.073401e+08
## [8902,] -1.199588e+06 -7.990428e+05 -1.098966e+11 -8.632005e+06
## [8903,] -1.599895e+05 -5.381342e+05 -4.703968e+10 -9.668601e+06
## [8904,] -1.169812e+08 -1.126221e+08 -2.926415e+11 -1.850094e+07
## [8905,] -3.057753e+11 -3.088753e+11 -1.752415e+15 -3.705798e+09
## [8906,] -2.406596e+11 -2.335501e+11 -1.327464e+15 -2.195869e+09
## [8907,] -4.739983e+09 -3.849504e+09 -2.213647e+13 -9.719755e+07
## [8908,] -1.437372e+06 -5.534892e+05 -1.099456e+11 -8.848185e+06
## [8909,] -1.773572e+05 -4.057559e+05 -4.708158e+10 -9.859033e+06
## [8910,] -1.169977e+08 -1.051471e+08 -2.927719e+11 -1.740226e+07
## [8911,] -3.374781e+11 -2.986019e+11 -1.753196e+15 -2.853539e+09
## [8912,] -2.470680e+11 -2.576624e+11 -1.328055e+15 -2.319117e+09
## [8913,] -4.740088e+09 -4.249092e+09 -2.214633e+13 -1.015951e+08
## [8914,] -1.243980e+06 -6.675215e+05 -1.100435e+11 -8.676209e+06
## [8915,] -1.863765e+05 -2.406707e+05 -4.710254e+10 -9.682863e+06
## [8916,] -1.198793e+08 -1.051628e+08 -2.929022e+11 -1.782046e+07
## [8917,] -3.140750e+11 -3.193199e+11 -1.753976e+15 -3.449230e+09
## [8918,] -2.527435e+11 -1.888751e+11 -1.329237e+15 -2.031596e+09
## [8919,] -4.697265e+09 -5.258256e+09 -2.217591e+13 -1.063372e+08
## [8920,] -1.359594e+06 -1.080000e+06 -1.101415e+11 -8.676425e+06
## [8921,] -1.090468e+05 -3.483653e+05 -4.714448e+10 -9.768891e+06
## [8922,] -1.196509e+08 -1.076631e+08 -2.931630e+11 -1.759163e+07
## [8923,] -3.172150e+11 -3.088719e+11 -1.755538e+15 -3.201865e+09
## [8924,] -2.414531e+11 -2.335471e+11 -1.329829e+15 -2.318896e+09
## [8925,] -4.798228e+09 -3.980861e+09 -2.217591e+13 -9.996004e+07
## [8926,] -1.464100e+06 -7.908672e+05 -1.101905e+11 -8.870930e+06
## [8927,] -1.717133e+05 -4.748639e+05 -4.716545e+10 -9.955481e+06
## [8928,] -1.188835e+08 -1.052098e+08 -2.932934e+11 -1.782971e+07
## [8929,] -3.374745e+11 -2.985986e+11 -1.756319e+15 -3.159728e+09
## [8930,] -2.250017e+11 -2.106179e+11 -1.330420e+15 -2.725885e+09
## [8931,] -4.915037e+09 -4.249490e+09 -2.218578e+13 -1.061372e+08
## [8932,] -1.157252e+06 -6.637809e+05 -1.101905e+11 -8.698515e+06
## [8933,] -1.717133e+05 -3.492679e+05 -4.716545e+10 -9.749145e+06
## [8934,] -1.127032e+08 -1.101767e+08 -2.932934e+11 -1.787015e+07
## [8935,] -3.320821e+11 -2.985986e+11 -1.756319e+15 -3.212334e+09
## [8936,] -2.438499e+11 -2.335464e+11 -1.330420e+15 -2.373831e+09
## [8937,] -4.740509e+09 -3.721189e+09 -2.218578e+13 -1.027148e+08
## [8938,] -1.555732e+06 -1.078413e+06 -1.101905e+11 -8.755799e+06
## [8939,] -1.407282e+05 -3.492679e+05 -4.716545e+10 -9.746081e+06
## [8940,] -1.194059e+08 -1.127032e+08 -2.932934e+11 -1.762817e+07
## [8941,] -3.429105e+11 -2.985986e+11 -1.756319e+15 -3.138807e+09

```

```

## [8942,] -2.511133e+11 -2.257719e+11 -1.330420e+15 -2.365933e+09
## [8943,] -4.611684e+09 -4.114128e+09 -2.218578e+13 -1.037783e+08
## [8944,] -1.220636e+06 -1.076826e+06 -1.102395e+11 -8.623997e+06
## [8945,] -1.234632e+05 -3.501717e+05 -4.718643e+10 -9.708007e+06
## [8946,] -1.223169e+08 -1.052255e+08 -2.934238e+11 -1.756430e+07
## [8947,] -2.996171e+11 -2.985977e+11 -1.757100e+15 -3.055734e+09
## [8948,] -2.319802e+11 -2.659593e+11 -1.331012e+15 -2.793987e+09
## [8949,] -4.755038e+09 -4.114227e+09 -2.219565e+13 -1.118345e+08
## [8950,] -1.092360e+06 -9.276053e+05 -1.102395e+11 -8.540972e+06
## [8951,] -2.684972e+05 -2.945187e+05 -4.718643e+10 -9.586111e+06
## [8952,] -1.204711e+08 -9.798931e+07 -2.934238e+11 -1.808975e+07
## [8953,] -3.505919e+11 -2.688218e+11 -1.757881e+15 -2.933255e+09
## [8954,] -2.406536e+11 -2.335441e+11 -1.332196e+15 -2.279707e+09
## [8955,] -4.697684e+09 -4.249789e+09 -2.221539e+13 -9.814589e+07
## [8956,] -1.739268e+06 -4.389219e+05 -1.103866e+11 -8.787156e+06
## [8957,] -9.886020e+04 -3.528900e+05 -4.724939e+10 -9.700895e+06
## [8958,] -1.189501e+08 -9.803470e+07 -2.938154e+11 -1.767396e+07
## [8959,] -3.418153e+11 -2.985944e+11 -1.760226e+15 -2.892767e+09
## [8960,] -2.593050e+11 -2.181255e+11 -1.333381e+15 -2.658150e+09
## [8961,] -4.712252e+09 -3.850452e+09 -2.223514e+13 -9.879939e+07
## [8962,] -1.331655e+06 -1.070492e+06 -1.104357e+11 -8.493515e+06
## [8963,] -9.674776e+04 -2.986802e+05 -4.729139e+10 -9.854648e+06
## [8964,] -1.133095e+08 -1.102730e+08 -2.940765e+11 -1.751612e+07
## [8965,] -3.161600e+11 -3.088660e+11 -1.761008e+15 -3.232977e+09
## [8966,] -2.446471e+11 -2.106136e+11 -1.333973e+15 -2.453078e+09
## [8967,] -4.612306e+09 -4.114717e+09 -2.224502e+13 -1.034454e+08
## [8968,] -1.471061e+06 -9.202603e+05 -1.104847e+11 -8.791796e+06
## [8969,] -1.561858e+05 -4.165350e+05 -4.731240e+10 -9.967568e+06
## [8970,] -1.118023e+08 -1.077900e+08 -2.942072e+11 -1.721333e+07
## [8971,] -3.429042e+11 -2.884940e+11 -1.761791e+15 -2.862605e+09
## [8972,] -2.626185e+11 -2.494847e+11 -1.334566e+15 -2.225518e+09
## [8973,] -4.741246e+09 -3.981633e+09 -2.225490e+13 -1.002918e+08
## [8974,] -1.380200e+06 -5.399295e+05 -1.105338e+11 -8.747733e+06
## [8975,] -1.845075e+05 -2.482265e+05 -4.731240e+10 -9.797926e+06
## [8976,] -1.153731e+08 -1.102891e+08 -2.942072e+11 -1.766305e+07
## [8977,] -3.245994e+11 -2.592403e+11 -1.761791e+15 -3.211728e+09
## [8978,] -2.642839e+11 -2.032334e+11 -1.334566e+15 -2.287167e+09
## [8979,] -4.209445e+09 -4.669556e+09 -2.226478e+13 -1.011475e+08
## [8980,] -8.458844e+05 -1.223610e+06 -1.106320e+11 -8.747950e+06
## [8981,] -2.407907e+05 -3.020304e+05 -4.737545e+10 -9.729476e+06
## [8982,] -1.195730e+08 -1.078376e+08 -2.945992e+11 -1.781340e+07
## [8983,] -3.267234e+11 -2.688147e+11 -1.764921e+15 -3.591729e+09
## [8984,] -2.486720e+11 -2.032306e+11 -1.336937e+15 -2.263659e+09
## [8985,] -4.857682e+09 -4.250586e+09 -2.229445e+13 -9.517910e+07
## [8986,] -1.590772e+06 -1.061026e+06 -1.107302e+11 -8.796763e+06
## [8987,] -1.471052e+05 -4.204897e+05 -4.739647e+10 -9.722002e+06
## [8988,] -1.183013e+08 -1.053980e+08 -2.948607e+11 -1.845830e+07

```

```

## [8989,] -2.996079e+11 -3.299267e+11 -1.765704e+15 -3.784055e+09
## [8990,] -2.486712e+11 -2.106094e+11 -1.337530e+15 -2.349288e+09
## [8991,] -4.612929e+09 -3.982115e+09 -2.230434e+13 -1.151354e+08
## [8992,] -1.268440e+06 -1.059452e+06 -1.107793e+11 -8.603293e+06
## [8993,] -1.592202e+05 -3.037125e+05 -4.741750e+10 -9.677870e+06
## [8994,] -1.154716e+08 -1.154716e+08 -2.949915e+11 -1.770161e+07
## [8995,] -2.996071e+11 -2.785642e+11 -1.766488e+15 -3.513776e+09
## [8996,] -2.406461e+11 -1.888651e+11 -1.338124e+15 -2.333513e+09
## [8997,] -4.655888e+09 -4.115501e+09 -2.232413e+13 -1.044237e+08
## [8998,] -1.474325e+06 -4.288553e+05 -1.108776e+11 -8.814795e+06
## [8999,] -1.683984e+05 -5.607898e+05 -4.745958e+10 -9.859148e+06
## [9000,] -1.220243e+08 -1.054451e+08 -2.952532e+11 -1.746354e+07
## [9001,] -3.352991e+11 -3.193043e+11 -1.768055e+15 -2.851988e+09
## [9002,] -2.584718e+11 -2.181184e+11 -1.339311e+15 -2.134059e+09
## [9003,] -4.756619e+09 -3.722681e+09 -2.234393e+13 -1.033880e+08
## [9004,] -1.278374e+06 -5.298700e+05 -1.109760e+11 -8.761950e+06
## [9005,] -1.500505e+05 -3.638684e+05 -4.750167e+10 -9.742780e+06
## [9006,] -1.173285e+08 -1.030173e+08 -2.953841e+11 -1.758014e+07
## [9007,] -3.331430e+11 -3.193035e+11 -1.768839e+15 -3.147887e+09
## [9008,] -2.430373e+11 -2.181177e+11 -1.339904e+15 -2.224869e+09
## [9009,] -4.829078e+09 -4.388662e+09 -2.234393e+13 -1.031752e+08
## [9010,] -1.346723e+06 -1.211805e+06 -1.109760e+11 -8.797307e+06
## [9011,] -1.500505e+05 -3.638684e+05 -4.750167e+10 -9.822568e+06
## [9012,] -1.188891e+08 -1.079328e+08 -2.953841e+11 -1.778141e+07
## [9013,] -3.224711e+11 -2.884866e+11 -1.768839e+15 -3.232108e+09
## [9014,] -2.617807e+11 -2.494778e+11 -1.339904e+15 -2.317645e+09
## [9015,] -4.388764e+09 -4.115795e+09 -2.235383e+13 -1.006548e+08
## [9016,] -1.097990e+06 -6.427825e+05 -1.110252e+11 -8.621340e+06
## [9017,] -2.223354e+05 -2.558990e+05 -4.752272e+10 -9.683329e+06
## [9018,] -1.178642e+08 -1.006179e+08 -2.955150e+11 -1.754643e+07
## [9019,] -3.439876e+11 -3.088566e+11 -1.769623e+15 -3.064693e+09
## [9020,] -2.351044e+11 -2.494771e+11 -1.340498e+15 -2.396331e+09
## [9021,] -4.237546e+09 -3.851590e+09 -2.235383e+13 -1.057582e+08
## [9022,] -8.211054e+05 -1.051601e+06 -1.110252e+11 -8.850586e+06
## [9023,] -1.961201e+05 -2.093718e+05 -4.754378e+10 -9.912303e+06
## [9024,] -1.178808e+08 -1.054922e+08 -2.956460e+11 -1.786504e+07
## [9025,] -3.374586e+11 -2.498282e+11 -1.770407e+15 -3.274460e+09
## [9026,] -2.601209e+11 -1.959773e+11 -1.341686e+15 -2.340913e+09
## [9027,] -4.756935e+09 -4.670705e+09 -2.237365e+13 -1.040743e+08
## [9028,] -1.447063e+06 -3.323181e+05 -1.111236e+11 -8.797634e+06
## [9029,] -2.524933e+05 -3.096367e+05 -4.756484e+10 -9.784699e+06
## [9030,] -1.184177e+08 -1.104817e+08 -2.957770e+11 -1.788162e+07
## [9031,] -3.280199e+11 -2.719313e+11 -2.982310e+13 -1.461539e+09
## [9032,] -2.460043e+11 -2.059410e+11 -2.266832e+13 -1.119465e+09
## [9033,] -4.228415e+09 -3.365598e+09 -3.780116e+11 -2.983298e+07
## [9034,] -1.681677e+07 -1.445905e+07 -1.877477e+09 -1.128932e+04
## [9035,] -6.421962e+06 -5.283940e+06 -8.036268e+08 -4.946383e+04

```

```

## [9036,] -6.077643e+07 -5.284420e+07 -4.997269e+09 -9.956246e+05
## [9037,] -3.227029e+11 -2.622972e+11 -2.992497e+13 -1.791837e+09
## [9038,] -2.443976e+11 -2.059410e+11 -2.266832e+13 -1.365039e+09
## [9039,] -4.269349e+09 -3.245254e+09 -3.780116e+11 -2.748027e+07
## [9040,] -1.657299e+07 -1.503180e+07 -1.877477e+09 -1.468078e+04
## [9041,] -6.647687e+06 -5.283940e+06 -8.036268e+08 -4.881139e+04
## [9042,] -6.227822e+07 -4.942194e+07 -4.997269e+09 -1.017233e+06
## [9043,] -3.174302e+11 -2.817376e+11 -2.992497e+13 -1.497327e+09
## [9044,] -2.460043e+11 -2.443976e+11 -2.266832e+13 -1.179970e+09
## [9045,] -4.201235e+09 -3.365598e+09 -3.780116e+11 -2.480541e+07
## [9046,] -1.644557e+07 -1.620450e+07 -1.883879e+09 -9.183573e+03
## [9047,] -6.442970e+06 -4.839132e+06 -8.063672e+08 -5.291679e+04
## [9048,] -6.041572e+07 -6.004425e+07 -5.014310e+09 -1.026035e+06
## [9049,] -3.453215e+11 -2.622965e+11 -3.002702e+13 -1.482878e+09
## [9050,] -2.690499e+11 -1.986439e+11 -2.274562e+13 -1.294004e+09
## [9051,] -4.228613e+09 -3.488313e+09 -3.805918e+11 -2.705899e+07
## [9052,] -1.619835e+07 -1.501995e+07 -1.890292e+09 -1.226816e+04
## [9053,] -6.315208e+06 -5.276916e+06 -8.091123e+08 -5.125045e+04
## [9054,] -6.173691e+07 -5.286643e+07 -5.031380e+09 -9.820051e+05
## [9055,] -3.142857e+11 -2.817359e+11 -3.012924e+13 -1.752475e+09
## [9056,] -2.590458e+11 -2.133677e+11 -2.282305e+13 -1.270711e+09
## [9057,] -4.255881e+09 -3.613041e+09 -3.805918e+11 -2.640960e+07
## [9058,] -1.767117e+07 -1.388604e+07 -1.890292e+09 -1.327925e+04
## [9059,] -6.792368e+06 -5.053937e+06 -8.091123e+08 -5.326892e+04
## [9060,] -6.306026e+07 -5.462088e+07 -5.031380e+09 -9.374608e+05
## [9061,] -3.363757e+11 -2.985827e+11 -1.771191e+15 -2.901648e+09
## [9062,] -2.760796e+11 -2.257581e+11 -1.341686e+15 -2.255366e+09
## [9063,] -4.742508e+09 -3.982790e+09 -2.237365e+13 -1.116827e+08
## [9064,] -1.709167e+06 -4.238658e+05 -1.111236e+11 -8.647854e+06
## [9065,] -1.297598e+05 -3.666393e+05 -4.756484e+10 -9.855415e+06
## [9066,] -1.221087e+08 -1.132825e+08 -2.959080e+11 -1.781730e+07
## [9067,] -3.119696e+11 -3.407130e+11 -1.771975e+15 -3.210602e+09
## [9068,] -2.211553e+11 -2.494740e+11 -1.342875e+15 -2.468036e+09
## [9069,] -4.713931e+09 -4.251582e+09 -2.239347e+13 -1.032529e+08
## [9070,] -1.045342e+06 -1.203408e+06 -1.112220e+11 -8.683197e+06
## [9071,] -1.314166e+05 -4.983155e+05 -4.762806e+10 -9.789834e+06
## [9072,] -1.190058e+08 -1.031259e+08 -2.963012e+11 -1.785687e+07
## [9073,] -3.203516e+11 -2.985793e+11 -1.774330e+15 -3.263366e+09
## [9074,] -2.543580e+11 -2.181127e+11 -1.344064e+15 -2.540952e+09
## [9075,] -4.571512e+09 -4.389371e+09 -2.241330e+13 -1.091077e+08
## [9076,] -1.512198e+06 -1.200057e+06 -1.113205e+11 -8.900122e+06
## [9077,] -1.180992e+05 -5.711372e+05 -4.764914e+10 -9.760868e+06
## [9078,] -1.085580e+08 -1.105621e+08 -2.964323e+11 -1.760131e+07
## [9079,] -3.309877e+11 -2.985785e+11 -1.775115e+15 -3.338241e+09
## [9080,] -2.446335e+11 -2.335286e+11 -1.344659e+15 -2.379952e+09
## [9081,] -4.888294e+09 -4.529254e+09 -2.242322e+13 -9.804910e+07
## [9082,] -1.453984e+06 -5.199052e+05 -1.114190e+11 -8.833717e+06

```

```

## [9083,] -2.142954e+05 -2.621211e+05 -4.769132e+10 -9.828777e+06
## [9084,] -1.182737e+08 -1.105942e+08 -2.966946e+11 -1.796744e+07
## [9085,] -3.538890e+11 -2.884784e+11 -1.776686e+15 -3.231239e+09
## [9086,] -2.430298e+11 -2.181105e+11 -1.345849e+15 -2.648141e+09
## [9087,] -4.991495e+09 -3.723614e+09 -2.244306e+13 -9.663358e+07
## [9088,] -1.543404e+06 -7.559252e+05 -1.114683e+11 -9.003094e+06
## [9089,] -1.446188e+05 -4.354862e+05 -4.771241e+10 -9.855118e+06
## [9090,] -1.195787e+08 -1.056178e+08 -2.966946e+11 -1.755392e+07
## [9091,] -3.309859e+11 -2.785538e+11 -1.776686e+15 -2.931269e+09
## [9092,] -2.350978e+11 -2.335272e+11 -1.345849e+15 -2.170913e+09
## [9093,] -4.238541e+09 -4.252180e+09 -2.245298e+13 -1.219943e+08
## [9094,] -1.327285e+06 -1.035988e+06 -1.115176e+11 -8.679450e+06
## [9095,] -1.306310e+05 -4.364953e+05 -4.773351e+10 -9.869161e+06
## [9096,] -1.177703e+08 -1.031880e+08 -2.968258e+11 -1.801453e+07
## [9097,] -3.171900e+11 -3.192931e+11 -1.778258e+15 -3.231065e+09
## [9098,] -2.881352e+11 -1.959712e+11 -1.347039e+15 -2.247016e+09
## [9099,] -4.844911e+09 -3.597157e+09 -2.246291e+13 -1.033616e+08
## [9100,] -1.342753e+06 -1.034433e+06 -1.115669e+11 -8.896220e+06
## [9101,] -1.347617e+05 -3.750150e+05 -4.775462e+10 -9.898642e+06
## [9102,] -1.152366e+08 -1.106585e+08 -2.972196e+11 -1.769009e+07
## [9103,] -3.299100e+11 -2.985727e+11 -1.780616e+15 -3.115311e+09
## [9104,] -2.535343e+11 -2.743677e+11 -1.348826e+15 -2.223788e+09
## [9105,] -4.614901e+09 -4.671958e+09 -2.249271e+13 -1.025585e+08
## [9106,] -1.550551e+06 -7.479738e+05 -1.117643e+11 -8.892209e+06
## [9107,] -1.882948e+05 -5.815793e+05 -4.783908e+10 -9.914795e+06
## [9108,] -1.163160e+08 -1.132392e+08 -2.976137e+11 -1.756866e+07
## [9109,] -3.299083e+11 -2.785481e+11 -1.782190e+15 -3.230631e+09
## [9110,] -2.519017e+11 -2.032155e+11 -1.350018e+15 -2.475190e+09
## [9111,] -4.845550e+09 -4.117462e+09 -2.252252e+13 -9.716605e+07
## [9112,] -1.281002e+06 -5.424929e+05 -1.118630e+11 -8.990552e+06
## [9113,] -2.443584e+05 -6.612929e+05 -4.788134e+10 -9.967742e+06
## [9114,] -1.212887e+08 -1.057435e+08 -2.977451e+11 -1.766548e+07
## [9115,] -3.016327e+11 -2.985693e+11 -1.783764e+15 -3.326510e+09
## [9116,] -2.592817e+11 -2.032141e+11 -1.351210e+15 -2.292883e+09
## [9117,] -4.157955e+09 -4.390586e+09 -2.253246e+13 -1.110571e+08
## [9118,] -1.294460e+06 -1.022035e+06 -1.119618e+11 -8.937182e+06
## [9119,] -2.129956e+05 -3.242623e+05 -4.792362e+10 -9.832265e+06
## [9120,] -1.161239e+08 -1.082665e+08 -2.981395e+11 -1.775528e+07
## [9121,] -3.844511e+11 -2.592170e+11 -1.785338e+15 -2.950575e+09
## [9122,] -2.650942e+11 -1.888485e+11 -1.353000e+15 -2.208011e+09
## [9123,] -4.530694e+09 -4.390890e+09 -2.256231e+13 -1.104445e+08
## [9124,] -1.614065e+06 -1.342328e+06 -1.120606e+11 -8.986520e+06
## [9125,] -1.373434e+05 -2.243143e+05 -4.798708e+10 -1.001981e+07
## [9126,] -1.182295e+08 -1.009554e+08 -2.984026e+11 -1.775807e+07
## [9127,] -3.277652e+11 -2.985660e+11 -1.786914e+15 -3.423613e+09
## [9128,] -2.535282e+11 -1.959638e+11 -1.353597e+15 -2.705870e+09
## [9129,] -4.460620e+09 -4.253376e+09 -2.257226e+13 -1.128939e+08

```

```

## [9130,] -9.435701e+05 -2.343115e+06 -1.121100e+11 -8.982159e+06
## [9131,] -2.243143e+05 -4.486957e+05 -4.798708e+10 -9.862047e+06
## [9132,] -1.115603e+08 -1.058220e+08 -2.984026e+11 -1.825569e+07
## [9133,] -3.129953e+11 -2.785433e+11 -1.786914e+15 -3.456411e+09
## [9134,] -2.486506e+11 -2.414231e+11 -1.353597e+15 -2.323767e+09
## [9135,] -4.672898e+09 -4.253476e+09 -2.258221e+13 -1.063358e+08
## [9136,] -1.373529e+06 -7.374373e+05 -1.121595e+11 -8.848658e+06
## [9137,] -1.809017e+05 -5.909405e+05 -4.800824e+10 -9.879178e+06
## [9138,] -1.200749e+08 -1.033899e+08 -2.985342e+11 -1.808877e+07
## [9139,] -3.067688e+11 -2.985651e+11 -1.787702e+15 -3.533456e+09
## [9140,] -2.535274e+11 -2.494595e+11 -1.354193e+15 -2.498928e+09
## [9141,] -4.744719e+09 -4.118050e+09 -2.258221e+13 -9.870688e+07
## [9142,] -1.408714e+06 -4.032288e+05 -1.121595e+11 -8.853096e+06
## [9143,] -1.652152e+05 -5.921159e+05 -4.802940e+10 -9.874731e+06
## [9144,] -1.219345e+08 -1.034055e+08 -2.986658e+11 -1.779114e+07
## [9145,] -3.461560e+11 -3.192819e+11 -1.788490e+15 -3.124869e+09
## [9146,] -2.709711e+11 -2.494587e+11 -1.354790e+15 -2.238392e+09
## [9147,] -4.890110e+09 -4.391194e+09 -2.259217e+13 -1.072168e+08
## [9148,] -9.845025e+05 -1.014325e+06 -1.122089e+11 -8.786758e+06
## [9149,] -1.242592e+05 -1.075682e+05 -4.802940e+10 -9.942677e+06
## [9150,] -1.206167e+08 -1.034055e+08 -2.986658e+11 -1.801392e+07
## [9151,] -3.088354e+11 -2.884653e+11 -1.789278e+15 -3.500113e+09
## [9152,] -2.406244e+11 -2.335153e+11 -1.355388e+15 -2.515021e+09
## [9153,] -4.730521e+09 -3.598441e+09 -2.260212e+13 -1.033663e+08
## [9154,] -1.265482e+06 -6.113201e+05 -1.123078e+11 -8.937950e+06
## [9155,] -1.546675e+05 -2.763942e+05 -4.807175e+10 -1.006095e+07
## [9156,] -1.227625e+08 -1.083620e+08 -2.989291e+11 -1.762273e+07
## [9157,] -3.483510e+11 -2.687893e+11 -1.790067e+15 -2.819930e+09
## [9158,] -2.518940e+11 -2.335146e+11 -1.355985e+15 -2.043138e+09
## [9159,] -4.861091e+09 -4.118345e+09 -2.261208e+13 -1.014752e+08
## [9160,] -1.011249e+06 -1.011249e+06 -1.123078e+11 -8.875628e+06
## [9161,] -8.757384e+04 -4.538288e+05 -4.809293e+10 -9.994326e+06
## [9162,] -1.251777e+08 -1.108837e+08 -2.990608e+11 -1.779029e+07
## [9163,] -3.320433e+11 -2.592116e+11 -1.790855e+15 -3.325717e+09
## [9164,] -2.390339e+11 -2.032079e+11 -1.356582e+15 -2.450203e+09
## [9165,] -4.602040e+09 -4.118443e+09 -2.262205e+13 -1.053220e+08
## [9166,] -1.419181e+06 -1.009713e+06 -1.123573e+11 -8.942519e+06
## [9167,] -2.232877e+05 -3.312618e+05 -4.809293e+10 -9.944759e+06
## [9168,] -1.191115e+08 -1.059164e+08 -2.991925e+11 -1.787760e+07
## [9169,] -3.741122e+11 -2.985610e+11 -1.791644e+15 -3.488823e+09
## [9170,] -2.551592e+11 -2.257385e+11 -1.357778e+15 -2.109458e+09
## [9171,] -4.978873e+09 -4.118639e+09 -2.264198e+13 -9.631699e+07
## [9172,] -9.332070e+05 -1.328200e+06 -1.124563e+11 -8.924905e+06
## [9173,] -1.764830e+05 -2.294096e+05 -4.813530e+10 -1.000089e+07
## [9174,] -1.220189e+08 -1.134507e+08 -2.993243e+11 -1.779309e+07
## [9175,] -3.026480e+11 -3.088320e+11 -1.792433e+15 -3.240103e+09
## [9176,] -2.462243e+11 -2.180963e+11 -1.357778e+15 -2.323252e+09

```

```

## [9177,] -4.159039e+09 -4.531517e+09 -2.264198e+13 -1.064304e+08
## [9178,] -1.311066e+06 -7.295840e+05 -1.124563e+11 -8.902639e+06
## [9179,] -1.603810e+05 -5.245437e+05 -4.813530e+10 -9.923469e+06
## [9180,] -1.129415e+08 -1.010629e+08 -2.993243e+11 -1.864086e+07
## [9181,] -3.266928e+11 -2.785376e+11 -1.792433e+15 -3.304077e+09
## [9182,] -2.568000e+11 -2.257378e+11 -1.358375e+15 -2.449976e+09
## [9183,] -4.659330e+09 -3.985491e+09 -2.265195e+13 -1.066622e+08
## [9184,] -1.361020e+06 -4.959449e+05 -1.125058e+11 -8.898298e+06
## [9185,] -2.356143e+05 -3.347895e+05 -4.817769e+10 -9.902201e+06
## [9186,] -1.157895e+08 -1.059636e+08 -2.995879e+11 -1.810006e+07
## [9187,] -3.439598e+11 -2.592084e+11 -1.794012e+15 -2.929449e+09
## [9188,] -2.617549e+11 -2.180941e+11 -1.359571e+15 -2.253190e+09
## [9189,] -4.673838e+09 -3.854626e+09 -2.267189e+13 -9.967779e+07
## [9190,] -1.426035e+06 -6.029844e+05 -1.126544e+11 -8.961029e+06
## [9191,] -1.960524e+05 -5.289804e+05 -4.822010e+10 -9.961307e+06
## [9192,] -1.186729e+08 -9.778307e+07 -2.998516e+11 -1.733726e+07
## [9193,] -3.129859e+11 -3.192741e+11 -1.795591e+15 -2.979943e+09
## [9194,] -2.470269e+11 -2.335094e+11 -1.360170e+15 -2.449749e+09
## [9195,] -4.616874e+09 -3.854721e+09 -2.268187e+13 -1.067096e+08
## [9196,] -1.268509e+06 -8.554693e+05 -1.127040e+11 -8.708434e+06
## [9197,] -2.011055e+05 -3.374476e+05 -4.824131e+10 -9.799572e+06
## [9198,] -1.231635e+08 -1.084893e+08 -2.999835e+11 -1.827270e+07
## [9199,] -3.098645e+11 -2.985560e+11 -1.796381e+15 -3.103213e+09
## [9200,] -2.462197e+11 -2.032024e+11 -1.361366e+15 -2.299412e+09
## [9201,] -4.891286e+09 -3.985974e+09 -2.270182e+13 -1.011922e+08
## [9202,] -1.494435e+06 -6.006133e+05 -1.127535e+11 -9.010432e+06
## [9203,] -2.205232e+05 -6.851167e+05 -4.828375e+10 -9.963390e+06
## [9204,] -1.182019e+08 -1.293829e+08 -3.002474e+11 -1.770708e+07
## [9205,] -3.549741e+11 -2.592046e+11 -1.797961e+15 -3.218311e+09
## [9206,] -2.494488e+11 -1.818537e+11 -1.362564e+15 -2.361920e+09
## [9207,] -5.083674e+09 -3.986167e+09 -2.272179e+13 -1.107016e+08
## [9208,] -9.057161e+05 -9.928907e+05 -1.129023e+11 -8.881384e+06
## [9209,] -1.248849e+05 -6.086942e+05 -4.832621e+10 -1.004132e+07
## [9210,] -1.229658e+08 -1.085529e+08 -3.005114e+11 -1.844245e+07
## [9211,] -3.352637e+11 -2.884546e+11 -1.799542e+15 -3.186493e+09
## [9212,] -2.518840e+11 -2.180891e+11 -1.363762e+15 -2.746868e+09
## [9213,] -4.589093e+09 -3.726412e+09 -2.274177e+13 -9.832628e+07
## [9214,] -1.310646e+06 -2.082692e+06 -1.129519e+11 -8.854842e+06
## [9215,] -2.570445e+05 -5.860731e+04 -4.836868e+10 -9.945530e+06
## [9216,] -1.180248e+08 -1.086007e+08 -3.009077e+11 -1.839023e+07
## [9217,] -3.385058e+11 -2.985493e+11 -1.802706e+15 -2.918461e+09
## [9218,] -2.280474e+11 -2.335028e+11 -1.365559e+15 -2.457103e+09
## [9219,] -4.674883e+09 -3.986649e+09 -2.277175e+13 -1.110025e+08
## [9220,] -1.188833e+06 -5.923511e+05 -1.131008e+11 -8.881821e+06
## [9221,] -2.073209e+05 -6.146705e+05 -4.843243e+10 -1.000960e+07
## [9222,] -1.209358e+08 -9.888391e+07 -3.011720e+11 -1.815776e+07
## [9223,] -3.363394e+11 -2.985484e+11 -1.803498e+15 -3.228286e+09

```



```

## [9224,] -2.382294e+11 -2.335021e+11 -1.366159e+15 -2.448992e+09
## [9225,] -4.761363e+09 -3.986842e+09 -2.279174e+13 -1.079681e+08
## [9226,] -1.234725e+06 -4.809917e+05 -1.132001e+11 -8.824344e+06
## [9227,] -2.035665e+05 -4.714998e+05 -4.845369e+10 -1.001754e+07
## [9228,] -1.238653e+08 -1.012935e+08 -3.013042e+11 -1.805225e+07
## [9229,] -3.119346e+11 -2.985476e+11 -1.804289e+15 -3.260049e+09
## [9230,] -2.486339e+11 -2.414066e+11 -1.366759e+15 -2.361401e+09
## [9231,] -4.746930e+09 -3.986842e+09 -2.279174e+13 -1.062350e+08
## [9232,] -1.121430e+06 -5.900010e+05 -1.132001e+11 -8.913185e+06
## [9233,] -1.079394e+05 -6.952739e+05 -4.845369e+10 -1.006729e+07
## [9234,] -1.225371e+08 -1.086485e+08 -3.013042e+11 -1.845100e+07
## [9235,] -3.406765e+11 -2.785255e+11 -1.804289e+15 -3.476380e+09
## [9236,] -2.600874e+11 -2.180848e+11 -1.367358e+15 -2.322073e+09
## [9237,] -4.819421e+09 -4.393321e+09 -2.280174e+13 -1.021907e+08
## [9238,] -9.529159e+05 -9.822595e+05 -1.132498e+11 -9.002580e+06
## [9239,] -1.623208e+05 -4.075101e+05 -4.847495e+10 -1.005969e+07
## [9240,] -1.225540e+08 -1.086644e+08 -3.014364e+11 -1.799777e+07
## [9241,] -3.213736e+11 -2.884489e+11 -1.805081e+15 -3.185889e+09
## [9242,] -2.358583e+11 -2.659112e+11 -1.367358e+15 -2.424816e+09
## [9243,] -4.732624e+09 -3.475768e+09 -2.280174e+13 -1.041040e+08
## [9244,] -1.042282e+06 -4.799324e+05 -1.132498e+11 -8.842186e+06
## [9245,] -1.998465e+05 -1.954844e+05 -4.847495e+10 -1.003170e+07
## [9246,] -1.214965e+08 -1.061839e+08 -3.014364e+11 -1.804857e+07
## [9247,] -3.439473e+11 -2.785247e+11 -1.805081e+15 -3.071208e+09
## [9248,] -2.567884e+11 -2.335006e+11 -1.367358e+15 -2.290907e+09
## [9249,] -4.747140e+09 -3.987035e+09 -2.281175e+13 -1.171031e+08
## [9250,] -1.264656e+06 -8.385912e+05 -1.132995e+11 -8.984798e+06
## [9251,] -2.617144e+05 -1.961607e+05 -4.849622e+10 -1.006765e+07
## [9252,] -1.220415e+08 -1.086804e+08 -3.015686e+11 -1.778154e+07
## [9253,] -3.256135e+11 -2.497938e+11 -1.805873e+15 -3.154318e+09
## [9254,] -2.334998e+11 -2.576104e+11 -1.367958e+15 -2.497171e+09
## [9255,] -4.646719e+09 -4.393422e+09 -2.281175e+13 -1.047614e+08
## [9256,] -1.402408e+06 -4.788742e+05 -1.132995e+11 -8.895600e+06
## [9257,] -1.675466e+05 -3.490873e+05 -4.851749e+10 -1.009431e+07
## [9258,] -1.189061e+08 -1.062154e+08 -3.017009e+11 -1.785871e+07
## [9259,] -3.067485e+11 -3.088167e+11 -1.806665e+15 -3.476110e+09
## [9260,] -2.398128e+11 -2.334991e+11 -1.368558e+15 -2.221411e+09
## [9261,] -4.718444e+09 -3.856049e+09 -2.282175e+13 -1.062823e+08
## [9262,] -1.330879e+06 -4.778172e+05 -1.133492e+11 -9.124044e+06
## [9263,] -1.480680e+05 -3.490873e+05 -4.851749e+10 -1.006316e+07
## [9264,] -1.293019e+08 -1.137439e+08 -3.017009e+11 -1.791944e+07
## [9265,] -3.320248e+11 -2.884464e+11 -1.807457e+15 -2.928043e+09
## [9266,] -2.319331e+11 -2.257247e+11 -1.369158e+15 -2.290688e+09
## [9267,] -4.689835e+09 -4.120503e+09 -2.283176e+13 -9.846271e+07
## [9268,] -1.470246e+06 -5.853148e+05 -1.133989e+11 -9.164750e+06
## [9269,] -2.632804e+05 -7.848984e+05 -4.853877e+10 -1.009293e+07
## [9270,] -1.178811e+08 -1.112219e+08 -3.018332e+11 -1.854935e+07

```

```

## [9271,] -3.203144e+11 -2.785215e+11 -1.808250e+15 -3.196073e+09
## [9272,] -2.406064e+11 -2.031928e+11 -1.369759e+15 -2.488842e+09
## [9273,] -5.040300e+09 -3.856239e+09 -2.284177e+13 -1.003563e+08
## [9274,] -1.224557e+06 -3.774522e+05 -1.134984e+11 -8.962896e+06
## [9275,] -1.654140e+05 -4.778172e+05 -4.858134e+10 -1.005903e+07
## [9276,] -1.130282e+08 -1.087441e+08 -3.020979e+11 -1.824424e+07
## [9277,] -3.234862e+11 -3.088141e+11 -1.809043e+15 -3.081123e+09
## [9278,] -2.429989e+11 -2.135592e+11 -1.370359e+15 -2.480679e+09
## [9279,] -4.590231e+09 -3.987421e+09 -2.285179e+13 -1.031165e+08
## [9280,] -1.464692e+06 -7.011481e+05 -1.135481e+11 -9.214823e+06
## [9281,] -2.267238e+05 -6.242933e+05 -4.860263e+10 -1.001103e+07
## [9282,] -1.337812e+08 -1.038411e+08 -3.023628e+11 -1.798224e+07
## [9283,] -3.182053e+11 -2.884431e+11 -1.810628e+15 -3.206360e+09
## [9284,] -2.366417e+11 -2.180798e+11 -1.371560e+15 -2.472453e+09
## [9285,] -4.421825e+09 -4.394030e+09 -2.287182e+13 -1.031475e+08
## [9286,] -6.751347e+05 -1.124280e+06 -1.135979e+11 -9.070610e+06
## [9287,] -3.420440e+05 -4.143679e+05 -4.862393e+10 -9.987940e+06
## [9288,] -1.195456e+08 -1.014474e+08 -3.026277e+11 -1.792421e+07
## [9289,] -3.161042e+11 -2.785175e+11 -1.812215e+15 -3.334092e+09
## [9290,] -2.454010e+11 -2.659041e+11 -1.372762e+15 -2.329234e+09
## [9291,] -4.776980e+09 -3.601192e+09 -2.290188e+13 -1.008682e+08
## [9292,] -1.040348e+06 -8.246544e+05 -1.137970e+11 -8.941240e+06
## [9293,] -1.691644e+05 -3.010234e+05 -4.870916e+10 -1.028856e+07
## [9294,] -1.182740e+08 -1.190561e+08 -3.028928e+11 -1.823230e+07
## [9295,] -2.944777e+11 -3.972348e+11 -1.813802e+15 -4.348300e+09
## [9296,] -2.535020e+11 -2.413976e+11 -1.373965e+15 -2.167568e+09
## [9297,] -4.748193e+09 -3.988000e+09 -2.291191e+13 -1.053472e+08
## [9298,] -1.196377e+06 -6.934910e+05 -1.138468e+11 -9.003901e+06
## [9299,] -2.081289e+05 -3.018625e+05 -4.873048e+10 -1.006495e+07
## [9300,] -1.190895e+08 -1.039345e+08 -3.031579e+11 -1.844010e+07
## [9301,] -3.363261e+11 -2.591874e+11 -1.815390e+15 -3.519211e+09
## [9302,] -2.650643e+11 -2.105646e+11 -1.375769e+15 -2.274383e+09
## [9303,] -4.893852e+09 -3.988290e+09 -2.294200e+13 -1.159618e+08
## [9304,] -1.541127e+06 -2.100716e+05 -1.139464e+11 -9.089363e+06
## [9305,] -1.876719e+05 -4.873722e+05 -4.877313e+10 -1.005909e+07
## [9306,] -1.201700e+08 -1.089035e+08 -3.034232e+11 -1.812571e+07
## [9307,] -3.395751e+11 -2.591859e+11 -1.816979e+15 -3.101000e+09
## [9308,] -2.311436e+11 -2.334895e+11 -1.376371e+15 -2.779292e+09
## [9309,] -4.719914e+09 -3.988483e+09 -2.296207e+13 -1.005401e+08
## [9310,] -1.306310e+06 -6.884096e+05 -1.140461e+11 -9.130102e+06
## [9311,] -2.743732e+05 -3.060754e+05 -4.883714e+10 -1.015163e+07
## [9312,] -1.220473e+08 -1.039969e+08 -3.036886e+11 -1.839444e+07
## [9313,] -3.234740e+11 -2.687592e+11 -1.820158e+15 -3.226463e+09
## [9314,] -2.413916e+11 -2.105611e+11 -1.378779e+15 -2.471541e+09
## [9315,] -4.777931e+09 -3.988772e+09 -2.299220e+13 -1.080682e+08
## [9316,] -1.267270e+06 -2.799407e+05 -1.141957e+11 -9.031547e+06
## [9317,] -2.410757e+05 -6.400897e+05 -4.887984e+10 -1.006154e+07

```

```

## [9318,] -1.181467e+08 -1.140212e+08 -3.039541e+11 -1.838702e+07
## [9319,] -3.266622e+11 -3.088023e+11 -1.820158e+15 -3.354768e+09
## [9320,] -2.502391e+11 -1.959354e+11 -1.378779e+15 -2.528322e+09
## [9321,] -4.464908e+09 -4.122072e+09 -2.299220e+13 -1.054727e+08
## [9322,] -1.350841e+06 -8.122113e+05 -1.142456e+11 -9.261720e+06
## [9323,] -1.873940e+05 -4.937947e+05 -4.890120e+10 -1.023205e+07
## [9324,] -1.160913e+08 -1.089833e+08 -3.040869e+11 -1.864074e+07
## [9325,] -3.181941e+11 -3.088014e+11 -1.820953e+15 -3.279532e+09
## [9326,] -2.551314e+11 -2.180706e+11 -1.379382e+15 -2.151850e+09
## [9327,] -4.778036e+09 -4.122171e+09 -2.300224e+13 -1.042023e+08
## [9328,] -1.493090e+06 -6.833469e+05 -1.142456e+11 -9.153095e+06
## [9329,] -2.010370e+05 -4.282551e+05 -4.892256e+10 -9.999748e+06
## [9330,] -1.117651e+08 -1.192230e+08 -3.042198e+11 -1.803241e+07
## [9331,] -3.461182e+11 -2.785078e+11 -1.821749e+15 -2.806800e+09
## [9332,] -2.510498e+11 -2.257117e+11 -1.379984e+15 -2.136754e+09
## [9333,] -4.836196e+09 -4.122269e+09 -2.301229e+13 -9.790562e+07
## [9334,] -1.419254e+06 -5.644581e+05 -1.142955e+11 -9.243683e+06
## [9335,] -2.190187e+05 -3.094667e+05 -4.892256e+10 -1.003701e+07
## [9336,] -1.237068e+08 -1.040592e+08 -3.042198e+11 -1.811380e+07
## [9337,] -3.298644e+11 -2.591812e+11 -1.821749e+15 -3.142145e+09
## [9338,] -2.494267e+11 -2.180699e+11 -1.379984e+15 -2.243034e+09
## [9339,] -4.395448e+09 -4.122269e+09 -2.301229e+13 -1.048600e+08
## [9340,] -1.331796e+06 -4.579563e+05 -1.142955e+11 -9.193865e+06
## [9341,] -1.887194e+05 -4.292558e+05 -4.894393e+10 -1.008855e+07
## [9342,] -1.226613e+08 -1.090152e+08 -3.043526e+11 -1.817128e+07
## [9343,] -3.505177e+11 -2.687568e+11 -1.822544e+15 -3.121197e+09
## [9344,] -2.478073e+11 -1.959327e+11 -1.381190e+15 -2.391246e+09
## [9345,] -4.409540e+09 -4.735042e+09 -2.303239e+13 -1.046770e+08
## [9346,] -1.292374e+06 -6.783029e+05 -1.144453e+11 -8.960517e+06
## [9347,] -3.515658e+05 -3.120224e+05 -4.898667e+10 -1.011385e+07
## [9348,] -1.105518e+08 -1.219011e+08 -3.046184e+11 -1.837874e+07
## [9349,] -3.352354e+11 -2.785046e+11 -1.824932e+15 -3.321928e+09
## [9350,] -2.257088e+11 -2.257088e+11 -1.382396e+15 -2.660054e+09
## [9351,] -4.381986e+09 -3.989351e+09 -2.305250e+13 -1.013092e+08
## [9352,] -1.341974e+06 -5.598746e+05 -1.144953e+11 -9.032209e+06
## [9353,] -1.950252e+05 -5.709063e+05 -4.900805e+10 -1.018123e+07
## [9354,] -1.195513e+08 -1.115768e+08 -3.047514e+11 -1.836477e+07
## [9355,] -3.056967e+11 -2.591773e+11 -1.825729e+15 -3.364952e+09
## [9356,] -2.551267e+11 -2.105561e+11 -1.382999e+15 -2.304556e+09
## [9357,] -4.564182e+09 -3.989544e+09 -2.307262e+13 -1.090680e+08
## [9358,] -1.270300e+06 -4.517720e+05 -1.145952e+11 -9.077313e+06
## [9359,] -1.752396e+05 -4.342768e+05 -4.905083e+10 -1.010348e+07
## [9360,] -1.235427e+08 -1.193231e+08 -3.050174e+11 -1.813246e+07
## [9361,] -3.258856e+11 -2.622957e+11 -3.012924e+13 -1.637382e+09
## [9362,] -2.590458e+11 -2.059397e+11 -2.282305e+13 -1.224867e+09
## [9363,] -4.201433e+09 -3.869071e+09 -3.805918e+11 -2.545030e+07
## [9364,] -1.698818e+07 -1.444743e+07 -1.890292e+09 -1.542158e+04

```

```

## [9365,] -6.564179e+06 -5.504709e+06 -8.091123e+08 -5.463622e+04
## [9366,] -6.401410e+07 -5.286643e+07 -5.031380e+09 -9.467526e+05
## [9367,] -3.453206e+11 -2.719289e+11 -3.012924e+13 -1.599886e+09
## [9368,] -2.665305e+11 -1.986432e+11 -2.282305e+13 -1.213538e+09
## [9369,] -4.365830e+09 -3.245428e+09 -3.805918e+11 -2.523954e+07
## [9370,] -1.519387e+07 -1.501995e+07 -1.890292e+09 -1.327925e+04
## [9371,] -6.920825e+06 -5.276916e+06 -8.091123e+08 -5.625331e+04
## [9372,] -6.061379e+07 -5.821572e+07 -5.031380e+09 -9.560902e+05
## [9373,] -3.205869e+11 -2.917167e+11 -3.012924e+13 -1.652502e+09
## [9374,] -2.516676e+11 -2.133677e+11 -2.282305e+13 -1.219196e+09
## [9375,] -4.338212e+09 -3.365775e+09 -3.805918e+11 -2.523954e+07
## [9376,] -1.631864e+07 -1.501995e+07 -1.890292e+09 -1.487098e+04
## [9377,] -6.315208e+06 -5.737315e+06 -8.091123e+08 -5.395041e+04
## [9378,] -6.382276e+07 -5.462088e+07 -5.031380e+09 -9.351450e+05
## [9379,] -3.333768e+11 -2.817359e+11 -3.012924e+13 -1.629848e+09
## [9380,] -2.500425e+11 -1.986432e+11 -2.282305e+13 -1.236249e+09
## [9381,] -4.338212e+09 -3.739961e+09 -3.805918e+11 -2.673331e+07
## [9382,] -1.836763e+07 -1.333578e+07 -1.890292e+09 -1.655281e+04
## [9383,] -6.715872e+06 -5.053937e+06 -8.091123e+08 -5.555739e+04
## [9384,] -5.622438e+07 -5.821572e+07 -5.031380e+09 -9.701826e+05
## [9385,] -3.280172e+11 -2.719289e+11 -3.012924e+13 -1.637382e+09
## [9386,] -2.656936e+11 -2.059397e+11 -2.282305e+13 -1.207893e+09
## [9387,] -4.449212e+09 -3.613041e+09 -3.805918e+11 -2.523954e+07
## [9388,] -1.855991e+07 -1.388604e+07 -1.890292e+09 -1.617129e+04
## [9389,] -6.843607e+06 -4.835771e+06 -8.091123e+08 -5.509584e+04
## [9390,] -6.420572e+07 -4.777489e+07 -5.031380e+09 -9.444253e+05
## [9391,] -3.234670e+11 -3.087955e+11 -1.826525e+15 -3.131191e+09
## [9392,] -2.575902e+11 -2.494221e+11 -1.383602e+15 -2.136330e+09
## [9393,] -4.396056e+09 -4.968745e+09 -2.307262e+13 -1.152751e+08
## [9394,] -1.628777e+06 -9.417895e+05 -1.145952e+11 -9.230751e+06
## [9395,] -1.058907e+05 -4.342768e+05 -4.905083e+10 -1.022233e+07
## [9396,] -1.154339e+08 -1.090950e+08 -3.050174e+11 -1.838814e+07
## [9397,] -3.298591e+11 -2.687529e+11 -1.826525e+15 -3.719760e+09
## [9398,] -2.188238e+11 -2.575902e+11 -1.383602e+15 -2.383021e+09
## [9399,] -4.493746e+09 -4.396056e+09 -2.307262e+13 -1.066766e+08
## [9400,] -1.155346e+06 -5.575899e+05 -1.145952e+11 -9.072820e+06
## [9401,] -2.187184e+05 -5.732181e+05 -4.905083e+10 -1.012844e+07
## [9402,] -1.203711e+08 -1.116091e+08 -3.050174e+11 -1.828565e+07
## [9403,] -3.494105e+11 -2.884267e+11 -1.826525e+15 -3.027757e+09
## [9404,] -2.510452e+11 -2.180656e+11 -1.383602e+15 -2.335740e+09
## [9405,] -4.836833e+09 -4.258361e+09 -2.307262e+13 -9.861902e+07
## [9406,] -1.187633e+06 -6.745321e+05 -1.145952e+11 -9.135829e+06
## [9407,] -1.752396e+05 -5.013408e+05 -4.905083e+10 -1.018786e+07
## [9408,] -1.201254e+08 -1.017400e+08 -3.051504e+11 -1.807787e+07
## [9409,] -3.255899e+11 -2.687521e+11 -1.827322e+15 -2.956303e+09
## [9410,] -2.518572e+11 -2.257059e+11 -1.384809e+15 -2.136189e+09
## [9411,] -4.327136e+09 -4.258561e+09 -2.309275e+13 -1.071410e+08

```

```

## [9412,] -1.283702e+06 -9.388256e+05 -1.146952e+11 -9.172154e+06
## [9413,] -1.765215e+05 -2.635314e+05 -4.909362e+10 -1.020075e+07
## [9414,] -1.243761e+08 -1.066411e+08 -3.052835e+11 -1.813529e+07
## [9415,] -3.472085e+11 -2.785013e+11 -1.828119e+15 -3.079087e+09
## [9416,] -2.203428e+11 -2.257059e+11 -1.384809e+15 -2.527553e+09
## [9417,] -4.807973e+09 -3.602934e+09 -2.309275e+13 -1.043428e+08
## [9418,] -1.334902e+06 -9.388256e+05 -1.146952e+11 -9.199278e+06
## [9419,] -1.526546e+05 -3.163054e+05 -4.909362e+10 -1.021956e+07
## [9420,] -1.131638e+08 -1.167561e+08 -3.052835e+11 -1.831921e+07
## [9421,] -3.450153e+11 -2.884251e+11 -1.828119e+15 -3.027588e+09
## [9422,] -2.358368e+11 -2.105540e+11 -1.384809e+15 -2.430625e+09
## [9423,] -4.954215e+09 -3.989737e+09 -2.309275e+13 -1.020040e+08
## [9424,] -1.216992e+06 -5.553099e+05 -1.146952e+11 -9.167637e+06
## [9425,] -2.247778e+05 -3.163054e+05 -4.909362e+10 -1.019761e+07
## [9426,] -1.214574e+08 -1.116414e+08 -3.052835e+11 -1.818628e+07
## [9427,] -3.341534e+11 -2.687513e+11 -1.828119e+15 -3.776631e+09
## [9428,] -2.405862e+11 -1.888120e+11 -1.386017e+15 -2.242310e+09
## [9429,] -4.750300e+09 -3.989931e+09 -2.311289e+13 -1.111089e+08
## [9430,] -1.068659e+06 -4.466506e+05 -1.148452e+11 -9.113854e+06
## [9431,] -2.608551e+05 -5.790180e+05 -4.915784e+10 -1.018719e+07
## [9432,] -1.196683e+08 -1.066885e+08 -3.056828e+11 -1.845175e+07
## [9433,] -3.373911e+11 -2.884226e+11 -1.830510e+15 -3.235929e+09
## [9434,] -2.469935e+11 -2.031735e+11 -1.386621e+15 -2.592991e+09
## [9435,] -4.299941e+09 -4.258860e+09 -2.312296e+13 -1.169363e+08
## [9436,] -6.548957e+05 -1.243299e+06 -1.148952e+11 -9.131986e+06
## [9437,] -3.423301e+05 -4.403405e+05 -4.917926e+10 -1.016077e+07
## [9438,] -1.129743e+08 -1.247114e+08 -3.058160e+11 -1.831464e+07
## [9439,] -3.483041e+11 -2.784981e+11 -1.831308e+15 -2.835528e+09
## [9440,] -2.518541e+11 -2.257029e+11 -1.387225e+15 -2.128415e+09
## [9441,] -4.750511e+09 -4.123446e+09 -2.313304e+13 -1.039779e+08
## [9442,] -1.177661e+06 -4.456298e+05 -1.148952e+11 -9.294976e+06
## [9443,] -2.048787e+05 -5.506731e+05 -4.917926e+10 -1.034298e+07
## [9444,] -1.220530e+08 -1.042464e+08 -3.058160e+11 -1.820215e+07
## [9445,] -3.277153e+11 -2.687473e+11 -1.832105e+15 -2.925480e+09
## [9446,] -2.486072e+11 -2.105505e+11 -1.387829e+15 -2.135836e+09
## [9447,] -4.736199e+09 -3.730144e+09 -2.314311e+13 -9.935024e+07
## [9448,] -1.411545e+06 -6.645281e+05 -1.149954e+11 -9.218052e+06
## [9449,] -1.562583e+05 -5.100349e+05 -4.922211e+10 -1.023319e+07
## [9450,] -1.215753e+08 -1.092387e+08 -3.062157e+11 -1.818087e+07
## [9451,] -3.363048e+11 -2.985159e+11 -1.834499e+15 -2.865056e+09
## [9452,] -2.303482e+11 -2.180584e+11 -1.389643e+15 -2.002804e+09
## [9453,] -4.940352e+09 -3.479103e+09 -2.317336e+13 -1.040403e+08
## [9454,] -9.853518e+05 -9.270166e+05 -1.150955e+11 -9.038015e+06
## [9455,] -1.775374e+05 -5.122201e+05 -4.926497e+10 -1.011151e+07
## [9456,] -1.187232e+08 -1.092707e+08 -3.064824e+11 -1.849116e+07
## [9457,] -3.493997e+11 -2.591672e+11 -1.836096e+15 -2.854924e+09
## [9458,] -2.510360e+11 -2.256986e+11 -1.390853e+15 -2.390051e+09

```

```

## [9459,] -4.925864e+09 -4.124035e+09 -2.319353e+13 -1.188708e+08
## [9460,] -1.334478e+06 -1.233095e+06 -1.151957e+11 -9.177783e+06
## [9461,] -2.628728e+05 -2.241696e+05 -4.935076e+10 -1.028771e+07
## [9462,] -1.208690e+08 -1.068306e+08 -3.068825e+11 -1.804025e+07
## [9463,] -3.439105e+11 -2.784916e+11 -1.837694e+15 -4.174959e+09
## [9464,] -2.405787e+11 -2.031673e+11 -1.392063e+15 -2.592291e+09
## [9465,] -4.004131e+09 -4.259758e+09 -2.321371e+13 -1.097297e+08
## [9466,] -1.488462e+06 -1.068279e+06 -1.153461e+11 -9.373456e+06
## [9467,] -2.111517e+05 -4.495150e+05 -4.937222e+10 -1.033357e+07
## [9468,] -1.161957e+08 -1.118514e+08 -3.070160e+11 -1.853806e+07
## [9469,] -3.255768e+11 -2.716469e+11 -1.839292e+15 -3.309611e+09
## [9470,] -2.469852e+11 -2.157874e+11 -1.393273e+15 -2.461663e+09
## [9471,] -4.651095e+09 -3.730985e+09 -2.323390e+13 -1.045615e+08
## [9472,] -1.036112e+06 -2.608707e+05 -1.153962e+11 -9.128587e+06
## [9473,] -2.552191e+05 -1.820736e+05 -4.941516e+10 -1.014868e+07
## [9474,] -1.172630e+08 -1.118837e+08 -3.072829e+11 -1.851001e+07
## [9475,] -3.330636e+11 -2.687394e+11 -1.840092e+15 -3.234886e+09
## [9476,] -2.334681e+11 -2.334681e+11 -1.393879e+15 -2.350188e+09
## [9477,] -4.766215e+09 -4.260157e+09 -2.325410e+13 -1.039515e+08
## [9478,] -1.206494e+06 -6.521283e+05 -1.154965e+11 -9.232757e+06
## [9479,] -1.623578e+05 -4.525942e+05 -4.943663e+10 -1.027899e+07
## [9480,] -1.191008e+08 -1.093825e+08 -3.074165e+11 -1.847541e+07
## [9481,] -3.192249e+11 -2.591625e+11 -1.840891e+15 -3.384923e+09
## [9482,] -2.303423e+11 -2.334673e+11 -1.394485e+15 -2.437423e+09
## [9483,] -4.722959e+09 -3.604402e+09 -2.325410e+13 -1.060967e+08
## [9484,] -9.152824e+05 -1.393446e+06 -1.154965e+11 -9.182969e+06
## [9485,] -1.703608e+05 -6.722747e+05 -4.943663e+10 -1.026642e+07
## [9486,] -1.217439e+08 -1.119160e+08 -3.075500e+11 -1.838950e+07
## [9487,] -3.171203e+11 -2.784868e+11 -1.842491e+15 -2.985199e+09
## [9488,] -2.551105e+11 -2.180513e+11 -1.395697e+15 -2.271979e+09
## [9489,] -5.044966e+09 -4.124820e+09 -2.327431e+13 -9.975733e+07
## [9490,] -1.608865e+06 -6.496623e+05 -1.155969e+11 -9.196757e+06
## [9491,] -3.272105e+05 -2.292632e+05 -4.950108e+10 -1.020261e+07
## [9492,] -1.132343e+08 -1.094465e+08 -3.079509e+11 -1.859446e+07
## [9493,] -3.417206e+11 -3.087768e+11 -1.844092e+15 -3.171158e+09
## [9494,] -2.485958e+11 -2.180499e+11 -1.396909e+15 -2.381380e+09
## [9495,] -4.651721e+09 -3.991668e+09 -2.329452e+13 -1.068077e+08
## [9496,] -6.592563e+05 -1.567420e+06 -1.156973e+11 -9.192457e+06
## [9497,] -1.204956e+05 -5.254295e+05 -4.952257e+10 -1.034273e+07
## [9498,] -1.158118e+08 -1.171032e+08 -3.080845e+11 -1.853917e+07
## [9499,] -3.087759e+11 -2.784844e+11 -1.844892e+15 -3.036085e+09
## [9500,] -2.633674e+11 -2.031604e+11 -1.398122e+15 -2.294944e+09
## [9501,] -4.680632e+09 -4.125311e+09 -2.332486e+13 -1.096865e+08
## [9502,] -1.398430e+06 -5.294251e+05 -1.158480e+11 -9.383715e+06
## [9503,] -1.627151e+05 -5.287581e+05 -4.958707e+10 -1.038592e+07
## [9504,] -1.186956e+08 -9.970627e+07 -3.083520e+11 -1.851113e+07
## [9505,] -3.160672e+11 -2.884062e+11 -1.846493e+15 -3.406022e+09

```

```

## [9506,] -2.477852e+11 -2.256892e+11 -1.398728e+15 -2.699911e+09
## [9507,] -5.255932e+09 -3.731918e+09 -2.333498e+13 -1.075210e+08
## [9508,] -1.242481e+06 -9.036229e+05 -1.158983e+11 -9.402113e+06
## [9509,] -3.259703e+05 -3.966567e+05 -4.960858e+10 -1.027730e+07
## [9510,] -1.202819e+08 -1.095104e+08 -3.084857e+11 -1.817940e+07
## [9511,] -3.384560e+11 -2.985025e+11 -1.847294e+15 -2.923910e+09
## [9512,] -2.583941e+11 -2.180470e+11 -1.399335e+15 -2.396941e+09
## [9513,] -4.942071e+09 -3.992055e+09 -2.333498e+13 -1.125713e+08
## [9514,] -1.327003e+06 -4.254593e+05 -1.158983e+11 -9.383827e+06
## [9515,] -2.143803e+05 -2.826967e+05 -4.960858e+10 -1.037820e+07
## [9516,] -1.117761e+08 -1.145767e+08 -3.084857e+11 -1.881757e+07
## [9517,] -3.276987e+11 -2.784820e+11 -1.847294e+15 -3.694642e+09
## [9518,] -2.526528e+11 -2.105365e+11 -1.399942e+15 -2.436744e+09
## [9519,] -4.680841e+09 -3.992151e+09 -2.334510e+13 -1.066703e+08
## [9520,] -1.426619e+06 -5.249865e+05 -1.160491e+11 -9.206808e+06
## [9521,] -1.949577e+05 -4.005161e+05 -4.969467e+10 -1.035050e+07
## [9522,] -1.131098e+08 -1.146422e+08 -3.090211e+11 -1.852341e+07
## [9523,] -3.266290e+11 -3.087700e+11 -1.850500e+15 -3.170470e+09
## [9524,] -2.461682e+11 -2.575662e+11 -1.402371e+15 -2.134141e+09
## [9525,] -4.709948e+09 -3.992537e+09 -2.338561e+13 -9.971617e+07
## [9526,] -1.606463e+06 -5.227742e+05 -1.161497e+11 -9.457641e+06
## [9527,] -2.462811e+05 -3.417223e+05 -4.971620e+10 -1.042183e+07
## [9528,] -1.224755e+08 -1.095904e+08 -3.091550e+11 -1.837578e+07
## [9529,] -3.108441e+11 -3.087691e+11 -1.851302e+15 -3.254903e+09
## [9530,] -2.437593e+11 -2.031556e+11 -1.402371e+15 -2.388632e+09
## [9531,] -4.553247e+09 -3.861366e+09 -2.338561e+13 -1.065173e+08
## [9532,] -1.073847e+06 -2.492936e+05 -1.161497e+11 -9.457641e+06
## [9533,] -2.318904e+05 -5.354469e+05 -4.971620e+10 -1.022323e+07
## [9534,] -1.224924e+08 -1.071151e+08 -3.092889e+11 -1.851597e+07
## [9535,] -3.406221e+11 -2.883996e+11 -1.852906e+15 -3.055816e+09
## [9536,] -2.526482e+11 -2.256833e+11 -1.403586e+15 -2.263307e+09
## [9537,] -4.667157e+09 -3.992731e+09 -2.340587e+13 -1.039718e+08
## [9538,] -1.401612e+06 -7.580527e+05 -1.162503e+11 -9.384614e+06
## [9539,] -4.351837e+05 -6.120373e+05 -4.975929e+10 -1.027700e+07
## [9540,] -1.209251e+08 -1.046681e+08 -3.094229e+11 -1.798066e+07
## [9541,] -3.202659e+11 -2.984967e+11 -1.852906e+15 -3.503909e+09
## [9542,] -2.502078e+11 -2.031542e+11 -1.403586e+15 -2.665665e+09
## [9543,] -4.553557e+09 -4.126195e+09 -2.341601e+13 -1.054869e+08
## [9544,] -1.295921e+06 -1.364731e+06 -1.163007e+11 -8.964579e+06
## [9545,] -1.806028e+05 -6.132335e+05 -4.978083e+10 -1.036070e+07
## [9546,] -1.238544e+08 -1.046838e+08 -3.095569e+11 -1.836466e+07
## [9547,] -3.234375e+11 -3.192111e+11 -1.853709e+15 -3.107468e+09
## [9548,] -2.485866e+11 -2.180413e+11 -1.404194e+15 -2.549611e+09
## [9549,] -4.441254e+09 -4.539442e+09 -2.341601e+13 -1.042009e+08
## [9550,] -1.262183e+06 -5.194645e+05 -1.163007e+11 -9.352767e+06
## [9551,] -2.534773e+05 -4.691940e+05 -4.978083e+10 -1.036386e+07
## [9552,] -1.178041e+08 -1.147076e+08 -3.095569e+11 -1.847765e+07

```

```

## [9553,] -3.046374e+11 -2.784755e+11 -1.853709e+15 -3.819567e+09
## [9554,] -2.493961e+11 -2.256826e+11 -1.404194e+15 -2.492591e+09
## [9555,] -4.898878e+09 -3.861651e+09 -2.341601e+13 -1.031353e+08
## [9556,] -1.196042e+06 -3.267036e+05 -1.163007e+11 -9.220947e+06
## [9557,] -2.293803e+05 -4.691940e+05 -4.978083e+10 -1.025360e+07
## [9558,] -1.214689e+08 -1.046838e+08 -3.095569e+11 -1.871502e+07
## [9559,] -3.319729e+11 -2.591493e+11 -1.854511e+15 -2.933253e+09
## [9560,] -2.542794e+11 -2.413585e+11 -1.405410e+15 -2.309633e+09
## [9561,] -4.483408e+09 -3.732852e+09 -2.343628e+13 -1.094243e+08
## [9562,] -1.020244e+06 -8.891537e+05 -1.164014e+11 -9.212113e+06
## [9563,] -2.411208e+05 -5.421777e+05 -4.984551e+10 -1.036914e+07
## [9564,] -1.196796e+08 -1.022958e+08 -3.099590e+11 -1.825115e+07
## [9565,] -3.077292e+11 -3.087640e+11 -1.856117e+15 -3.201429e+09
## [9566,] -2.477754e+11 -2.180385e+11 -1.406626e+15 -2.516643e+09
## [9567,] -4.413804e+09 -3.993213e+09 -2.345657e+13 -1.127660e+08
## [9568,] -1.288971e+06 -3.232189e+05 -1.165022e+11 -9.262203e+06
## [9569,] -3.715415e+05 -2.925315e+05 -4.986707e+10 -1.033933e+07
## [9570,] -1.226108e+08 -1.097184e+08 -3.102273e+11 -1.824376e+07
## [9571,] -3.287544e+11 -3.192059e+11 -1.858527e+15 -3.106957e+09
## [9572,] -2.510146e+11 -2.413555e+11 -1.407844e+15 -2.309339e+09
## [9573,] -4.870259e+09 -4.400110e+09 -2.347687e+13 -1.032284e+08
## [9574,] -6.611438e+05 -1.029155e+06 -1.166030e+11 -9.262427e+06
## [9575,] -3.854942e+05 -3.498100e+05 -4.991022e+10 -1.032393e+07
## [9576,] -1.189454e+08 -1.097344e+08 -3.103614e+11 -1.854799e+07
## [9577,] -3.036044e+11 -3.298240e+11 -1.858527e+15 -3.275419e+09
## [9578,] -2.828509e+11 -2.180363e+11 -1.408452e+15 -2.740944e+09
## [9579,] -4.710997e+09 -3.862315e+09 -2.348702e+13 -1.095043e+08
## [9580,] -1.233570e+06 -4.106380e+05 -1.166534e+11 -9.262538e+06
## [9581,] -2.024510e+05 -4.112258e+05 -4.993180e+10 -1.032568e+07
## [9582,] -1.197465e+08 -1.072575e+08 -3.104956e+11 -1.867849e+07
## [9583,] -3.319676e+11 -2.687204e+11 -1.859330e+15 -3.350432e+09
## [9584,] -2.583824e+11 -2.256775e+11 -1.408452e+15 -2.133435e+09
## [9585,] -4.855874e+09 -3.993600e+09 -2.349717e+13 -1.013539e+08
## [9586,] -9.960607e+05 -5.106900e+05 -1.167038e+11 -9.532424e+06
## [9587,] -2.497669e+05 -6.228451e+05 -4.995338e+10 -1.051749e+07
## [9588,] -1.221320e+08 -1.122882e+08 -3.106299e+11 -1.835551e+07
## [9589,] -3.118740e+11 -2.784683e+11 -1.860938e+15 -3.307238e+09
## [9590,] -2.342334e+11 -2.256761e+11 -1.409670e+15 -2.278040e+09
## [9591,] -4.208159e+09 -4.826851e+09 -2.350733e+13 -1.119594e+08
## [9592,] -1.346936e+06 -2.394726e+05 -1.168047e+11 -9.399564e+06
## [9593,] -2.869050e+05 -6.252597e+05 -4.999657e+10 -1.031835e+07
## [9594,] -1.179701e+08 -1.048402e+08 -3.108984e+11 -1.877082e+07
## [9595,] -3.330398e+11 -2.497403e+11 -1.861742e+15 -2.685586e+09
## [9596,] -2.542733e+11 -2.105246e+11 -1.410279e+15 -2.403542e+09
## [9597,] -4.841511e+09 -4.826957e+09 -2.351748e+13 -1.043570e+08
## [9598,] -1.147212e+06 -4.077052e+05 -1.168047e+11 -9.308326e+06
## [9599,] -2.052109e+05 -5.512176e+05 -5.001817e+10 -1.027917e+07

```



```

## [9600,] -1.216542e+08 -1.123368e+08 -3.110327e+11 -1.892292e+07
## [9601,] -3.170979e+11 -2.883890e+11 -1.863351e+15 -2.145759e+09
## [9602,] -2.616877e+11 -2.180327e+11 -1.411498e+15 -2.254652e+09
## [9603,] -4.827169e+09 -4.127373e+09 -2.353781e+13 -1.033216e+08
## [9604,] -5.496755e+05 -5.063308e+05 -1.169056e+11 -9.322207e+06
## [9605,] -1.849016e+05 -4.171270e+05 -5.006138e+10 -1.041841e+07
## [9606,] -1.227462e+08 -1.024504e+08 -3.113014e+11 -1.854253e+07
## [9607,] -3.170971e+11 -2.883881e+11 -1.864155e+15 -3.211119e+09
## [9608,] -2.518227e+11 -2.256732e+11 -1.412107e+15 -2.340112e+09
## [9609,] -4.611583e+09 -3.862885e+09 -2.354797e+13 -1.063377e+08
## [9610,] -7.654154e+05 -5.052439e+05 -1.169561e+11 -9.326874e+06
## [9611,] -3.000180e+05 -4.171270e+05 -5.006138e+10 -1.039626e+07
## [9612,] -1.201090e+08 -1.073525e+08 -3.113014e+11 -1.855284e+07
## [9613,] -3.118706e+11 -2.883881e+11 -1.864155e+15 -3.232279e+09
## [9614,] -2.616869e+11 -2.256732e+11 -1.412107e+15 -2.254579e+09
## [9615,] -4.697268e+09 -3.733879e+09 -2.354797e+13 -1.078541e+08
## [9616,] -1.271678e+06 -8.719448e+05 -1.170066e+11 -9.322431e+06
## [9617,] -1.074179e+05 -5.546268e+05 -5.008299e+10 -1.050269e+07
## [9618,] -1.182966e+08 -1.123854e+08 -3.114358e+11 -1.923565e+07
## [9619,] -3.341119e+11 -2.591384e+11 -1.865765e+15 -2.942196e+09
## [9620,] -2.445466e+11 -1.958962e+11 -1.413937e+15 -2.706359e+09
## [9621,] -4.726321e+09 -4.127765e+09 -2.357848e+13 -1.167746e+08
## [9622,] -1.567956e+06 -4.009031e+05 -1.171581e+11 -9.286368e+06
## [9623,] -1.875395e+05 -5.580465e+05 -5.014786e+10 -1.049529e+07
## [9624,] -1.193902e+08 -1.074159e+08 -3.118392e+11 -1.837343e+07
## [9625,] -3.438774e+11 -2.687125e+11 -1.867376e+15 -3.524377e+09
## [9626,] -2.326598e+11 -2.413473e+11 -1.414547e+15 -2.254289e+09
## [9627,] -4.915361e+09 -4.541193e+09 -2.358865e+13 -1.008608e+08
## [9628,] -1.249783e+06 -6.120373e+05 -1.171581e+11 -9.469075e+06
## [9629,] -2.184612e+05 -4.210845e+05 -5.014786e+10 -1.050483e+07
## [9630,] -1.207013e+08 -1.049497e+08 -3.118392e+11 -1.895241e+07
## [9631,] -3.449713e+11 -3.087522e+11 -1.867376e+15 -3.447342e+09
## [9632,] -2.700487e+11 -2.031418e+11 -1.414547e+15 -2.572928e+09
## [9633,] -4.640474e+09 -3.994469e+09 -2.358865e+13 -1.031865e+08
## [9634,] -1.150095e+06 -7.329819e+05 -1.172087e+11 -9.414188e+06
## [9635,] -3.432786e+05 -3.607408e+05 -5.016949e+10 -1.040508e+07
## [9636,] -1.170814e+08 -1.099427e+08 -3.121082e+11 -1.844816e+07
## [9637,] -3.298126e+11 -3.087505e+11 -1.868987e+15 -3.033559e+09
## [9638,] -2.534489e+11 -2.180277e+11 -1.415767e+15 -2.507363e+09
## [9639,] -4.857046e+09 -4.263649e+09 -2.360900e+13 -1.079493e+08
## [9640,] -5.865782e+05 -1.164497e+06 -1.172592e+11 -9.150728e+06
## [9641,] -2.683072e+05 -4.892945e+05 -5.019113e+10 -1.031526e+07
## [9642,] -1.181361e+08 -1.176164e+08 -3.122428e+11 -1.880595e+07
## [9643,] -3.341075e+11 -2.883824e+11 -1.869793e+15 -3.327742e+09
## [9644,] -2.445436e+11 -2.180270e+11 -1.416378e+15 -2.507286e+09
## [9645,] -4.871859e+09 -3.734626e+09 -2.362936e+13 -1.047429e+08
## [9646,] -9.040298e+05 -6.072642e+05 -1.173604e+11 -9.373381e+06

```

```

## [9647,] -2.167360e+05 -4.914349e+05 -5.023442e+10 -1.046109e+07
## [9648,] -1.142828e+08 -1.150516e+08 -3.123774e+11 -1.897903e+07
## [9649,] -3.298108e+11 -2.784586e+11 -1.870599e+15 -3.446983e+09
## [9650,] -2.429409e+11 -2.256674e+11 -1.416988e+15 -2.572618e+09
## [9651,] -4.683769e+09 -3.863645e+09 -2.362936e+13 -1.121535e+08
## [9652,] -1.241255e+06 -7.277576e+05 -1.174109e+11 -9.405487e+06
## [9653,] -2.555899e+05 -5.637694e+05 -5.025607e+10 -1.053279e+07
## [9654,] -1.194737e+08 -1.050280e+08 -3.125120e+11 -1.840620e+07
## [9655,] -3.298099e+11 -2.687085e+11 -1.871405e+15 -2.941616e+09
## [9656,] -2.559028e+11 -2.180256e+11 -1.417599e+15 -2.323779e+09
## [9657,] -4.886587e+09 -4.128355e+09 -2.363955e+13 -1.045444e+08
## [9658,] -1.034619e+06 -6.060739e+05 -1.174109e+11 -9.391769e+06
## [9659,] -2.083939e+05 -3.644217e+05 -5.025607e+10 -1.046603e+07
## [9660,] -1.158395e+08 -1.255662e+08 -3.125120e+11 -1.873624e+07
## [9661,] -3.438729e+11 -2.883808e+11 -1.871405e+15 -3.147284e+09
## [9662,] -2.526305e+11 -1.817944e+11 -1.417599e+15 -2.394697e+09
## [9663,] -4.655265e+09 -4.401732e+09 -2.363955e+13 -1.066957e+08
## [9664,] -1.323977e+06 -4.944393e+05 -1.174615e+11 -9.580235e+06
## [9665,] -2.321259e+05 -6.410683e+05 -5.027772e+10 -1.046463e+07
## [9666,] -1.213288e+08 -1.001952e+08 -3.126467e+11 -1.872214e+07
## [9667,] -3.351831e+11 -2.784570e+11 -1.872211e+15 -3.852024e+09
## [9668,] -2.591945e+11 -2.105148e+11 -1.418821e+15 -1.767291e+09
## [9669,] -4.655474e+09 -4.264148e+09 -2.365992e+13 -1.086824e+08
## [9670,] -1.154623e+06 -7.238516e+05 -1.175628e+11 -9.424132e+06
## [9671,] -2.431813e+05 -6.435179e+05 -5.032105e+10 -1.040794e+07
## [9672,] -1.253666e+08 -1.026516e+08 -3.130509e+11 -1.850443e+07
## [9673,] -3.362605e+11 -2.687053e+11 -1.874632e+15 -3.209993e+09
## [9674,] -2.365822e+11 -2.493763e+11 -1.420043e+15 -2.269066e+09
## [9675,] -4.613036e+09 -4.264447e+09 -2.369050e+13 -1.122507e+08
## [9676,] -9.080447e+05 -8.520803e+05 -1.177147e+11 -9.410738e+06
## [9677,] -1.753338e+04 -7.285400e+05 -5.038607e+10 -1.031847e+07
## [9678,] -1.294531e+08 -1.203604e+08 -3.133204e+11 -1.937171e+07
## [9679,] -3.351787e+11 -2.784529e+11 -1.876246e+15 -3.252201e+09
## [9680,] -2.218246e+11 -2.413383e+11 -1.421878e+15 -2.426031e+09
## [9681,] -4.684606e+09 -3.864405e+09 -2.371090e+13 -1.046538e+08
## [9682,] -1.229365e+06 -3.893753e+05 -1.177653e+11 -9.465840e+06
## [9683,] -2.866922e+05 -5.718304e+05 -5.040775e+10 -1.049113e+07
## [9684,] -1.201147e+08 -1.002870e+08 -3.134553e+11 -1.915783e+07
## [9685,] -3.234114e+11 -2.984708e+11 -1.877861e+15 -3.479081e+09
## [9686,] -2.567164e+11 -2.256594e+11 -1.423713e+15 -2.514497e+09
## [9687,] -4.472468e+09 -4.402746e+09 -2.374151e+13 -1.096851e+08
## [9688,] -1.240846e+06 -5.942345e+05 -1.179174e+11 -9.297138e+06
## [9689,] -2.108990e+05 -6.521283e+05 -5.047283e+10 -1.038865e+07
## [9690,] -1.238659e+08 -1.204275e+08 -3.138599e+11 -1.863677e+07
## [9691,] -3.355327e+11 -3.018711e+11 -3.012924e+13 -1.744681e+09
## [9692,] -2.549336e+11 -1.986432e+11 -2.282305e+13 -1.230552e+09
## [9693,] -4.269548e+09 -3.613041e+09 -3.805918e+11 -2.523954e+07

```

```

## [9694,] -1.735905e+07 -1.333578e+07 -1.890292e+09 -1.505340e+04
## [9695,] -7.050485e+06 -5.504709e+06 -8.091123e+08 -5.578888e+04
## [9696,] -6.325045e+07 -5.286643e+07 -5.031380e+09 -9.397794e+05
## [9697,] -3.269505e+11 -2.917167e+11 -3.012924e+13 -1.629848e+09
## [9698,] -2.435947e+11 -2.364416e+11 -2.282305e+13 -1.236249e+09
## [9699,] -4.324435e+09 -3.365775e+09 -3.805918e+11 -2.492503e+07
## [9700,] -1.836763e+07 -1.388604e+07 -1.890292e+09 -1.006469e+04
## [9701,] -6.972545e+06 -5.737315e+06 -8.091123e+08 -5.578888e+04
## [9702,] -6.325045e+07 -4.777489e+07 -5.031380e+09 -9.421010e+05
## [9703,] -3.398655e+11 -2.622957e+11 -3.012924e+13 -1.614832e+09
## [9704,] -2.427946e+11 -2.133677e+11 -2.282305e+13 -1.247684e+09
## [9705,] -3.908232e+09 -3.365775e+09 -3.805918e+11 -2.673331e+07
## [9706,] -1.595911e+07 -1.444743e+07 -1.890292e+09 -1.450948e+04
## [9707,] -6.439092e+06 -5.276916e+06 -8.091123e+08 -5.486579e+04
## [9708,] -5.839846e+07 -6.005609e+07 -5.031380e+09 -9.537515e+05
## [9709,] -3.585899e+11 -2.435503e+11 -3.012924e+13 -1.675312e+09
## [9710,] -2.524822e+11 -2.059397e+11 -2.282305e+13 -1.219196e+09
## [9711,] -4.310781e+09 -3.613133e+09 -3.818853e+11 -2.609567e+07
## [9712,] -1.595301e+07 -1.333020e+07 -1.896716e+09 -1.935320e+04
## [9713,] -6.460128e+06 -5.050502e+06 -8.118621e+08 -5.070942e+04
## [9714,] -6.288247e+07 -6.006793e+07 -5.048478e+09 -1.000205e+06
## [9715,] -3.376948e+11 -2.528354e+11 -3.023163e+13 -1.729080e+09
## [9716,] -2.541144e+11 -2.133670e+11 -2.290062e+13 -1.163154e+09
## [9717,] -4.324536e+09 -3.488403e+09 -3.818853e+11 -2.430947e+07
## [9718,] -1.747718e+07 -1.279117e+07 -1.896716e+09 -1.655753e+04
## [9719,] -6.585418e+06 -5.050502e+06 -8.118621e+08 -5.661635e+04
## [9720,] -6.326261e+07 -4.614537e+07 -5.048478e+09 -9.296877e+05
## [9721,] -3.340960e+11 -2.883717e+11 -1.880285e+15 -3.135894e+09
## [9722,] -2.445337e+11 -1.958847e+11 -1.424325e+15 -2.385943e+09
## [9723,] -4.599451e+09 -3.996015e+09 -2.375172e+13 -1.060056e+08
## [9724,] -1.124021e+06 -4.826891e+05 -1.180188e+11 -9.352020e+06
## [9725,] -2.803128e+05 -2.649455e+05 -5.051623e+10 -1.046823e+07
## [9726,] -1.194126e+08 -1.101832e+08 -3.141299e+11 -1.898217e+07
## [9727,] -3.405908e+11 -2.784481e+11 -1.881093e+15 -3.467735e+09
## [9728,] -2.373660e+11 -2.256579e+11 -1.424938e+15 -2.654539e+09
## [9729,] -4.403051e+09 -4.129631e+09 -2.377214e+13 -1.011372e+08
## [9730,] -7.607695e+05 -7.096195e+05 -1.181202e+11 -9.730029e+06
## [9731,] -2.417966e+05 -9.173305e+05 -5.055966e+10 -1.037673e+07
## [9732,] -1.173627e+08 -1.127421e+08 -3.143999e+11 -1.887053e+07
## [9733,] -3.108109e+11 -2.883693e+11 -1.882710e+15 -3.369472e+09
## [9734,] -2.633313e+11 -2.105064e+11 -1.426163e+15 -2.409551e+09
## [9735,] -5.647226e+09 -4.129729e+09 -2.378235e+13 -9.616297e+07
## [9736,] -1.136630e+06 -7.096195e+05 -1.181202e+11 -9.411638e+06
## [9737,] -2.932759e+05 -3.546352e+05 -5.058138e+10 -1.042913e+07
## [9738,] -1.192013e+08 -1.127583e+08 -3.145350e+11 -1.915896e+07
## [9739,] -3.340925e+11 -2.883685e+11 -1.883519e+15 -2.890052e+09
## [9740,] -2.616681e+11 -2.105057e+11 -1.426775e+15 -2.815486e+09

```

```

## [9741,] -5.245747e+09 -4.129828e+09 -2.379257e+13 -1.015895e+08
## [9742,] -1.087829e+06 -4.795090e+05 -1.181710e+11 -9.563364e+06
## [9743,] -2.843730e+05 -6.607959e+05 -5.062484e+10 -1.041366e+07
## [9744,] -1.239850e+08 -1.014018e+08 -3.148052e+11 -1.904680e+07
## [9745,] -3.460472e+11 -2.784441e+11 -1.885137e+15 -3.052438e+09
## [9746,] -2.437276e+11 -2.180135e+11 -1.428001e+15 -2.522101e+09
## [9747,] -4.197560e+09 -4.685652e+09 -2.381301e+13 -1.111172e+08
## [9748,] -1.023395e+06 -4.773948e+05 -1.182725e+11 -9.430288e+06
## [9749,] -3.056865e+05 -5.834455e+05 -5.062484e+10 -1.048343e+07
## [9750,] -1.221435e+08 -1.102794e+08 -3.149404e+11 -1.903258e+07
## [9751,] -3.128893e+11 -2.883660e+11 -1.885946e+15 -3.850411e+09
## [9752,] -2.526159e+11 -2.031252e+11 -1.429227e+15 -2.214213e+09
## [9753,] -4.657247e+09 -3.865545e+09 -2.383346e+13 -1.029214e+08
## [9754,] -8.338396e+05 -5.836790e+05 -1.183741e+11 -9.526951e+06
## [9755,] -2.704806e+05 -5.130955e+05 -5.066831e+10 -1.059848e+07
## [9756,] -1.224251e+08 -1.028840e+08 -3.150755e+11 -1.894538e+07
## [9757,] -3.373290e+11 -2.883652e+11 -1.886756e+15 -2.800246e+09
## [9758,] -2.405329e+11 -2.180121e+11 -1.429227e+15 -2.772287e+09
## [9759,] -4.932624e+09 -3.865545e+09 -2.383346e+13 -1.102684e+08
## [9760,] -1.209115e+06 -5.836790e+05 -1.183741e+11 -9.536161e+06
## [9761,] -3.073788e+05 -5.130955e+05 -5.066831e+10 -1.062404e+07
## [9762,] -1.192847e+08 -1.128395e+08 -3.152108e+11 -1.901460e+07
## [9763,] -3.394968e+11 -2.984608e+11 -1.887566e+15 -3.347336e+09
## [9764,] -2.295219e+11 -2.256521e+11 -1.429841e+15 -2.449080e+09
## [9765,] -4.772337e+09 -3.996884e+09 -2.384369e+13 -9.914954e+07
## [9766,] -1.049095e+06 -4.742322e+05 -1.184249e+11 -9.476488e+06
## [9767,] -2.512202e+05 -7.469168e+05 -5.069005e+10 -1.053328e+07
## [9768,] -1.179814e+08 -1.078122e+08 -3.152108e+11 -1.895203e+07
## [9769,] -3.234010e+11 -2.686927e+11 -1.887566e+15 -3.250981e+09
## [9770,] -2.550673e+11 -2.105021e+11 -1.429841e+15 -2.546371e+09
## [9771,] -4.628824e+09 -4.403761e+09 -2.384369e+13 -1.111655e+08
## [9772,] -1.126875e+06 -2.161387e+05 -1.184249e+11 -9.407737e+06
## [9773,] -3.082267e+05 -7.469168e+05 -5.069005e+10 -1.044748e+07
## [9774,] -1.169603e+08 -1.078281e+08 -3.153460e+11 -1.858540e+07
## [9775,] -3.035733e+11 -2.984599e+11 -1.888375e+15 -3.577547e+09
## [9776,] -2.517997e+11 -2.334238e+11 -1.430454e+15 -2.191228e+09
## [9777,] -4.266044e+09 -4.543871e+09 -2.385392e+13 -1.042307e+08
## [9778,] -1.139499e+06 -6.993577e+05 -1.185265e+11 -9.633477e+06
## [9779,] -2.194051e+05 -5.892969e+05 -5.073356e+10 -1.058785e+07
## [9780,] -1.219467e+08 -1.103436e+08 -3.154813e+11 -1.898619e+07
## [9781,] -3.394941e+11 -2.883619e+11 -1.889996e+15 -2.879384e+09
## [9782,] -2.517981e+11 -2.031225e+11 -1.431682e+15 -2.071265e+09
## [9783,] -4.729368e+09 -3.865925e+09 -2.387438e+13 -1.046898e+08
## [9784,] -1.319619e+06 -5.790180e+05 -1.185773e+11 -9.339573e+06
## [9785,] -6.171065e+04 -4.493101e+05 -5.075531e+10 -1.068563e+07
## [9786,] -1.214523e+08 -1.154618e+08 -3.157519e+11 -1.868784e+07
## [9787,] -3.035708e+11 -2.984574e+11 -1.890806e+15 -3.293281e+09

```

```

## [9788,] -2.509839e+11 -1.887615e+11 -1.432295e+15 -2.329835e+09
## [9789,] -4.743880e+09 -4.130712e+09 -2.388462e+13 -1.051343e+08
## [9790,] -9.976476e+05 -2.133061e+05 -1.186282e+11 -9.495316e+06
## [9791,] -3.007719e+05 -5.185837e+05 -5.077708e+10 -1.057226e+07
## [9792,] -1.222449e+08 -1.129044e+08 -3.157519e+11 -1.871890e+07
## [9793,] -3.244584e+11 -2.686895e+11 -1.890806e+15 -3.197712e+09
## [9794,] -2.421231e+11 -2.104993e+11 -1.432295e+15 -2.400845e+09
## [9795,] -4.933161e+09 -4.130712e+09 -2.388462e+13 -1.036372e+08
## [9796,] -1.058131e+06 -4.700318e+05 -1.186282e+11 -9.312355e+06
## [9797,] -3.569872e+05 -2.744692e+05 -5.077708e+10 -1.039120e+07
## [9798,] -1.211887e+08 -1.103758e+08 -3.157519e+11 -1.855359e+07
## [9799,] -3.319332e+11 -2.883611e+11 -1.890806e+15 -3.735056e+09
## [9800,] -2.509832e+11 -1.887609e+11 -1.432909e+15 -2.432672e+09
## [9801,] -4.700935e+09 -3.997464e+09 -2.390510e+13 -1.066737e+08
## [9802,] -1.213757e+06 -2.861197e+05 -1.187299e+11 -9.675645e+06
## [9803,] -2.269276e+05 -2.760729e+05 -5.082061e+10 -1.069100e+07
## [9804,] -1.222787e+08 -1.104079e+08 -3.160226e+11 -1.846378e+07
## [9805,] -3.308584e+11 -2.984558e+11 -1.892427e+15 -3.176493e+09
## [9806,] -2.591758e+11 -2.031204e+11 -1.433524e+15 -2.093264e+09
## [9807,] -4.629448e+09 -4.130908e+09 -2.390510e+13 -1.064576e+08
## [9808,] -1.070366e+06 -3.714670e+05 -1.187299e+11 -9.380981e+06
## [9809,] -2.138287e+05 -6.732775e+05 -5.084239e+10 -1.060314e+07
## [9810,] -1.252242e+08 -1.260290e+08 -3.161580e+11 -1.912402e+07
## [9811,] -3.255184e+11 -3.191688e+11 -1.893238e+15 -3.644200e+09
## [9812,] -2.453238e+11 -2.180056e+11 -1.434752e+15 -2.496878e+09
## [9813,] -4.544592e+09 -4.266743e+09 -2.392559e+13 -1.022127e+08
## [9814,] -1.082670e+06 -2.104921e+05 -1.188316e+11 -9.592537e+06
## [9815,] -4.283751e+05 -2.283860e+05 -5.086417e+10 -1.061771e+07
## [9816,] -1.186350e+08 -1.079392e+08 -3.162935e+11 -1.907840e+07
## [9817,] -3.308567e+11 -2.686863e+11 -1.894049e+15 -3.422537e+09
## [9818,] -2.279635e+11 -2.180049e+11 -1.435367e+15 -2.472541e+09
## [9819,] -4.239639e+09 -4.266942e+09 -2.394609e+13 -1.093478e+08
## [9820,] -9.885098e+05 -9.590723e+05 -1.189334e+11 -9.532801e+06
## [9821,] -3.507688e+05 -4.565096e+05 -5.090775e+10 -1.061808e+07
## [9822,] -1.181474e+08 -1.207631e+08 -3.165645e+11 -1.889358e+07
## [9823,] -3.460355e+11 -3.087224e+11 -1.895672e+15 -3.071968e+09
## [9824,] -2.558796e+11 -2.256449e+11 -1.435981e+15 -2.368707e+09
## [9825,] -4.889793e+09 -4.131301e+09 -2.394609e+13 -1.039439e+08
## [9826,] -1.429468e+06 -4.637663e+05 -1.189334e+11 -9.578910e+06
## [9827,] -2.345769e+05 -3.335527e+05 -5.090775e+10 -1.060210e+07
## [9828,] -1.212897e+08 -1.155603e+08 -3.165645e+11 -1.883122e+07
## [9829,] -3.471329e+11 -2.784336e+11 -1.895672e+15 -3.113432e+09
## [9830,] -2.534235e+11 -2.334171e+11 -1.435981e+15 -2.329393e+09
## [9831,] -4.658394e+09 -4.404775e+09 -2.394609e+13 -1.056582e+08
## [9832,] -1.256695e+06 -2.090921e+05 -1.189334e+11 -9.532801e+06
## [9833,] -3.743975e+05 -5.987197e+05 -5.090775e+10 -1.055104e+07
## [9834,] -1.145335e+08 -1.181474e+08 -3.165645e+11 -1.892481e+07

```

```

## [9835,] -3.504354e+11 -2.784336e+11 -1.895672e+15 -3.103040e+09
## [9836,] -2.405247e+11 -2.493565e+11 -1.435981e+15 -2.376610e+09
## [9837,] -4.171763e+09 -4.266942e+09 -2.394609e+13 -1.113267e+08
## [9838,] -1.288624e+06 -3.668244e+05 -1.189844e+11 -9.468548e+06
## [9839,] -2.547407e+05 -6.783029e+05 -5.092954e+10 -1.067429e+07
## [9840,] -1.168833e+08 -1.181806e+08 -3.168355e+11 -1.903196e+07
## [9841,] -3.191636e+11 -3.087199e+11 -1.898107e+15 -3.666184e+09
## [9842,] -2.485447e+11 -2.180021e+11 -1.437826e+15 -2.456130e+09
## [9843,] -4.559231e+09 -3.866876e+09 -2.397685e+13 -1.078685e+08
## [9844,] -9.400698e+05 -3.649755e+05 -1.190862e+11 -9.468774e+06
## [9845,] -2.570600e+05 -5.296476e+05 -5.099496e+10 -1.060922e+07
## [9846,] -1.232096e+08 -1.055612e+08 -3.171068e+11 -1.859883e+07
## [9847,] -3.212723e+11 -2.784304e+11 -1.898919e+15 -3.643554e+09
## [9848,] -2.509763e+11 -2.334142e+11 -1.438441e+15 -2.190298e+09
## [9849,] -4.601836e+09 -3.737896e+09 -2.398711e+13 -1.074500e+08
## [9850,] -1.088658e+06 -5.662967e+05 -1.191372e+11 -9.588600e+06
## [9851,] -2.431060e+05 -5.307604e+05 -5.101677e+10 -1.071353e+07
## [9852,] -1.240249e+08 -1.031321e+08 -3.172424e+11 -2.012165e+07
## [9853,] -3.297784e+11 -2.784287e+11 -1.900544e+15 -3.238970e+09
## [9854,] -2.453177e+11 -2.104909e+11 -1.439672e+15 -2.472009e+09
## [9855,] -4.673319e+09 -3.998430e+09 -2.400763e+13 -1.006493e+08
## [9856,] -1.213353e+06 -3.622109e+05 -1.192391e+11 -9.700000e+06
## [9857,] -3.000683e+05 -6.846108e+05 -5.103859e+10 -1.070248e+07
## [9858,] -1.235094e+08 -1.105685e+08 -3.173781e+11 -1.883985e+07
## [9859,] -3.460301e+11 -2.784287e+11 -1.900544e+15 -3.144198e+09
## [9860,] -2.674930e+11 -2.493519e+11 -1.439672e+15 -2.496267e+09
## [9861,] -4.934449e+09 -4.545416e+09 -2.400763e+13 -1.027603e+08
## [9862,] -1.164563e+06 -3.622109e+05 -1.192391e+11 -9.686068e+06
## [9863,] -2.841612e+05 -6.846108e+05 -5.103859e+10 -1.050439e+07
## [9864,] -1.190458e+08 -1.182637e+08 -3.175138e+11 -1.890888e+07
## [9865,] -3.427476e+11 -2.883504e+11 -1.901357e+15 -3.123243e+09
## [9866,] -2.469267e+11 -2.179992e+11 -1.440288e+15 -2.391931e+09
## [9867,] -4.803103e+09 -3.867256e+09 -2.401790e+13 -1.061992e+08
## [9868,] -9.779021e+05 -4.565096e+05 -1.192901e+11 -9.547415e+06
## [9869,] -2.644108e+05 -6.070260e+05 -5.106041e+10 -1.061457e+07
## [9870,] -1.203550e+08 -1.056083e+08 -3.175138e+11 -1.890888e+07
## [9871,] -3.118313e+11 -2.984466e+11 -1.901357e+15 -2.473551e+09
## [9872,] -2.501619e+11 -1.887529e+11 -1.440288e+15 -2.447794e+09
## [9873,] -4.419390e+09 -5.127567e+09 -2.401790e+13 -1.055531e+08
## [9874,] -4.075101e+05 -8.089091e+05 -1.192901e+11 -9.496785e+06
## [9875,] -2.073348e+05 -6.070260e+05 -5.106041e+10 -1.051571e+07
## [9876,] -1.151775e+08 -1.182803e+08 -3.176495e+11 -1.899889e+07
## [9877,] -3.233853e+11 -3.087156e+11 -1.902170e+15 -3.228196e+09
## [9878,] -2.542340e+11 -2.179978e+11 -1.441519e+15 -2.092356e+09
## [9879,] -4.702297e+09 -4.132185e+09 -2.403843e+13 -1.049402e+08
## [9880,] -7.651480e+05 -8.047908e+05 -1.194431e+11 -9.543147e+06
## [9881,] -2.420372e+05 -4.668938e+05 -5.112591e+10 -1.070322e+07

```

```

## [9882,] -1.311390e+08 -1.106328e+08 -3.179211e+11 -1.844260e+07
## [9883,] -3.319191e+11 -2.984441e+11 -1.903796e+15 -3.238622e+09
## [9884,] -2.641441e+11 -2.334097e+11 -1.442135e+15 -2.471705e+09
## [9885,] -4.574099e+09 -3.998817e+09 -2.404871e+13 -1.097268e+08
## [9886,] -1.341266e+06 -2.747896e+05 -1.194431e+11 -9.543147e+06
## [9887,] -2.718653e+05 -4.022589e+05 -5.112591e+10 -1.068396e+07
## [9888,] -1.214581e+08 -1.106328e+08 -3.179211e+11 -1.897049e+07
## [9889,] -3.255062e+11 -2.591011e+11 -1.904609e+15 -3.206790e+09
## [9890,] -2.461174e+11 -2.031094e+11 -1.443367e+15 -2.431391e+09
## [9891,] -4.920506e+09 -3.738737e+09 -2.407953e+13 -1.003368e+08
## [9892,] -1.218004e+06 -6.727760e+05 -1.195962e+11 -9.779938e+06
## [9893,] -2.491715e+05 -6.934910e+05 -5.119145e+10 -1.064127e+07
## [9894,] -1.147462e+08 -1.209815e+08 -3.183286e+11 -1.893836e+07
## [9895,] -3.076766e+11 -3.191549e+11 -1.906236e+15 -3.238361e+09
## [9896,] -2.437080e+11 -2.104860e+11 -1.443984e+15 -2.391482e+09
## [9897,] -4.159535e+09 -4.268240e+09 -2.407953e+13 -1.047884e+08
## [9898,] -6.365732e+05 -1.251150e+06 -1.195962e+11 -9.571155e+06
## [9899,] -4.904283e+05 -4.700318e+05 -5.119145e+10 -1.047866e+07
## [9900,] -1.217894e+08 -1.132295e+08 -3.184645e+11 -1.933240e+07
## [9901,] -3.265679e+11 -2.883447e+11 -1.907050e+15 -3.334442e+09
## [9902,] -2.461159e+11 -2.031080e+11 -1.444600e+15 -2.487558e+09
## [9903,] -4.659959e+09 -4.132774e+09 -2.410010e+13 -1.167121e+08
## [9904,] -1.181977e+06 -6.702713e+05 -1.196984e+11 -9.756858e+06
## [9905,] -4.721297e+05 -5.419527e+05 -5.123516e+10 -1.069933e+07
## [9906,] -1.218063e+08 -1.082093e+08 -3.186005e+11 -1.918157e+07
## [9907,] -3.362233e+11 -2.686721e+11 -1.908678e+15 -3.238100e+09
## [9908,] -2.097403e+11 -2.575111e+11 -1.445834e+15 -2.375418e+09
## [9909,] -4.906154e+09 -4.132873e+09 -2.411038e+13 -1.054793e+08
## [9910,] -1.180317e+06 -6.690207e+05 -1.197494e+11 -9.626951e+06
## [9911,] -2.465694e+05 -4.731804e+05 -5.125703e+10 -1.069149e+07
## [9912,] -1.186739e+08 -1.132620e+08 -3.187364e+11 -1.929324e+07
## [9913,] -3.427396e+11 -2.784207e+11 -1.908678e+15 -3.185282e+09
## [9914,] -2.517805e+11 -2.179928e+11 -1.445834e+15 -2.601973e+09
## [9915,] -4.574823e+09 -4.268640e+09 -2.412067e+13 -1.118222e+08
## [9916,] -1.244321e+06 -4.462421e+05 -1.198005e+11 -9.599317e+06
## [9917,] -2.985299e+05 -6.985911e+05 -5.127890e+10 -1.076076e+07
## [9918,] -1.236963e+08 -1.057655e+08 -3.188724e+11 -1.905889e+07
## [9919,] -3.308400e+11 -2.883422e+11 -1.909493e+15 -3.464586e+09
## [9920,] -2.599861e+11 -2.031060e+11 -1.446451e+15 -2.536113e+09
## [9921,] -4.760839e+09 -4.133069e+09 -2.413096e+13 -1.055107e+08
## [9922,] -8.072055e+05 -7.938600e+05 -1.198516e+11 -9.645700e+06
## [9923,] -3.212236e+05 -6.201944e+05 -5.130077e+10 -1.050023e+07
## [9924,] -1.237303e+08 -1.082729e+08 -3.191445e+11 -1.927134e+07
## [9925,] -3.244366e+11 -2.404663e+11 -1.911122e+15 -2.998485e+09
## [9926,] -2.341875e+11 -2.493420e+11 -1.447685e+15 -2.568744e+09
## [9927,] -4.877301e+09 -3.999783e+09 -2.415154e+13 -1.042558e+08
## [9928,] -7.135386e+05 -9.293724e+05 -1.199539e+11 -9.530461e+06

```

```

## [9929,] -3.010402e+05 -5.475927e+05 -5.134453e+10 -1.066978e+07
## [9930,] -1.240136e+08 -1.158891e+08 -3.192806e+11 -1.902668e+07
## [9931,] -3.035489e+11 -2.883397e+11 -1.911937e+15 -3.453354e+09
## [9932,] -2.240917e+11 -2.256303e+11 -1.448302e+15 -2.659908e+09
## [9933,] -4.906582e+09 -3.999783e+09 -2.415154e+13 -1.072695e+08
## [9934,] -1.289526e+06 -5.480451e+05 -1.199539e+11 -9.692309e+06
## [9935,] -2.956810e+05 -7.024284e+05 -5.134453e+10 -1.074362e+07
## [9936,] -1.227015e+08 -1.083047e+08 -3.194167e+11 -1.941108e+07
## [9937,] -3.045759e+11 -3.297652e+11 -1.912752e+15 -2.927296e+09
## [9938,] -2.525914e+11 -2.413052e+11 -1.448919e+15 -2.128779e+09
## [9939,] -4.717922e+09 -4.133364e+09 -2.416184e+13 -9.962185e+07
## [9940,] -1.204548e+06 -6.627851e+05 -1.200050e+11 -9.785521e+06
## [9941,] -3.294347e+05 -2.965126e+05 -5.136642e+10 -1.071007e+07
## [9942,] -1.190181e+08 -1.083047e+08 -3.194167e+11 -1.899160e+07
## [9943,] -3.202019e+11 -2.686681e+11 -1.912752e+15 -3.184851e+09
## [9944,] -2.525914e+11 -2.104804e+11 -1.448919e+15 -2.304421e+09
## [9945,] -4.546962e+09 -4.546962e+09 -2.416184e+13 -1.034181e+08
## [9946,] -1.075558e+06 -3.476441e+05 -1.200562e+11 -9.641524e+06
## [9947,] -2.815116e+05 -6.250180e+05 -5.138832e+10 -1.070865e+07
## [9948,] -1.169551e+08 -1.159221e+08 -3.195528e+11 -1.907135e+07
## [9949,] -3.297634e+11 -2.496907e+11 -1.914383e+15 -3.237491e+09
## [9950,] -2.023713e+11 -2.914888e+11 -1.450155e+15 -2.872953e+09
## [9951,] -4.660898e+09 -3.739765e+09 -2.419274e+13 -1.026148e+08
## [9952,] -1.232416e+06 -3.458442e+05 -1.201585e+11 -9.660287e+06
## [9953,] -2.340739e+05 -5.532618e+05 -5.145402e+10 -1.083963e+07
## [9954,] -1.162293e+08 -1.159714e+08 -3.199614e+11 -1.903913e+07
## [9955,] -3.118151e+11 -3.191437e+11 -1.916830e+15 -3.398267e+09
## [9956,] -2.525875e+11 -2.104769e+11 -1.452009e+15 -2.454389e+09
## [9957,] -4.689733e+09 -3.869062e+09 -2.421335e+13 -1.203132e+08
## [9958,] -8.352916e+05 -5.401541e+05 -1.203121e+11 -9.563516e+06
## [9959,] -3.023665e+05 -6.322883e+05 -5.151977e+10 -1.067447e+07
## [9960,] -1.149919e+08 -1.084161e+08 -3.203703e+11 -1.895480e+07
## [9961,] -3.297590e+11 -2.883332e+11 -1.918462e+15 -3.322454e+09
## [9962,] -2.357537e+11 -2.179842e+11 -1.453245e+15 -2.559832e+09
## [9963,] -4.747459e+09 -4.981033e+09 -2.423397e+13 -1.104547e+08
## [9964,] -1.033935e+06 -3.413651e+05 -1.204145e+11 -9.540692e+06
## [9965,] -4.218782e+05 -4.218782e+05 -5.156363e+10 -1.063640e+07
## [9966,] -1.220594e+08 -1.160537e+08 -3.206430e+11 -1.893685e+07
## [9967,] -3.118117e+11 -2.686610e+11 -1.920095e+15 -3.268775e+09
## [9968,] -2.452996e+11 -2.179828e+11 -1.454482e+15 -2.311554e+09
## [9969,] -4.762104e+09 -4.000750e+09 -2.425460e+13 -1.153805e+08
## [9970,] -1.306101e+06 -3.404727e+05 -1.204657e+11 -9.623917e+06
## [9971,] -2.190330e+05 -4.218782e+05 -5.156363e+10 -1.078411e+07
## [9972,] -1.176058e+08 -1.134898e+08 -3.206430e+11 -1.938734e+07
## [9973,] -3.372926e+11 -2.984274e+11 -1.920095e+15 -3.038525e+09
## [9974,] -2.461037e+11 -2.030970e+11 -1.454482e+15 -1.853247e+09
## [9975,] -4.718867e+09 -4.269938e+09 -2.425460e+13 -1.133657e+08

```



```

## [9976,] -8.571098e+05 -4.320639e+05 -1.205170e+11 -9.637917e+06
## [9977,] -2.290438e+05 -7.165885e+05 -5.158556e+10 -1.076980e+07
## [9978,] -1.268997e+08 -1.084797e+08 -3.209158e+11 -1.930604e+07
## [9979,] -3.170360e+11 -2.883299e+11 -1.921729e+15 -3.834688e+09
## [9980,] -2.566761e+11 -2.030956e+11 -1.455720e+15 -2.303614e+09
## [9981,] -5.327068e+09 -4.134445e+09 -2.427524e+13 -1.006279e+08
## [9982,] -1.782831e+06 -4.310600e+05 -1.205682e+11 -9.385026e+06
## [9983,] -3.069531e+04 -7.178828e+05 -5.160750e+10 -1.058883e+07
## [9984,] -1.242179e+08 -1.084797e+08 -3.209158e+11 -1.898143e+07
## [9985,] -3.351292e+11 -2.883299e+11 -1.921729e+15 -3.121109e+09
## [9986,] -2.302690e+11 -2.104727e+11 -1.455720e+15 -2.863528e+09
## [9987,] -4.576373e+09 -4.408021e+09 -2.427524e+13 -1.070260e+08
## [9988,] -8.835136e+05 -4.310600e+05 -1.205682e+11 -9.550249e+06
## [9989,] -2.392782e+05 -6.371586e+05 -5.160750e+10 -1.066559e+07
## [9990,] -1.290656e+08 -1.186796e+08 -3.209158e+11 -1.979279e+07
## [9991,] -3.297555e+11 -2.984257e+11 -1.921729e+15 -3.540449e+09
## [9992,] -2.485226e+11 -2.179814e+11 -1.455720e+15 -2.609006e+09
## [9993,] -4.449813e+09 -4.548096e+09 -2.427524e+13 -1.065933e+08
## [9994,] -1.014202e+06 -5.345527e+05 -1.205682e+11 -9.721564e+06
## [9995,] -2.392782e+05 -7.178828e+05 -5.160750e+10 -1.076837e+07
## [9996,] -1.252872e+08 -1.060013e+08 -3.209158e+11 -1.899185e+07
## [9997,] -3.233645e+11 -3.191385e+11 -1.921729e+15 -3.152427e+09
## [9998,] -2.420946e+11 -2.179814e+11 -1.455720e+15 -2.398000e+09
## [9999,] -4.690361e+09 -4.134445e+09 -2.427524e+13 -1.061615e+08
## [10000,] -1.551846e+06 -6.491697e+05 -1.205682e+11 -9.810128e+06
## [10001,] -1.307636e+05 -8.937712e+05 -5.160750e+10 -1.081349e+07
## [10002,] -1.242350e+08 -1.135387e+08 -3.210523e+11 -1.895681e+07
## [10003,] -3.014875e+11 -2.686586e+11 -1.922546e+15 -3.322014e+09
## [10004,] -2.742260e+11 -2.030949e+11 -1.456339e+15 -2.584127e+09
## [10005,] -4.548302e+09 -4.001136e+09 -2.429589e+13 -1.031945e+08
## [10006,] -8.806430e+05 -5.323203e+05 -1.206708e+11 -9.712493e+06
## [10007,] -4.016001e+05 -4.268560e+05 -5.167335e+10 -1.083181e+07
## [10008,] -1.218795e+08 -1.060486e+08 -3.213253e+11 -1.874149e+07
## [10009,] -3.405436e+11 -2.883274e+11 -1.924181e+15 -2.865953e+09
## [10010,] -2.525806e+11 -2.333913e+11 -1.457577e+15 -2.287848e+09
## [10011,] -4.520214e+09 -3.869917e+09 -2.430621e+13 -1.112285e+08
## [10012,] -1.263625e+06 -4.280551e+05 -1.207221e+11 -9.726558e+06
## [10013,] -2.974787e+05 -8.981109e+05 -5.167335e+10 -1.075123e+07
## [10014,] -1.229387e+08 -1.187295e+08 -3.213253e+11 -1.902228e+07
## [10015,] -3.265487e+11 -2.496808e+11 -1.924999e+15 -3.473855e+09
## [10016,] -2.357478e+11 -2.030929e+11 -1.458196e+15 -2.469730e+09
## [10017,] -4.690780e+09 -3.740886e+09 -2.431654e+13 -1.121295e+08
## [10018,] -8.486416e+05 -7.681990e+05 -1.208247e+11 -9.862162e+06
## [10019,] -3.436189e+05 -6.432727e+05 -5.171727e+10 -1.071303e+07
## [10020,] -1.211218e+08 -1.085593e+08 -3.215984e+11 -1.927653e+07
## [10021,] -3.389363e+11 -2.818787e+11 -1.481350e+13 -1.709381e+09
## [10022,] -2.477486e+11 -1.987631e+11 -1.122130e+13 -1.309507e+09

```

```

## [10023,] -4.103268e+09 -3.596983e+09 -1.880310e+11 -2.381153e+07
## [10024,] -1.920351e+07 -1.490054e+07 -9.338970e+08 -5.116790e+02
## [10025,] -7.031182e+06 -7.161867e+06 -3.997412e+08 -1.467116e+04
## [10026,] -5.763739e+07 -6.552123e+07 -2.485748e+09 -6.824830e+05
## [10027,] -3.260383e+11 -3.020181e+11 -1.488532e+13 -1.325274e+09
## [10028,] -2.381517e+11 -2.287459e+11 -1.133025e+13 -1.032319e+09
## [10029,] -4.265851e+09 -3.472625e+09 -1.889405e+11 -2.260882e+07
## [10030,] -1.815889e+07 -1.431876e+07 -9.429420e+08 -2.224578e+02
## [10031,] -8.185649e+06 -6.388080e+06 -4.036128e+08 -1.207800e+04
## [10032,] -6.267177e+07 -5.096153e+07 -2.509823e+09 -7.049617e+05
## [10033,] -3.389327e+11 -2.436801e+11 -1.510183e+13 -1.421804e+09
## [10034,] -2.461332e+11 -2.210510e+11 -1.143972e+13 -1.234084e+09
## [10035,] -4.252390e+09 -3.472805e+09 -1.907660e+11 -1.973500e+07
## [10036,] -1.892300e+07 -1.605597e+07 -9.474808e+08 -4.490724e+02
## [10037,] -7.361021e+06 -6.138717e+06 -4.055555e+08 -1.535296e+04
## [10038,] -5.374299e+07 -5.987384e+07 -2.521904e+09 -7.553407e+05
## [10039,] -3.465715e+11 -2.624303e+11 -1.510183e+13 -1.551132e+09
## [10040,] -2.550664e+11 -2.365694e+11 -1.143972e+13 -1.285910e+09
## [10041,] -4.515701e+09 -3.472805e+09 -1.907660e+11 -2.424444e+07
## [10042,] -1.846496e+07 -1.487696e+07 -9.520305e+08 -2.568933e+02
## [10043,] -7.436929e+06 -5.894318e+06 -4.075030e+08 -1.434393e+04
## [10044,] -5.859624e+07 -4.928880e+07 -2.534014e+09 -7.095449e+05
## [10045,] -3.081922e+11 -2.918578e+11 -1.517435e+13 -1.647974e+09
## [10046,] -2.567069e+11 -2.060583e+11 -1.149465e+13 -1.188859e+09
## [10047,] -4.362395e+09 -3.983861e+09 -1.916821e+11 -2.313127e+07
## [10048,] -1.732926e+07 -1.665297e+07 -9.520305e+08 -5.761283e+01
## [10049,] -7.463710e+06 -5.894318e+06 -4.075030e+08 -1.134719e+04
## [10050,] -6.044257e+07 -5.270653e+07 -2.534014e+09 -7.055187e+05
## [10051,] -3.205860e+11 -2.917158e+11 -3.023163e+13 -1.592378e+09
## [10052,] -2.532972e+11 -1.986425e+11 -2.290062e+13 -1.202208e+09
## [10053,] -4.310881e+09 -3.869262e+09 -3.831809e+11 -2.289333e+07
## [10054,] -1.666969e+07 -1.559152e+07 -1.903151e+09 -1.977554e+04
## [10055,] -6.506201e+06 -6.209348e+06 -8.146165e+08 -6.200483e+04
## [10056,] -6.194916e+07 -4.946492e+07 -5.065606e+09 -9.013813e+05
## [10057,] -3.376939e+11 -2.622941e+11 -3.033420e+13 -1.482701e+09
## [10058,] -2.508529e+11 -1.844437e+11 -2.297831e+13 -1.219089e+09
## [10059,] -4.067040e+09 -3.613225e+09 -3.831809e+11 -2.546572e+07
## [10060,] -1.697558e+07 -1.332462e+07 -1.903151e+09 -1.618061e+04
## [10061,] -6.581497e+06 -5.269897e+06 -8.146165e+08 -5.651313e+04
## [10062,] -6.538621e+07 -5.116247e+07 -5.065606e+09 -9.755580e+05
## [10063,] -3.216414e+11 -3.121976e+11 -3.033420e+13 -1.667566e+09
## [10064,] -2.508529e+11 -2.059383e+11 -2.297831e+13 -1.259063e+09
## [10065,] -4.421534e+09 -3.740148e+09 -3.831809e+11 -2.514981e+07
## [10066,] -1.803641e+07 -1.559152e+07 -1.903151e+09 -1.580343e+04
## [10067,] -7.094542e+06 -5.497540e+06 -8.146165e+08 -5.581559e+04
## [10068,] -6.461440e+07 -4.946492e+07 -5.065606e+09 -9.520628e+05
## [10069,] -3.366115e+11 -3.121976e+11 -3.033420e+13 -1.644809e+09

```

```

## [10070,] -2.573954e+11 -1.986418e+11 -2.297831e+13 -1.230444e+09
## [10071,] -4.269748e+09 -3.740148e+09 -3.831809e+11 -2.546572e+07
## [10072,] -1.848256e+07 -1.332462e+07 -1.903151e+09 -1.656225e+04
## [10073,] -6.758873e+06 -5.729996e+06 -8.146165e+08 -5.239289e+04
## [10074,] -6.346528e+07 -4.946492e+07 -5.065606e+09 -9.874131e+05
## [10075,] -3.552473e+11 -2.817343e+11 -3.033420e+13 -1.855252e+09
## [10076,] -2.427924e+11 -2.606975e+11 -2.305614e+13 -1.174142e+09
## [10077,] -4.242535e+09 -3.740241e+09 -3.844787e+11 -2.442789e+07
## [10078,] -1.746440e+07 -1.278024e+07 -1.909597e+09 -1.434356e+04
## [10079,] -6.602764e+06 -5.266390e+06 -8.173755e+08 -5.548177e+04
## [10080,] -6.233854e+07 -4.665526e+07 -5.082763e+09 -9.699840e+05
## [10081,] -3.191334e+11 -3.297503e+11 -1.926635e+15 -3.353880e+09
## [10082,] -2.469031e+11 -2.030915e+11 -1.459436e+15 -2.675246e+09
## [10083,] -4.806492e+09 -4.270837e+09 -2.434754e+13 -1.019998e+08
## [10084,] -1.240097e+06 -5.267597e+05 -1.209273e+11 -9.564877e+06
## [10085,] -3.579557e+05 -4.987471e+05 -5.178319e+10 -1.067989e+07
## [10086,] -1.224931e+08 -1.061273e+08 -3.220083e+11 -1.930718e+07
## [10087,] -3.118032e+11 -2.784013e+11 -1.928271e+15 -3.246625e+09
## [10088,] -2.599681e+11 -2.412910e+11 -1.460675e+15 -2.248850e+09
## [10089,] -4.662567e+09 -4.270937e+09 -2.435788e+13 -1.045681e+08
## [10090,] -1.271816e+06 -4.230702e+05 -1.209787e+11 -9.750405e+06
## [10091,] -2.501795e+05 -7.282792e+05 -5.178319e+10 -1.081176e+07
## [10092,] -1.232890e+08 -1.136527e+08 -3.220083e+11 -1.902429e+07
## [10093,] -3.470969e+11 -2.590785e+11 -1.928271e+15 -2.885535e+09
## [10094,] -2.436876e+11 -2.104671e+11 -1.460675e+15 -2.600102e+09
## [10095,] -4.353411e+09 -4.408833e+09 -2.435788e+13 -1.135285e+08
## [10096,] -1.238396e+06 -5.256511e+05 -1.209787e+11 -9.867192e+06
## [10097,] -3.472117e+05 -4.328679e+05 -5.180517e+10 -1.082324e+07
## [10098,] -1.170268e+08 -1.188461e+08 -3.222817e+11 -1.924704e+07
## [10099,] -3.159787e+11 -2.783997e+11 -1.929908e+15 -3.707838e+09
## [10100,] -2.607944e+11 -2.179742e+11 -1.461916e+15 -2.750979e+09
## [10101,] -4.865144e+09 -4.271236e+09 -2.438890e+13 -9.933085e+07
## [10102,] -1.233299e+06 -4.200934e+05 -1.211328e+11 -9.900364e+06
## [10103,] -4.156872e+05 -5.019902e+05 -5.184915e+10 -1.065641e+07
## [10104,] -1.139569e+08 -1.086549e+08 -3.224184e+11 -1.942214e+07
## [10105,] -3.276077e+11 -3.191282e+11 -1.931546e+15 -2.452244e+09
## [10106,] -2.501336e+11 -2.179728e+11 -1.463156e+15 -2.436982e+09
## [10107,] -4.409340e+09 -4.549436e+09 -2.440960e+13 -1.169814e+08
## [10108,] -9.213162e+05 -5.201256e+05 -1.212356e+11 -9.676596e+06
## [10109,] -2.393978e+05 -5.041582e+05 -5.189314e+10 -1.084659e+07
## [10110,] -1.163008e+08 -1.323022e+08 -3.226920e+11 -1.958361e+07
## [10111,] -3.254766e+11 -3.297441e+11 -1.932366e+15 -2.855166e+09
## [10112,] -2.157057e+11 -2.412872e+11 -1.463777e+15 -2.287117e+09
## [10113,] -4.437184e+09 -4.135722e+09 -2.440960e+13 -1.105078e+08
## [10114,] -1.228213e+06 -6.320453e+05 -1.212870e+11 -9.779058e+06
## [10115,] -3.013085e+05 -5.052439e+05 -5.191515e+10 -1.081933e+07
## [10116,] -1.241897e+08 -1.037695e+08 -3.228289e+11 -1.915847e+07

```

```

## [10117,] -3.170239e+11 -2.883184e+11 -1.933185e+15 -3.246103e+09
## [10118,] -2.412865e+11 -2.256115e+11 -1.464398e+15 -2.396953e+09
## [10119,] -4.894710e+09 -4.271536e+09 -2.441995e+13 -1.063821e+08
## [10120,] -9.632675e+05 -3.263543e+05 -1.212870e+11 -9.732470e+06
## [10121,] -4.186484e+05 -5.773911e+05 -5.191515e+10 -1.079352e+07
## [10122,] -1.163338e+08 -1.112284e+08 -3.229657e+11 -1.922807e+07
## [10123,] -3.107572e+11 -2.883176e+11 -1.934005e+15 -3.246016e+09
## [10124,] -2.624501e+11 -2.104622e+11 -1.465018e+15 -2.294735e+09
## [10125,] -4.381786e+09 -4.135919e+09 -2.443030e+13 -1.092233e+08
## [10126,] -9.617682e+05 -3.254818e+05 -1.213384e+11 -9.793172e+06
## [10127,] -3.763263e+05 -3.763263e+05 -5.193716e+10 -1.083727e+07
## [10128,] -1.231421e+08 -1.062375e+08 -3.229657e+11 -1.930161e+07
## [10129,] -3.351159e+11 -2.883176e+11 -1.934005e+15 -3.288634e+09
## [10130,] -2.525714e+11 -2.179707e+11 -1.465018e+15 -2.836322e+09
## [10131,] -4.634752e+09 -4.135919e+09 -2.443030e+13 -1.131967e+08
## [10132,] -1.143679e+06 -6.296177e+05 -1.213898e+11 -9.919723e+06
## [10133,] -3.419725e+05 -6.568265e+05 -5.195917e+10 -1.075203e+07
## [10134,] -1.215875e+08 -1.163668e+08 -3.232395e+11 -1.896950e+07
## [10135,] -3.351141e+11 -2.883159e+11 -1.935644e+15 -3.203502e+09
## [10136,] -2.550218e+11 -2.104608e+11 -1.466261e+15 -2.310158e+09
## [10137,] -4.368143e+09 -4.836624e+09 -2.445101e+13 -1.049231e+08
## [10138,] -1.288277e+06 -8.856985e+05 -1.214927e+11 -9.873031e+06
## [10139,] -3.332350e+05 -5.106900e+05 -5.202524e+10 -1.081541e+07
## [10140,] -1.190128e+08 -1.138483e+08 -3.236505e+11 -1.926160e+07
## [10141,] -3.004490e+11 -3.191213e+11 -1.938105e+15 -3.385098e+09
## [10142,] -2.468925e+11 -2.187252e+11 -1.468125e+15 -2.492756e+09
## [10143,] -4.410051e+09 -4.272135e+09 -2.448210e+13 -1.097414e+08
## [10144,] -9.253693e+05 -3.211370e+05 -1.215957e+11 -9.901403e+06
## [10145,] -3.455567e+05 -6.617901e+05 -5.204727e+10 -1.090452e+07
## [10146,] -1.211107e+08 -1.087983e+08 -3.236505e+11 -1.952508e+07
## [10147,] -3.372730e+11 -2.883135e+11 -1.938105e+15 -3.150711e+09
## [10148,] -2.649447e+11 -2.030812e+11 -1.468746e+15 -2.665678e+09
## [10149,] -4.564392e+09 -3.871629e+09 -2.449247e+13 -1.150837e+08
## [10150,] -1.119683e+06 -5.113455e+05 -1.216472e+11 -9.845275e+06
## [10151,] -1.948633e+05 -9.243699e+05 -5.206931e+10 -1.081579e+07
## [10152,] -1.195523e+08 -1.190295e+08 -3.237875e+11 -1.942621e+07
## [10153,] -3.416161e+11 -2.883126e+11 -1.938926e+15 -3.288108e+09
## [10154,] -2.525668e+11 -2.179664e+11 -1.468746e+15 -2.492679e+09
## [10155,] -4.396363e+09 -4.272335e+09 -2.450283e+13 -1.060766e+08
## [10156,] -1.008853e+06 -5.091621e+05 -1.217502e+11 -9.812771e+06
## [10157,] -3.482571e+05 -5.878899e+05 -5.211340e+10 -1.084845e+07
## [10158,] -1.193241e+08 -1.190628e+08 -3.240617e+11 -1.913488e+07
## [10159,] -3.470834e+11 -3.086757e+11 -1.940567e+15 -3.538357e+09
## [10160,] -2.263754e+11 -2.256042e+11 -1.470612e+15 -2.557667e+09
## [10161,] -4.382798e+09 -4.272635e+09 -2.453395e+13 -1.037650e+08
## [10162,] -5.955076e+05 -8.756591e+05 -1.218532e+11 -9.897287e+06
## [10163,] -3.385493e+05 -6.680210e+05 -5.215751e+10 -1.085206e+07

```

```

## [10164,] -1.111372e+08 -1.217223e+08 -3.243360e+11 -1.947428e+07
## [10165,] -3.340280e+11 -2.883085e+11 -1.943031e+15 -3.067057e+09
## [10166,] -2.428739e+11 -2.256028e+11 -1.471856e+15 -2.993056e+09
## [10167,] -4.664446e+09 -3.872104e+09 -2.454433e+13 -1.085251e+08
## [10168,] -1.340912e+06 -8.728012e+05 -1.219563e+11 -9.498066e+06
## [10169,] -3.346303e+05 -7.532700e+05 -5.220164e+10 -1.095611e+07
## [10170,] -1.220371e+08 -1.271122e+08 -3.247476e+11 -1.919976e+07
## [10171,] -3.128278e+11 -3.191144e+11 -1.944675e+15 -3.901584e+09
## [10172,] -2.888366e+11 -2.104531e+11 -1.473101e+15 -2.111095e+09
## [10173,] -4.881571e+09 -3.491373e+09 -2.456509e+13 -1.057401e+08
## [10174,] -1.124151e+06 -5.037242e+05 -1.220079e+11 -9.864811e+06
## [10175,] -5.135116e+05 -4.521830e+05 -5.222371e+10 -1.088658e+07
## [10176,] -1.273822e+08 -1.165482e+08 -3.247476e+11 -1.909504e+07
## [10177,] -3.297301e+11 -2.590622e+11 -1.945497e+15 -3.362645e+09
## [10178,] -2.501206e+11 -2.104524e+11 -1.473724e+15 -2.459779e+09
## [10179,] -4.650473e+09 -4.003747e+09 -2.457547e+13 -1.101050e+08
## [10180,] -9.379373e+05 -8.670995e+05 -1.221626e+11 -9.636931e+06
## [10181,] -3.613836e+05 -3.914762e+05 -5.228994e+10 -1.075964e+07
## [10182,] -1.150523e+08 -1.191963e+08 -3.251595e+11 -1.913601e+07
## [10183,] -3.405186e+11 -2.686348e+11 -1.947141e+15 -2.873646e+09
## [10184,] -2.468842e+11 -2.255991e+11 -1.474970e+15 -2.690073e+09
## [10185,] -4.970256e+09 -4.411370e+09 -2.461703e+13 -1.026134e+08
## [10186,] -1.116063e+06 -3.099770e+05 -1.222658e+11 -9.893517e+06
## [10187,] -4.311804e+05 -3.933909e+05 -5.233413e+10 -1.078255e+07
## [10188,] -1.176668e+08 -1.166307e+08 -3.254342e+11 -2.004994e+07
## [10189,] -3.394300e+11 -2.983982e+11 -1.948787e+15 -3.394794e+09
## [10190,] -2.373042e+11 -2.333691e+11 -1.476216e+15 -2.548775e+09
## [10191,] -4.636730e+09 -3.872865e+09 -2.462742e+13 -1.045463e+08
## [10192,] -1.006950e+06 -3.091267e+05 -1.223175e+11 -9.860818e+06
## [10193,] -2.319051e+05 -9.450552e+05 -5.237833e+10 -1.097710e+07
## [10194,] -1.234815e+08 -1.218910e+08 -3.257091e+11 -1.894339e+07
## [10195,] -3.138652e+11 -2.883012e+11 -1.950433e+15 -3.460090e+09
## [10196,] -2.558278e+11 -2.255962e+11 -1.477463e+15 -2.155560e+09
## [10197,] -4.636834e+09 -4.137885e+09 -2.463782e+13 -1.022206e+08
## [10198,] -1.242276e+06 -3.082776e+05 -1.223691e+11 -9.987805e+06
## [10199,] -2.920688e+05 -7.639187e+05 -5.237833e+10 -1.098360e+07
## [10200,] -1.211164e+08 -1.141093e+08 -3.258466e+11 -1.942176e+07
## [10201,] -3.372588e+11 -2.783787e+11 -1.951256e+15 -3.222988e+09
## [10202,] -2.525553e+11 -2.179557e+11 -1.478086e+15 -2.117993e+09
## [10203,] -4.622694e+09 -3.743878e+09 -2.464822e+13 -9.701317e+07
## [10204,] -9.162184e+05 -3.956948e+05 -1.224207e+11 -1.009664e+07
## [10205,] -3.840154e+05 -6.818317e+05 -5.240044e+10 -1.089779e+07
## [10206,] -1.208532e+08 -1.065686e+08 -3.258466e+11 -1.901260e+07
## [10207,] -3.243940e+11 -2.783787e+11 -1.951256e+15 -3.716774e+09
## [10208,] -2.279124e+11 -2.574700e+11 -1.478710e+15 -2.363578e+09
## [10209,] -4.495696e+09 -4.552013e+09 -2.466903e+13 -1.115721e+08
## [10210,] -6.625363e+05 -6.032218e+05 -1.225241e+11 -9.781811e+06

```

```

## [10211,] -4.759598e+05 -6.055980e+05 -5.244467e+10 -1.090464e+07
## [10212,] -1.264758e+08 -1.090854e+08 -3.261216e+11 -1.941414e+07
## [10213,] -3.128192e+11 -2.882987e+11 -1.952903e+15 -3.340266e+09
## [10214,] -2.452693e+11 -2.333654e+11 -1.479334e+15 -2.622630e+09
## [10215,] -4.439730e+09 -4.138180e+09 -2.466903e+13 -1.126804e+08
## [10216,] -1.076826e+06 -1.083716e+05 -1.225241e+11 -9.665531e+06
## [10217,] -4.307590e+05 -4.635581e+05 -5.246679e+10 -1.082559e+07
## [10218,] -1.209036e+08 -1.167297e+08 -3.262592e+11 -1.961118e+07
## [10219,] -3.297213e+11 -2.882979e+11 -1.953727e+15 -3.416013e+09
## [10220,] -2.476848e+11 -2.104454e+11 -1.479958e+15 -2.324158e+09
## [10221,] -4.795377e+09 -4.138278e+09 -2.467943e+13 -1.056978e+08
## [10222,] -1.106397e+06 -8.557521e+05 -1.225758e+11 -9.610078e+06
## [10223,] -3.628366e+05 -7.692710e+05 -5.246679e+10 -1.098760e+07
## [10224,] -1.235494e+08 -1.193298e+08 -3.262592e+11 -1.925249e+07
## [10225,] -2.953463e+11 -2.686285e+11 -1.953727e+15 -3.201599e+09
## [10226,] -2.202309e+11 -2.333640e+11 -1.480582e+15 -2.689359e+09
## [10227,] -4.839069e+09 -3.492457e+09 -2.468984e+13 -1.118257e+08
## [10228,] -1.200861e+06 -1.618040e+05 -1.226274e+11 -9.730791e+06
## [10229,] -3.578643e+05 -7.706120e+05 -5.248891e+10 -1.081125e+07
## [10230,] -1.275892e+08 -1.167462e+08 -3.263968e+11 -1.897666e+07
## [10231,] -3.222698e+11 -2.686269e+11 -1.955375e+15 -3.243752e+09
## [10232,] -2.484914e+11 -1.887091e+11 -1.481206e+15 -2.458870e+09
## [10233,] -4.781104e+09 -4.412182e+09 -2.470025e+13 -1.063759e+08
## [10234,] -1.087574e+06 -4.897222e+05 -1.226791e+11 -9.749527e+06
## [10235,] -3.538348e+05 -6.894244e+05 -5.253318e+10 -1.096379e+07
## [10236,] -1.228035e+08 -1.167793e+08 -3.266720e+11 -1.903172e+07
## [10237,] -3.191023e+11 -2.882954e+11 -1.956199e+15 -3.243665e+09
## [10238,] -2.699621e+11 -2.255911e+11 -1.481831e+15 -2.614016e+09
## [10239,] -4.766746e+09 -4.005004e+09 -2.471066e+13 -1.068239e+08
## [10240,] -1.117291e+06 -3.899477e+05 -1.227309e+11 -9.786936e+06
## [10241,] -4.600064e+05 -4.666850e+05 -5.253318e+10 -1.081485e+07
## [10242,] -1.238666e+08 -1.042058e+08 -3.266720e+11 -1.959969e+07
## [10243,] -2.973716e+11 -2.983890e+11 -1.957848e+15 -3.592090e+09
## [10244,] -2.317962e+11 -2.412639e+11 -1.483080e+15 -2.323790e+09
## [10245,] -4.883386e+09 -4.412588e+09 -2.474191e+13 -1.049326e+08
## [10246,] -1.208846e+06 -5.949416e+05 -1.228861e+11 -9.988964e+06
## [10247,] -3.112376e+05 -8.662459e+05 -5.259961e+10 -1.099198e+07
## [10248,] -1.249856e+08 -1.142563e+08 -3.270851e+11 -1.922972e+07
## [10249,] -3.481625e+11 -3.086571e+11 -1.958673e+15 -3.034566e+09
## [10250,] -2.599393e+11 -1.887064e+11 -1.483705e+15 -2.284778e+09
## [10251,] -4.609407e+09 -4.552735e+09 -2.474191e+13 -1.081737e+08
## [10252,] -8.749728e+05 -2.998506e+05 -1.228861e+11 -9.838678e+06
## [10253,] -4.765715e+05 -6.139518e+05 -5.259961e+10 -1.090109e+07
## [10254,] -1.223412e+08 -1.067264e+08 -3.272229e+11 -1.956320e+07
## [10255,] -3.318593e+11 -2.983873e+11 -1.959498e+15 -2.993549e+09
## [10256,] -2.460666e+11 -2.030633e+11 -1.484955e+15 -2.370727e+09
## [10257,] -4.752831e+09 -3.617902e+09 -2.476275e+13 -9.676656e+07

```

```

## [10258,] -1.221920e+06 -4.833263e+05 -1.229896e+11 -9.965639e+06
## [10259,] -2.173483e+05 -4.719197e+05 -5.264393e+10 -1.103143e+07
## [10260,] -1.236854e+08 -1.142890e+08 -3.273607e+11 -1.931669e+07
## [10261,] -3.243844e+11 -2.882913e+11 -1.960323e+15 -3.169348e+09
## [10262,] -2.632568e+11 -2.179478e+11 -1.484955e+15 -2.300168e+09
## [10263,] -4.581234e+09 -3.617902e+09 -2.476275e+13 -1.092969e+08
## [10264,] -6.513880e+05 -5.925864e+05 -1.229896e+11 -9.857632e+06
## [10265,] -3.352849e+05 -9.629676e+05 -5.264393e+10 -1.098910e+07
## [10266,] -1.236854e+08 -1.092291e+08 -3.273607e+11 -1.927464e+07
## [10267,] -3.581298e+11 -3.086554e+11 -1.960323e+15 -2.852391e+09
## [10268,] -2.558185e+11 -2.179478e+11 -1.484955e+15 -2.307955e+09
## [10269,] -4.302249e+09 -3.874102e+09 -2.476275e+13 -1.117174e+08
## [10270,] -8.582421e+05 -3.851906e+05 -1.229896e+11 -9.885751e+06
## [10271,] -1.214311e+05 -9.629676e+05 -5.264393e+10 -1.104772e+07
## [10272,] -1.250369e+08 -1.117609e+08 -3.274985e+11 -1.960850e+07
## [10273,] -3.233228e+11 -2.983856e+11 -1.961148e+15 -3.591723e+09
## [10274,] -2.388763e+11 -1.958177e+11 -1.485580e+15 -2.434267e+09
## [10275,] -4.709741e+09 -3.745000e+09 -2.477318e+13 -1.097511e+08
## [10276,] -9.855946e+05 -2.973453e+05 -1.230414e+11 -9.890557e+06
## [10277,] -3.037462e+05 -6.187510e+05 -5.268826e+10 -1.103180e+07
## [10278,] -1.200206e+08 -1.067737e+08 -3.276364e+11 -1.935118e+07
## [10279,] -3.076181e+11 -2.983840e+11 -1.962799e+15 -3.636362e+09
## [10280,] -2.271291e+11 -2.179457e+11 -1.486831e+15 -2.490467e+09
## [10281,] -4.709951e+09 -4.005778e+09 -2.479404e+13 -1.084711e+08
## [10282,] -9.958777e+05 -9.810482e+05 -1.231968e+11 -1.003686e+07
## [10283,] -3.331468e+05 -6.211577e+05 -5.273261e+10 -1.093787e+07
## [10284,] -1.200541e+08 -1.143543e+08 -3.279122e+11 -1.971373e+07
## [10285,] -3.138515e+11 -2.686190e+11 -1.963625e+15 -3.469622e+09
## [10286,] -2.452595e+11 -2.179450e+11 -1.487456e+15 -2.547386e+09
## [10287,] -4.724538e+09 -4.413299e+09 -2.481490e+13 -1.065494e+08
## [10288,] -7.433285e+05 -7.052491e+05 -1.233004e+11 -9.844278e+06
## [10289,] -3.357983e+05 -7.895086e+05 -5.279917e+10 -1.102134e+07
## [10290,] -1.216832e+08 -1.144034e+08 -3.283261e+11 -1.939534e+07
## [10291,] -2.803346e+11 -2.983806e+11 -1.966104e+15 -3.414674e+09
## [10292,] -2.460613e+11 -2.333536e+11 -1.489334e+15 -2.307441e+09
## [10293,] -4.913650e+09 -4.275532e+09 -2.483578e+13 -1.113883e+08
## [10294,] -1.560539e+06 -7.039663e+05 -1.233523e+11 -1.002776e+07
## [10295,] -5.569282e+05 -4.792974e+05 -5.279917e+10 -1.083968e+07
## [10296,] -1.227584e+08 -1.169941e+08 -3.284641e+11 -1.909756e+07
## [10297,] -3.459573e+11 -2.983798e+11 -1.966930e+15 -3.033725e+09
## [10298,] -2.558123e+11 -2.179421e+11 -1.489960e+15 -2.291808e+09
## [10299,] -4.826111e+09 -4.139851e+09 -2.484622e+13 -1.059493e+08
## [10300,] -8.332814e+05 -2.165652e+05 -1.234041e+11 -9.905442e+06
## [10301,] -3.096708e+05 -6.271947e+05 -5.284357e+10 -1.114584e+07
## [10302,] -1.246387e+08 -1.170106e+08 -3.286021e+11 -1.933507e+07
## [10303,] -3.286370e+11 -2.686150e+11 -1.967757e+15 -3.168574e+09
## [10304,] -2.468644e+11 -2.349214e+11 -1.491212e+15 -2.245300e+09

```

```

## [10305,] -4.811792e+09 -4.006455e+09 -2.486711e+13 -1.152249e+08
## [10306,] -6.510920e+05 -8.304936e+05 -1.235079e+11 -9.854101e+06
## [10307,] -5.324764e+05 -5.541716e+05 -5.288798e+10 -1.099930e+07
## [10308,] -1.262985e+08 -1.094209e+08 -3.290165e+11 -1.977869e+07
## [10309,] -3.275666e+11 -2.783602e+11 -1.970238e+15 -3.136918e+09
## [10310,] -2.640805e+11 -2.255788e+11 -1.492466e+15 -2.123846e+09
## [10311,] -4.884882e+09 -4.006649e+09 -2.488800e+13 -1.090511e+08
## [10312,] -1.042219e+06 -3.729588e+05 -1.236636e+11 -9.910715e+06
## [10313,] -3.185958e+05 -7.124546e+05 -5.293242e+10 -1.091523e+07
## [10314,] -1.212567e+08 -1.044868e+08 -3.291546e+11 -1.895343e+07
## [10315,] -3.264998e+11 -2.882806e+11 -1.971065e+15 -3.242099e+09
## [10316,] -2.591012e+11 -2.179386e+11 -1.493092e+15 -2.353991e+09
## [10317,] -4.812110e+09 -3.875338e+09 -2.489845e+13 -1.081944e+08
## [10318,] -8.674980e+05 -8.263207e+05 -1.236636e+11 -9.962435e+06
## [10319,] -4.070810e+05 -7.124546e+05 -5.293242e+10 -1.100293e+07
## [10320,] -1.233742e+08 -1.094369e+08 -3.291546e+11 -1.954140e+07
## [10321,] -3.307740e+11 -2.686119e+11 -1.971065e+15 -3.359898e+09
## [10322,] -2.533528e+11 -1.886965e+11 -1.493092e+15 -2.409413e+09
## [10323,] -4.855771e+09 -4.006745e+09 -2.489845e+13 -1.079767e+08
## [10324,] -7.861445e+05 -6.962937e+05 -1.236636e+11 -9.891941e+06
## [10325,] -3.703873e+05 -7.976773e+05 -5.293242e+10 -1.102898e+07
## [10326,] -1.223132e+08 -1.094369e+08 -3.291546e+11 -1.962613e+07
## [10327,] -3.243731e+11 -2.783594e+11 -1.971065e+15 -3.349102e+09
## [10328,] -2.699470e+11 -1.958089e+11 -1.493719e+15 -2.206741e+09
## [10329,] -4.826854e+09 -4.006939e+09 -2.491936e+13 -1.141858e+08
## [10330,] -8.926157e+05 -6.937456e+05 -1.237674e+11 -9.882791e+06
## [10331,] -2.621524e+05 -8.905954e+05 -5.297687e+10 -1.101958e+07
## [10332,] -1.191909e+08 -1.171098e+08 -3.294311e+11 -1.953375e+07
## [10333,] -3.547775e+11 -2.983739e+11 -1.972721e+15 -3.043410e+09
## [10334,] -2.225050e+11 -2.179371e+11 -1.494346e+15 -2.425215e+09
## [10335,] -4.826854e+09 -4.276332e+09 -2.491936e+13 -1.047699e+08
## [10336,] -1.148260e+06 -4.675205e+05 -1.237674e+11 -9.972085e+06
## [10337,] -3.965797e+05 -6.344776e+05 -5.297687e+10 -1.105218e+07
## [10338,] -1.220824e+08 -1.069791e+08 -3.294311e+11 -1.941757e+07
## [10339,] -3.426689e+11 -2.882782e+11 -1.973549e+15 -3.392123e+09
## [10340,] -2.484746e+11 -2.179364e+11 -1.494973e+15 -2.345905e+09
## [10341,] -4.625604e+09 -4.140736e+09 -2.494028e+13 -1.142184e+08
## [10342,] -1.257723e+06 -5.715993e+05 -1.239233e+11 -1.006213e+07
## [10343,] -4.246622e+05 -7.189191e+05 -5.304358e+10 -1.103155e+07
## [10344,] -1.223977e+08 -1.120357e+08 -3.298459e+11 -1.967061e+07
## [10345,] -3.339936e+11 -2.882765e+11 -1.975205e+15 -3.157317e+09
## [10346,] -2.517184e+11 -2.492824e+11 -1.496228e+15 -2.322243e+09
## [10347,] -4.639956e+09 -3.746590e+09 -2.495075e+13 -1.089283e+08
## [10348,] -6.763408e+05 -6.886632e+05 -1.239753e+11 -9.803696e+06
## [10349,] -3.237926e+05 -8.058879e+05 -5.306583e+10 -1.118051e+07
## [10350,] -1.269575e+08 -1.021474e+08 -3.299843e+11 -1.917110e+07
## [10351,] -2.983706e+11 -2.882757e+11 -1.976033e+15 -3.022542e+09

```



```

## [10352,] -2.558038e+11 -2.104264e+11 -1.496856e+15 -2.056604e+09
## [10353,] -4.668622e+09 -3.875909e+09 -2.496121e+13 -1.022764e+08
## [10354,] -1.358311e+06 -4.633500e+05 -1.239753e+11 -1.015710e+07
## [10355,] -3.942541e+05 -5.633105e+05 -5.306583e+10 -1.105293e+07
## [10356,] -1.229448e+08 -1.095328e+08 -3.299843e+11 -1.956078e+07
## [10357,] -3.034824e+11 -2.983698e+11 -1.976862e+15 -3.305477e+09
## [10358,] -2.517168e+11 -2.179336e+11 -1.497483e+15 -2.489171e+09
## [10359,] -4.812852e+09 -4.007423e+09 -2.497168e+13 -1.138203e+08
## [10360,] -7.766879e+05 -4.623103e+05 -1.240273e+11 -9.996230e+06
## [10361,] -4.014064e+05 -8.072605e+05 -5.308808e+10 -1.102866e+07
## [10362,] -1.177278e+08 -1.172091e+08 -3.302610e+11 -1.996804e+07
## [10363,] -3.329137e+11 -2.590311e+11 -1.978520e+15 -3.623383e+09
## [10364,] -2.517153e+11 -1.958035e+11 -1.498739e+15 -2.695478e+09
## [10365,] -4.654643e+09 -3.876195e+09 -2.499262e+13 -1.025346e+08
## [10366,] -1.089615e+06 -2.067229e+05 -1.241313e+11 -1.007206e+07
## [10367,] -3.550358e+05 -6.430276e+05 -5.313260e+10 -1.112046e+07
## [10368,] -1.227303e+08 -1.146487e+08 -3.303995e+11 -1.993211e+07
## [10369,] -3.286247e+11 -2.882724e+11 -1.979349e+15 -3.273143e+09
## [10370,] -2.349118e+11 -2.104236e+11 -1.499367e+15 -2.392765e+09
## [10371,] -4.755255e+09 -4.141326e+09 -2.500309e+13 -1.094456e+08
## [10372,] -9.803217e+05 -4.581632e+05 -1.242353e+11 -1.008176e+07
## [10373,] -3.510223e+05 -9.036229e+05 -5.317714e+10 -1.117981e+07
## [10374,] -1.225161e+08 -1.121490e+08 -3.308149e+11 -1.979255e+07
## [10375,] -3.318355e+11 -2.882700e+11 -1.981837e+15 -3.489630e+09
## [10376,] -2.428385e+11 -2.179293e+11 -1.501252e+15 -2.306046e+09
## [10377,] -4.209352e+09 -4.555726e+09 -2.504501e+13 -1.193601e+08
## [10378,] -1.972452e+05 -1.415780e+05 -1.243915e+11 -1.001120e+07
## [10379,] -3.251680e+05 -6.491697e+05 -5.324398e+10 -1.125432e+07
## [10380,] -1.233460e+08 -1.096608e+08 -3.310921e+11 -1.979550e+07
## [10381,] -3.630659e+11 -3.333741e+11 -3.043694e+13 -1.454072e+09
## [10382,] -2.673656e+11 -2.286158e+11 -2.313410e+13 -1.202049e+09
## [10383,] -4.201829e+09 -3.869452e+09 -3.857787e+11 -2.999762e+07
## [10384,] -1.702448e+07 -1.617376e+07 -1.916054e+09 -1.211968e+04
## [10385,] -7.086403e+06 -5.722682e+06 -8.201393e+08 -5.491878e+04
## [10386,] -6.178495e+07 -4.781715e+07 -5.099949e+09 -1.016826e+06
## [10387,] -3.312242e+11 -2.528331e+11 -3.053985e+13 -1.847101e+09
## [10388,] -2.500395e+11 -2.861392e+11 -2.313410e+13 -1.157472e+09
## [10389,] -4.297349e+09 -3.366130e+09 -3.857787e+11 -2.537559e+07
## [10390,] -1.546192e+07 -1.739575e+07 -1.916054e+09 -1.525505e+04
## [10391,] -6.548526e+06 -5.722682e+06 -8.201393e+08 -5.747703e+04
## [10392,] -6.159698e+07 -5.826237e+07 -5.099949e+09 -9.480438e+05
## [10393,] -3.420387e+11 -2.622925e+11 -3.053985e+13 -1.629601e+09
## [10394,] -2.532949e+11 -2.209246e+11 -2.313410e+13 -1.218982e+09
## [10395,] -4.256280e+09 -3.488674e+09 -3.857787e+11 -2.537559e+07
## [10396,] -1.752039e+07 -1.331346e+07 -1.916054e+09 -1.638026e+04
## [10397,] -6.982314e+06 -5.959801e+06 -8.201393e+08 -5.794842e+04
## [10398,] -6.310881e+07 -5.466607e+07 -5.099949e+09 -9.457149e+05

```

```

## [10399,] -3.442225e+11 -2.917134e+11 -3.053985e+13 -1.599642e+09
## [10400,] -2.623560e+11 -1.914756e+11 -2.313410e+13 -1.202049e+09
## [10401,] -4.324837e+09 -3.366130e+09 -3.857787e+11 -2.495556e+07
## [10402,] -1.815030e+07 -1.442421e+07 -1.916054e+09 -1.754553e+04
## [10403,] -6.649342e+06 -6.201734e+06 -8.201393e+08 -5.700756e+04
## [10404,] -5.844519e+07 -5.466607e+07 -5.099949e+09 -9.597309e+05
## [10405,] -3.519204e+11 -2.917134e+11 -3.053985e+13 -1.569960e+09
## [10406,] -2.484196e+11 -2.364386e+11 -2.313410e+13 -1.207680e+09
## [10407,] -4.491608e+09 -3.613409e+09 -3.857787e+11 -2.485110e+07
## [10408,] -1.802343e+07 -1.386327e+07 -1.916054e+09 -1.676423e+04
## [10409,] -6.573658e+06 -5.959801e+06 -8.201393e+08 -5.677355e+04
## [10410,] -6.140929e+07 -4.948642e+07 -5.099949e+09 -9.550475e+05
## [10411,] -3.318346e+11 -2.686008e+11 -1.982667e+15 -3.294155e+09
## [10412,] -2.541585e+11 -2.104201e+11 -1.502509e+15 -2.720327e+09
## [10413,] -4.683877e+09 -4.008197e+09 -2.505549e+13 -1.077800e+08
## [10414,] -8.739438e+05 -2.752705e+05 -1.244435e+11 -1.003965e+07
## [10415,] -3.325472e+05 -8.196658e+05 -5.328856e+10 -1.124483e+07
## [10416,] -1.220544e+08 -1.147633e+08 -3.313693e+11 -1.941694e+07
## [10417,] -3.393908e+11 -3.086299e+11 -1.985158e+15 -3.031873e+09
## [10418,] -2.436356e+11 -2.030426e+11 -1.503767e+15 -2.004673e+09
## [10419,] -4.886804e+09 -4.277831e+09 -2.507647e+13 -1.037216e+08
## [10420,] -8.149131e+05 -2.005166e+05 -1.245998e+11 -1.003055e+07
## [10421,] -3.632786e+05 -1.010020e+06 -5.333317e+10 -1.113689e+07
## [10422,] -1.212961e+08 -1.279752e+08 -3.316467e+11 -2.010072e+07
## [10423,] -3.286168e+11 -2.783441e+11 -1.986819e+15 -2.919859e+09
## [10424,] -2.452383e+11 -2.104173e+11 -1.505026e+15 -2.352583e+09
## [10425,] -4.429962e+09 -4.008584e+09 -2.509745e+13 -1.210504e+08
## [10426,] -1.118971e+06 -3.545260e+05 -1.247041e+11 -1.003550e+07
## [10427,] -3.651232e+05 -8.252097e+05 -5.337779e+10 -1.111436e+07
## [10428,] -1.237139e+08 -1.047995e+08 -3.319241e+11 -1.975114e+07
## [10429,] -3.286159e+11 -2.685960e+11 -1.987650e+15 -3.358126e+09
## [10430,] -2.476537e+11 -2.179243e+11 -1.505655e+15 -2.472021e+09
## [10431,] -4.770862e+09 -4.278231e+09 -2.511845e+13 -1.122673e+08
## [10432,] -1.055178e+06 -4.478771e+05 -1.247562e+11 -1.007346e+07
## [10433,] -4.025304e+05 -5.806473e+05 -5.340010e+10 -1.112600e+07
## [10434,] -1.242639e+08 -1.072797e+08 -3.320629e+11 -1.949287e+07
## [10435,] -3.275474e+11 -2.882634e+11 -1.988481e+15 -3.510962e+09
## [10436,] -2.549724e+11 -2.104159e+11 -1.506285e+15 -2.545073e+09
## [10437,] -4.655894e+09 -3.877337e+09 -2.511845e+13 -1.165210e+08
## [10438,] -7.974043e+05 -5.532618e+05 -1.247562e+11 -1.008293e+07
## [10439,] -3.601352e+05 -6.578177e+05 -5.340010e+10 -1.125729e+07
## [10440,] -1.310406e+08 -1.023947e+08 -3.322017e+11 -1.938354e+07
## [10441,] -3.329022e+11 -2.496212e+11 -1.989312e+15 -3.401294e+09
## [10442,] -2.420321e+11 -2.255614e+11 -1.507544e+15 -2.431628e+09
## [10443,] -4.599247e+09 -4.416548e+09 -2.514995e+13 -1.068383e+08
## [10444,] -5.949888e+05 -4.448140e+05 -1.249127e+11 -1.006907e+07
## [10445,] -7.020442e+05 -3.808399e+05 -5.346708e+10 -1.115112e+07

```

```

## [10446,] -1.232500e+08 -1.073272e+08 -3.324794e+11 -1.959779e+07
## [10447,] -3.075893e+11 -2.685929e+11 -1.990975e+15 -3.187177e+09
## [10448,] -2.517038e+11 -2.333315e+11 -1.508174e+15 -2.313035e+09
## [10449,] -4.946265e+09 -4.416548e+09 -2.514995e+13 -1.057592e+08
## [10450,] -9.607493e+05 -4.448140e+05 -1.249127e+11 -9.979345e+06
## [10451,] -5.766713e+05 -6.615415e+05 -5.346708e+10 -1.104653e+07
## [10452,] -1.243151e+08 -1.098209e+08 -3.324794e+11 -1.991692e+07
## [10453,] -3.096603e+11 -3.086239e+11 -1.990975e+15 -3.577270e+09
## [10454,] -2.500786e+11 -2.030378e+11 -1.508174e+15 -2.391718e+09
## [10455,] -4.627683e+09 -4.142703e+09 -2.514995e+13 -1.083582e+08
## [10456,] -7.030434e+05 -2.681014e+05 -1.249127e+11 -1.005488e+07
## [10457,] -2.954317e+05 -8.307722e+05 -5.346708e+10 -1.111511e+07
## [10458,] -1.245820e+08 -1.148943e+08 -3.324794e+11 -1.954485e+07
## [10459,] -3.329004e+11 -2.783400e+11 -1.990975e+15 -2.919446e+09
## [10460,] -2.380572e+11 -2.255607e+11 -1.508174e+15 -2.652347e+09
## [10461,] -4.458483e+09 -4.009164e+09 -2.516046e+13 -1.159099e+08
## [10462,] -1.048908e+06 -4.437953e+05 -1.249649e+11 -9.951209e+06
## [10463,] -3.529808e+05 -7.463885e+05 -5.351176e+10 -1.116133e+07
## [10464,] -1.185471e+08 -1.175071e+08 -3.327572e+11 -1.965374e+07
## [10465,] -2.477590e+11 -3.404696e+11 -1.992639e+15 -3.780571e+09
## [10466,] -2.623945e+11 -2.030364e+11 -1.509434e+15 -2.212571e+09
## [10467,] -4.599558e+09 -4.142999e+09 -2.518148e+13 -1.125865e+08
## [10468,] -9.417301e+05 -5.464623e+05 -1.250693e+11 -9.946735e+06
## [10469,] -5.219127e+05 -6.652758e+05 -5.353411e+10 -1.103568e+07
## [10470,] -1.233009e+08 -1.098690e+08 -3.328962e+11 -1.961809e+07
## [10471,] -3.339741e+11 -2.983531e+11 -1.993471e+15 -3.666737e+09
## [10472,] -2.724609e+11 -2.030357e+11 -1.510064e+15 -2.250819e+09
## [10473,] -5.109860e+09 -3.877908e+09 -2.518148e+13 -1.051614e+08
## [10474,] -1.609719e+06 -7.892371e+05 -1.250693e+11 -1.027876e+07
## [10475,] -4.468549e+05 -9.270166e+05 -5.353411e+10 -1.124527e+07
## [10476,] -1.254361e+08 -1.149434e+08 -3.328962e+11 -1.962869e+07
## [10477,] -3.286080e+11 -2.783360e+11 -1.995135e+15 -3.587969e+09
## [10478,] -2.500748e+11 -2.255570e+11 -1.511325e+15 -2.181937e+09
## [10479,] -4.917508e+09 -3.496974e+09 -2.521302e+13 -1.056382e+08
## [10480,] -7.984418e+05 -5.430784e+05 -1.252260e+11 -1.001305e+07
## [10481,] -5.625307e+05 -5.923511e+05 -5.362353e+10 -1.125590e+07
## [10482,] -1.220432e+08 -1.124567e+08 -3.334523e+11 -1.935981e+07
## [10483,] -3.086180e+11 -2.783344e+11 -1.996801e+15 -3.872339e+09
## [10484,] -2.476453e+11 -2.179164e+11 -1.512587e+15 -2.181795e+09
## [10485,] -4.728741e+09 -4.009842e+09 -2.523407e+13 -1.080499e+08
## [10486,] -9.199671e+05 -6.560835e+05 -1.253305e+11 -1.017441e+07
## [10487,] -3.075313e+05 -7.543315e+05 -5.364590e+10 -1.124128e+07
## [10488,] -1.252537e+08 -1.150254e+08 -3.335914e+11 -1.960953e+07
## [10489,] -3.086171e+11 -2.783336e+11 -1.997634e+15 -3.292576e+09
## [10490,] -2.657245e+11 -2.574274e+11 -1.513218e+15 -2.114056e+09
## [10491,] -4.487300e+09 -4.143589e+09 -2.524459e+13 -1.106928e+08
## [10492,] -9.042623e+05 -2.610269e+05 -1.253827e+11 -1.000868e+07

```

```

## [10493,] -3.772269e+05 -8.433562e+05 -5.366828e+10 -1.121681e+07
## [10494,] -1.244855e+08 -1.125053e+08 -3.338697e+11 -1.968673e+07
## [10495,] -3.286037e+11 -2.685849e+11 -1.999300e+15 -2.567355e+09
## [10496,] -2.348940e+11 -2.104068e+11 -1.514480e+15 -2.454855e+09
## [10497,] -5.261366e+09 -4.279530e+09 -2.525512e+13 -1.003892e+08
## [10498,] -1.653209e+06 -6.536101e+05 -1.254350e+11 -1.022227e+07
## [10499,] -4.089357e+05 -8.447603e+05 -5.369066e+10 -1.109738e+07
## [10500,] -1.197254e+08 -1.050186e+08 -3.338697e+11 -2.011378e+07
## [10501,] -3.393757e+11 -2.783320e+11 -1.999300e+15 -3.175802e+09
## [10502,] -2.775599e+11 -2.255534e+11 -1.514480e+15 -2.227282e+09
## [10503,] -4.543668e+09 -4.010035e+09 -2.525512e+13 -1.093914e+08
## [10504,] -9.313772e+05 -1.897166e+05 -1.254350e+11 -1.011763e+07
## [10505,] -3.147087e+05 -4.540347e+05 -5.369066e+10 -1.126799e+07
## [10506,] -1.239520e+08 -1.074856e+08 -3.338697e+11 -1.993172e+07
## [10507,] -3.117298e+11 -2.783320e+11 -1.999300e+15 -3.271045e+09
## [10508,] -2.500709e+11 -1.816928e+11 -1.514480e+15 -2.351471e+09
## [10509,] -4.487505e+09 -4.143786e+09 -2.526564e+13 -1.085333e+08
## [10510,] -8.049553e+05 -2.594676e+05 -1.254873e+11 -1.006562e+07
## [10511,] -4.967201e+05 -6.765419e+05 -5.373543e+10 -1.122231e+07
## [10512,] -1.166366e+08 -1.150910e+08 -3.341481e+11 -1.876623e+07
## [10513,] -3.339662e+11 -2.685834e+11 -2.000967e+15 -3.186142e+09
## [10514,] -2.525084e+11 -2.179122e+11 -1.516375e+15 -2.136140e+09
## [10515,] -4.787023e+09 -3.878859e+09 -2.528671e+13 -1.023321e+08
## [10516,] -9.269578e+05 -3.392254e+05 -1.255919e+11 -1.014171e+07
## [10517,] -3.931992e+05 -7.609828e+05 -5.375782e+10 -1.131307e+07
## [10518,] -1.229563e+08 -1.075490e+08 -3.344266e+11 -1.892495e+07
## [10519,] -3.232785e+11 -2.783280e+11 -2.003469e+15 -3.175371e+09
## [10520,] -2.404258e+11 -2.492557e+11 -1.518270e+15 -2.106042e+09
## [10521,] -4.700833e+09 -3.749865e+09 -2.531832e+13 -1.092684e+08
## [10522,] -8.249876e+05 -2.555899e+05 -1.257489e+11 -1.015157e+07
## [10523,] -2.625282e+05 -1.045654e+06 -5.384743e+10 -1.130393e+07
## [10524,] -1.256758e+08 -1.026887e+08 -3.348446e+11 -1.972360e+07
## [10525,] -3.086095e+11 -2.882470e+11 -2.005138e+15 -3.291787e+09
## [10526,] -2.623828e+11 -2.104019e+11 -1.518903e+15 -2.319593e+09
## [10527,] -4.948092e+09 -4.418275e+09 -2.532886e+13 -1.071070e+08
## [10528,] -7.188672e+05 -3.356743e+05 -1.258013e+11 -9.934246e+06
## [10529,] -5.965695e+05 -6.828416e+05 -5.384743e+10 -1.123476e+07
## [10530,] -1.182757e+08 -1.177557e+08 -3.348446e+11 -1.974486e+07
## [10531,] -3.307380e+11 -2.685794e+11 -2.005138e+15 -3.154227e+09
## [10532,] -2.623828e+11 -2.030261e+11 -1.518903e+15 -2.311786e+09
## [10533,] -4.801941e+09 -4.010713e+09 -2.532886e+13 -1.119261e+08
## [10534,] -8.371922e+05 -2.548178e+05 -1.258013e+11 -1.017546e+07
## [10535,] -3.491234e+05 -6.041717e+05 -5.384743e+10 -1.127426e+07
## [10536,] -1.267513e+08 -1.126188e+08 -3.348446e+11 -1.957507e+07
## [10537,] -3.190513e+11 -3.190513e+11 -2.005138e+15 -3.185711e+09
## [10538,] -2.217109e+11 -2.412197e+11 -1.520167e+15 -2.414153e+09
## [10539,] -4.558821e+09 -4.144671e+09 -2.536050e+13 -1.104294e+08

```

```

## [10540,] -1.034495e+06 -1.831184e+05 -1.259584e+11 -1.022822e+07
## [10541,] -3.876226e+05 -1.261084e+06 -5.391469e+10 -1.128307e+07
## [10542,] -1.249234e+08 -1.152222e+08 -3.352628e+11 -1.972270e+07
## [10543,] -3.361170e+11 -2.685770e+11 -2.007643e+15 -3.153969e+09
## [10544,] -2.525030e+11 -2.030240e+11 -1.520800e+15 -2.350730e+09
## [10545,] -4.474516e+09 -3.750333e+09 -2.537105e+13 -1.148891e+08
## [10546,] -6.270010e+05 -5.252080e+05 -1.260632e+11 -1.024754e+07
## [10547,] -5.960738e+05 -4.675205e+05 -5.398200e+10 -1.121289e+07
## [10548,] -1.220490e+08 -1.127162e+08 -3.356813e+11 -1.986022e+07
## [10549,] -3.264588e+11 -2.882421e+11 -2.010149e+15 -3.409942e+09
## [10550,] -2.412167e+11 -2.255440e+11 -1.522698e+15 -2.437824e+09
## [10551,] -4.516929e+09 -4.011390e+09 -2.540271e+13 -1.206172e+08
## [10552,] -9.982583e+05 -2.494462e+05 -1.261681e+11 -1.025255e+07
## [10553,] -5.599432e+05 -5.381342e+05 -5.400444e+10 -1.124102e+07
## [10554,] -1.191913e+08 -1.258129e+08 -3.359605e+11 -1.983119e+07
## [10555,] -3.044738e+11 -2.882396e+11 -2.012657e+15 -3.630835e+09
## [10556,] -2.476308e+11 -2.030199e+11 -1.524598e+15 -2.437597e+09
## [10557,] -4.363804e+09 -4.145360e+09 -2.543440e+13 -1.136445e+08
## [10558,] -7.427489e+05 -4.167323e+05 -1.263779e+11 -1.003922e+07
## [10559,] -6.564549e+05 -4.727599e+05 -5.409426e+10 -1.121877e+07
## [10560,] -1.213412e+08 -1.102698e+08 -3.363794e+11 -2.000117e+07
## [10561,] -3.382747e+11 -2.882380e+11 -2.014329e+15 -3.111553e+09
## [10562,] -2.444106e+11 -2.030185e+11 -1.525865e+15 -2.016824e+09
## [10563,] -4.644850e+09 -4.846726e+09 -2.544496e+13 -1.081501e+08
## [10564,] -8.629490e+05 -3.260052e+05 -1.263779e+11 -1.019103e+07
## [10565,] -4.863485e+05 -6.968039e+05 -5.409426e+10 -1.130437e+07
## [10566,] -1.135611e+08 -1.179382e+08 -3.363794e+11 -1.987294e+07
## [10567,] -3.339521e+11 -2.983322e+11 -2.014329e+15 -3.153283e+09
## [10568,] -2.348807e+11 -2.179015e+11 -1.525865e+15 -2.256707e+09
## [10569,] -4.759682e+09 -4.145458e+09 -2.544496e+13 -1.068479e+08
## [10570,] -7.159677e+05 -6.303455e+05 -1.264304e+11 -1.030096e+07
## [10571,] -6.031743e+05 -2.928622e+05 -5.411673e+10 -1.120417e+07
## [10572,] -1.138326e+08 -1.128135e+08 -3.365191e+11 -1.989043e+07
## [10573,] -3.350283e+11 -2.983305e+11 -2.016003e+15 -3.111383e+09
## [10574,] -2.541276e+11 -1.957724e+11 -1.527767e+15 -2.097554e+09
## [10575,] -4.419698e+09 -4.702405e+09 -2.547667e+13 -1.101663e+08
## [10576,] -4.430626e+05 -5.152873e+05 -1.265354e+11 -1.013907e+07
## [10577,] -6.364756e+05 -7.851692e+05 -5.416167e+10 -1.126045e+07
## [10578,] -1.211282e+08 -1.103180e+08 -3.367986e+11 -1.993611e+07
## [10579,] -3.307257e+11 -2.783151e+11 -2.016840e+15 -3.596760e+09
## [10580,] -2.428061e+11 -2.412099e+11 -1.528401e+15 -2.624834e+09
## [10581,] -4.295538e+09 -4.560162e+09 -2.549783e+13 -1.091024e+08
## [10582,] -9.119518e+05 -2.426240e+05 -1.266405e+11 -1.030622e+07
## [10583,] -3.756516e+05 -4.780285e+05 -5.420664e+10 -1.137305e+07
## [10584,] -1.246107e+08 -1.103501e+08 -3.370783e+11 -1.976845e+07
## [10585,] -3.328713e+11 -2.783134e+11 -2.018514e+15 -3.080015e+09
## [10586,] -2.549446e+11 -2.178979e+11 -1.529035e+15 -2.279522e+09

```

```

## [10587,] -5.008897e+09 -4.419901e+09 -2.549783e+13 -1.049876e+08
## [10588,] -9.406626e+05 -3.216568e+05 -1.266405e+11 -1.039259e+07
## [10589,] -3.252203e+05 -8.802414e+05 -5.425162e+10 -1.145299e+07
## [10590,] -1.222516e+08 -1.129109e+08 -3.373580e+11 -1.958031e+07
## [10591,] -3.393534e+11 -2.589922e+11 -2.020189e+15 -2.856470e+09
## [10592,] -2.209362e+11 -2.574064e+11 -1.530304e+15 -2.256199e+09
## [10593,] -4.818367e+09 -4.282030e+09 -2.551899e+13 -1.024605e+08
## [10594,] -2.635942e+05 -1.183041e+06 -1.267456e+11 -1.030645e+07
## [10595,] -4.412334e+05 -9.762102e+05 -5.427412e+10 -1.135213e+07
## [10596,] -1.222685e+08 -1.078979e+08 -3.374979e+11 -1.997024e+07
## [10597,] -3.200887e+11 -3.169327e+11 -2.021027e+15 -3.596301e+09
## [10598,] -2.648668e+11 -2.333049e+11 -1.530938e+15 -2.225408e+09
## [10599,] -4.803953e+09 -3.881049e+09 -2.552957e+13 -1.076248e+08
## [10600,] -1.247119e+06 -3.190618e+05 -1.267981e+11 -1.008273e+07
## [10601,] -4.165350e+05 -7.933154e+05 -5.429663e+10 -1.137712e+07
## [10602,] -1.212291e+08 -1.079138e+08 -3.376378e+11 -1.991294e+07
## [10603,] -3.075571e+11 -3.085917e+11 -2.022703e+15 -3.183900e+09
## [10604,] -2.541222e+11 -2.178943e+11 -1.532208e+15 -2.517433e+09
## [10605,] -4.804165e+09 -3.881239e+09 -2.555074e+13 -1.140472e+08
## [10606,] -1.145903e+06 -4.069250e+05 -1.269033e+11 -1.022556e+07
## [10607,] -3.803496e+05 -8.845482e+05 -5.431914e+10 -1.132278e+07
## [10608,] -1.230977e+08 -1.155176e+08 -3.377778e+11 -2.064185e+07
## [10609,] -3.253807e+11 -2.685620e+11 -2.023542e+15 -3.354319e+09
## [10610,] -2.348726e+11 -2.030109e+11 -1.532843e+15 -2.599413e+09
## [10611,] -4.323624e+09 -4.847897e+09 -2.556133e+13 -1.096361e+08
## [10612,] -8.890961e+05 -3.164773e+05 -1.269559e+11 -1.028299e+07
## [10613,] -3.525088e+05 -7.974043e+05 -5.436417e+10 -1.140585e+07
## [10614,] -1.274173e+08 -1.181374e+08 -3.380578e+11 -2.014768e+07
## [10615,] -3.328643e+11 -2.783070e+11 -2.025219e+15 -3.131271e+09
## [10616,] -2.356580e+11 -2.178922e+11 -1.534114e+15 -2.428464e+09
## [10617,] -4.775508e+09 -4.026307e+09 -2.558252e+13 -1.092301e+08
## [10618,] -8.722302e+05 -2.366391e+05 -1.270611e+11 -1.018303e+07
## [10619,] -4.463238e+05 -7.987696e+05 -5.438669e+10 -1.130519e+07
## [10620,] -1.199821e+08 -1.130084e+08 -3.381979e+11 -2.025136e+07
## [10621,] -3.591747e+11 -2.983214e+11 -2.025219e+15 -2.946337e+09
## [10622,] -2.412031e+11 -2.255309e+11 -1.534114e+15 -2.750270e+09
## [10623,] -4.674785e+09 -4.013036e+09 -2.558252e+13 -1.085748e+08
## [10624,] -4.927643e+05 -4.030347e+05 -1.271138e+11 -1.018314e+07
## [10625,] -4.214813e+05 -8.001361e+05 -5.440922e+10 -1.136650e+07
## [10626,] -1.255675e+08 -1.079932e+08 -3.383380e+11 -1.978704e+07
## [10627,] -3.317889e+11 -2.983205e+11 -2.026058e+15 -3.048299e+09
## [10628,] -2.492359e+11 -2.030089e+11 -1.534749e+15 -1.844836e+09
## [10629,] -4.746726e+09 -3.881620e+09 -2.559311e+13 -1.161339e+08
## [10630,] -8.160171e+05 -6.146705e+05 -1.271138e+11 -1.015936e+07
## [10631,] -4.088380e+05 -6.342342e+05 -5.440922e+10 -1.128725e+07
## [10632,] -1.234312e+08 -1.104946e+08 -3.383380e+11 -2.023670e+07
## [10633,] -3.426125e+11 -2.983205e+11 -2.026058e+15 -3.007272e+09

```

```

## [10634,] -2.492359e+11 -2.178915e+11 -1.534749e+15 -2.566200e+09
## [10635,] -4.746831e+09 -4.146934e+09 -2.560371e+13 -1.168282e+08
## [10636,] -6.979781e+05 -6.134729e+05 -1.271664e+11 -1.013572e+07
## [10637,] -4.483681e+05 -8.015037e+05 -5.443175e+10 -1.127920e+07
## [10638,] -1.231994e+08 -1.080250e+08 -3.386182e+11 -1.990728e+07
## [10639,] -2.892264e+11 -3.085866e+11 -2.027736e+15 -3.473671e+09
## [10640,] -2.541176e+11 -2.103830e+11 -1.536020e+15 -2.484522e+09
## [10641,] -4.675099e+09 -4.013326e+09 -2.561431e+13 -1.099355e+08
## [10642,] -8.804709e+05 -1.671340e+05 -1.272717e+11 -1.042288e+07
## [10643,] -4.127561e+05 -6.391119e+05 -5.449937e+10 -1.148666e+07
## [10644,] -1.272508e+08 -1.080567e+08 -3.388986e+11 -2.012439e+07
## [10645,] -3.169224e+11 -3.085832e+11 -2.031094e+15 -3.204105e+09
## [10646,] -2.468075e+11 -1.957609e+11 -1.538565e+15 -2.404014e+09
## [10647,] -4.863442e+09 -4.283330e+09 -2.565674e+13 -1.071640e+08
## [10648,] -1.067079e+06 -4.968063e+05 -1.274298e+11 -1.038475e+07
## [10649,] -3.253598e+05 -5.653770e+05 -5.454448e+10 -1.145049e+07
## [10650,] -1.182704e+08 -1.235331e+08 -3.391791e+11 -2.002014e+07
## [10651,] -3.317836e+11 -2.783013e+11 -2.031094e+15 -3.162039e+09
## [10652,] -2.524815e+11 -2.332961e+11 -1.538565e+15 -2.293942e+09
## [10653,] -4.704187e+09 -4.421425e+09 -2.565674e+13 -1.194137e+08
## [10654,] -9.473743e+05 -1.652649e+05 -1.274298e+11 -1.034153e+07
## [10655,] -5.302038e+05 -8.097340e+05 -5.456704e+10 -1.139597e+07
## [10656,] -1.243665e+08 -1.081203e+08 -3.394597e+11 -2.020558e+07
## [10657,] -3.749761e+11 -3.190229e+11 -2.032775e+15 -2.805662e+09
## [10658,] -2.081523e+11 -2.492298e+11 -1.539837e+15 -2.516513e+09
## [10659,] -4.733156e+09 -4.013907e+09 -2.567797e+13 -1.153646e+08
## [10660,] -8.184487e+05 -4.946542e+05 -1.275352e+11 -1.018408e+07
## [10661,] -3.616409e+05 -7.251524e+05 -5.458960e+10 -1.133827e+07
## [10662,] -1.198706e+08 -1.157148e+08 -3.394597e+11 -2.043213e+07
## [10663,] -3.296379e+11 -2.782997e+11 -2.032775e+15 -2.925392e+09
## [10664,] -2.451966e+11 -2.178858e+11 -1.539837e+15 -2.665137e+09
## [10665,] -5.175055e+09 -4.147623e+09 -2.567797e+13 -1.140195e+08
## [10666,] -7.784668e+05 -4.946542e+05 -1.275352e+11 -1.014129e+07
## [10667,] -4.103834e+05 -7.251524e+05 -5.458960e+10 -1.152404e+07
## [10668,] -1.235671e+08 -1.081203e+08 -3.394597e+11 -1.973500e+07
## [10669,] -3.169198e+11 -3.085806e+11 -2.033615e+15 -3.617314e+09
## [10670,] -2.673657e+11 -1.957589e+11 -1.540474e+15 -2.309288e+09
## [10671,] -4.491601e+09 -4.147722e+09 -2.568858e+13 -1.093899e+08
## [10672,] -6.878011e+05 -1.634063e+05 -1.275879e+11 -1.027006e+07
## [10673,] -6.076215e+05 -6.464636e+05 -5.463475e+10 -1.135187e+07
## [10674,] -1.252027e+08 -1.056775e+08 -3.397404e+11 -2.020856e+07
## [10675,] -3.339309e+11 -2.589790e+11 -2.034456e+15 -3.299417e+09
## [10676,] -2.524785e+11 -2.103774e+11 -1.541111e+15 -2.524505e+09
## [10677,] -4.762319e+09 -3.378457e+09 -2.570982e+13 -1.083298e+08
## [10678,] -5.900479e+05 -4.914349e+05 -1.276934e+11 -1.013214e+07
## [10679,] -5.947766e+05 -4.334715e+05 -5.467991e+10 -1.153147e+07
## [10680,] -1.263105e+08 -1.157806e+08 -3.400212e+11 -1.997553e+07

```

```

## [10681,] -2.922333e+11 -3.085781e+11 -2.036137e+15 -3.639493e+09
## [10682,] -2.508484e+11 -2.332909e+11 -1.543022e+15 -2.324612e+09
## [10683,] -4.893430e+09 -4.014391e+09 -2.573107e+13 -1.079262e+08
## [10684,] -9.514843e+05 -3.028709e+05 -1.277989e+11 -1.040962e+07
## [10685,] -3.975042e+05 -6.513880e+05 -5.472509e+10 -1.151187e+07
## [10686,] -1.234031e+08 -1.107196e+08 -3.403022e+11 -1.948944e+07
## [10687,] -3.491775e+11 -2.782949e+11 -2.037820e+15 -2.934986e+09
## [10688,] -2.732661e+11 -2.103746e+11 -1.543659e+15 -2.208691e+09
## [10689,] -5.190785e+09 -4.284130e+09 -2.574170e+13 -1.023616e+08
## [10690,] -3.357098e+05 -7.189191e+05 -1.278517e+11 -1.033288e+07
## [10691,] -4.162786e+05 -8.193891e+05 -5.472509e+10 -1.134602e+07
## [10692,] -1.252711e+08 -1.107196e+08 -3.403022e+11 -2.032227e+07
## [10693,] -3.003476e+11 -3.085755e+11 -2.038661e+15 -3.331175e+09
## [10694,] -2.690413e+11 -2.411911e+11 -1.544297e+15 -2.270035e+09
## [10695,] -4.748305e+09 -3.883049e+09 -2.575233e+13 -1.108040e+08
## [10696,] -8.222691e+05 -4.871588e+05 -1.279045e+11 -1.036659e+07
## [10697,] -4.182530e+05 -6.538572e+05 -5.477029e+10 -1.158561e+07
## [10698,] -1.194808e+08 -1.158464e+08 -3.405833e+11 -1.976806e+07
## [10699,] -3.211250e+11 -2.685469e+11 -2.039503e+15 -3.266851e+09
## [10700,] -2.615204e+11 -2.255186e+11 -1.544934e+15 -2.316576e+09
## [10701,] -4.591170e+09 -4.014779e+09 -2.577359e+13 -9.410995e+07
## [10702,] -1.004437e+06 -2.995160e+05 -1.280101e+11 -1.025189e+07
## [10703,] -3.293645e+05 -6.550936e+05 -5.479290e+10 -1.159415e+07
## [10704,] -1.269523e+08 -1.082792e+08 -3.408644e+11 -2.020973e+07
## [10705,] -3.404178e+11 -2.589727e+11 -2.041187e+15 -3.098442e+09
## [10706,] -2.606891e+11 -2.178779e+11 -1.546848e+15 -2.095454e+09
## [10707,] -4.662571e+09 -4.284631e+09 -2.579486e+13 -1.110888e+08
## [10708,] -7.637049e+05 -5.921159e+05 -1.281158e+11 -1.031909e+07
## [10709,] -5.292695e+05 -2.668368e+05 -5.483812e+10 -1.149120e+07
## [10710,] -1.304996e+08 -1.184865e+08 -3.410051e+11 -2.111962e+07
## [10711,] -3.163757e+11 -2.917134e+11 -3.053985e+13 -1.659839e+09
## [10712,] -2.419929e+11 -2.364386e+11 -2.313410e+13 -1.218982e+09
## [10713,] -4.174735e+09 -3.488674e+09 -3.857787e+11 -2.569292e+07
## [10714,] -1.623380e+07 -1.617376e+07 -1.916054e+09 -1.543980e+04
## [10715,] -6.725460e+06 -5.490376e+06 -8.201393e+08 -5.771248e+04
## [10716,] -6.521751e+07 -4.948642e+07 -5.099949e+09 -9.480438e+05
## [10717,] -3.453170e+11 -2.528331e+11 -3.053985e+13 -1.629601e+09
## [10718,] -2.590427e+11 -1.844424e+11 -2.313410e+13 -1.224653e+09
## [10719,] -4.311082e+09 -3.488674e+09 -3.857787e+11 -2.537559e+07
## [10720,] -1.770820e+07 -1.331346e+07 -1.916054e+09 -1.676423e+04
## [10721,] -6.878995e+06 -5.959801e+06 -8.201393e+08 -5.747703e+04
## [10722,] -6.368048e+07 -4.781715e+07 -5.099949e+09 -9.480438e+05
## [10723,] -3.508155e+11 -2.528331e+11 -3.053985e+13 -1.599642e+09
## [10724,] -2.532949e+11 -2.286158e+11 -2.313410e+13 -1.213325e+09
## [10725,] -4.352413e+09 -3.613409e+09 -3.857787e+11 -2.506024e+07
## [10726,] -1.796016e+07 -1.557945e+07 -1.916054e+09 -1.734853e+04
## [10727,] -7.191263e+06 -5.490376e+06 -8.201393e+08 -5.794842e+04

```



```

## [10728,] -5.954813e+07 -5.466607e+07 -5.099949e+09 -9.644259e+05
## [10729,] -3.333732e+11 -2.719258e+11 -3.053985e+13 -1.607106e+09
## [10730,] -2.468050e+11 -2.209246e+11 -2.313410e+13 -1.185234e+09
## [10731,] -4.215508e+09 -3.740428e+09 -3.870809e+11 -2.559466e+07
## [10732,] -1.677293e+07 -1.677293e+07 -1.922521e+09 -1.471190e+04
## [10733,] -6.345354e+06 -5.719027e+06 -8.229077e+08 -5.504707e+04
## [10734,] -6.198525e+07 -5.827403e+07 -5.117164e+09 -9.753588e+05
## [10735,] -3.280129e+11 -2.817319e+11 -3.064294e+13 -1.713360e+09
## [10736,] -2.573931e+11 -2.209238e+11 -2.321219e+13 -1.253150e+09
## [10737,] -4.324938e+09 -3.488764e+09 -3.870809e+11 -2.591335e+07
## [10738,] -1.683407e+07 -1.557342e+07 -1.922521e+09 -1.507591e+04
## [10739,] -6.952382e+06 -5.259378e+06 -8.229077e+08 -5.620403e+04
## [10740,] -5.827403e+07 -5.646138e+07 -5.117164e+09 -9.824625e+05
## [10741,] -3.317712e+11 -2.685438e+11 -2.042871e+15 -3.098271e+09
## [10742,] -2.532858e+11 -2.332850e+11 -1.548124e+15 -2.548169e+09
## [10743,] -4.748937e+09 -3.883620e+09 -2.581615e+13 -1.098010e+08
## [10744,] -7.610362e+05 -8.411122e+05 -1.282215e+11 -1.046840e+07
## [10745,] -3.443001e+05 -7.421695e+05 -5.488337e+10 -1.155486e+07
## [10746,] -1.177394e+08 -1.185198e+08 -3.412864e+11 -2.009065e+07
## [10747,] -3.382435e+11 -2.983030e+11 -2.043714e+15 -3.046527e+09
## [10748,] -2.606875e+11 -2.411866e+11 -1.548124e+15 -2.238788e+09
## [10749,] -4.792312e+09 -3.883620e+09 -2.581615e+13 -1.078358e+08
## [10750,] -9.395957e+05 -2.205663e+05 -1.282215e+11 -1.042501e+07
## [10751,] -5.690141e+05 -6.612929e+05 -5.490600e+10 -1.141706e+07
## [10752,] -1.216839e+08 -1.083429e+08 -3.414272e+11 -2.001176e+07
## [10753,] -3.296257e+11 -2.782884e+11 -2.044556e+15 -3.649824e+09
## [10754,] -2.549199e+11 -1.957494e+11 -1.549401e+15 -2.261730e+09
## [10755,] -4.879866e+09 -4.149100e+09 -2.583744e+13 -1.113741e+08
## [10756,] -1.181845e+06 -4.786627e+05 -1.283273e+11 -1.046864e+07
## [10757,] -3.876797e+05 -6.625363e+05 -5.492863e+10 -1.152858e+07
## [10758,] -1.286621e+08 -1.058818e+08 -3.415679e+11 -2.026564e+07
## [10759,] -3.034133e+11 -3.085688e+11 -2.045399e+15 -3.223766e+09
## [10760,] -2.403890e+11 -2.656796e+11 -1.549401e+15 -2.238643e+09
## [10761,] -5.844583e+09 -3.754452e+09 -2.583744e+13 -9.976426e+07
## [10762,] -6.701712e+05 -2.945187e+05 -1.283273e+11 -1.038195e+07
## [10763,] -6.154855e+05 -6.625363e+05 -5.492863e+10 -1.147866e+07
## [10764,] -1.238221e+08 -1.133987e+08 -3.415679e+11 -2.002930e+07
## [10765,] -3.415018e+11 -2.589688e+11 -2.045399e+15 -3.139655e+09
## [10766,] -2.459885e+11 -1.957487e+11 -1.550039e+15 -2.589048e+09
## [10767,] -4.634548e+09 -3.754546e+09 -2.584809e+13 -1.035788e+08
## [10768,] -7.964766e+05 -2.936899e+05 -1.283801e+11 -1.031489e+07
## [10769,] -5.065265e+05 -9.252517e+05 -5.495127e+10 -1.159049e+07
## [10770,] -1.241056e+08 -1.134149e+08 -3.417087e+11 -2.058622e+07
## [10771,] -3.242948e+11 -3.085679e+11 -2.046242e+15 -3.471690e+09
## [10772,] -2.475997e+11 -2.332820e+11 -1.550678e+15 -2.308113e+09
## [10773,] -4.606194e+09 -3.884001e+09 -2.585874e+13 -1.105243e+08
## [10774,] -6.676713e+05 -5.850810e+05 -1.284330e+11 -1.039661e+07

```

```

## [10775,] -7.139001e+05 -6.650266e+05 -5.497392e+10 -1.144915e+07
## [10776,] -1.257447e+08 -1.134475e+08 -3.419903e+11 -2.048078e+07
## [10777,] -3.447739e+11 -2.685382e+11 -2.048772e+15 -3.287229e+09
## [10778,] -2.500259e+11 -2.332806e+11 -1.551956e+15 -2.386564e+09
## [10779,] -4.381992e+09 -4.149592e+09 -2.589071e+13 -1.112339e+08
## [10780,] -9.292546e+05 -2.155707e+05 -1.285918e+11 -1.059509e+07
## [10781,] -3.924521e+05 -8.388711e+05 -5.504188e+10 -1.156455e+07
## [10782,] -1.199433e+08 -1.035112e+08 -3.422721e+11 -2.005280e+07
## [10783,] -3.211147e+11 -2.882035e+11 -2.049616e+15 -3.717144e+09
## [10784,] -2.451815e+11 -1.957460e+11 -1.552595e+15 -2.006668e+09
## [10785,] -4.692248e+09 -4.564085e+09 -2.590137e+13 -1.075282e+08
## [10786,] -8.697770e+05 -1.506906e+05 -1.286977e+11 -1.058562e+07
## [10787,] -5.201256e+05 -8.416729e+05 -5.508721e+10 -1.177610e+07
## [10788,] -1.317884e+08 -1.035423e+08 -3.425540e+11 -1.968239e+07
## [10789,] -3.382355e+11 -2.495647e+11 -2.051304e+15 -3.682943e+09
## [10790,] -2.724051e+11 -2.492122e+11 -1.554513e+15 -2.184662e+09
## [10791,] -4.493855e+09 -4.706808e+09 -2.592269e+13 -1.128333e+08
## [10792,] -9.105513e+05 -6.970591e+05 -1.287507e+11 -1.046959e+07
## [10793,] -3.830878e+05 -6.725253e+05 -5.510988e+10 -1.154678e+07
## [10794,] -1.199935e+08 -1.148075e+08 -3.426950e+11 -2.054790e+07
## [10795,] -3.106363e+11 -2.782812e+11 -2.052148e+15 -3.276201e+09
## [10796,] -2.532782e+11 -1.957440e+11 -1.554513e+15 -2.580256e+09
## [10797,] -4.954114e+09 -4.423966e+09 -2.592269e+13 -1.166450e+08
## [10798,] -8.683523e+05 -2.134473e+05 -1.287507e+11 -1.045029e+07
## [10799,] -6.173813e+05 -7.553938e+05 -5.510988e+10 -1.150681e+07
## [10800,] -1.285294e+08 -1.160932e+08 -3.426950e+11 -1.996625e+07
## [10801,] -3.221683e+11 -2.782804e+11 -2.052993e+15 -3.297486e+09
## [10802,] -2.524616e+11 -2.178686e+11 -1.555153e+15 -2.450011e+09
## [10803,] -4.592723e+09 -3.755295e+09 -2.593336e+13 -1.132947e+08
## [10804,] -8.122664e+05 -3.725856e+05 -1.288037e+11 -1.039744e+07
## [10805,] -4.034617e+05 -9.385294e+05 -5.515524e+10 -1.159389e+07
## [10806,] -1.239922e+08 -1.135615e+08 -3.429770e+11 -2.048587e+07
## [10807,] -3.491594e+11 -2.685327e+11 -2.054682e+15 -3.819561e+09
## [10808,] -2.500205e+11 -2.178672e+11 -1.556432e+15 -2.457896e+09
## [10809,] -4.635588e+09 -4.016425e+09 -2.595470e+13 -1.086959e+08
## [10810,] -8.095140e+05 -8.229899e+05 -1.289097e+11 -1.052310e+07
## [10811,] -4.492896e+05 -8.472906e+05 -5.517792e+10 -1.159575e+07
## [10812,] -1.224153e+08 -1.110415e+08 -3.431181e+11 -1.939206e+07
## [10813,] -3.085594e+11 -3.085594e+11 -2.054682e+15 -3.170120e+09
## [10814,] -2.896006e+11 -2.411769e+11 -1.556432e+15 -2.131692e+09
## [10815,] -4.735995e+09 -4.150281e+09 -2.596537e+13 -1.167111e+08
## [10816,] -9.623678e+05 -6.919646e+05 -1.289627e+11 -1.053774e+07
## [10817,] -4.126579e+05 -1.143156e+06 -5.522331e+10 -1.155608e+07
## [10818,] -1.251288e+08 -1.085816e+08 -3.435415e+11 -2.005009e+07
## [10819,] -3.360647e+11 -2.782764e+11 -2.057218e+15 -3.096825e+09
## [10820,] -2.278197e+11 -2.492069e+11 -1.558993e+15 -2.457593e+09
## [10821,] -4.536772e+09 -4.565014e+09 -2.599741e+13 -1.136154e+08

```

```

## [10822,] -6.515360e+05 -3.670095e+05 -1.291218e+11 -1.044148e+07
## [10823,] -4.219576e+05 -6.825891e+05 -5.529142e+10 -1.152832e+07
## [10824,] -1.170003e+08 -1.086135e+08 -3.438239e+11 -2.060336e+07
## [10825,] -3.095914e+11 -2.881945e+11 -2.058909e+15 -2.842767e+09
## [10826,] -2.395823e+11 -2.255019e+11 -1.559634e+15 -2.393599e+09
## [10827,] -4.707752e+09 -3.885430e+09 -2.601877e+13 -1.147665e+08
## [10828,] -9.695174e+05 -3.299963e+05 -1.292279e+11 -1.035994e+07
## [10829,] -4.358090e+05 -1.046905e+06 -5.531414e+10 -1.160693e+07
## [10830,] -1.241284e+08 -1.061651e+08 -3.441064e+11 -2.036806e+07
## [10831,] -3.179425e+11 -2.495563e+11 -2.060600e+15 -2.912597e+09
## [10832,] -2.516402e+11 -2.029806e+11 -1.560916e+15 -2.176373e+09
## [10833,] -4.693505e+09 -4.017103e+09 -2.602946e+13 -1.034172e+08
## [10834,] -7.999173e+05 -2.064451e+05 -1.292810e+11 -1.041294e+07
## [10835,] -3.864817e+05 -8.571664e+05 -5.533686e+10 -1.155871e+07
## [10836,] -1.235957e+08 -1.136918e+08 -3.441064e+11 -2.038966e+07
## [10837,] -3.317528e+11 -2.685271e+11 -2.060600e+15 -3.328882e+09
## [10838,] -2.524547e+11 -1.957372e+11 -1.560916e+15 -2.546627e+09
## [10839,] -4.664971e+09 -4.425084e+09 -2.604015e+13 -1.023710e+08
## [10840,] -7.721153e+05 -2.057513e+05 -1.293340e+11 -1.033139e+07
## [10841,] -6.075024e+05 -6.075024e+05 -5.535958e+10 -1.157725e+07
## [10842,] -1.236126e+08 -1.137081e+08 -3.442477e+11 -2.059159e+07
## [10843,] -3.253414e+11 -2.982855e+11 -2.061447e+15 -3.285915e+09
## [10844,] -2.557250e+11 -2.178615e+11 -1.561556e+15 -2.393374e+09
## [10845,] -4.425084e+09 -4.150970e+09 -2.604015e+13 -1.179607e+08
## [10846,] -5.880305e+05 -4.587841e+05 -1.293340e+11 -1.032180e+07
## [10847,] -4.708914e+05 -8.585819e+05 -5.535958e+10 -1.161066e+07
## [10848,] -1.260190e+08 -1.111703e+08 -3.442477e+11 -2.053732e+07
## [10849,] -3.360603e+11 -2.685263e+11 -2.061447e+15 -3.127595e+09
## [10850,] -2.540868e+11 -2.254997e+11 -1.561556e+15 -2.306865e+09
## [10851,] -4.273337e+09 -4.017297e+09 -2.605084e+13 -1.134738e+08
## [10852,] -8.790947e+05 -2.050586e+05 -1.293871e+11 -1.049033e+07
## [10853,] -3.643110e+05 -9.533934e+05 -5.538231e+10 -1.165603e+07
## [10854,] -1.236296e+08 -1.061965e+08 -3.443890e+11 -2.026317e+07
## [10855,] -3.328255e+11 -2.782715e+11 -2.062293e+15 -3.426198e+09
## [10856,] -2.419675e+11 -2.254990e+11 -1.562198e+15 -2.595830e+09
## [10857,] -4.523197e+09 -3.629126e+09 -2.605084e+13 -1.179773e+08
## [10858,] -1.213690e+06 -6.818317e+05 -1.293871e+11 -1.052901e+07
## [10859,] -6.727259e+05 -7.727600e+05 -5.540504e+10 -1.154428e+07
## [10860,] -1.228495e+08 -1.112026e+08 -3.445304e+11 -2.025928e+07
## [10861,] -3.274687e+11 -2.782699e+11 -2.063986e+15 -3.692871e+09
## [10862,] -2.524516e+11 -2.332673e+11 -1.563480e+15 -2.481247e+09
## [10863,] -4.594070e+09 -4.017490e+09 -2.607223e+13 -1.101857e+08
## [10864,] -5.508092e+05 -2.036769e+05 -1.294934e+11 -1.045195e+07
## [10865,] -4.539935e+05 -9.563802e+05 -5.542778e+10 -1.161960e+07
## [10866,] -1.236806e+08 -1.163404e+08 -3.448132e+11 -2.014394e+07
## [10867,] -3.085492e+11 -2.881888e+11 -2.064833e+15 -3.274889e+09
## [10868,] -2.467771e+11 -2.178587e+11 -1.564122e+15 -2.687311e+09

```

```

## [10869,] -4.751570e+09 -4.287332e+09 -2.608292e+13 -1.077978e+08
## [10870,] -8.594885e+05 -2.022998e+05 -1.295996e+11 -1.041365e+07
## [10871,] -6.058121e+05 -4.045886e+05 -5.547327e+10 -1.155319e+07
## [10872,] -1.255679e+08 -1.112509e+08 -3.449546e+11 -2.033385e+07
## [10873,] -3.189883e+11 -2.982805e+11 -2.066527e+15 -3.393099e+09
## [10874,] -2.606664e+11 -2.254953e+11 -1.565405e+15 -2.678750e+09
## [10875,] -5.029899e+09 -4.566047e+09 -2.610433e+13 -1.071784e+08
## [10876,] -8.306608e+05 -3.578095e+05 -1.296528e+11 -1.053929e+07
## [10877,] -5.842863e+05 -6.146705e+05 -5.549602e+10 -1.162185e+07
## [10878,] -1.264081e+08 -1.163898e+08 -3.452376e+11 -2.022905e+07
## [10879,] -3.306730e+11 -2.982796e+11 -2.067375e+15 -2.881839e+09
## [10880,] -2.508209e+11 -2.103500e+11 -1.566047e+15 -2.628528e+09
## [10881,] -4.622905e+09 -4.017878e+09 -2.611503e+13 -1.098107e+08
## [10882,] -4.925497e+05 -8.945615e+04 -1.297060e+11 -1.017936e+07
## [10883,] -3.126032e+05 -9.623678e+05 -5.551877e+10 -1.156692e+07
## [10884,] -1.245316e+08 -1.163898e+08 -3.452376e+11 -2.069456e+07
## [10885,] -3.158370e+11 -3.085467e+11 -2.067375e+15 -3.647332e+09
## [10886,] -2.324814e+11 -2.178565e+11 -1.566047e+15 -2.763294e+09
## [10887,] -4.694447e+09 -3.886382e+09 -2.612574e+13 -1.160551e+08
## [10888,] -6.368171e+05 -2.002429e+05 -1.297591e+11 -1.035152e+07
## [10889,] -5.814627e+05 -6.991021e+05 -5.558707e+10 -1.162262e+07
## [10890,] -1.308025e+08 -1.038847e+08 -3.456623e+11 -2.009918e+07
## [10891,] -3.158344e+11 -2.685184e+11 -2.069918e+15 -3.480157e+09
## [10892,] -2.451626e+11 -1.957291e+11 -1.568616e+15 -2.521204e+09
## [10893,] -4.752308e+09 -3.757262e+09 -2.615787e+13 -1.163301e+08
## [10894,] -8.634034e+05 -1.975168e+05 -1.299719e+11 -1.057393e+07
## [10895,] -5.913165e+05 -7.016601e+05 -5.563262e+10 -1.154953e+07
## [10896,] -1.267633e+08 -1.164723e+08 -3.459456e+11 -2.024189e+07
## [10897,] -3.168811e+11 -2.782626e+11 -2.071614e+15 -2.982355e+09
## [10898,] -2.540776e+11 -2.254910e+11 -1.569258e+15 -2.619826e+09
## [10899,] -4.496211e+09 -4.426304e+09 -2.616858e+13 -1.127620e+08
## [10900,] -9.926471e+05 -2.693690e+05 -1.299719e+11 -1.058363e+07
## [10901,] -4.767614e+05 -6.218806e+05 -5.563262e+10 -1.168330e+07
## [10902,] -1.243669e+08 -1.164888e+08 -3.460873e+11 -2.025954e+07
## [10903,] -3.168802e+11 -2.782618e+11 -2.072462e+15 -3.658043e+09
## [10904,] -2.500037e+11 -2.029703e+11 -1.570544e+15 -2.305838e+09
## [10905,] -4.274736e+09 -4.566976e+09 -2.620074e+13 -1.202670e+08
## [10906,] -7.012505e+05 -4.769957e+04 -1.301317e+11 -1.055005e+07
## [10907,] -7.220843e+05 -4.799324e+05 -5.570099e+10 -1.161522e+07
## [10908,] -1.322625e+08 -1.089003e+08 -3.463707e+11 -2.011198e+07
## [10909,] -3.557783e+11 -2.881797e+11 -2.074160e+15 -2.971934e+09
## [10910,] -2.516264e+11 -2.103430e+11 -1.572473e+15 -1.827069e+09
## [10911,] -4.357550e+09 -4.152743e+09 -2.623292e+13 -1.128594e+08
## [10912,] -8.687511e+05 -4.403405e+05 -1.302915e+11 -1.060863e+07
## [10913,] -6.929311e+05 -7.944048e+05 -5.576940e+10 -1.158072e+07
## [10914,] -1.186476e+08 -1.165713e+08 -3.467961e+11 -2.026162e+07
## [10915,] -3.403804e+11 -2.782578e+11 -2.076707e+15 -3.002246e+09

```

```

## [10916,] -2.301326e+11 -2.411574e+11 -1.573116e+15 -2.770944e+09
## [10917,] -4.567286e+09 -4.018944e+09 -2.623292e+13 -1.113081e+08
## [10918,] -8.140303e+05 -1.934626e+05 -1.302915e+11 -1.051652e+07
## [10919,] -4.628716e+05 -7.093621e+05 -5.576940e+10 -1.179876e+07
## [10920,] -1.215494e+08 -1.089641e+08 -3.469380e+11 -2.045208e+07
## [10921,] -3.210861e+11 -2.782570e+11 -2.077557e+15 -3.337879e+09
## [10922,] -2.435526e+11 -2.254859e+11 -1.573760e+15 -2.669333e+09
## [10923,] -4.869412e+09 -5.611465e+09 -2.625438e+13 -1.071832e+08
## [10924,] -8.383672e+05 -2.630609e+05 -1.303981e+11 -1.057974e+07
## [10925,] -5.129642e+05 -9.819566e+05 -5.581502e+10 -1.166138e+07
## [10926,] -1.205130e+08 -1.271708e+08 -3.470798e+11 -2.020001e+07
## [10927,] -3.232011e+11 -2.685105e+11 -2.078406e+15 -3.294854e+09
## [10928,] -2.491886e+11 -1.957230e+11 -1.574403e+15 -2.407774e+09
## [10929,] -4.738835e+09 -4.152940e+09 -2.625438e+13 -1.048126e+08
## [10930,] -8.924424e+05 -2.622776e+05 -1.304514e+11 -1.086804e+07
## [10931,] -4.096201e+05 -9.865051e+05 -5.588350e+10 -1.171731e+07
## [10932,] -1.269699e+08 -1.166703e+08 -3.476477e+11 -2.074746e+07
## [10933,] -3.126868e+11 -2.589346e+11 -2.082657e+15 -3.522920e+09
## [10934,] -2.491848e+11 -2.029627e+11 -1.577623e+15 -2.536445e+09
## [10935,] -4.725066e+09 -4.153531e+09 -2.631882e+13 -1.036240e+08
## [10936,] -8.852383e+05 -5.358943e+05 -1.307181e+11 -1.080481e+07
## [10937,] -2.214716e+05 -7.196968e+05 -5.595202e+10 -1.156223e+07
## [10938,] -1.180162e+08 -1.246056e+08 -3.480738e+11 -2.038837e+07
## [10939,] -3.189702e+11 -3.189702e+11 -2.084358e+15 -3.167109e+09
## [10940,] -2.598224e+11 -2.254801e+11 -1.578912e+15 -2.304884e+09
## [10941,] -4.943474e+09 -4.153629e+09 -2.632957e+13 -1.070773e+08
## [10942,] -5.025535e+05 -6.494160e+05 -1.307715e+11 -1.062428e+07
## [10943,] -3.825961e+05 -8.972421e+05 -5.597487e+10 -1.177861e+07
## [10944,] -1.294608e+08 -1.167198e+08 -3.480738e+11 -2.021583e+07
## [10945,] -3.458315e+11 -2.982629e+11 -2.084358e+15 -3.011713e+09
## [10946,] -2.532489e+11 -2.178423e+11 -1.578912e+15 -2.312679e+09
## [10947,] -4.682102e+09 -4.289634e+09 -2.632957e+13 -1.077281e+08
## [10948,] -7.491374e+05 -1.874601e+05 -1.307715e+11 -1.080984e+07
## [10949,] -4.391649e+05 -9.925862e+05 -5.597487e+10 -1.172816e+07
## [10950,] -1.217011e+08 -1.116220e+08 -3.482159e+11 -2.049266e+07
## [10951,] -3.106031e+11 -2.982621e+11 -2.085209e+15 -3.337084e+09
## [10952,] -2.491825e+11 -2.029607e+11 -1.579557e+15 -2.343918e+09
## [10953,] -4.441871e+09 -5.151780e+09 -2.634032e+13 -1.103671e+08
## [10954,] -7.222402e+05 -4.302576e+05 -1.308249e+11 -1.060982e+07
## [10955,] -5.217581e+05 -8.986903e+05 -5.599772e+10 -1.172331e+07
## [10956,] -1.146768e+08 -1.167363e+08 -3.482159e+11 -2.066637e+07
## [10957,] -3.253170e+11 -2.495342e+11 -2.085209e+15 -3.713232e+09
## [10958,] -2.540645e+11 -2.254787e+11 -1.580202e+15 -2.273688e+09
## [10959,] -4.497954e+09 -4.855774e+09 -2.635107e+13 -1.121496e+08
## [10960,] -3.716906e+05 -3.362058e+05 -1.309317e+11 -1.067819e+07
## [10961,] -5.898367e+05 -6.437631e+05 -5.604345e+10 -1.182133e+07
## [10962,] -1.089058e+08 -1.300757e+08 -3.486425e+11 -2.117996e+07

```

```

## [10963,] -3.253144e+11 -3.189667e+11 -2.087764e+15 -3.326061e+09
## [10964,] -2.581681e+11 -2.178394e+11 -1.581492e+15 -2.328014e+09
## [10965,] -4.372692e+09 -4.154023e+09 -2.637258e+13 -1.164340e+08
## [10966,] -6.796629e+05 -5.292028e+05 -1.310386e+11 -1.095807e+07
## [10967,] -5.771821e+05 -5.697521e+05 -5.608919e+10 -1.176444e+07
## [10968,] -1.233752e+08 -1.168189e+08 -3.489269e+11 -2.063584e+07
## [10969,] -3.147672e+11 -2.881641e+11 -2.090319e+15 -3.315056e+09
## [10970,] -2.224041e+11 -2.178373e+11 -1.583428e+15 -2.519439e+09
## [10971,] -4.625711e+09 -3.759417e+09 -2.640487e+13 -1.167096e+08
## [10972,] -4.845596e+05 -5.269816e+05 -1.311455e+11 -1.045563e+07
## [10973,] -4.538906e+05 -7.314126e+05 -5.615783e+10 -1.165925e+07
## [10974,] -1.260822e+08 -1.168519e+08 -3.492116e+11 -2.042197e+07
## [10975,] -3.371089e+11 -2.881617e+11 -2.092876e+15 -3.103630e+09
## [10976,] -2.664723e+11 -2.332422e+11 -1.585365e+15 -2.242271e+09
## [10977,] -4.304357e+09 -4.569249e+09 -2.643717e+13 -1.113936e+08
## [10978,] -4.813734e+05 -1.044405e+06 -1.313059e+11 -1.065467e+07
## [10979,] -4.965693e+05 -1.214498e+06 -5.620362e+10 -1.178055e+07
## [10980,] -1.255795e+08 -1.194868e+08 -3.494963e+11 -2.031695e+07
## [10981,] -3.253074e+11 -2.589237e+11 -2.094582e+15 -3.422799e+09
## [10982,] -2.379654e+11 -2.254714e+11 -1.586657e+15 -2.584617e+09
## [10983,] -4.856839e+09 -4.020978e+09 -2.645872e+13 -1.161144e+08
## [10984,] -9.230773e+05 -3.282779e+05 -1.314130e+11 -1.070366e+07
## [10985,] -4.136992e+05 -7.379623e+05 -5.627233e+10 -1.185028e+07
## [10986,] -1.277861e+08 -1.195369e+08 -3.499236e+11 -2.035921e+07
## [10987,] -3.360248e+11 -2.782401e+11 -2.095435e+15 -3.082642e+09
## [10988,] -2.524232e+11 -2.332400e+11 -1.587303e+15 -2.257444e+09
## [10989,] -4.359769e+09 -4.712157e+09 -2.646949e+13 -1.127718e+08
## [10990,] -7.067387e+05 -1.214204e+05 -1.314665e+11 -1.067452e+07
## [10991,] -5.008864e+05 -6.573220e+05 -5.629525e+10 -1.192320e+07
## [10992,] -1.272628e+08 -1.143772e+08 -3.500661e+11 -2.080043e+07
## [10993,] -3.502165e+11 -2.312488e+11 -2.097142e+15 -3.314352e+09
## [10994,] -2.556925e+11 -1.957082e+11 -1.588596e+15 -2.478279e+09
## [10995,] -4.755574e+09 -4.291135e+09 -2.649105e+13 -1.045141e+08
## [10996,] -7.551282e+05 -2.460991e+05 -1.315736e+11 -1.056296e+07
## [10997,] -3.907498e+05 -8.274324e+05 -5.631817e+10 -1.172938e+07
## [10998,] -1.256652e+08 -1.093314e+08 -3.502086e+11 -2.021129e+07
## [10999,] -3.469150e+11 -2.881576e+11 -2.097142e+15 -2.829178e+09
## [11000,] -2.540545e+11 -2.254692e+11 -1.588596e+15 -2.143161e+09
## [11001,] -4.945086e+09 -4.569765e+09 -2.649105e+13 -1.150385e+08
## [11002,] -7.422221e+05 -1.203577e+05 -1.315736e+11 -1.050970e+07
## [11003,] -4.611265e+05 -1.015557e+06 -5.631817e+10 -1.172602e+07
## [11004,] -1.264713e+08 -1.143936e+08 -3.502086e+11 -2.077466e+07
## [11005,] -3.635778e+11 -2.881568e+11 -2.097996e+15 -3.357326e+09
## [11006,] -2.540537e+11 -2.029503e+11 -1.589243e+15 -2.502491e+09
## [11007,] -4.871865e+09 -4.857265e+09 -2.650183e+13 -1.152796e+08
## [11008,] -6.298602e+05 -6.298602e+05 -1.316271e+11 -1.078726e+07
## [11009,] -4.433882e+05 -8.302151e+05 -5.636402e+10 -1.178360e+07

```

```

## [11010,] -1.275847e+08 -1.144263e+08 -3.504937e+11 -2.066873e+07
## [11011,] -3.242408e+11 -2.982487e+11 -2.098849e+15 -3.155168e+09
## [11012,] -2.540529e+11 -2.254678e+11 -1.589889e+15 -2.303637e+09
## [11013,] -4.655272e+09 -4.021463e+09 -2.651262e+13 -1.097452e+08
## [11014,] -6.646278e+05 -7.334346e+04 -1.316807e+11 -1.071890e+07
## [11015,] -6.140476e+05 -9.220204e+05 -5.636402e+10 -1.182067e+07
## [11016,] -1.211793e+08 -1.170007e+08 -3.504937e+11 -2.109525e+07
## [11017,] -3.317131e+11 -2.782369e+11 -2.098849e+15 -3.477092e+09
## [11018,] -2.403418e+11 -2.332370e+11 -1.589889e+15 -1.610245e+09
## [11019,] -4.485461e+09 -4.569972e+09 -2.651262e+13 -1.086515e+08
## [11020,] -4.436732e+05 -6.286479e+05 -1.316807e+11 -1.074333e+07
## [11021,] -3.335880e+05 -6.610444e+05 -5.636402e+10 -1.180044e+07
## [11022,] -1.238282e+08 -1.093633e+08 -3.504937e+11 -2.073407e+07
## [11023,] -3.371027e+11 -2.684915e+11 -2.098849e+15 -3.655178e+09
## [11024,] -2.740572e+11 -2.103241e+11 -1.589889e+15 -2.751806e+09
## [11025,] -4.584134e+09 -4.429558e+09 -2.651262e+13 -1.182365e+08
## [11026,] -5.375962e+05 -1.763802e+05 -1.316807e+11 -1.054866e+07
## [11027,] -5.052222e+05 -8.316082e+05 -5.638695e+10 -1.192737e+07
## [11028,] -1.262710e+08 -1.020146e+08 -3.507790e+11 -2.049801e+07
## [11029,] -3.295678e+11 -2.782352e+11 -2.100558e+15 -3.292573e+09
## [11030,] -2.499792e+11 -2.178287e+11 -1.591183e+15 -2.683985e+09
## [11031,] -4.684194e+09 -4.021754e+09 -2.654499e+13 -1.054503e+08
## [11032,] -7.614629e+05 -1.177214e+05 -1.318414e+11 -1.089579e+07
## [11033,] -5.574986e+05 -9.264281e+05 -5.643283e+10 -1.184995e+07
## [11034,] -1.252147e+08 -1.119290e+08 -3.509216e+11 -2.023490e+07
## [11035,] -3.327849e+11 -2.881535e+11 -2.101412e+15 -3.609964e+09
## [11036,] -2.622928e+11 -2.029469e+11 -1.592478e+15 -2.421616e+09
## [11037,] -4.770654e+09 -3.760729e+09 -2.655578e+13 -1.131243e+08
## [11038,] -5.429432e+05 -3.195800e+05 -1.319487e+11 -1.084685e+07
## [11039,] -5.379773e+05 -9.293724e+05 -5.647873e+10 -1.195188e+07
## [11040,] -1.215271e+08 -1.223199e+08 -3.512070e+11 -2.056216e+07
## [11041,] -3.090783e+11 -2.917125e+11 -3.064294e+13 -1.744361e+09
## [11042,] -2.380182e+11 -2.133642e+11 -2.321219e+13 -1.299516e+09
## [11043,] -4.215607e+09 -3.366307e+09 -3.883853e+11 -2.497083e+07
## [11044,] -1.744525e+07 -1.441260e+07 -1.929000e+09 -2.421545e+04
## [11045,] -6.465645e+06 -5.715372e+06 -8.256807e+08 -6.578155e+04
## [11046,] -6.162097e+07 -5.120620e+07 -5.134408e+09 -8.867948e+05
## [11047,] -3.184744e+11 -2.719242e+11 -3.074620e+13 -1.637011e+09
## [11048,] -2.516630e+11 -2.059355e+11 -2.329041e+13 -1.230230e+09
## [11049,] -4.548106e+09 -3.488854e+09 -3.883853e+11 -2.754440e+07
## [11050,] -1.762623e+07 -1.384621e+07 -1.935490e+09 -1.716707e+04
## [11051,] -6.637525e+06 -6.190322e+06 -8.284585e+08 -6.318012e+04
## [11052,] -6.506136e+07 -5.121714e+07 -5.151682e+09 -9.018195e+05
## [11053,] -3.269444e+11 -3.121933e+11 -3.084964e+13 -1.482407e+09
## [11054,] -2.435894e+11 -2.133628e+11 -2.336876e+13 -1.270330e+09
## [11055,] -4.040870e+09 -4.270247e+09 -3.896919e+11 -2.373881e+07
## [11056,] -1.688277e+07 -1.384621e+07 -1.935490e+09 -1.736303e+04

```

```

## [11057,] -6.587066e+06 -5.029916e+06 -8.284585e+08 -5.810745e+04
## [11058,] -6.182100e+07 -5.469998e+07 -5.151682e+09 -1.038456e+06
## [11059,] -3.355265e+11 -2.719234e+11 -3.084964e+13 -1.887174e+09
## [11060,] -2.484173e+11 -2.051992e+11 -2.336876e+13 -1.317010e+09
## [11061,] -4.121104e+09 -3.488944e+09 -3.896919e+11 -2.700577e+07
## [11062,] -1.688277e+07 -1.737663e+07 -1.935490e+09 -2.108056e+04
## [11063,] -5.688295e+06 -6.190322e+06 -8.284585e+08 -5.167409e+04
## [11064,] -5.811478e+07 -5.121714e+07 -5.151682e+09 -1.058059e+06
## [11065,] -3.541327e+11 -2.719234e+11 -3.084964e+13 -1.674874e+09
## [11066,] -2.508491e+11 -2.209224e+11 -2.336876e+13 -1.281921e+09
## [11067,] -4.394246e+09 -3.366396e+09 -3.896919e+11 -2.614253e+07
## [11068,] -1.737663e+07 -1.440680e+07 -1.935490e+09 -1.508491e+04
## [11069,] -6.866975e+06 -5.479638e+06 -8.284585e+08 -5.623084e+04
## [11070,] -6.333556e+07 -4.951868e+07 -5.151682e+09 -9.783798e+05
## [11071,] -3.284959e+11 -2.684875e+11 -2.103121e+15 -3.186226e+09
## [11072,] -2.332333e+11 -2.411341e+11 -1.593125e+15 -2.421540e+09
## [11073,] -4.799826e+09 -4.022045e+09 -2.657738e+13 -1.039977e+08
## [11074,] -8.373600e+05 -2.400713e+05 -1.320023e+11 -1.067571e+07
## [11075,] -4.627677e+05 -1.027915e+06 -5.650169e+10 -1.196395e+07
## [11076,] -1.249983e+08 -1.094593e+08 -3.513498e+11 -2.026630e+07
## [11077,] -3.168484e+11 -2.881510e+11 -2.103976e+15 -2.928531e+09
## [11078,] -2.515995e+11 -2.178244e+11 -1.595068e+15 -2.119985e+09
## [11079,] -4.713416e+09 -4.022238e+09 -2.659898e+13 -1.040289e+08
## [11080,] -7.291141e+05 -2.385760e+05 -1.321096e+11 -1.079324e+07
## [11081,] -4.726128e+05 -8.427949e+05 -5.657059e+10 -1.196284e+07
## [11082,] -1.208041e+08 -1.171495e+08 -3.517782e+11 -2.036247e+07
## [11083,] -3.327796e+11 -2.782296e+11 -2.106541e+15 -3.487280e+09
## [11084,] -2.540460e+11 -2.254612e+11 -1.595716e+15 -2.202877e+09
## [11085,] -4.742413e+09 -3.621399e+09 -2.662059e+13 -1.002519e+08
## [11086,] -1.273057e+06 -4.045886e+05 -1.322169e+11 -1.069570e+07
## [11087,] -5.447239e+05 -1.137933e+06 -5.661654e+10 -1.212668e+07
## [11088,] -1.258880e+08 -1.120584e+08 -3.520640e+11 -2.098574e+07
## [11089,] -3.327779e+11 -2.684828e+11 -2.108253e+15 -3.498115e+09
## [11090,] -2.639509e+11 -1.816081e+11 -1.597661e+15 -2.279460e+09
## [11091,] -4.009361e+09 -4.571212e+09 -2.664221e+13 -1.150435e+08
## [11092,] -8.020511e+05 -1.130495e+05 -1.323243e+11 -1.079862e+07
## [11093,] -5.032254e+05 -7.591175e+05 -5.663953e+10 -1.190073e+07
## [11094,] -1.248333e+08 -1.095552e+08 -3.522069e+11 -2.059984e+07
## [11095,] -3.680754e+11 -2.495128e+11 -2.109109e+15 -3.019515e+09
## [11096,] -2.491611e+11 -2.254591e+11 -1.597661e+15 -2.493390e+09
## [11097,] -4.416856e+09 -4.292537e+09 -2.664221e+13 -1.112583e+08
## [11098,] -5.017737e+05 -3.127058e+05 -1.323780e+11 -1.057930e+07
## [11099,] -6.231587e+05 -6.785546e+05 -5.668551e+10 -1.187406e+07
## [11100,] -1.230193e+08 -1.088528e+08 -3.526359e+11 -2.115662e+07
## [11101,] -3.221085e+11 -2.684796e+11 -2.111677e+15 -2.739291e+09
## [11102,] -2.475419e+11 -2.029393e+11 -1.599606e+15 -2.157001e+09
## [11103,] -4.946913e+09 -3.634468e+09 -2.667466e+13 -1.180306e+08

```



```

## [11104,] -8.370244e+05 -3.101472e+05 -1.325392e+11 -1.084818e+07
## [11105,] -5.145854e+05 -8.526446e+05 -5.673151e+10 -1.192860e+07
## [11106,] -1.254371e+08 -1.071278e+08 -3.527789e+11 -2.083464e+07
## [11107,] -3.105758e+11 -2.782240e+11 -2.112534e+15 -3.312768e+09
## [11108,] -2.483489e+11 -2.178187e+11 -1.600255e+15 -2.388890e+09
## [11109,] -4.902950e+09 -4.023014e+09 -2.668548e+13 -1.097821e+08
## [11110,] -7.571481e+05 -4.985313e+05 -1.325392e+11 -1.081872e+07
## [11111,] -5.156823e+05 -9.471363e+05 -5.675452e+10 -1.188309e+07
## [11112,] -1.225228e+08 -1.147043e+08 -3.529220e+11 -2.114866e+07
## [11113,] -3.033443e+11 -2.982329e+11 -2.115105e+15 -3.541625e+09
## [11114,] -2.095674e+11 -2.178166e+11 -1.602203e+15 -2.509082e+09
## [11115,] -4.772343e+09 -4.293338e+09 -2.672878e+13 -1.085338e+08
## [11116,] -1.047969e+06 -3.067521e+05 -1.327543e+11 -1.091262e+07
## [11117,] -5.770660e+05 -7.698072e+05 -5.682357e+10 -1.182794e+07
## [11118,] -1.236358e+08 -1.122040e+08 -3.533514e+11 -2.093914e+07
## [11119,] -2.961996e+11 -2.684757e+11 -2.115962e+15 -3.963858e+09
## [11120,] -2.589666e+11 -2.029352e+11 -1.603502e+15 -2.372686e+09
## [11121,] -4.786921e+09 -3.891815e+09 -2.673961e+13 -1.103014e+08
## [11122,] -6.151019e+05 -6.490961e+04 -1.328081e+11 -1.116549e+07
## [11123,] -6.316323e+05 -9.530949e+05 -5.684660e+10 -1.176579e+07
## [11124,] -1.287609e+08 -1.225905e+08 -3.534946e+11 -2.107778e+07
## [11125,] -3.338443e+11 -2.881379e+11 -2.117677e+15 -3.312240e+09
## [11126,] -2.524024e+11 -1.956913e+11 -1.604801e+15 -2.356759e+09
## [11127,] -4.431898e+09 -4.023692e+09 -2.676128e+13 -1.107737e+08
## [11128,] -8.546214e+05 -1.074680e+05 -1.329157e+11 -1.097714e+07
## [11129,] -3.035946e+05 -8.625516e+05 -5.689266e+10 -1.174599e+07
## [11130,] -1.379147e+08 -1.047745e+08 -3.537810e+11 -2.132326e+07
## [11131,] -3.189357e+11 -3.295493e+11 -2.118535e+15 -3.153194e+09
## [11132,] -2.524024e+11 -2.103080e+11 -1.604801e+15 -2.732973e+09
## [11133,] -4.544083e+09 -4.157570e+09 -2.676128e+13 -1.068435e+08
## [11134,] -8.272656e+05 -3.920501e+05 -1.329157e+11 -1.088836e+07
## [11135,] -7.145976e+05 -6.899321e+05 -5.689266e+10 -1.193505e+07
## [11136,] -1.181604e+08 -1.199885e+08 -3.537810e+11 -2.083977e+07
## [11137,] -3.392501e+11 -2.982295e+11 -2.118535e+15 -3.963569e+09
## [11138,] -2.532182e+11 -2.332200e+11 -1.604801e+15 -2.574205e+09
## [11139,] -4.918368e+09 -4.572348e+09 -2.676128e+13 -1.085815e+08
## [11140,] -6.482342e+05 -7.222921e+05 -1.329157e+11 -1.088836e+07
## [11141,] -4.277352e+05 -8.625516e+05 -5.689266e+10 -1.200294e+07
## [11142,] -1.260938e+08 -1.097312e+08 -3.537810e+11 -2.076336e+07
## [11143,] -3.457955e+11 -2.881371e+11 -2.118535e+15 -3.475020e+09
## [11144,] -2.515873e+11 -2.029331e+11 -1.605451e+15 -2.500580e+09
## [11145,] -4.672072e+09 -4.023789e+09 -2.677212e+13 -1.055650e+08
## [11146,] -7.070985e+05 -6.336156e+04 -1.330234e+11 -1.082471e+07
## [11147,] -5.256068e+05 -7.778736e+05 -5.696180e+10 -1.197126e+07
## [11148,] -1.210898e+08 -1.148517e+08 -3.542109e+11 -2.105793e+07
## [11149,] -3.263444e+11 -2.588996e+11 -2.121109e+15 -3.398261e+09
## [11150,] -2.435134e+11 -2.254482e+11 -1.607401e+15 -2.459954e+09

```

```

## [11151,] -4.390595e+09 -4.157964e+09 -2.680465e+13 -1.155144e+08
## [11152,] -6.196169e+05 -3.008557e+05 -1.331311e+11 -1.087901e+07
## [11153,] -5.555832e+05 -6.950191e+05 -5.698485e+10 -1.197994e+07
## [11154,] -1.277806e+08 -1.097953e+08 -3.543543e+11 -2.058440e+07
## [11155,] -3.349169e+11 -2.982254e+11 -2.122826e+15 -2.906579e+09
## [11156,] -2.614438e+11 -2.178102e+11 -1.608052e+15 -2.582054e+09
## [11157,] -4.787872e+09 -3.763166e+09 -2.683719e+13 -1.045861e+08
## [11158,] -6.396496e+05 -1.576508e+05 -1.332928e+11 -1.089413e+07
## [11159,] -7.236696e+05 -8.725157e+05 -5.705405e+10 -1.178605e+07
## [11160,] -1.289518e+08 -1.149500e+08 -3.550715e+11 -2.061909e+07
## [11161,] -2.772287e+11 -3.295414e+11 -2.126263e+15 -3.376031e+09
## [11162,] -2.532112e+11 -2.103017e+11 -1.610655e+15 -2.278001e+09
## [11163,] -4.846198e+09 -3.636034e+09 -2.685890e+13 -1.102582e+08
## [11164,] -7.880970e+05 -1.030063e+05 -1.334006e+11 -1.086977e+07
## [11165,] -5.110177e+05 -8.753731e+05 -5.710020e+10 -1.191479e+07
## [11166,] -1.265346e+08 -1.227937e+08 -3.552151e+11 -2.080030e+07
## [11167,] -3.414161e+11 -2.982212e+11 -2.127122e+15 -3.215442e+09
## [11168,] -2.371464e+11 -2.491451e+11 -1.611306e+15 -2.548799e+09
## [11169,] -4.802685e+09 -4.573382e+09 -2.686976e+13 -1.118183e+08
## [11170,] -6.968550e+05 -2.202793e+05 -1.334545e+11 -1.087481e+07
## [11171,] -6.240518e+05 -7.039663e+05 -5.714637e+10 -1.185092e+07
## [11172,] -1.265518e+08 -1.149828e+08 -3.553586e+11 -2.072003e+07
## [11173,] -3.370725e+11 -2.588934e+11 -2.127982e+15 -3.089771e+09
## [11174,] -2.411116e+11 -2.029255e+11 -1.612609e+15 -1.816101e+09
## [11175,] -4.673221e+09 -3.893150e+09 -2.689148e+13 -9.463723e+07
## [11176,] -6.430276e+05 -2.925315e+05 -1.336703e+11 -1.082616e+07
## [11177,] -5.596688e+05 -8.825371e+05 -5.721565e+10 -1.208059e+07
## [11178,] -1.301283e+08 -1.150319e+08 -3.557895e+11 -2.119019e+07
## [11179,] -3.316806e+11 -2.684622e+11 -2.130562e+15 -3.386426e+09
## [11180,] -2.483329e+11 -2.491421e+11 -1.613912e+15 -2.316514e+09
## [11181,] -4.730846e+09 -4.158950e+09 -2.691321e+13 -1.145557e+08
## [11182,] -4.864764e+05 -5.846135e+05 -1.336703e+11 -1.059187e+07
## [11183,] -5.830720e+05 -1.078095e+06 -5.723876e+10 -1.433033e+07
## [11184,] -1.260997e+08 -1.074919e+08 -3.560769e+11 -2.102830e+07
## [11185,] -3.199754e+11 -2.684606e+11 -2.132283e+15 -3.364589e+09
## [11186,] -2.371419e+11 -2.102968e+11 -1.615215e+15 -2.434969e+09
## [11187,] -4.645166e+09 -3.893627e+09 -2.694582e+13 -1.110474e+08
## [11188,] -7.003805e+05 -2.152870e+05 -1.338323e+11 -1.095944e+07
## [11189,] -6.708970e+05 -7.968585e+05 -5.728499e+10 -1.189265e+07
## [11190,] -1.245094e+08 -1.125280e+08 -3.562206e+11 -2.117825e+07
## [11191,] -2.951694e+11 -3.084813e+11 -2.133144e+15 -3.787898e+09
## [11192,] -2.419051e+11 -2.254387e+11 -1.615867e+15 -2.622498e+09
## [11193,] -4.659444e+09 -3.764104e+09 -2.694582e+13 -1.123748e+08
## [11194,] -7.512023e+05 -1.516413e+05 -1.338323e+11 -1.094957e+07
## [11195,] -5.412329e+05 -9.816537e+05 -5.728499e+10 -1.204540e+07
## [11196,] -1.282762e+08 -1.176628e+08 -3.562206e+11 -2.077269e+07
## [11197,] -3.002538e+11 -3.189201e+11 -2.134005e+15 -3.572972e+09

```

```

## [11198,] -2.332060e+11 -2.178002e+11 -1.617172e+15 -2.442754e+09
## [11199,] -4.716984e+09 -3.764291e+09 -2.696758e+13 -1.135196e+08
## [11200,] -6.854203e+05 -1.504533e+05 -1.339403e+11 -1.100912e+07
## [11201,] -5.434839e+05 -8.897302e+05 -5.733123e+10 -1.195742e+07
## [11202,] -1.229461e+08 -1.203067e+08 -3.565082e+11 -2.085215e+07
## [11203,] -3.295318e+11 -2.684574e+11 -2.135727e+15 -3.299678e+09
## [11204,] -2.339894e+11 -2.332053e+11 -1.617824e+15 -2.580889e+09
## [11205,] -4.717089e+09 -4.025631e+09 -2.697846e+13 -1.157773e+08
## [11206,] -5.776234e+05 -8.265986e+05 -1.339944e+11 -1.097957e+07
## [11207,] -6.117265e+05 -8.009565e+05 -5.735436e+10 -1.206473e+07
## [11208,] -1.234944e+08 -1.177126e+08 -3.566520e+11 -2.080451e+07
## [11209,] -3.457776e+11 -3.189184e+11 -2.135727e+15 -2.955796e+09
## [11210,] -2.564787e+11 -2.029200e+11 -1.617824e+15 -2.556223e+09
## [11211,] -4.378354e+09 -4.159541e+09 -2.697846e+13 -1.203259e+08
## [11212,] -8.402154e+05 -2.875931e+05 -1.339944e+11 -1.077297e+07
## [11213,] -5.591887e+05 -1.086044e+06 -5.735436e+10 -1.195931e+07
## [11214,] -1.253803e+08 -1.151467e+08 -3.567959e+11 -2.100847e+07
## [11215,] -3.381467e+11 -2.982120e+11 -2.136588e+15 -3.495133e+09
## [11216,] -2.532012e+11 -2.177980e+11 -1.619130e+15 -2.087626e+09
## [11217,] -4.774983e+09 -4.295842e+09 -2.700022e+13 -1.035387e+08
## [11218,] -6.572229e+05 -2.859563e+05 -1.341025e+11 -1.106896e+07
## [11219,] -5.541488e+05 -8.036943e+05 -5.740063e+10 -1.214363e+07
## [11220,] -1.187868e+08 -1.203570e+08 -3.569398e+11 -2.084030e+07
## [11221,] -2.871194e+11 -3.295300e+11 -2.137450e+15 -3.278123e+09
## [11222,] -2.475183e+11 -2.029180e+11 -1.619782e+15 -2.515145e+09
## [11223,] -4.935636e+09 -3.764760e+09 -2.702200e+13 -1.044237e+08
## [11224,] -7.678776e+05 -2.103519e+05 -1.342106e+11 -1.083228e+07
## [11225,] -4.520597e+05 -8.969526e+05 -5.744692e+10 -1.205870e+07
## [11226,] -1.292122e+08 -1.151959e+08 -3.572276e+11 -2.075601e+07
## [11227,] -3.284591e+11 -2.684543e+11 -2.139174e+15 -2.746492e+09
## [11228,] -2.622583e+11 -2.177959e+11 -1.621088e+15 -2.269100e+09
## [11229,] -4.268746e+09 -4.160034e+09 -2.703289e+13 -1.149601e+08
## [11230,] -7.928799e+05 -9.530810e+04 -1.342647e+11 -1.100490e+07
## [11231,] -5.074624e+05 -9.938046e+05 -5.747007e+10 -1.212201e+07
## [11232,] -1.278728e+08 -1.177955e+08 -3.573716e+11 -2.079570e+07
## [11233,] -3.273908e+11 -2.588825e+11 -2.140036e+15 -2.925059e+09
## [11234,] -2.523833e+11 -2.254329e+11 -1.621088e+15 -2.498746e+09
## [11235,] -4.833336e+09 -4.026116e+09 -2.703289e+13 -1.133943e+08
## [11236,] -5.594630e+05 -3.675652e+05 -1.343188e+11 -1.069550e+07
## [11237,] -5.809268e+05 -9.953287e+05 -5.749323e+10 -1.205228e+07
## [11238,] -1.204241e+08 -1.152287e+08 -3.575156e+11 -2.101059e+07
## [11239,] -3.273900e+11 -2.982078e+11 -2.140898e+15 -3.130071e+09
## [11240,] -2.622576e+11 -2.177952e+11 -1.621742e+15 -3.107618e+09
## [11241,] -4.804380e+09 -3.764948e+09 -2.704378e+13 -1.109717e+08
## [11242,] -2.991322e+04 -5.695214e+05 -1.343729e+11 -1.049655e+07
## [11243,] -8.031190e+05 -7.259335e+05 -5.753956e+10 -1.199483e+07
## [11244,] -1.181052e+08 -1.204577e+08 -3.578037e+11 -2.121157e+07

```

```

## [11245,] -3.479660e+11 -3.084720e+11 -2.142623e+15 -3.341939e+09
## [11246,] -2.605970e+11 -2.254308e+11 -1.623048e+15 -2.713807e+09
## [11247,] -5.039550e+09 -4.575242e+09 -2.706557e+13 -1.103433e+08
## [11248,] -5.910815e+05 -2.075576e+05 -1.344270e+11 -1.070550e+07
## [11249,] -5.995241e+05 -1.100425e+06 -5.756273e+10 -1.210231e+07
## [11250,] -1.255172e+08 -1.127226e+08 -3.579478e+11 -2.129585e+07
## [11251,] -3.284547e+11 -2.881133e+11 -2.143486e+15 -3.594282e+09
## [11252,] -2.300754e+11 -2.102876e+11 -1.623702e+15 -2.790323e+09
## [11253,] -4.790305e+09 -3.894866e+09 -2.708737e+13 -1.097166e+08
## [11254,] -6.962427e+05 -2.061674e+05 -1.345353e+11 -1.101541e+07
## [11255,] -6.237379e+05 -8.146923e+05 -5.758591e+10 -1.211787e+07
## [11256,] -1.266092e+08 -1.178785e+08 -3.580919e+11 -2.079781e+07
## [11257,] -2.961722e+11 -3.189098e+11 -2.144349e+15 -3.706809e+09
## [11258,] -2.507520e+11 -2.029132e+11 -1.624356e+15 -2.457984e+09
## [11259,] -4.603812e+09 -4.026601e+09 -2.708737e+13 -1.168452e+08
## [11260,] -7.729212e+05 -3.638684e+05 -1.345353e+11 -1.112459e+07
## [11261,] -5.270703e+05 -9.056580e+05 -5.758591e+10 -1.202242e+07
## [11262,] -1.258026e+08 -1.204912e+08 -3.580919e+11 -2.063441e+07
## [11263,] -3.381387e+11 -3.084703e+11 -2.144349e+15 -2.824709e+09
## [11264,] -2.483208e+11 -2.029132e+11 -1.624356e+15 -2.613181e+09
## [11265,] -4.790305e+09 -4.160527e+09 -2.708737e+13 -1.172982e+08
## [11266,] -8.674411e+05 -2.061674e+05 -1.345353e+11 -1.098078e+07
## [11267,] -5.570879e+05 -1.103634e+06 -5.760909e+10 -1.206859e+07
## [11268,] -1.176519e+08 -1.231665e+08 -3.583802e+11 -2.100874e+07
## [11269,] -3.115813e+11 -3.084677e+11 -2.146939e+15 -3.181828e+09
## [11270,] -2.499380e+11 -2.029111e+11 -1.626318e+15 -2.409736e+09
## [11271,] -4.661113e+09 -4.026892e+09 -2.712009e+13 -1.077997e+08
## [11272,] -4.870308e+05 -2.770373e+05 -1.346978e+11 -1.084319e+07
## [11273,] -3.848493e+05 -8.188359e+05 -5.765546e+10 -1.216804e+07
## [11274,] -1.291139e+08 -1.153600e+08 -3.586686e+11 -2.111063e+07
## [11275,] -3.284504e+11 -2.982012e+11 -2.147803e+15 -3.330643e+09
## [11276,] -2.483177e+11 -2.177895e+11 -1.626972e+15 -2.370006e+09
## [11277,] -4.834292e+09 -4.575863e+09 -2.713100e+13 -1.169113e+08
## [11278,] -4.964185e+05 -2.034011e+05 -1.347520e+11 -1.093190e+07
## [11279,] -6.375978e+05 -6.533630e+05 -5.770186e+10 -1.190970e+07
## [11280,] -1.261570e+08 -1.102923e+08 -3.588129e+11 -2.139350e+07
## [11281,] -3.381342e+11 -2.494777e+11 -2.148667e+15 -3.527000e+09
## [11282,] -2.491260e+11 -2.254257e+11 -1.627626e+15 -2.385754e+09
## [11283,] -4.505439e+09 -4.435460e+09 -2.714191e+13 -1.221919e+08
## [11284,] -4.849001e+05 -2.027124e+05 -1.348062e+11 -1.092709e+07
## [11285,] -5.481809e+05 -8.229899e+05 -5.772506e+10 -1.213613e+07
## [11286,] -1.171995e+08 -1.179780e+08 -3.589572e+11 -2.097096e+07
## [11287,] -3.273812e+11 -2.684448e+11 -2.149531e+15 -3.244965e+09
## [11288,] -2.246546e+11 -2.410928e+11 -1.628935e+15 -2.789677e+09
## [11289,] -4.762216e+09 -4.297445e+09 -2.717466e+13 -1.035745e+08
## [11290,] -7.884769e+05 -2.006534e+05 -1.349689e+11 -1.109077e+07
## [11291,] -4.800594e+05 -1.013709e+06 -5.777148e+10 -1.199679e+07

```

```

## [11292,] -1.216791e+08 -1.206254e+08 -3.592459e+11 -2.103981e+07
## [11293,] -3.327338e+11 -2.588724e+11 -2.151260e+15 -3.149934e+09
## [11294,] -2.387075e+11 -2.331912e+11 -1.630245e+15 -2.433235e+09
## [11295,] -4.380275e+09 -4.297545e+09 -2.718558e+13 -1.118443e+08
## [11296,] -8.138097e+05 -1.999695e+05 -1.350231e+11 -1.082918e+07
## [11297,] -5.674013e+05 -9.202603e+05 -5.781792e+10 -1.226372e+07
## [11298,] -1.275910e+08 -1.129012e+08 -3.595346e+11 -2.127403e+07
## [11299,] -3.002346e+11 -2.881034e+11 -2.153854e+15 -3.615564e+09
## [11300,] -2.231165e+11 -2.410898e+11 -1.631555e+15 -2.489423e+09
## [11301,] -4.719293e+09 -4.436070e+09 -2.720743e+13 -1.314879e+08
## [11302,] -7.452799e+05 -3.537984e+05 -1.351316e+11 -1.104152e+07
## [11303,] -7.858465e+05 -9.217270e+05 -5.784115e+10 -1.209784e+07
## [11304,] -1.281495e+08 -1.103886e+08 -3.596791e+11 -2.129212e+07
## [11305,] -3.435692e+11 -2.981945e+11 -2.154719e+15 -2.833648e+09
## [11306,] -2.418863e+11 -1.885524e+11 -1.632211e+15 -1.898016e+09
## [11307,] -4.605056e+09 -4.027765e+09 -2.721836e+13 -1.156886e+08
## [11308,] -7.413271e+05 -6.989196e+04 -1.352945e+11 -1.109150e+07
## [11309,] -6.657745e+05 -9.276053e+05 -5.793410e+10 -1.215329e+07
## [11310,] -1.255230e+08 -1.104528e+08 -3.602571e+11 -2.124306e+07
## [11311,] -3.316533e+11 -2.588670e+11 -2.157315e+15 -3.118030e+09
## [11312,] -2.363310e+11 -2.177816e+11 -1.634177e+15 -2.400880e+09
## [11313,] -5.466143e+09 -3.391171e+09 -2.725116e+13 -1.043239e+08
## [11314,] -6.883082e+05 -4.429812e+05 -1.354031e+11 -1.095803e+07
## [11315,] -6.056456e+05 -1.129472e+06 -5.798061e+10 -1.206151e+07
## [11316,] -1.255573e+08 -1.104850e+08 -3.605463e+11 -2.145623e+07
## [11317,] -3.424730e+11 -2.981903e+11 -2.159047e+15 -3.191142e+09
## [11318,] -2.597547e+11 -2.177802e+11 -1.635489e+15 -2.290733e+09
## [11319,] -4.806605e+09 -4.028250e+09 -2.727303e+13 -1.099889e+08
## [11320,] -7.763108e+05 -3.483653e+05 -1.354574e+11 -1.088421e+07
## [11321,] -5.316960e+05 -1.027605e+06 -5.798061e+10 -1.212634e+07
## [11322,] -1.282533e+08 -1.079837e+08 -3.605463e+11 -2.125715e+07
## [11323,] -3.305781e+11 -2.880977e+11 -2.159913e+15 -3.212149e+09
## [11324,] -2.355408e+11 -1.956588e+11 -1.636145e+15 -2.432556e+09
## [11325,] -4.381186e+09 -4.162301e+09 -2.728397e+13 -1.198772e+08
## [11326,] -6.845097e+05 -1.931938e+05 -1.355661e+11 -1.110205e+07
## [11327,] -7.115519e+05 -7.535354e+05 -5.802713e+10 -1.206872e+07
## [11328,] -1.253406e+08 -1.130636e+08 -3.609803e+11 -2.112401e+07
## [11329,] -3.084533e+11 -2.880960e+11 -2.161646e+15 -3.670989e+09
## [11330,] -2.523641e+11 -2.655725e+11 -1.637458e+15 -2.998030e+09
## [11331,] -4.691519e+09 -4.162499e+09 -2.730586e+13 -1.212900e+08
## [11332,] -3.032074e+05 -4.389219e+05 -1.356205e+11 -1.102280e+07
## [11333,] -8.335326e+05 -8.425144e+05 -5.805040e+10 -1.218337e+07
## [11334,] -1.264146e+08 -1.080313e+08 -3.609803e+11 -2.054505e+07
## [11335,] -3.359566e+11 -3.188925e+11 -2.161646e+15 -3.004170e+09
## [11336,] -2.622388e+11 -2.177781e+11 -1.637458e+15 -2.290514e+09
## [11337,] -4.967893e+09 -4.028541e+09 -2.730586e+13 -1.104766e+08
## [11338,] -3.909027e+05 -6.588097e+05 -1.356205e+11 -1.105749e+07

```

```

## [11339,] -4.997622e+05 -8.425144e+05 -5.805040e+10 -1.223137e+07
## [11340,] -1.310305e+08 -1.182105e+08 -3.609803e+11 -2.087178e+07
## [11341,] -3.053554e+11 -3.188925e+11 -2.161646e+15 -3.275673e+09
## [11342,] -2.371166e+11 -2.655725e+11 -1.637458e+15 -2.376719e+09
## [11343,] -4.271242e+09 -5.012254e+09 -2.730586e+13 -1.144725e+08
## [11344,] -6.588097e+05 -3.456645e+05 -1.356205e+11 -1.112704e+07
## [11345,] -9.540501e+05 -9.349794e+05 -5.805040e+10 -1.215257e+07
## [11346,] -1.274933e+08 -1.156228e+08 -3.609803e+11 -2.098126e+07
## [11347,] -3.457506e+11 -2.981878e+11 -2.161646e+15 -3.096823e+09
## [11348,] -2.474978e+11 -2.254148e+11 -1.637458e+15 -2.321677e+09
## [11349,] -4.806923e+09 -3.639814e+09 -2.730586e+13 -1.100370e+08
## [11350,] -6.100781e+05 -3.447666e+05 -1.356749e+11 -1.092903e+07
## [11351,] -8.711743e+05 -9.364578e+05 -5.807367e+10 -1.214764e+07
## [11352,] -1.242881e+08 -1.080472e+08 -3.611250e+11 -2.134058e+07
## [11353,] -3.199443e+11 -3.084516e+11 -2.163379e+15 -3.614554e+09
## [11354,] -2.323989e+11 -2.254133e+11 -1.638771e+15 -2.384485e+09
## [11355,] -4.836205e+09 -4.028735e+09 -2.732776e+13 -1.208629e+08
## [11356,] -8.079747e+05 -2.244591e+05 -1.357836e+11 -1.096876e+07
## [11357,] -5.613622e+05 -1.038478e+06 -5.814352e+10 -1.229400e+07
## [11358,] -1.294788e+08 -1.131449e+08 -3.617042e+11 -2.155732e+07
## [11359,] -3.337949e+11 -2.684297e+11 -2.165981e+15 -3.481055e+09
## [11360,] -2.515451e+11 -2.028953e+11 -1.641399e+15 -2.392115e+09
## [11361,] -4.720868e+09 -3.640367e+09 -2.737158e+13 -1.112343e+08
## [11362,] -6.275336e+05 -1.885203e+05 -1.359469e+11 -1.115765e+07
## [11363,] -6.409459e+05 -8.523624e+05 -5.821341e+10 -1.226881e+07
## [11364,] -1.270912e+08 -1.157543e+08 -3.621389e+11 -2.118024e+07
## [11365,] -3.022664e+11 -2.880895e+11 -2.168584e+15 -3.458825e+09
## [11366,] -2.605736e+11 -2.102673e+11 -1.642714e+15 -2.407861e+09
## [11367,] -4.382197e+09 -4.437801e+09 -2.739350e+13 -1.112666e+08
## [11368,] -6.369634e+05 -1.282229e+05 -1.360558e+11 -1.117783e+07
## [11369,] -5.368121e+05 -2.920410e+06 -5.823672e+10 -1.226385e+07
## [11370,] -1.119403e+08 -1.263002e+08 -3.622839e+11 -2.160796e+07
## [11371,] -3.322952e+11 -3.226951e+11 -3.084964e+13 -1.871014e+09
## [11372,] -2.541098e+11 -1.986384e+11 -2.336876e+13 -1.270330e+09
## [11373,] -4.229309e+09 -3.488944e+09 -3.896919e+11 -2.657240e+07
## [11374,] -1.706713e+07 -1.329674e+07 -1.935490e+09 -1.490230e+04
## [11375,] -6.536799e+06 -5.948614e+06 -8.284585e+08 -5.507360e+04
## [11376,] -6.219792e+07 -4.951868e+07 -5.151682e+09 -9.807485e+05
## [11377,] -3.153256e+11 -2.817303e+11 -3.084964e+13 -1.744234e+09
## [11378,] -2.598667e+11 -2.133628e+11 -2.336876e+13 -1.419000e+09
## [11379,] -4.435973e+09 -3.366396e+09 -3.896919e+11 -2.624967e+07
## [11380,] -1.794073e+07 -1.384621e+07 -1.935490e+09 -1.526864e+04
## [11381,] -6.970204e+06 -5.948614e+06 -8.284585e+08 -5.167409e+04
## [11382,] -6.295520e+07 -5.294424e+07 -5.151682e+09 -9.712909e+05
## [11383,] -3.142797e+11 -2.917109e+11 -3.084964e+13 -1.728699e+09
## [11384,] -2.388089e+11 -2.209224e+11 -2.336876e+13 -1.293564e+09
## [11385,] -4.175031e+09 -3.613684e+09 -3.896919e+11 -2.657240e+07

```

```

## [11386,] -1.676041e+07 -1.440680e+07 -1.935490e+09 -1.472080e+04
## [11387,] -6.263772e+06 -5.948614e+06 -8.284585e+08 -5.530409e+04
## [11388,] -6.333556e+07 -4.951868e+07 -5.151682e+09 -9.831200e+05
## [11389,] -3.355265e+11 -2.435450e+11 -3.084964e+13 -1.690166e+09
## [11390,] -2.459975e+11 -2.524768e+11 -2.336876e+13 -1.264554e+09
## [11391,] -4.311383e+09 -3.613684e+09 -3.896919e+11 -2.646460e+07
## [11392,] -1.706713e+07 -1.384621e+07 -1.935490e+09 -1.490230e+04
## [11393,] -6.362381e+06 -5.479638e+06 -8.284585e+08 -5.553506e+04
## [11394,] -6.051079e+07 -5.648435e+07 -5.151682e+09 -9.712909e+05
## [11395,] -3.442198e+11 -2.817303e+11 -3.084964e+13 -1.525780e+09
## [11396,] -2.565691e+11 -2.133628e+11 -2.336876e+13 -1.276119e+09
## [11397,] -3.948261e+09 -3.613684e+09 -3.896919e+11 -2.689710e+07
## [11398,] -1.657772e+07 -1.384621e+07 -1.935490e+09 -1.418298e+04
## [11399,] -6.337657e+06 -6.190322e+06 -8.284585e+08 -5.623084e+04
## [11400,] -6.219792e+07 -5.294424e+07 -5.151682e+09 -9.831200e+05
## [11401,] -3.327153e+11 -2.781708e+11 -2.169452e+15 -3.524822e+09
## [11402,] -2.410756e+11 -2.177709e+11 -1.644029e+15 -2.423658e+09
## [11403,] -4.692566e+09 -3.640736e+09 -2.741544e+13 -1.191623e+08
## [11404,] -8.103942e+05 -1.744043e+04 -1.362192e+11 -1.116823e+07
## [11405,] -6.224110e+05 -1.049409e+06 -5.830667e+10 -1.211885e+07
## [11406,] -1.252608e+08 -1.107100e+08 -3.625739e+11 -2.128960e+07
## [11407,] -3.316392e+11 -2.981786e+11 -2.171189e+15 -3.075179e+09
## [11408,] -2.605713e+11 -2.102652e+11 -1.644687e+15 -2.235691e+09
## [11409,] -4.480041e+09 -4.438106e+09 -2.742641e+13 -1.155507e+08
## [11410,] -4.780285e+05 -7.908014e+04 -1.362192e+11 -1.101423e+07
## [11411,] -6.940256e+05 -6.070260e+05 -5.830667e+10 -1.225586e+07
## [11412,] -1.249931e+08 -1.236589e+08 -3.625739e+11 -2.109129e+07
## [11413,] -3.370281e+11 -2.880870e+11 -2.171189e+15 -2.881919e+09
## [11414,] -2.499166e+11 -2.177702e+11 -1.644687e+15 -2.702740e+09
## [11415,] -4.438106e+09 -3.897824e+09 -2.742641e+13 -1.249605e+08
## [11416,] -1.213488e+06 -9.071129e+05 -1.362192e+11 -1.083184e+07
## [11417,] -5.558339e+05 -1.153966e+06 -5.832999e+10 -1.220287e+07
## [11418,] -1.207655e+08 -1.132587e+08 -3.627189e+11 -2.148482e+07
## [11419,] -3.468367e+11 -2.880862e+11 -2.172057e+15 -2.812217e+09
## [11420,] -2.515405e+11 -2.028911e+11 -1.645345e+15 -2.084834e+09
## [11421,] -4.808194e+09 -4.299850e+09 -2.743738e+13 -1.050180e+08
## [11422,] -6.074071e+05 -1.308410e+05 -1.363282e+11 -1.110376e+07
## [11423,] -6.094098e+05 -1.103474e+06 -5.835332e+10 -1.224595e+07
## [11424,] -1.266381e+08 -1.082379e+08 -3.628640e+11 -2.150300e+07
## [11425,] -3.523463e+11 -2.880854e+11 -2.172926e+15 -2.932003e+09
## [11426,] -2.622286e+11 -2.177688e+11 -1.646003e+15 -2.204969e+09
## [11427,] -4.925123e+09 -4.299950e+09 -2.744835e+13 -1.102455e+08
## [11428,] -7.810579e+05 -4.258581e+05 -1.363282e+11 -1.120339e+07
## [11429,] -5.791576e+05 -7.722227e+05 -5.835332e+10 -1.232505e+07
## [11430,] -1.250273e+08 -1.132750e+08 -3.628640e+11 -2.148081e+07
## [11431,] -3.252272e+11 -2.781667e+11 -2.173795e+15 -3.436397e+09
## [11432,] -2.386888e+11 -2.177681e+11 -1.646661e+15 -2.602243e+09

```

```

## [11433,] -4.765064e+09 -4.029996e+09 -2.747031e+13 -1.185610e+08
## [11434,] -7.393809e+05 -7.737046e+04 -1.364372e+11 -1.108910e+07
## [11435,] -6.759889e+05 -9.587730e+05 -5.842334e+10 -1.224483e+07
## [11436,] -1.285824e+08 -1.158859e+08 -3.632994e+11 -2.101654e+07
## [11437,] -3.125945e+11 -3.512380e+11 -2.175533e+15 -3.013053e+09
## [11438,] -2.482933e+11 -2.739860e+11 -1.647978e+15 -2.243006e+09
## [11439,] -4.750731e+09 -3.898301e+09 -2.748129e+13 -1.118379e+08
## [11440,] -4.424931e+05 -5.254295e+05 -1.364918e+11 -1.103465e+07
## [11441,] -5.677697e+05 -1.160542e+06 -5.842334e+10 -1.222424e+07
## [11442,] -1.269764e+08 -1.237609e+08 -3.634446e+11 -2.145369e+07
## [11443,] -3.167762e+11 -2.684202e+11 -2.176403e+15 -2.532478e+09
## [11444,] -2.410703e+11 -2.331706e+11 -1.648636e+15 -2.197071e+09
## [11445,] -4.750836e+09 -3.641381e+09 -2.749227e+13 -1.161000e+08
## [11446,] -5.797160e+05 -3.305585e+05 -1.365463e+11 -1.116896e+07
## [11447,] -7.265586e+05 -1.058823e+06 -5.844669e+10 -1.228798e+07
## [11448,] -1.256316e+08 -1.133401e+08 -3.634446e+11 -2.117746e+07
## [11449,] -3.220434e+11 -2.981736e+11 -2.176403e+15 -3.199951e+09
## [11450,] -2.434659e+11 -1.885358e+11 -1.648636e+15 -2.407186e+09
## [11451,] -4.664661e+09 -4.030190e+09 -2.749227e+13 -1.120755e+08
## [11452,] -7.113715e+05 -4.218782e+05 -1.365463e+11 -1.122886e+07
## [11453,] -5.913400e+05 -1.162189e+06 -5.844669e+10 -1.232240e+07
## [11454,] -1.269764e+08 -1.159023e+08 -3.634446e+11 -2.110043e+07
## [11455,] -3.273532e+11 -2.684194e+11 -2.177272e+15 -2.636634e+09
## [11456,] -2.491001e+11 -2.102596e+11 -1.649954e+15 -2.769991e+09
## [11457,] -4.494882e+09 -4.300551e+09 -2.751424e+13 -1.134417e+08
## [11458,] -7.341338e+05 -4.198953e+05 -1.366554e+11 -1.107966e+07
## [11459,] -7.125062e+05 -9.632675e+05 -5.849340e+10 -1.220597e+07
## [11460,] -1.270109e+08 -1.058566e+08 -3.637350e+11 -2.146785e+07
## [11461,] -3.199287e+11 -3.074020e+11 -2.179012e+15 -3.084760e+09
## [11462,] -2.490986e+11 -2.028849e+11 -1.651272e+15 -2.479052e+09
## [11463,] -4.622285e+09 -4.439125e+09 -2.753622e+13 -1.132514e+08
## [11464,] -7.315172e+05 -4.179170e+05 -1.367646e+11 -1.126938e+07
## [11465,] -5.369913e+05 -8.722302e+05 -5.854013e+10 -1.238527e+07
## [11466,] -1.308500e+08 -1.108708e+08 -3.640256e+11 -2.128282e+07
## [11467,] -3.125885e+11 -2.981686e+11 -2.181623e+15 -3.231141e+09
## [11468,] -2.434614e+11 -1.956419e+11 -1.652591e+15 -2.511315e+09
## [11469,] -4.823888e+09 -4.030772e+09 -2.755821e+13 -1.164245e+08
## [11470,] -6.305882e+05 -7.400715e+04 -1.368738e+11 -1.103551e+07
## [11471,] -6.148862e+05 -8.765174e+05 -5.861026e+10 -1.237723e+07
## [11472,] -1.260201e+08 -1.059353e+08 -3.644617e+11 -2.119365e+07
## [11473,] -3.178201e+11 -2.684147e+11 -2.182493e+15 -2.961446e+09
## [11474,] -2.499067e+11 -2.028829e+11 -1.653250e+15 -2.121192e+09
## [11475,] -4.722759e+09 -3.642027e+09 -2.756921e+13 -1.064982e+08
## [11476,] -1.004314e+06 -2.450388e+05 -1.369285e+11 -1.132991e+07
## [11477,] -5.560162e+05 -1.071441e+06 -5.863364e+10 -1.232743e+07
## [11478,] -1.188871e+08 -1.186263e+08 -3.646071e+11 -2.158813e+07
## [11479,] -3.105060e+11 -2.880755e+11 -2.183364e+15 -3.446346e+09

```



```

## [11480,] -2.466723e+11 -2.102554e+11 -1.653910e+15 -2.188901e+09
## [11481,] -4.708489e+09 -4.030966e+09 -2.758021e+13 -1.122050e+08
## [11482,] -7.780353e+05 -1.761236e+05 -1.369831e+11 -1.110026e+07
## [11483,] -5.868357e+05 -9.737958e+05 -5.865703e+10 -1.220564e+07
## [11484,] -1.268618e+08 -1.160504e+08 -3.647526e+11 -2.169544e+07
## [11485,] -2.880747e+11 -3.294827e+11 -2.184235e+15 -3.512224e+09
## [11486,] -2.482850e+11 -2.102540e+11 -1.655229e+15 -2.617804e+09
## [11487,] -4.315093e+09 -4.580309e+09 -2.760222e+13 -1.231346e+08
## [11488,] -5.349103e+05 -7.235352e+04 -1.370924e+11 -1.114030e+07
## [11489,] -5.955547e+05 -1.287652e+06 -5.868043e+10 -1.237265e+07
## [11490,] -1.276890e+08 -1.160669e+08 -3.648980e+11 -2.146906e+07
## [11491,] -3.209770e+11 -2.981645e+11 -2.185978e+15 -3.457028e+09
## [11492,] -2.410621e+11 -2.177581e+11 -1.655889e+15 -2.543555e+09
## [11493,] -4.566256e+09 -4.301453e+09 -2.761322e+13 -1.147065e+08
## [11494,] -7.338195e+05 -3.200986e+05 -1.372017e+11 -1.125034e+07
## [11495,] -5.103406e+05 -1.182044e+06 -5.872723e+10 -1.221480e+07
## [11496,] -1.207880e+08 -1.135354e+08 -3.651891e+11 -2.142779e+07
## [11497,] -3.479200e+11 -2.684107e+11 -2.186849e+15 -3.053020e+09
## [11498,] -2.450604e+11 -2.102526e+11 -1.656550e+15 -2.584552e+09
## [11499,] -4.766647e+09 -4.031452e+09 -2.763524e+13 -1.185827e+08
## [11500,] -6.104124e+05 -2.405208e+05 -1.372564e+11 -1.126047e+07
## [11501,] -8.216872e+05 -9.798376e+05 -5.875064e+10 -1.233015e+07
## [11502,] -1.239820e+08 -1.110157e+08 -3.653347e+11 -2.048172e+07
## [11503,] -3.262772e+11 -2.684099e+11 -2.187721e+15 -2.457006e+09
## [11504,] -2.442572e+11 -2.028787e+11 -1.657210e+15 -1.832450e+09
## [11505,] -4.709118e+09 -4.301754e+09 -2.764626e+13 -1.098753e+08
## [11506,] -6.934401e+05 -2.397719e+05 -1.373111e+11 -1.128062e+07
## [11507,] -7.619430e+05 -8.865617e+05 -5.877405e+10 -1.237690e+07
## [11508,] -1.280288e+08 -1.110318e+08 -3.654803e+11 -2.117680e+07
## [11509,] -3.125817e+11 -2.880706e+11 -2.188593e+15 -3.219860e+09
## [11510,] -2.499013e+11 -2.028780e+11 -1.657870e+15 -2.398185e+09
## [11511,] -4.971340e+09 -4.440245e+09 -2.765727e+13 -1.083606e+08
## [11512,] -7.686277e+05 -3.175099e+05 -1.373658e+11 -1.132588e+07
## [11513,] -5.938812e+05 -1.296338e+06 -5.879747e+10 -1.240646e+07
## [11514,] -1.245496e+08 -1.110479e+08 -3.656259e+11 -2.183872e+07
## [11515,] -3.316207e+11 -2.684083e+11 -2.189465e+15 -4.002716e+09
## [11516,] -2.507114e+11 -2.028767e+11 -1.659192e+15 -2.470069e+09
## [11517,] -4.795912e+09 -4.301954e+09 -2.766829e+13 -1.094689e+08
## [11518,] -5.489959e+05 -1.703986e+05 -1.374753e+11 -1.138141e+07
## [11519,] -5.886870e+05 -1.085726e+06 -5.884432e+10 -1.249687e+07
## [11520,] -1.283690e+08 -1.110962e+08 -3.660629e+11 -2.121596e+07
## [11521,] -3.435298e+11 -3.188615e+11 -2.192955e+15 -3.380025e+09
## [11522,] -2.597235e+11 -2.028739e+11 -1.661836e+15 -2.241486e+09
## [11523,] -4.709747e+09 -4.302355e+09 -2.771238e+13 -1.110718e+08
## [11524,] -5.456041e+05 -3.132187e+05 -1.376396e+11 -1.105704e+07
## [11525,] -8.061624e+05 -8.966631e+05 -5.893808e+10 -1.266821e+07
## [11526,] -1.265294e+08 -1.162481e+08 -3.665002e+11 -2.148042e+07

```

```

## [11527,] -3.316155e+11 -2.880649e+11 -2.194701e+15 -3.827209e+09
## [11528,] -2.386709e+11 -2.095031e+11 -1.662497e+15 -2.485841e+09
## [11529,] -4.539040e+09 -4.166246e+09 -2.772341e+13 -1.256568e+08
## [11530,] -6.969570e+05 -5.013408e+05 -1.376943e+11 -1.133164e+07
## [11531,] -1.031451e+06 -1.092105e+06 -5.893808e+10 -1.238692e+07
## [11532,] -1.281498e+08 -1.111446e+08 -3.665002e+11 -2.135858e+07
## [11533,] -3.424363e+11 -2.684036e+11 -2.194701e+15 -3.229838e+09
## [11534,] -2.450529e+11 -2.102456e+11 -1.663159e+15 -2.700516e+09
## [11535,] -4.796548e+09 -4.302556e+09 -2.773444e+13 -1.076017e+08
## [11536,] -5.324095e+05 -2.338225e+05 -1.377491e+11 -1.129163e+07
## [11537,] -6.329934e+05 -1.093702e+06 -5.896153e+10 -1.245109e+07
## [11538,] -1.265466e+08 -1.136983e+08 -3.666461e+11 -2.125516e+07
## [11539,] -3.380862e+11 -2.684028e+11 -2.195574e+15 -2.950066e+09
## [11540,] -2.765210e+11 -1.815430e+11 -1.663159e+15 -2.583775e+09
## [11541,] -4.595730e+09 -4.166345e+09 -2.773444e+13 -1.362113e+08
## [11542,] -8.807577e+05 -5.002593e+05 -1.377491e+11 -1.117166e+07
## [11543,] -5.142566e+05 -1.198718e+06 -5.896153e+10 -1.234055e+07
## [11544,] -1.284556e+08 -1.162810e+08 -3.667919e+11 -2.126221e+07
## [11545,] -3.316137e+11 -2.981544e+11 -2.196447e+15 -3.510956e+09
## [11546,] -2.680549e+11 -1.815423e+11 -1.663820e+15 -2.024069e+09
## [11547,] -4.767702e+09 -3.770951e+09 -2.774547e+13 -1.124480e+08
## [11548,] -8.364652e+05 -1.108000e+05 -1.378587e+11 -1.140746e+07
## [11549,] -6.832206e+05 -1.096901e+06 -5.900845e+10 -1.230306e+07
## [11550,] -1.215335e+08 -1.215335e+08 -3.670837e+11 -2.148657e+07
## [11551,] -3.178046e+11 -2.781442e+11 -2.198195e+15 -3.336287e+09
## [11552,] -2.515175e+11 -2.028705e+11 -1.665144e+15 -2.575302e+09
## [11553,] -4.869735e+09 -3.643779e+09 -2.777859e+13 -1.181156e+08
## [11554,] -6.660240e+05 -3.081079e+05 -1.379684e+11 -1.146319e+07
## [11555,] -8.867919e+05 -5.704445e+05 -5.907886e+10 -1.234326e+07
## [11556,] -1.290681e+08 -1.163470e+08 -3.673756e+11 -2.100425e+07
## [11557,] -3.391665e+11 -2.981511e+11 -2.199943e+15 -3.271826e+09
## [11558,] -2.434455e+11 -2.253829e+11 -1.666468e+15 -2.501586e+09
## [11559,] -4.782695e+09 -3.771421e+09 -2.780067e+13 -1.176942e+08
## [11560,] -3.579557e+05 -2.294096e+05 -1.380781e+11 -1.124731e+07
## [11561,] -6.481850e+05 -1.319057e+06 -5.910234e+10 -1.241769e+07
## [11562,] -1.299025e+08 -1.112574e+08 -3.675216e+11 -2.128641e+07
## [11563,] -3.589869e+11 -2.683981e+11 -2.200817e+15 -3.051669e+09
## [11564,] -2.402527e+11 -2.253814e+11 -1.667793e+15 -2.477150e+09
## [11565,] -4.667689e+09 -3.771515e+09 -2.781172e+13 -1.156757e+08
## [11566,] -5.914575e+05 -6.475397e+04 -1.381329e+11 -1.125744e+07
## [11567,] -8.544519e+05 -1.005724e+06 -5.914931e+10 -1.234558e+07
## [11568,] -1.256090e+08 -1.189928e+08 -3.678137e+11 -2.123429e+07
## [11569,] -3.177994e+11 -2.781393e+11 -2.203441e+15 -3.260823e+09
## [11570,] -2.394567e+11 -2.253800e+11 -1.669118e+15 -2.699801e+09
## [11571,] -4.739680e+09 -4.033198e+09 -2.783382e+13 -1.157086e+08
## [11572,] -5.891092e+05 -1.072677e+05 -1.382427e+11 -1.129775e+07
## [11573,] -8.940023e+05 -1.008791e+06 -5.919630e+10 -1.245655e+07

```

```

## [11574,] -1.261804e+08 -1.190261e+08 -3.681059e+11 -2.161400e+07
## [11575,] -3.435181e+11 -2.880559e+11 -2.204316e+15 -3.103031e+09
## [11576,] -2.498876e+11 -2.572398e+11 -1.669781e+15 -2.373069e+09
## [11577,] -4.826648e+09 -4.167331e+09 -2.784487e+13 -1.237407e+08
## [11578,] -6.573220e+05 -5.982468e+05 -1.383525e+11 -1.114311e+07
## [11579,] -6.241967e+05 -7.374373e+05 -5.924331e+10 -1.237052e+07
## [11580,] -1.232744e+08 -1.190595e+08 -3.683983e+11 -2.113025e+07
## [11581,] -3.623397e+11 -2.981453e+11 -2.206066e+15 -3.228709e+09
## [11582,] -2.410448e+11 -2.331455e+11 -1.671107e+15 -2.784513e+09
## [11583,] -4.696859e+09 -3.771984e+09 -2.786698e+13 -1.205358e+08
## [11584,] -1.007809e+06 -3.013589e+05 -1.384074e+11 -1.102406e+07
## [11585,] -6.319724e+05 -1.112966e+06 -5.924331e+10 -1.236362e+07
## [11586,] -1.300070e+08 -1.190595e+08 -3.683983e+11 -2.165048e+07
## [11587,] -3.209571e+11 -2.880542e+11 -2.206066e+15 -3.102861e+09
## [11588,] -2.434402e+11 -2.490757e+11 -1.671107e+15 -2.349271e+09
## [11589,] -4.929307e+09 -4.033587e+09 -2.787804e+13 -1.095537e+08
## [11590,] -9.185019e+05 -1.052749e+05 -1.384624e+11 -1.123816e+07
## [11591,] -6.821599e+05 -1.014941e+06 -5.929033e+10 -1.247467e+07
## [11592,] -1.251757e+08 -1.217189e+08 -3.686907e+11 -2.148684e+07
## [11593,] -3.073740e+11 -2.781353e+11 -2.207818e+15 -3.454782e+09
## [11594,] -2.466511e+11 -2.177403e+11 -1.672433e+15 -2.452456e+09
## [11595,] -4.625611e+09 -4.167726e+09 -2.788910e+13 -1.169198e+08
## [11596,] -5.832588e+05 -2.235911e+05 -1.385173e+11 -1.115842e+07
## [11597,] -6.672967e+05 -1.334902e+06 -5.931386e+10 -1.245581e+07
## [11598,] -1.284441e+08 -1.217527e+08 -3.689832e+11 -2.161212e+07
## [11599,] -3.337507e+11 -2.494242e+11 -2.209570e+15 -3.207214e+09
## [11600,] -2.506946e+11 -2.028615e+11 -1.673760e+15 -2.356844e+09
## [11601,] -4.526695e+09 -4.304160e+09 -2.791123e+13 -1.147000e+08
## [11602,] -3.314729e+05 -3.850010e+05 -1.386272e+11 -1.125354e+07
## [11603,] -5.547634e+05 -9.229011e+05 -5.936091e+10 -1.253946e+07
## [11604,] -1.260317e+08 -1.217695e+08 -3.691296e+11 -2.189832e+07
## [11605,] -3.115191e+11 -2.981411e+11 -2.210446e+15 -5.131810e+09
## [11606,] -2.307970e+11 -2.253734e+11 -1.675088e+15 -2.404188e+09
## [11607,] -4.798453e+09 -4.034072e+09 -2.793337e+13 -1.213272e+08
## [11608,] -5.785995e+05 -6.054691e+04 -1.387372e+11 -1.127381e+07
## [11609,] -7.551547e+05 -1.124280e+06 -5.940799e+10 -1.243930e+07
## [11610,] -1.223321e+08 -1.271432e+08 -3.694223e+11 -2.150007e+07
## [11611,] -3.198959e+11 -3.188425e+11 -2.212199e+15 -3.710901e+09
## [11612,] -2.688812e+11 -2.253727e+11 -1.675752e+15 -2.186542e+09
## [11613,] -4.683256e+09 -4.034169e+09 -2.794445e+13 -1.125177e+08
## [11614,] -3.119542e+05 -4.799324e+05 -1.387922e+11 -1.119893e+07
## [11615,] -9.178868e+05 -1.024199e+06 -5.943153e+10 -1.246547e+07
## [11616,] -1.255634e+08 -1.140408e+08 -3.697151e+11 -2.160314e+07
## [11617,] -3.467935e+11 -2.494204e+11 -2.213952e+15 -3.443207e+09
## [11618,] -2.539505e+11 -1.878036e+11 -1.677080e+15 -2.396015e+09
## [11619,] -4.842372e+09 -3.902500e+09 -2.796660e+13 -1.103403e+08
## [11620,] -4.374651e+05 -2.938555e+05 -1.389022e+11 -1.140477e+07

```

```

## [11621,] -8.024891e+05 -8.380314e+05 -5.947863e+10 -1.256305e+07
## [11622,] -1.288196e+08 -1.245101e+08 -3.698616e+11 -2.131090e+07
## [11623,] -3.135990e+11 -2.880460e+11 -2.214829e+15 -3.676636e+09
## [11624,] -2.410373e+11 -2.572304e+11 -1.677745e+15 -2.317187e+09
## [11625,] -4.944982e+09 -4.583826e+09 -2.797768e+13 -1.096977e+08
## [11626,] -3.885747e+05 -3.793324e+05 -1.389572e+11 -1.124927e+07
## [11627,] -7.591442e+05 -9.302566e+05 -5.947863e+10 -1.243125e+07
## [11628,] -1.135465e+08 -1.245101e+08 -3.698616e+11 -2.149914e+07
## [11629,] -3.294520e+11 -2.880460e+11 -2.214829e+15 -3.399506e+09
## [11630,] -2.347074e+11 -2.739500e+11 -1.677745e+15 -2.427810e+09
## [11631,] -4.726645e+09 -4.034460e+09 -2.797768e+13 -1.188708e+08
## [11632,] -7.417482e+05 -1.531925e+05 -1.390122e+11 -1.149081e+07
## [11633,] -5.838892e+05 -1.130771e+06 -5.950219e+10 -1.258587e+07
## [11634,] -1.310193e+08 -1.166439e+08 -3.700081e+11 -2.127378e+07
## [11635,] -3.241233e+11 -2.981361e+11 -2.215707e+15 -5.144514e+09
## [11636,] -2.466443e+11 -1.885060e+11 -1.678409e+15 -2.500210e+09
## [11637,] -4.712370e+09 -3.773016e+09 -2.798876e+13 -1.079666e+08
## [11638,] -5.394355e+05 -1.531925e+05 -1.390122e+11 -1.148070e+07
## [11639,] -9.894217e+05 -7.519442e+05 -5.950219e+10 -1.253371e+07
## [11640,] -1.153551e+08 -1.272121e+08 -3.700081e+11 -2.150622e+07
## [11641,] -3.167375e+11 -2.683846e+11 -2.215707e+15 -2.547801e+09
## [11642,] -2.490665e+11 -2.253691e+11 -1.679074e+15 -2.073882e+09
## [11643,] -4.485362e+09 -4.168713e+09 -2.799984e+13 -1.200482e+08
## [11644,] -4.644326e+05 -1.525949e+05 -1.390673e+11 -1.186301e+07
## [11645,] -5.420202e+05 -1.240914e+06 -5.954932e+10 -1.248900e+07
## [11646,] -1.216404e+08 -1.141061e+08 -3.703012e+11 -2.183239e+07
## [11647,] -3.358999e+11 -2.781264e+11 -2.217462e+15 -3.541986e+09
## [11648,] -2.621879e+11 -2.177317e+11 -1.680404e+15 -2.443521e+09
## [11649,] -5.004578e+09 -4.727171e+09 -2.803311e+13 -1.082478e+08
## [11650,] -8.152994e+05 -4.714998e+05 -1.392325e+11 -1.152167e+07
## [11651,] -1.025097e+06 -7.572545e+05 -5.959647e+10 -1.252757e+07
## [11652,] -1.208834e+08 -1.167099e+08 -3.705944e+11 -2.149018e+07
## [11653,] -3.402333e+11 -2.588118e+11 -2.219217e+15 -3.060200e+09
## [11654,] -2.646852e+11 -2.331344e+11 -1.681069e+15 -2.224060e+09
## [11655,] -4.541923e+09 -4.034946e+09 -2.803311e+13 -1.148801e+08
## [11656,] -7.753954e+05 -2.142954e+05 -1.392325e+11 -1.146604e+07
## [11657,] -6.113679e+05 -1.137281e+06 -5.959647e+10 -1.260060e+07
## [11658,] -1.275512e+08 -1.167099e+08 -3.705944e+11 -2.160127e+07
## [11659,] -3.315908e+11 -2.781248e+11 -2.219217e+15 -3.291255e+09
## [11660,] -2.572266e+11 -1.956128e+11 -1.681069e+15 -2.664767e+09
## [11661,] -4.388067e+09 -4.034946e+09 -2.803311e+13 -1.166820e+08
## [11662,] -6.140476e+05 -2.142954e+05 -1.392325e+11 -1.155714e+07
## [11663,] -6.113679e+05 -1.356175e+06 -5.959647e+10 -1.257275e+07
## [11664,] -1.248626e+08 -1.167099e+08 -3.705944e+11 -2.129094e+07
## [11665,] -3.042706e+11 -2.781248e+11 -2.219217e+15 -3.564025e+09
## [11666,] -2.597002e+11 -2.028533e+11 -1.681734e+15 -2.467487e+09
## [11667,] -4.305363e+09 -4.945626e+09 -2.804420e+13 -1.137773e+08

```

```

## [11668,] -2.880850e+05 -6.973143e+05 -1.392876e+11 -1.114022e+07
## [11669,] -8.107244e+05 -8.464467e+05 -5.962005e+10 -1.248786e+07
## [11670,] -1.278390e+08 -1.090982e+08 -3.707410e+11 -2.083663e+07
## [11671,] -3.369776e+11 -2.981311e+11 -2.220974e+15 -2.857282e+09
## [11672,] -2.555820e+11 -2.331329e+11 -1.682399e+15 -2.066153e+09
## [11673,] -4.627170e+09 -4.035140e+09 -2.805529e+13 -1.149129e+08
## [11674,] -4.100897e+05 -1.496246e+05 -1.393427e+11 -1.137053e+07
## [11675,] -6.943058e+05 -1.039724e+06 -5.966723e+10 -1.262037e+07
## [11676,] -1.214608e+08 -1.193598e+08 -3.710344e+11 -2.154475e+07
## [11677,] -3.413187e+11 -2.588094e+11 -2.221852e+15 -3.163925e+09
## [11678,] -2.506839e+11 -2.253647e+11 -1.683065e+15 -2.515924e+09
## [11679,] -4.485976e+09 -4.444014e+09 -2.806639e+13 -1.252496e+08
## [11680,] -5.850342e+05 -2.848133e+05 -1.395081e+11 -1.150711e+07
## [11681,] -5.152434e+05 -1.044405e+06 -5.973803e+10 -1.267855e+07
## [11682,] -1.290104e+08 -1.142367e+08 -3.714746e+11 -2.173307e+07
## [11683,] -3.198829e+11 -2.494105e+11 -2.225368e+15 -3.507969e+09
## [11684,] -2.442247e+11 -2.824974e+11 -1.685728e+15 -2.261971e+09
## [11685,] -4.585068e+09 -3.903742e+09 -2.811080e+13 -1.134289e+08
## [11686,] -4.234282e+05 -2.086731e+05 -1.396735e+11 -1.124587e+07
## [11687,] -7.939417e+05 -8.563177e+05 -5.978525e+10 -1.240445e+07
## [11688,] -1.274191e+08 -1.142694e+08 -3.717683e+11 -2.162473e+07
## [11689,] -3.104642e+11 -2.781184e+11 -2.226247e+15 -3.333463e+09
## [11690,] -2.434214e+11 -2.028471e+11 -1.687726e+15 -2.791062e+09
## [11691,] -4.656526e+09 -3.904028e+09 -2.814413e+13 -1.161693e+08
## [11692,] -5.792041e+05 -6.858759e+05 -1.397839e+11 -1.118118e+07
## [11693,] -5.578867e+05 -1.156923e+06 -5.987976e+10 -1.269024e+07
## [11694,] -1.299317e+08 -1.117900e+08 -3.723559e+11 -2.148644e+07
## [11695,] -3.177736e+11 -2.981227e+11 -2.229766e+15 -3.131779e+09
## [11696,] -2.410245e+11 -2.331256e+11 -1.689060e+15 -2.323751e+09
## [11697,] -4.815191e+09 -3.647009e+09 -2.816636e+13 -1.240010e+08
## [11698,] -4.691521e+05 -9.277742e+04 -1.398943e+11 -1.144734e+07
## [11699,] -6.744819e+05 -8.634034e+05 -5.990339e+10 -1.276219e+07
## [11700,] -1.256206e+08 -1.221577e+08 -3.725029e+11 -2.214188e+07
## [11701,] -3.195263e+11 -3.121933e+11 -3.084964e+13 -1.705527e+09
## [11702,] -2.468028e+11 -2.209224e+11 -2.336876e+13 -1.305261e+09
## [11703,] -4.148024e+09 -4.001049e+09 -3.896919e+11 -2.678865e+07
## [11704,] -1.712881e+07 -1.556136e+07 -1.935490e+09 -1.454041e+04
## [11705,] -6.511738e+06 -5.029916e+06 -8.284585e+08 -5.530409e+04
## [11706,] -5.702525e+07 -5.469998e+07 -5.151682e+09 -9.998011e+05
## [11707,] -3.226951e+11 -2.917109e+11 -3.084964e+13 -1.690166e+09
## [11708,] -2.484173e+11 -2.133628e+11 -2.336876e+13 -1.281921e+09
## [11709,] -4.161517e+09 -3.740615e+09 -3.896919e+11 -2.624967e+07
## [11710,] -1.737663e+07 -1.556136e+07 -1.935490e+09 -1.563942e+04
## [11711,] -6.815649e+06 -6.190322e+06 -8.284585e+08 -5.122900e+04
## [11712,] -5.995357e+07 -6.200932e+07 -5.151682e+09 -1.043340e+06
## [11713,] -3.269444e+11 -2.622902e+11 -3.084964e+13 -1.705527e+09
## [11714,] -2.508491e+11 -2.059348e+11 -2.336876e+13 -1.287736e+09

```

```

## [11715,] -4.270247e+09 -3.366396e+09 -3.896919e+11 -2.624967e+07
## [11716,] -1.762623e+07 -1.556136e+07 -1.935490e+09 -1.601466e+04
## [11717,] -6.688177e+06 -5.252370e+06 -8.284585e+08 -5.576650e+04
## [11718,] -6.429147e+07 -4.951868e+07 -5.151682e+09 -1.031153e+06
## [11719,] -3.322952e+11 -3.018652e+11 -3.084964e+13 -1.674874e+09
## [11720,] -2.476094e+11 -1.914736e+11 -2.336876e+13 -1.299406e+09
## [11721,] -4.297649e+09 -3.613684e+09 -3.896919e+11 -2.603561e+07
## [11722,] -1.725250e+07 -1.384621e+07 -1.935490e+09 -1.526864e+04
## [11723,] -6.511738e+06 -5.252370e+06 -8.284585e+08 -5.553506e+04
## [11724,] -6.032476e+07 -4.951868e+07 -5.151682e+09 -9.926349e+05
## [11725,] -3.453143e+11 -2.817303e+11 -3.084964e+13 -1.644499e+09
## [11726,] -2.615234e+11 -2.133628e+11 -2.336876e+13 -1.258792e+09
## [11727,] -4.188568e+09 -3.613684e+09 -3.896919e+11 -2.646460e+07
## [11728,] -1.719060e+07 -1.384621e+07 -1.935490e+09 -1.472080e+04
## [11729,] -6.662827e+06 -5.029916e+06 -8.284585e+08 -5.530409e+04
## [11730,] -5.976840e+07 -5.648435e+07 -5.151682e+09 -9.831200e+05
## [11731,] -3.198777e+11 -3.294362e+11 -2.230646e+15 -3.939459e+09
## [11732,] -2.547540e+11 -2.177217e+11 -1.689726e+15 -2.185041e+09
## [11733,] -4.757369e+09 -3.904315e+09 -2.817748e+13 -1.124141e+08
## [11734,] -3.266687e+05 -2.775201e+05 -1.400048e+11 -1.146273e+07
## [11735,] -7.096710e+05 -9.599705e+05 -5.995068e+10 -1.264370e+07
## [11736,] -1.272870e+08 -1.144001e+08 -3.729441e+11 -2.198355e+07
## [11737,] -3.294335e+11 -3.083837e+11 -2.233288e+15 -4.237074e+09
## [11738,] -2.539328e+11 -2.102148e+11 -1.692395e+15 -2.426153e+09
## [11739,] -4.743363e+09 -4.306968e+09 -2.822197e+13 -1.187809e+08
## [11740,] -6.648272e+05 -9.046456e+04 -1.401706e+11 -1.135227e+07
## [11741,] -6.010397e+05 -9.629676e+05 -5.999799e+10 -1.268950e+07
## [11742,] -1.275916e+08 -1.170073e+08 -3.732383e+11 -2.208778e+07
## [11743,] -3.402172e+11 -2.683672e+11 -2.235050e+15 -3.311094e+09
## [11744,] -2.506724e+11 -2.028416e+11 -1.693062e+15 -2.539240e+09
## [11745,] -5.276789e+09 -4.586310e+09 -2.824423e+13 -1.274066e+08
## [11746,] -6.610941e+05 -8.909086e+04 -1.403364e+11 -1.140799e+07
## [11747,] -7.840862e+05 -1.066385e+06 -6.006899e+10 -1.262901e+07
## [11748,] -1.238860e+08 -1.222929e+08 -3.736799e+11 -2.170607e+07
## [11749,] -3.104523e+11 -3.083786e+11 -2.238576e+15 -3.267980e+09
## [11750,] -2.490475e+11 -2.028388e+11 -1.695733e+15 -2.393921e+09
## [11751,] -4.918479e+09 -4.171180e+09 -2.827764e+13 -1.116734e+08
## [11752,] -6.707719e+05 -4.486957e+05 -1.404471e+11 -1.156495e+07
## [11753,] -7.367550e+05 -1.397418e+06 -6.014003e+10 -1.258606e+07
## [11754,] -1.293057e+08 -1.170900e+08 -3.739744e+11 -2.173146e+07
## [11755,] -3.337207e+11 -3.083778e+11 -2.239458e+15 -3.058255e+09
## [11756,] -2.547463e+11 -2.028381e+11 -1.696401e+15 -2.299542e+09
## [11757,] -4.787347e+09 -4.171279e+09 -2.828878e+13 -1.134663e+08
## [11758,] -1.014817e+05 -1.246709e+06 -1.405024e+11 -1.151947e+07
## [11759,] -8.883181e+05 -1.285572e+06 -6.016371e+10 -1.267518e+07
## [11760,] -1.226254e+08 -1.197274e+08 -3.742690e+11 -2.230732e+07
## [11761,] -3.272894e+11 -2.880214e+11 -2.241222e+15 -3.662567e+09

```

```

## [11762,] -2.331160e+11 -2.177132e+11 -1.697738e+15 -2.738673e+09
## [11763,] -4.686708e+09 -4.037373e+09 -2.831107e+13 -1.164165e+08
## [11764,] -6.075024e+05 -1.363371e+05 -1.406131e+11 -1.170269e+07
## [11765,] -7.406956e+05 -1.402843e+06 -6.021111e+10 -1.279463e+07
## [11766,] -1.266673e+08 -1.120325e+08 -3.745638e+11 -2.184937e+07
## [11767,] -3.104481e+11 -2.981102e+11 -2.242987e+15 -3.396655e+09
## [11768,] -2.506655e+11 -2.490437e+11 -1.699075e+15 -2.538547e+09
## [11769,] -4.601327e+09 -4.446459e+09 -2.833337e+13 -1.124190e+08
## [11770,] -4.337130e+05 -2.671526e+05 -1.407238e+11 -1.161128e+07
## [11771,] -5.751404e+05 -8.833987e+05 -6.023481e+10 -1.279659e+07
## [11772,] -1.291031e+08 -1.171561e+08 -3.745638e+11 -2.199505e+07
## [11773,] -2.900240e+11 -2.981102e+11 -2.242987e+15 -3.822011e+09
## [11774,] -2.418104e+11 -2.331145e+11 -1.699075e+15 -2.721560e+09
## [11775,] -4.744416e+09 -3.905652e+09 -2.833337e+13 -1.210111e+08
## [11776,] -5.708139e+05 -8.592643e+04 -1.407238e+11 -1.158080e+07
## [11777,] -8.833987e+05 -7.935877e+05 -6.023481e+10 -1.257295e+07
## [11778,] -1.272239e+08 -1.163968e+08 -3.747112e+11 -2.204714e+07
## [11779,] -4.205699e+11 -2.880189e+11 -2.243870e+15 -4.163404e+09
## [11780,] -2.588531e+11 -2.177110e+11 -1.699743e+15 -2.645843e+09
## [11781,] -4.601534e+09 -4.171871e+09 -2.835567e+13 -1.144581e+08
## [11782,] -6.729766e+05 -1.335302e+05 -1.408900e+11 -1.165235e+07
## [11783,] -9.156626e+05 -6.320453e+05 -6.030595e+10 -1.260314e+07
## [11784,] -1.343747e+08 -1.224450e+08 -3.750062e+11 -2.173671e+07
## [11785,] -3.167074e+11 -2.880165e+11 -2.246520e+15 -3.439889e+09
## [11786,] -2.490406e+11 -2.177089e+11 -1.701750e+15 -2.138505e+09
## [11787,] -4.701678e+09 -4.037956e+09 -2.837799e+13 -9.768669e+07
## [11788,] -4.799747e+05 -1.329724e+05 -1.409454e+11 -1.154073e+07
## [11789,] -7.571215e+05 -9.855946e+05 -6.035339e+10 -1.273625e+07
## [11790,] -1.187988e+08 -1.278334e+08 -3.753012e+11 -2.192992e+07
## [11791,] -3.240920e+11 -2.780990e+11 -2.247403e+15 -3.245833e+09
## [11792,] -2.402137e+11 -2.410095e+11 -1.702420e+15 -2.417042e+09
## [11793,] -4.831958e+09 -4.172266e+09 -2.840031e+13 -1.063850e+08
## [11794,] -5.980104e+05 -1.915850e+05 -1.410563e+11 -1.153084e+07
## [11795,] -9.389736e+05 -7.163298e+05 -6.037712e+10 -1.264732e+07
## [11796,] -1.292074e+08 -1.224958e+08 -3.754488e+11 -2.199316e+07
## [11797,] -3.094052e+11 -3.294186e+11 -2.248287e+15 -3.267020e+09
## [11798,] -2.514738e+11 -2.177075e+11 -1.703089e+15 -2.473120e+09
## [11799,] -4.391408e+09 -4.447070e+09 -2.840031e+13 -1.140759e+08
## [11800,] -5.639071e+05 -8.325961e+04 -1.410563e+11 -1.140457e+07
## [11801,] -6.514373e+05 -1.301215e+06 -6.037712e+10 -1.265430e+07
## [11802,] -1.265012e+08 -1.224958e+08 -3.754488e+11 -2.192586e+07
## [11803,] -3.283496e+11 -2.683553e+11 -2.248287e+15 -3.161346e+09
## [11804,] -2.506602e+11 -2.177067e+11 -1.703759e+15 -2.306521e+09
## [11805,] -5.202797e+09 -3.400612e+09 -2.842264e+13 -1.101191e+08
## [11806,] -4.757489e+05 -1.902495e+05 -1.411672e+11 -1.157672e+07
## [11807,] -6.941784e+05 -1.090189e+06 -6.042460e+10 -1.277014e+07
## [11808,] -1.251931e+08 -1.172885e+08 -3.757440e+11 -2.189536e+07

```

```

## [11809,] -3.391157e+11 -2.880132e+11 -2.250055e+15 -3.140249e+09
## [11810,] -2.394170e+11 -2.331086e+11 -1.704428e+15 -2.361310e+09
## [11811,] -4.716567e+09 -4.308874e+09 -2.843381e+13 -1.195550e+08
## [11812,] -3.960409e+05 -8.194196e+04 -1.412227e+11 -1.138480e+07
## [11813,] -6.711224e+05 -1.196711e+06 -6.044834e+10 -1.268109e+07
## [11814,] -1.306235e+08 -1.096576e+08 -3.758917e+11 -2.184655e+07
## [11815,] -3.188045e+11 -2.880124e+11 -2.250939e+15 -3.385000e+09
## [11816,] -2.362515e+11 -2.410065e+11 -1.705098e+15 -2.562432e+09
## [11817,] -4.447478e+09 -4.308974e+09 -2.844498e+13 -1.216406e+08
## [11818,] -5.361181e+05 -8.106937e+04 -1.413337e+11 -1.163808e+07
## [11819,] -5.509453e+05 -8.992699e+05 -6.049585e+10 -1.286383e+07
## [11820,] -1.223155e+08 -1.147600e+08 -3.761870e+11 -2.216401e+07
## [11821,] -3.369456e+11 -2.683513e+11 -2.252708e+15 -3.461160e+09
## [11822,] -2.466124e+11 -2.028278e+11 -1.706438e+15 -2.456632e+09
## [11823,] -4.419805e+09 -4.588380e+09 -2.846733e+13 -1.193763e+08
## [11824,] -3.134925e+05 -2.577578e+05 -1.413892e+11 -1.125469e+07
## [11825,] -7.764185e+05 -1.203408e+06 -6.054337e+10 -1.277992e+07
## [11826,] -1.309847e+08 -1.199952e+08 -3.766304e+11 -2.181516e+07
## [11827,] -3.358618e+11 -2.780918e+11 -2.255363e+15 -3.245049e+09
## [11828,] -2.937901e+11 -2.101979e+11 -1.708449e+15 -2.115354e+09
## [11829,] -4.645481e+09 -4.173056e+09 -2.848969e+13 -1.122021e+08
## [11830,] -4.101289e+05 -1.862710e+05 -1.415002e+11 -1.151665e+07
## [11831,] -8.127623e+05 -5.690602e+05 -6.056714e+10 -1.264544e+07
## [11832,] -1.285311e+08 -1.199952e+08 -3.766304e+11 -2.172582e+07
## [11833,] -3.219654e+11 -2.880083e+11 -2.255363e+15 -3.751871e+09
## [11834,] -2.433980e+11 -2.410028e+11 -1.708449e+15 -2.337275e+09
## [11835,] -4.717092e+09 -4.309375e+09 -2.848969e+13 -1.221704e+08
## [11836,] -5.547634e+05 -1.862710e+05 -1.415002e+11 -1.173534e+07
## [11837,] -8.667011e+05 -5.690602e+05 -6.056714e+10 -1.282049e+07
## [11838,] -1.307109e+08 -1.097376e+08 -3.766304e+11 -2.173698e+07
## [11839,] -3.230222e+11 -2.780902e+11 -2.257133e+15 -3.615929e+09
## [11840,] -2.498417e+11 -2.101965e+11 -1.709790e+15 -2.464300e+09
## [11841,] -4.588898e+09 -4.039218e+09 -2.852324e+13 -1.233809e+08
## [11842,] -5.294251e+05 -1.715906e+04 -1.416669e+11 -1.167448e+07
## [11843,] -7.488199e+05 -1.106204e+06 -6.066226e+10 -1.280725e+07
## [11844,] -1.275171e+08 -1.200621e+08 -3.772218e+11 -2.237260e+07
## [11845,] -3.326245e+11 -2.880042e+11 -2.259790e+15 -3.394963e+09
## [11846,] -2.629824e+11 -1.955817e+11 -1.711803e+15 -2.152472e+09
## [11847,] -4.660281e+09 -3.777712e+09 -2.854562e+13 -1.158601e+08
## [11848,] -4.541171e+05 -3.328469e+05 -1.417780e+11 -1.163399e+07
## [11849,] -8.555824e+05 -1.107812e+06 -6.068605e+10 -1.287250e+07
## [11850,] -1.237955e+08 -1.174872e+08 -3.775178e+11 -2.195882e+07
## [11851,] -3.062907e+11 -3.083574e+11 -2.260677e+15 -2.933821e+09
## [11852,] -2.386149e+11 -2.409983e+11 -1.712474e+15 -2.159934e+09
## [11853,] -4.775408e+09 -4.039510e+09 -2.855682e+13 -1.134111e+08
## [11854,] -5.260944e+05 -7.720052e+04 -1.418336e+11 -1.157822e+07
## [11855,] -7.261679e+05 -1.109421e+06 -6.070985e+10 -1.277958e+07

```



```

## [11856,] -1.286524e+08 -1.175038e+08 -3.776658e+11 -2.189874e+07
## [11857,] -3.093925e+11 -2.683434e+11 -2.261563e+15 -4.030214e+09
## [11858,] -2.362419e+11 -2.253314e+11 -1.713817e+15 -2.439746e+09
## [11859,] -4.448701e+09 -3.777993e+09 -2.857921e+13 -1.181740e+08
## [11860,] -4.702414e+05 -1.225948e+05 -1.420005e+11 -1.167523e+07
## [11861,] -8.703757e+05 -9.167451e+05 -6.078126e+10 -1.282407e+07
## [11862,] -1.276034e+08 -1.073874e+08 -3.779619e+11 -2.191304e+07
## [11863,] -3.001299e+11 -3.083549e+11 -2.263336e+15 -3.340523e+09
## [11864,] -2.563650e+11 -2.101909e+11 -1.715160e+15 -2.415614e+09
## [11865,] -5.129327e+09 -3.778181e+09 -2.860161e+13 -1.267780e+08
## [11866,] -6.577185e+05 -7.509203e+04 -1.421118e+11 -1.177252e+07
## [11867,] -7.411166e+05 -1.334549e+06 -6.082890e+10 -1.287371e+07
## [11868,] -1.180896e+08 -1.228174e+08 -3.782581e+11 -2.235528e+07
## [11869,] -3.336951e+11 -2.780829e+11 -2.265110e+15 -3.438007e+09
## [11870,] -2.563642e+11 -2.028182e+11 -1.715832e+15 -2.297417e+09
## [11871,] -4.804913e+09 -4.174142e+09 -2.861282e+13 -1.242156e+08
## [11872,] -2.552500e+05 -4.185100e+05 -1.421118e+11 -1.142708e+07
## [11873,] -6.994855e+05 -1.223610e+06 -6.082890e+10 -1.274729e+07
## [11874,] -1.273677e+08 -1.309032e+08 -3.782581e+11 -2.215206e+07
## [11875,] -3.478398e+11 -2.879993e+11 -2.265110e+15 -3.982633e+09
## [11876,] -2.474073e+11 -2.028175e+11 -1.716504e+15 -2.399544e+09
## [11877,] -4.718562e+09 -3.908326e+09 -2.864644e+13 -1.146593e+08
## [11878,] -7.031459e+05 -1.199340e+05 -1.422788e+11 -1.151333e+07
## [11879,] -7.720347e+05 -1.123956e+06 -6.092422e+10 -1.294856e+07
## [11880,] -1.282485e+08 -1.125021e+08 -3.788508e+11 -2.225982e+07
## [11881,] -3.093857e+11 -2.980860e+11 -2.268659e+15 -3.318482e+09
## [11882,] -2.530859e+11 -2.330931e+11 -1.718521e+15 -2.423219e+09
## [11883,] -4.776359e+09 -4.040384e+09 -2.865765e+13 -1.210381e+08
## [11884,] -5.699829e+05 -1.758672e+05 -1.423902e+11 -1.177827e+07
## [11885,] -7.907312e+05 -1.232077e+06 -6.094806e+10 -1.300355e+07
## [11886,] -1.288258e+08 -1.150877e+08 -3.791474e+11 -2.198153e+07
## [11887,] -3.434509e+11 -2.780781e+11 -2.270435e+15 -2.983601e+09
## [11888,] -2.629730e+11 -2.330916e+11 -1.719866e+15 -2.242873e+09
## [11889,] -4.907663e+09 -4.311081e+09 -2.868009e+13 -1.115912e+08
## [11890,] -4.618948e+05 -2.432266e+05 -1.424459e+11 -1.167623e+07
## [11891,] -7.760684e+05 -1.128822e+06 -6.099576e+10 -1.273645e+07
## [11892,] -1.318487e+08 -1.151041e+08 -3.792957e+11 -2.223629e+07
## [11893,] -3.390935e+11 -2.879927e+11 -2.272212e+15 -3.044835e+09
## [11894,] -2.538989e+11 -2.330894e+11 -1.721885e+15 -2.527767e+09
## [11895,] -4.408132e+09 -4.311382e+09 -2.871375e+13 -1.236696e+08
## [11896,] -4.487366e+05 -3.708551e+04 -1.426131e+11 -1.168171e+07
## [11897,] -7.445148e+05 -1.030085e+06 -6.104348e+10 -1.301498e+07
## [11898,] -1.305656e+08 -1.177690e+08 -3.800378e+11 -2.182284e+07
## [11899,] -3.135399e+11 -3.083430e+11 -2.275767e+15 -3.085776e+09
## [11900,] -2.482065e+11 -2.176854e+11 -1.723905e+15 -2.527536e+09
## [11901,] -4.705242e+09 -4.041258e+09 -2.875867e+13 -1.188961e+08
## [11902,] -5.170001e+05 -1.146998e+05 -1.428362e+11 -1.177416e+07

```

```

## [11903,] -7.079212e+05 -1.357599e+06 -6.113897e+10 -1.282887e+07
## [11904,] -1.259751e+08 -1.152025e+08 -3.801863e+11 -2.235870e+07
## [11905,] -3.390882e+11 -2.780716e+11 -2.277546e+15 -3.013553e+09
## [11906,] -2.473974e+11 -2.176839e+11 -1.725253e+15 -2.769441e+09
## [11907,] -4.777521e+09 -4.041452e+09 -2.878114e+13 -1.067052e+08
## [11908,] -6.755366e+05 -6.894173e+04 -1.429478e+11 -1.187186e+07
## [11909,] -7.439611e+05 -1.141849e+06 -6.118675e+10 -1.297376e+07
## [11910,] -1.257409e+08 -1.126805e+08 -3.804833e+11 -2.164338e+07
## [11911,] -3.758522e+11 -2.683284e+11 -2.278435e+15 -2.753299e+09
## [11912,] -2.433777e+11 -2.124163e+11 -1.726600e+15 -2.551755e+09
## [11913,] -4.777626e+09 -3.526771e+09 -2.879238e+13 -1.082401e+08
## [11914,] -3.137321e+05 -3.137321e+05 -1.430036e+11 -1.168768e+07
## [11915,] -8.057508e+05 -1.250808e+06 -6.121064e+10 -1.288400e+07
## [11916,] -1.241529e+08 -1.204476e+08 -3.806319e+11 -2.218832e+07
## [11917,] -3.177253e+11 -2.780700e+11 -2.279325e+15 -3.403870e+09
## [11918,] -2.522604e+11 -1.955662e+11 -1.727275e+15 -2.609366e+09
## [11919,] -4.705661e+09 -3.779872e+09 -2.880362e+13 -1.205663e+08
## [11920,] -6.016086e+05 -6.814154e+04 -1.430595e+11 -1.156574e+07
## [11921,] -7.213832e+05 -1.364731e+06 -6.123454e+10 -1.282265e+07
## [11922,] -1.293060e+08 -1.102024e+08 -3.809292e+11 -2.212385e+07
## [11923,] -3.198284e+11 -2.780684e+11 -2.281105e+15 -3.317250e+09
## [11924,] -2.530751e+11 -2.028058e+11 -1.727949e+15 -2.406223e+09
## [11925,] -4.605785e+09 -4.041744e+09 -2.881487e+13 -1.176134e+08
## [11926,] -3.730708e+05 -3.448420e+04 -1.431153e+11 -1.163700e+07
## [11927,] -7.735932e+05 -1.254229e+06 -6.125844e+10 -1.294788e+07
## [11928,] -1.282197e+08 -1.127291e+08 -3.809292e+11 -2.254232e+07
## [11929,] -3.358353e+11 -2.587566e+11 -2.281995e+15 -3.116321e+09
## [11930,] -2.338659e+11 -2.101769e+11 -1.728623e+15 -2.249620e+09
## [11931,] -4.836102e+09 -4.041938e+09 -2.883736e+13 -1.138183e+08
## [11932,] -4.987471e+05 -1.111054e+05 -1.432270e+11 -1.168819e+07
## [11933,] -8.651367e+05 -1.047218e+06 -6.130626e+10 -1.286369e+07
## [11934,] -1.274425e+08 -1.102345e+08 -3.812265e+11 -2.220584e+07
## [11935,] -3.283155e+11 -2.587558e+11 -2.282886e+15 -3.360155e+09
## [11936,] -2.441757e+11 -2.176796e+11 -1.729298e+15 -2.518773e+09
## [11937,] -4.734844e+09 -4.176215e+09 -2.884861e+13 -1.234081e+08
## [11938,] -5.406484e+05 -1.105966e+05 -1.432829e+11 -1.179565e+07
## [11939,] -7.278879e+05 -1.050348e+06 -6.135410e+10 -1.297695e+07
## [11940,] -1.248234e+08 -1.232242e+08 -3.818216e+11 -2.220082e+07
## [11941,] -3.072986e+11 -2.879796e+11 -2.286449e+15 -3.284595e+09
## [11942,] -2.425719e+11 -2.253118e+11 -1.731997e+15 -2.326857e+09
## [11943,] -5.177151e+09 -4.592211e+09 -2.888238e+13 -1.103374e+08
## [11944,] -6.764916e+05 -1.639009e+05 -1.434506e+11 -1.178066e+07
## [11945,] -6.423905e+05 -9.566791e+05 -6.142590e+10 -1.304304e+07
## [11946,] -1.332676e+08 -1.179847e+08 -3.819705e+11 -2.188215e+07
## [11947,] -3.240529e+11 -2.493571e+11 -2.287341e+15 -3.105413e+09
## [11948,] -2.604683e+11 -2.330776e+11 -1.732672e+15 -2.226162e+09
## [11949,] -4.203711e+09 -4.312988e+09 -2.889363e+13 -1.159194e+08

```

```

## [11950,] -5.807404e+05 -3.060754e+05 -1.435065e+11 -1.187312e+07
## [11951,] -7.917372e+05 -1.379051e+06 -6.142590e+10 -1.299348e+07
## [11952,] -1.256611e+08 -1.206154e+08 -3.821193e+11 -2.226036e+07
## [11953,] -3.219324e+11 -3.083302e+11 -2.289124e+15 -3.316458e+09
## [11954,] -2.245402e+11 -2.176747e+11 -1.734023e+15 -2.575547e+09
## [11955,] -4.382200e+09 -4.176808e+09 -2.891616e+13 -1.182173e+08
## [11956,] -2.962130e+05 -1.075682e+05 -1.436184e+11 -1.169926e+07
## [11957,] -7.357322e+05 -1.059767e+06 -6.149773e+10 -1.294285e+07
## [11958,] -1.270405e+08 -1.154486e+08 -3.824172e+11 -2.176940e+07
## [11959,] -3.315195e+11 -2.980652e+11 -2.290908e+15 -3.523367e+09
## [11960,] -2.530667e+11 -2.330747e+11 -1.735374e+15 -2.542565e+09
## [11961,] -4.939613e+09 -4.313490e+09 -2.894996e+13 -1.137581e+08
## [11962,] -4.974097e+05 -1.595986e+05 -1.438423e+11 -1.178154e+07
## [11963,] -7.579728e+05 -1.066069e+06 -6.159358e+10 -1.306042e+07
## [11964,] -1.322878e+08 -1.054545e+08 -3.830132e+11 -1.542061e+07
## [11965,] -3.177116e+11 -2.780571e+11 -2.293585e+15 -3.534168e+09
## [11966,] -2.307287e+11 -2.253060e+11 -1.737402e+15 -2.437104e+09
## [11967,] -4.808303e+09 -3.911098e+09 -2.897251e+13 -1.131218e+08
## [11968,] -7.805717e+05 -1.589886e+05 -1.438983e+11 -1.160824e+07
## [11969,] -9.479694e+05 -7.838156e+05 -6.159358e+10 -1.299313e+07
## [11970,] -1.257639e+08 -1.129564e+08 -3.830132e+11 -2.247351e+07
## [11971,] -3.072910e+11 -3.083252e+11 -2.294477e+15 -3.736351e+09
## [11972,] -2.514340e+11 -1.955554e+11 -1.738078e+15 -2.279483e+09
## [11973,] -4.536572e+09 -3.911193e+09 -2.898379e+13 -1.247784e+08
## [11974,] -3.958486e+05 -3.865197e+05 -1.439543e+11 -1.159820e+07
## [11975,] -6.774724e+05 -1.173089e+06 -6.164153e+10 -1.275766e+07
## [11976,] -1.331502e+08 -1.079582e+08 -3.833114e+11 -2.243129e+07
## [11977,] -3.369030e+11 -2.879714e+11 -2.295370e+15 -3.556183e+09
## [11978,] -2.457710e+11 -2.101664e+11 -1.738755e+15 -2.157165e+09
## [11979,] -4.650170e+09 -4.043299e+09 -2.899507e+13 -1.187895e+08
## [11980,] -5.479999e+05 -9.782206e+03 -1.440103e+11 -1.182804e+07
## [11981,] -8.040232e+05 -1.513552e+06 -6.164153e+10 -1.304310e+07
## [11982,] -1.260839e+08 -1.181507e+08 -3.834605e+11 -2.226880e+07
## [11983,] -3.304419e+11 -2.879706e+11 -2.296263e+15 -3.209289e+09
## [11984,] -2.425637e+11 -2.101657e+11 -1.739431e+15 -2.444893e+09
## [11985,] -4.621769e+09 -3.781564e+09 -2.900635e+13 -1.229486e+08
## [11986,] -2.353918e+05 -3.836745e+05 -1.441224e+11 -1.179241e+07
## [11987,] -8.244879e+05 -1.517314e+06 -6.168950e+10 -1.300810e+07
## [11988,] -1.242268e+08 -1.181673e+08 -3.836097e+11 -2.224214e+07
## [11989,] -3.315134e+11 -2.780539e+11 -2.297156e+15 -3.272872e+09
## [11990,] -2.169113e+11 -2.101643e+11 -1.740785e+15 -2.404799e+09
## [11991,] -4.607860e+09 -4.177894e+09 -2.904020e+13 -1.085902e+08
## [11992,] -4.004387e+05 -6.002161e+04 -1.442345e+11 -1.185935e+07
## [11993,] -8.286562e+05 -1.290429e+06 -6.176149e+10 -1.299279e+07
## [11994,] -1.288549e+08 -1.371340e+08 -3.840573e+11 -2.261521e+07
## [11995,] -3.336598e+11 -2.493456e+11 -2.300731e+15 -3.230009e+09
## [11996,] -2.417616e+11 -2.101622e+11 -1.742816e+15 -2.412536e+09

```

```

## [11997,] -4.940687e+09 -4.314493e+09 -2.906278e+13 -1.159408e+08
## [11998,] -3.707594e+05 -1.011509e+05 -1.443466e+11 -1.184933e+07
## [11999,] -6.371830e+05 -9.792325e+05 -6.178550e+10 -1.312596e+07
## [12000,] -1.340861e+08 -1.288723e+08 -3.842066e+11 -2.197829e+07
## [12001,] -3.500058e+11 -3.187562e+11 -2.300731e+15 -3.011372e+09
## [12002,] -2.457665e+11 -2.101622e+11 -1.742816e+15 -2.357078e+09
## [12003,] -4.425192e+09 -3.654396e+09 -2.906278e+13 -1.175240e+08
## [12004,] -2.324353e+05 -3.798974e+05 -1.443466e+11 -1.194193e+07
## [12005,] -1.172393e+06 -8.845482e+05 -6.178550e+10 -1.300538e+07
## [12006,] -1.354753e+08 -1.261697e+08 -3.842066e+11 -2.182149e+07
## [12007,] -3.489030e+11 -2.980551e+11 -2.301625e+15 -2.960362e+09
## [12008,] -2.449621e+11 -2.027899e+11 -1.743493e+15 -2.149141e+09
## [12009,] -4.926092e+09 -3.911958e+09 -2.907408e+13 -1.193631e+08
## [12010,] -3.174065e+05 -1.006655e+05 -1.444027e+11 -1.172655e+07
## [12011,] -8.061898e+05 -1.295642e+06 -6.183352e+10 -1.300932e+07
## [12012,] -1.272818e+08 -1.156787e+08 -3.845052e+11 -2.238721e+07
## [12013,] -3.135143e+11 -3.083175e+11 -2.302519e+15 -3.445177e+09
## [12014,] -2.514271e+11 -2.101608e+11 -1.744170e+15 -2.444364e+09
## [12015,] -4.608482e+09 -4.314895e+09 -2.910797e+13 -1.073804e+08
## [12016,] -4.939236e+05 -5.779622e+04 -1.445711e+11 -1.217552e+07
## [12017,] -9.755761e+05 -1.085089e+06 -6.188157e+10 -1.290731e+07
## [12018,] -1.230322e+08 -1.209177e+08 -3.848040e+11 -2.227724e+07
## [12019,] -3.272273e+11 -2.879632e+11 -2.304309e+15 -3.145472e+09
## [12020,] -2.307191e+11 -2.252965e+11 -1.746203e+15 -2.516856e+09
## [12021,] -4.809681e+09 -4.314995e+09 -2.911928e+13 -1.128879e+08
## [12022,] -3.843943e+05 -2.147201e+05 -1.446272e+11 -1.187565e+07
## [12023,] -8.460250e+05 -1.534304e+06 -6.190560e+10 -1.297987e+07
## [12024,] -1.316912e+08 -1.131677e+08 -3.849534e+11 -2.235229e+07
## [12025,] -3.304331e+11 -2.980518e+11 -2.305203e+15 -3.093334e+09
## [12026,] -2.538712e+11 -2.252965e+11 -1.746203e+15 -2.549517e+09
## [12027,] -4.523717e+09 -4.594387e+09 -2.911928e+13 -1.155726e+08
## [12028,] -4.803136e+05 -5.669929e+04 -1.447395e+11 -1.171198e+07
## [12029,] -7.954676e+05 -1.418817e+06 -6.195367e+10 -1.299796e+07
## [12030,] -1.287221e+08 -1.132002e+08 -3.852524e+11 -2.140393e+07
## [12031,] -3.355265e+11 -2.622902e+11 -3.084964e+13 -1.697838e+09
## [12032,] -2.682027e+11 -2.133628e+11 -2.336876e+13 -1.394660e+09
## [12033,] -4.134553e+09 -3.613684e+09 -3.896919e+11 -2.646460e+07
## [12034,] -1.725250e+07 -1.497852e+07 -1.935490e+09 -1.490230e+04
## [12035,] -6.713575e+06 -5.479638e+06 -8.284585e+08 -5.599843e+04
## [12036,] -6.125776e+07 -5.829737e+07 -5.151682e+09 -9.807485e+05
## [12037,] -3.409468e+11 -2.622902e+11 -3.084964e+13 -1.705527e+09
## [12038,] -2.348613e+11 -2.133628e+11 -2.336876e+13 -1.480771e+09
## [12039,] -4.394246e+09 -3.366396e+09 -3.896919e+11 -2.635703e+07
## [12040,] -1.627545e+07 -1.497852e+07 -1.935490e+09 -1.400593e+04
## [12041,] -6.944325e+06 -5.029916e+06 -8.284585e+08 -5.693096e+04
## [12042,] -6.429147e+07 -5.121714e+07 -5.151682e+09 -1.036019e+06
## [12043,] -3.464105e+11 -2.528308e+11 -3.084964e+13 -1.854923e+09

```

```

## [12044,] -2.532926e+11 -1.986384e+11 -2.336876e+13 -1.276119e+09
## [12045,] -4.463900e+09 -3.869737e+09 -3.896919e+11 -2.821563e+07
## [12046,] -1.750121e+07 -1.497852e+07 -1.935490e+09 -1.563942e+04
## [12047,] -7.022108e+06 -5.252370e+06 -8.284585e+08 -5.716530e+04
## [12048,] -5.648435e+07 -5.829737e+07 -5.151682e+09 -1.002196e+06
## [12049,] -3.333706e+11 -2.528308e+11 -3.084964e+13 -1.697838e+09
## [12050,] -2.492266e+11 -2.059348e+11 -2.336876e+13 -1.406804e+09
## [12051,] -4.422042e+09 -3.488944e+09 -3.896919e+11 -2.592891e+07
## [12052,] -1.756366e+07 -1.329674e+07 -1.935490e+09 -1.526864e+04
## [12053,] -6.713575e+06 -5.711719e+06 -8.284585e+08 -5.599843e+04
## [12054,] -6.125776e+07 -5.469998e+07 -5.151682e+09 -9.760139e+05
## [12055,] -3.153256e+11 -2.528308e+11 -3.084964e+13 -1.744234e+09
## [12056,] -2.484173e+11 -2.364364e+11 -2.336876e+13 -1.270330e+09
## [12057,] -4.001146e+09 -3.869832e+09 -3.910007e+11 -2.263745e+07
## [12058,] -1.812426e+07 -1.275293e+07 -1.941990e+09 -2.376480e+04
## [12059,] -6.162140e+06 -5.944887e+06 -8.312409e+08 -6.455812e+04
## [12060,] -6.392047e+07 -5.471128e+07 -5.168984e+09 -8.919343e+05
## [12061,] -3.229735e+11 -2.683031e+11 -2.306993e+15 -2.511758e+09
## [12062,] -2.522374e+11 -1.884376e+11 -1.747560e+15 -2.309543e+09
## [12063,] -4.694453e+09 -3.912531e+09 -2.914189e+13 -1.138119e+08
## [12064,] -2.642537e+05 -2.877570e+05 -1.447395e+11 -1.181942e+07
## [12065,] -1.009467e+06 -1.194706e+06 -6.195367e+10 -1.306171e+07
## [12066,] -1.279088e+08 -1.183502e+08 -3.852524e+11 -2.227629e+07
## [12067,] -3.282919e+11 -3.293607e+11 -2.306993e+15 -2.919438e+09
## [12068,] -2.506104e+11 -2.176604e+11 -1.747560e+15 -2.623618e+09
## [12069,] -4.766544e+09 -4.044659e+09 -2.915320e+13 -1.153969e+08
## [12070,] -3.455926e+05 -2.126008e+05 -1.447957e+11 -1.193779e+07
## [12071,] -7.880970e+05 -1.420638e+06 -6.197771e+10 -1.319879e+07
## [12072,] -1.260554e+08 -1.210017e+08 -3.855514e+11 -2.271076e+07
## [12073,] -3.304296e+11 -2.683015e+11 -2.308784e+15 -3.186996e+09
## [12074,] -2.385746e+11 -2.330599e+11 -1.748916e+15 -2.957544e+09
## [12075,] -4.709121e+09 -4.315497e+09 -2.917583e+13 -1.385219e+08
## [12076,] -4.457114e+05 -7.381996e+03 -1.449643e+11 -1.195879e+07
## [12077,] -8.097340e+05 -1.311346e+06 -6.204987e+10 -1.307317e+07
## [12078,] -1.301531e+08 -1.184167e+08 -3.858506e+11 -2.260000e+07
## [12079,] -3.219116e+11 -2.682999e+11 -2.310576e+15 -3.814834e+09
## [12080,] -2.377806e+11 -1.884343e+11 -1.750952e+15 -2.293610e+09
## [12081,] -4.781430e+09 -3.783162e+09 -2.919846e+13 -1.154626e+08
## [12082,] -4.648076e+05 -5.489443e+04 -1.450205e+11 -1.194345e+07
## [12083,] -9.220791e+05 -1.429760e+06 -6.209800e+10 -1.297443e+07
## [12084,] -1.310084e+08 -1.184499e+08 -3.861499e+11 -2.185842e+07
## [12085,] -3.325725e+11 -2.780402e+11 -2.312368e+15 -2.878799e+09
## [12086,] -2.696327e+11 -2.176554e+11 -1.752310e+15 -2.193573e+09
## [12087,] -4.609520e+09 -4.738315e+09 -2.922110e+13 -1.325015e+08
## [12088,] -2.293218e+05 -1.458652e+05 -1.451330e+11 -1.188707e+07
## [12089,] -7.702096e+05 -8.138649e+05 -6.212207e+10 -1.300116e+07
## [12090,] -1.288782e+08 -1.133466e+08 -3.865990e+11 -2.275035e+07

```

```

## [12091,] -3.444993e+11 -2.879533e+11 -2.315057e+15 -3.144444e+09
## [12092,] -2.530459e+11 -2.252886e+11 -1.753668e+15 -2.499763e+09
## [12093,] -4.724127e+09 -3.655874e+09 -2.924375e+13 -1.216830e+08
## [12094,] -4.210448e+05 -2.454376e+04 -1.452455e+11 -1.196975e+07
## [12095,] -8.091565e+05 -1.437079e+06 -6.219431e+10 -1.313478e+07
## [12096,] -1.270006e+08 -1.237847e+08 -3.867488e+11 -2.242775e+07
## [12097,] -3.219064e+11 -2.587270e+11 -2.315954e+15 -3.303096e+09
## [12098,] -2.563201e+11 -1.884310e+11 -1.754347e+15 -2.556788e+09
## [12099,] -4.753052e+09 -4.316200e+09 -2.925508e+13 -1.214691e+08
## [12100,] -5.009513e+05 -2.063062e+05 -1.453017e+11 -1.186688e+07
## [12101,] -8.462499e+05 -1.107491e+06 -6.221840e+10 -1.317947e+07
## [12102,] -1.297294e+08 -1.185331e+08 -3.868986e+11 -2.236702e+07
## [12103,] -3.314940e+11 -2.587263e+11 -2.316851e+15 -3.411004e+09
## [12104,] -2.563193e+11 -2.027782e+11 -1.755027e+15 -2.656096e+09
## [12105,] -4.511086e+09 -4.316401e+09 -2.927775e+13 -1.192063e+08
## [12106,] -2.117280e+05 -1.429614e+05 -1.454143e+11 -1.194949e+07
## [12107,] -7.597302e+05 -1.440746e+06 -6.224250e+10 -1.322067e+07
## [12108,] -1.322119e+08 -1.211699e+08 -3.870484e+11 -2.210338e+07
## [12109,] -3.250852e+11 -2.980401e+11 -2.317749e+15 -3.154647e+09
## [12110,] -2.457521e+11 -2.252864e+11 -1.755707e+15 -2.293097e+09
## [12111,] -4.638508e+09 -4.316401e+09 -2.927775e+13 -1.135611e+08
## [12112,] -6.815794e+05 -5.241668e+04 -1.454143e+11 -1.209430e+07
## [12113,] -8.030916e+05 -1.560921e+06 -6.224250e+10 -1.318858e+07
## [12114,] -1.292021e+08 -1.185498e+08 -3.870484e+11 -2.278365e+07
## [12115,] -3.134997e+11 -2.879509e+11 -2.317749e+15 -3.756737e+09
## [12116,] -2.514141e+11 -2.101489e+11 -1.755707e+15 -2.371443e+09
## [12117,] -4.667170e+09 -3.783914e+09 -2.928909e+13 -1.100360e+08
## [12118,] -3.263194e+05 -2.042290e+05 -1.454706e+11 -1.192385e+07
## [12119,] -9.323804e+05 -8.764029e+05 -6.226660e+10 -1.314072e+07
## [12120,] -1.286760e+08 -1.185664e+08 -3.871983e+11 -2.204310e+07
## [12121,] -3.293493e+11 -2.879501e+11 -2.318646e+15 -2.898260e+09
## [12122,] -2.369842e+11 -2.330518e+11 -1.756386e+15 -2.930225e+09
## [12123,] -4.724547e+09 -4.316501e+09 -2.928909e+13 -1.095973e+08
## [12124,] -3.340118e+05 -5.617058e+05 -1.455269e+11 -1.186225e+07
## [12125,] -7.048898e+05 -1.113933e+06 -6.231481e+10 -1.323734e+07
## [12126,] -1.284393e+08 -1.185997e+08 -3.874981e+11 -2.231673e+07
## [12127,] -3.282787e+11 -2.780329e+11 -2.320441e+15 -3.767889e+09
## [12128,] -2.473609e+11 -2.409480e+11 -1.757746e+15 -2.300653e+09
## [12129,] -4.739262e+09 -4.316802e+09 -2.932311e+13 -1.241222e+08
## [12130,] -5.373273e+05 -5.102651e+04 -1.456396e+11 -1.154106e+07
## [12131,] -8.456595e+05 -1.334195e+06 -6.236304e+10 -1.329135e+07
## [12132,] -1.132220e+08 -1.320246e+08 -3.877980e+11 -2.282013e+07
## [12133,] -3.357954e+11 -2.879468e+11 -2.322237e+15 -3.270424e+09
## [12134,] -2.481669e+11 -2.101454e+11 -1.759107e+15 -2.378978e+09
## [12135,] -4.681899e+09 -3.784290e+09 -2.933445e+13 -1.225120e+08
## [12136,] -5.571335e+05 -8.936476e+04 -1.457523e+11 -1.210544e+07
## [12137,] -8.380594e+05 -1.335961e+06 -6.238716e+10 -1.318625e+07

```

```

## [12138,] -1.293238e+08 -1.239377e+08 -3.880980e+11 -2.294925e+07
## [12139,] -3.423049e+11 -3.082963e+11 -2.324933e+15 -3.366799e+09
## [12140,] -2.612641e+11 -2.409443e+11 -1.761149e+15 -2.246142e+09
## [12141,] -4.797503e+09 -4.596666e+09 -2.936850e+13 -1.227946e+08
## [12142,] -4.593639e+05 -2.198099e+04 -1.458650e+11 -1.186301e+07
## [12143,] -7.704242e+05 -1.339497e+06 -6.243542e+10 -1.327588e+07
## [12144,] -1.266336e+08 -1.160900e+08 -3.882481e+11 -2.231891e+07
## [12145,] -3.314861e+11 -2.682872e+11 -2.324933e+15 -3.475825e+09
## [12146,] -2.449424e+11 -2.027721e+11 -1.761149e+15 -2.539637e+09
## [12147,] -4.987840e+09 -4.455840e+09 -2.936850e+13 -1.110288e+08
## [12148,] -4.593639e+05 -6.715231e+05 -1.458650e+11 -1.209532e+07
## [12149,] -7.532966e+05 -1.339497e+06 -6.243542e+10 -1.325801e+07
## [12150,] -1.239548e+08 -1.239548e+08 -3.882481e+11 -2.279631e+07
## [12151,] -3.197861e+11 -3.082963e+11 -2.324933e+15 -3.174932e+09
## [12152,] -2.457460e+11 -2.027721e+11 -1.761149e+15 -2.490820e+09
## [12153,] -4.696548e+09 -4.317204e+09 -2.936850e+13 -1.188829e+08
## [12154,] -4.583287e+05 -4.931508e+04 -1.459214e+11 -1.186314e+07
## [12155,] -6.961407e+05 -1.123632e+06 -6.245956e+10 -1.308552e+07
## [12156,] -1.323701e+08 -1.213213e+08 -3.883982e+11 -2.221319e+07
## [12157,] -3.208393e+11 -3.082946e+11 -2.326730e+15 -3.778682e+09
## [12158,] -2.489720e+11 -1.955311e+11 -1.762510e+15 -2.154681e+09
## [12159,] -4.668109e+09 -4.180957e+09 -2.939121e+13 -1.277487e+08
## [12160,] -2.040633e+05 -2.692104e+05 -1.460342e+11 -1.194573e+07
## [12161,] -1.045092e+06 -1.233435e+06 -6.250785e+10 -1.316768e+07
## [12162,] -1.305020e+08 -1.085466e+08 -3.888486e+11 -2.258602e+07
## [12163,] -3.701081e+11 -3.187294e+11 -2.328529e+15 -3.122293e+09
## [12164,] -2.489697e+11 -2.176426e+11 -1.764554e+15 -2.514786e+09
## [12165,] -4.568842e+09 -4.181254e+09 -2.942529e+13 -1.219529e+08
## [12166,] -3.243668e+05 -1.355482e+05 -1.461471e+11 -1.203379e+07
## [12167,] -9.058616e+05 -1.846733e+06 -6.260448e+10 -1.323624e+07
## [12168,] -1.275637e+08 -1.085944e+08 -3.892993e+11 -2.291611e+07
## [12169,] -3.347073e+11 -3.082904e+11 -2.331228e+15 -3.464214e+09
## [12170,] -2.291420e+11 -2.489682e+11 -1.765917e+15 -2.629818e+09
## [12171,] -4.484648e+09 -4.597495e+09 -2.945939e+13 -1.444539e+08
## [12172,] -3.837124e+05 -4.696812e+04 -1.463164e+11 -1.192575e+07
## [12173,] -8.703187e+05 -1.470246e+06 -6.262865e+10 -1.315269e+07
## [12174,] -1.270409e+08 -1.086103e+08 -3.894496e+11 -2.239936e+07
## [12175,] -3.208341e+11 -2.780225e+11 -2.332128e+15 -3.541346e+09
## [12176,] -2.514010e+11 -2.101370e+11 -1.767281e+15 -2.139152e+09
## [12177,] -4.827501e+09 -4.181649e+09 -2.947076e+13 -1.145091e+08
## [12178,] -4.500890e+05 -4.663751e+04 -1.463729e+11 -1.193103e+07
## [12179,] -8.901628e+05 -1.243639e+06 -6.265282e+10 -1.327595e+07
## [12180,] -1.327864e+08 -1.267885e+08 -3.896000e+11 -2.223698e+07
## [12181,] -3.368658e+11 -2.682801e+11 -2.333028e+15 -3.258726e+09
## [12182,] -2.497768e+11 -2.176397e+11 -1.767281e+15 -2.663044e+09
## [12183,] -4.740735e+09 -4.047478e+09 -2.948213e+13 -1.131853e+08
## [12184,] -5.110395e+05 -1.977382e+04 -1.464294e+11 -1.191056e+07

```

```

## [12185,] -1.127816e+06 -1.595479e+06 -6.267700e+10 -1.307494e+07
## [12186,] -1.257299e+08 -1.136885e+08 -3.897503e+11 -2.296099e+07
## [12187,] -2.760578e+11 -3.187234e+11 -2.334829e+15 -3.301252e+09
## [12188,] -2.489644e+11 -2.252719e+11 -1.769327e+15 -2.338469e+09
## [12189,] -4.712163e+09 -4.597909e+09 -2.950488e+13 -1.186265e+08
## [12190,] -2.855315e+05 -2.621211e+05 -1.465424e+11 -1.200365e+07
## [12191,] -6.299573e+05 -1.360806e+06 -6.272537e+10 -1.331771e+07
## [12192,] -1.231116e+08 -1.241760e+08 -3.902015e+11 -2.315539e+07
## [12193,] -3.261296e+11 -2.682761e+11 -2.337531e+15 -3.290288e+09
## [12194,] -2.497722e+11 -2.252697e+11 -1.771375e+15 -2.283655e+09
## [12195,] -4.901137e+09 -4.318711e+09 -2.953903e+13 -1.166330e+08
## [12196,] -3.413651e+05 -8.176707e+04 -1.467120e+11 -1.208168e+07
## [12197,] -7.994253e+05 -1.366160e+06 -6.279796e+10 -1.327361e+07
## [12198,] -1.269089e+08 -1.269089e+08 -3.906530e+11 -2.246860e+07
## [12199,] -3.303997e+11 -3.082827e+11 -2.339334e+15 -3.496392e+09
## [12200,] -2.425275e+11 -2.489613e+11 -1.772058e+15 -2.629113e+09
## [12201,] -4.655278e+09 -4.182341e+09 -2.955042e+13 -1.232981e+08
## [12202,] -4.835389e+05 -3.779520e+03 -1.467686e+11 -1.195769e+07
## [12203,] -8.021606e+05 -1.149702e+06 -6.284638e+10 -1.320619e+07
## [12204,] -1.247783e+08 -1.189661e+08 -3.908036e+11 -2.292053e+07
## [12205,] -3.477632e+11 -3.082810e+11 -2.341137e+15 -3.007599e+09
## [12206,] -2.393407e+11 -2.330333e+11 -1.773424e+15 -2.473284e+09
## [12207,] -4.916124e+09 -4.182539e+09 -2.957320e+13 -1.166825e+08
## [12208,] -4.116963e+05 -4.371459e+04 -1.468817e+11 -1.212877e+07
## [12209,] -8.301316e+05 -1.610960e+06 -6.287060e+10 -1.316542e+07
## [12210,] -1.326692e+08 -1.216077e+08 -3.909542e+11 -2.287058e+07
## [12211,] -3.250625e+11 -2.980184e+11 -2.341137e+15 -3.551536e+09
## [12212,] -2.579429e+11 -2.571196e+11 -1.774107e+15 -2.481283e+09
## [12213,] -4.698538e+09 -4.319112e+09 -2.958459e+13 -1.205749e+08
## [12214,] -4.588669e+05 -1.272398e+05 -1.469949e+11 -1.204605e+07
## [12215,] -9.154579e+05 -1.614842e+06 -6.291904e+10 -1.328000e+07
## [12216,] -1.213944e+08 -1.216582e+08 -3.914061e+11 -2.222189e+07
## [12217,] -3.113911e+11 -3.082785e+11 -2.343844e+15 -3.257679e+09
## [12218,] -2.393378e+11 -2.199069e+11 -1.776157e+15 -2.481054e+09
## [12219,] -4.785447e+09 -4.319514e+09 -2.963018e+13 -1.131740e+08
## [12220,] -3.517289e+05 -1.256096e+05 -1.471647e+11 -1.220745e+07
## [12221,] -1.026273e+06 -1.267614e+06 -6.299175e+10 -1.336478e+07
## [12222,] -1.297412e+08 -1.164690e+08 -3.917075e+11 -2.240591e+07
## [12223,] -3.239963e+11 -2.780104e+11 -2.345649e+15 -3.110266e+09
## [12224,] -2.385440e+11 -2.330297e+11 -1.776841e+15 -2.267594e+09
## [12225,] -4.684619e+09 -4.458186e+09 -2.963018e+13 -1.118418e+08
## [12226,] -4.163772e+05 -4.213162e+04 -1.471647e+11 -1.222831e+07
## [12227,] -7.497459e+05 -1.522288e+06 -6.299175e+10 -1.322169e+07
## [12228,] -1.316565e+08 -1.216920e+08 -3.917075e+11 -2.239458e+07
## [12229,] -3.357724e+11 -3.082768e+11 -2.345649e+15 -2.996967e+09
## [12230,] -2.457286e+11 -2.409270e+11 -1.776841e+15 -2.221478e+09
## [12231,] -4.684619e+09 -4.048742e+09 -2.963018e+13 -1.163131e+08

```



```

## [12232,] -2.174195e+05 -4.260576e+05 -1.471647e+11 -1.216059e+07
## [12233,] -1.359309e+06 -1.750007e+06 -6.301599e+10 -1.328798e+07
## [12234,] -1.377851e+08 -1.190828e+08 -3.918583e+11 -2.272011e+07
## [12235,] -3.051789e+11 -3.082759e+11 -2.346551e+15 -3.289411e+09
## [12236,] -2.587636e+11 -2.176290e+11 -1.777525e+15 -2.306312e+09
## [12237,] -4.902207e+09 -3.786923e+09 -2.965299e+13 -1.129839e+08
## [12238,] -4.947832e+05 -1.245287e+05 -1.472780e+11 -1.223378e+07
## [12239,] -8.309394e+05 -1.384081e+06 -6.304024e+10 -1.337237e+07
## [12240,] -1.286878e+08 -1.113928e+08 -3.920091e+11 -2.275022e+07
## [12241,] -3.197636e+11 -2.682666e+11 -2.348358e+15 -3.225407e+09
## [12242,] -2.361706e+11 -2.176276e+11 -1.778893e+15 -2.353148e+09
## [12243,] -4.843970e+09 -4.183428e+09 -2.967581e+13 -1.066550e+08
## [12244,] -2.964793e+05 -3.298559e+05 -1.474480e+11 -1.233349e+07
## [12245,] -8.172877e+05 -1.276232e+06 -6.311301e+10 -1.341428e+07
## [12246,] -1.290115e+08 -1.191496e+08 -3.924616e+11 -2.252153e+07
## [12247,] -3.208159e+11 -2.879205e+11 -2.351068e+15 -5.114527e+09
## [12248,] -2.473343e+11 -2.252588e+11 -1.781631e+15 -2.282560e+09
## [12249,] -4.685351e+09 -4.458901e+09 -2.971006e+13 -1.153019e+08
## [12250,] -2.264328e+05 -3.996450e+04 -1.475614e+11 -1.210434e+07
## [12251,] -9.877806e+05 -1.511296e+06 -6.316155e+10 -1.336802e+07
## [12252,] -1.244657e+08 -1.191829e+08 -3.927634e+11 -2.264979e+07
## [12253,] -3.282481e+11 -2.682635e+11 -2.351972e+15 -3.235654e+09
## [12254,] -2.393310e+11 -2.252581e+11 -1.782316e+15 -2.416152e+09
## [12255,] -4.361794e+09 -4.320418e+09 -2.973290e+13 -1.178209e+08
## [12256,] -3.703501e+05 -2.426723e+03 -1.476749e+11 -1.207348e+07
## [12257,] -9.142300e+05 -1.396695e+06 -6.321011e+10 -1.341152e+07
## [12258,] -1.269148e+08 -1.140473e+08 -3.930654e+11 -2.264156e+07
## [12259,] -3.346852e+11 -2.780031e+11 -2.353780e+15 -3.088746e+09
## [12260,] -2.338061e+11 -2.252566e+11 -1.783686e+15 -2.813927e+09
## [12261,] -4.743156e+09 -4.049715e+09 -2.974432e+13 -1.162522e+08
## [12262,] -3.694207e+05 -7.409032e+04 -1.477316e+11 -1.207879e+07
## [12263,] -8.511494e+05 -1.398502e+06 -6.323440e+10 -1.363724e+07
## [12264,] -1.290983e+08 -1.192330e+08 -3.932164e+11 -2.318732e+07
## [12265,] -3.010656e+11 -3.187035e+11 -2.355589e+15 -3.172005e+09
## [12266,] -2.654000e+11 -2.409188e+11 -1.784371e+15 -2.944414e+09
## [12267,] -5.035977e+09 -4.600189e+09 -2.975575e+13 -1.321238e+08
## [12268,] -7.535354e+05 -2.278644e+03 -1.477884e+11 -1.207892e+07
## [12269,] -7.990701e+05 -1.073657e+06 -6.325869e+10 -1.329362e+07
## [12270,] -1.163921e+08 -1.326751e+08 -3.933675e+11 -2.274733e+07
## [12271,] -3.093024e+11 -3.082666e+11 -2.356493e+15 -3.639392e+09
## [12272,] -2.425132e+11 -2.176212e+11 -1.785056e+15 -2.762368e+09
## [12273,] -4.700319e+09 -4.320820e+09 -2.977860e+13 -1.140551e+08
## [12274,] -3.487984e+05 -7.284765e+04 -1.479019e+11 -1.237122e+07
## [12275,] -9.309938e+05 -1.291818e+06 -6.333159e+10 -1.329245e+07
## [12276,] -1.332800e+08 -1.174769e+08 -3.938208e+11 -2.300966e+07
## [12277,] -2.959710e+11 -3.187010e+11 -2.358303e+15 -3.684326e+09
## [12278,] -2.562837e+11 -2.101174e+11 -1.786427e+15 -2.561361e+09

```

```

## [12279,] -4.786927e+09 -4.184417e+09 -2.979004e+13 -1.199584e+08
## [12280,] -6.142392e+05 -3.785461e+04 -1.479587e+11 -1.216759e+07
## [12281,] -1.361376e+06 -8.856985e+05 -6.335590e+10 -1.340917e+07
## [12282,] -1.322298e+08 -1.167495e+08 -3.942744e+11 -2.231374e+07
## [12283,] -3.282393e+11 -2.879115e+11 -2.361020e+15 -3.832594e+09
## [12284,] -2.538226e+11 -2.176169e+11 -1.789171e+15 -2.787523e+09
## [12285,] -4.446054e+09 -4.460023e+09 -2.983579e+13 -1.184254e+08
## [12286,] -4.073150e+05 -3.176821e+05 -1.482428e+11 -1.231959e+07
## [12287,] -9.574865e+05 -1.414815e+06 -6.345318e+10 -1.334540e+07
## [12288,] -1.325579e+08 -1.193999e+08 -3.947282e+11 -2.298477e+07
## [12289,] -3.346755e+11 -2.682532e+11 -2.363737e+15 -3.118963e+09
## [12290,] -2.530044e+11 -2.330149e+11 -1.790543e+15 -2.281611e+09
## [12291,] -4.629564e+09 -4.185010e+09 -2.985868e+13 -1.157405e+08
## [12292,] -3.601902e+05 -6.998896e+04 -1.482996e+11 -1.205416e+07
## [12293,] -9.036520e+05 -1.661788e+06 -6.350185e+10 -1.333506e+07
## [12294,] -1.298342e+08 -1.116995e+08 -3.948795e+11 -2.309549e+07
## [12295,] -3.271688e+11 -2.779934e+11 -2.364644e+15 -2.854094e+09
## [12296,] -2.612297e+11 -1.955027e+11 -1.791230e+15 -2.439153e+09
## [12297,] -4.587038e+09 -4.601226e+09 -2.987012e+13 -1.251749e+08
## [12298,] -4.442434e+05 -1.314297e+04 -1.483565e+11 -1.210613e+07
## [12299,] -8.216595e+05 -1.418453e+06 -6.350185e+10 -1.337091e+07
## [12300,] -1.290347e+08 -1.168321e+08 -3.950309e+11 -2.286190e+07
## [12301,] -3.335962e+11 -2.979959e+11 -2.365550e+15 -3.234350e+09
## [12302,] -2.473229e+11 -2.409105e+11 -1.791916e+15 -2.296989e+09
## [12303,] -4.601330e+09 -4.889699e+09 -2.988157e+13 -1.159987e+08
## [12304,] -4.333507e+05 -1.296838e+04 -1.484133e+11 -1.221549e+07
## [12305,] -9.813207e+05 -1.420274e+06 -6.352619e+10 -1.338727e+07
## [12306,] -1.276790e+08 -1.168321e+08 -3.950309e+11 -2.293061e+07
## [12307,] -3.346737e+11 -2.682516e+11 -2.365550e+15 -3.287571e+09
## [12308,] -2.361557e+11 -2.252472e+11 -1.792603e+15 -2.536096e+09
## [12309,] -4.701367e+09 -3.661143e+09 -2.989303e+13 -1.212589e+08
## [12310,] -4.129525e+05 -6.878132e+04 -1.484702e+11 -1.227825e+07
## [12311,] -9.538709e+05 -1.197714e+06 -6.355054e+10 -1.348278e+07
## [12312,] -1.342872e+08 -1.168652e+08 -3.953337e+11 -2.292233e+07
## [12313,] -3.282332e+11 -2.779910e+11 -2.367363e+15 -3.604634e+09
## [12314,] -2.513719e+11 -2.252465e+11 -1.793290e+15 -2.328048e+09
## [12315,] -4.846098e+09 -4.051077e+09 -2.990448e+13 -1.151314e+08
## [12316,] -2.427444e+05 -6.139518e+05 -1.485271e+11 -1.216366e+07
## [12317,] -8.816185e+05 -1.545304e+06 -6.359924e+10 -1.351925e+07
## [12318,] -1.307235e+08 -1.143086e+08 -3.954852e+11 -2.234890e+07
## [12319,] -3.346702e+11 -2.586812e+11 -2.369177e+15 -3.649353e+09
## [12320,] -2.505577e+11 -1.954993e+11 -1.794664e+15 -2.383016e+09
## [12321,] -4.846310e+09 -4.322126e+09 -2.992740e+13 -1.158391e+08
## [12322,] -3.717651e+05 -3.408806e+04 -1.486978e+11 -1.218487e+07
## [12323,] -1.151177e+06 -1.099143e+06 -6.364797e+10 -1.349442e+07
## [12324,] -1.310322e+08 -1.248070e+08 -3.957882e+11 -2.259028e+07
## [12325,] -3.072198e+11 -2.979917e+11 -2.370085e+15 -3.160141e+09

```

```

## [12326,] -2.401111e+11 -2.252443e+11 -1.795351e+15 -2.752645e+09
## [12327,] -4.831961e+09 -4.601952e+09 -2.995032e+13 -1.081197e+08
## [12328,] -4.867749e+05 -2.317579e+05 -1.488117e+11 -1.223725e+07
## [12329,] -8.966342e+05 -1.433052e+06 -6.369671e+10 -1.339410e+07
## [12330,] -1.291563e+08 -1.169478e+08 -3.960913e+11 -2.289017e+07
## [12331,] -3.207960e+11 -3.292976e+11 -2.371900e+15 -3.471141e+09
## [12332,] -2.620533e+11 -2.330083e+11 -1.796726e+15 -2.280954e+09
## [12333,] -4.949177e+09 -4.461146e+09 -2.996179e+13 -1.129775e+08
## [12334,] -5.735884e+05 -1.103934e+05 -1.488117e+11 -1.238378e+07
## [12335,] -1.207771e+06 -1.207771e+06 -6.369671e+10 -1.346602e+07
## [12336,] -1.316158e+08 -1.195503e+08 -3.960913e+11 -2.310824e+07
## [12337,] -3.325143e+11 -2.682461e+11 -2.371900e+15 -3.351390e+09
## [12338,] -2.457066e+11 -2.489339e+11 -1.796726e+15 -2.609691e+09
## [12339,] -4.644755e+09 -4.051563e+09 -2.996179e+13 -1.260157e+08
## [12340,] -1.595009e+05 -1.655135e+05 -1.488117e+11 -1.226335e+07
## [12341,] -1.051445e+06 -9.059489e+05 -6.369671e+10 -1.350205e+07
## [12342,] -1.280706e+08 -1.118288e+08 -3.960913e+11 -2.247982e+07
## [12343,] -3.379103e+11 -3.082522e+11 -2.371900e+15 -3.087047e+09
## [12344,] -2.579173e+11 -2.101069e+11 -1.796726e+15 -2.288708e+09
## [12345,] -5.112492e+09 -4.185900e+09 -2.996179e+13 -1.116465e+08
## [12346,] -5.078108e+05 -1.103934e+05 -1.488117e+11 -1.236279e+07
## [12347,] -8.341745e+05 -1.434882e+06 -6.372109e+10 -1.356903e+07
## [12348,] -1.261989e+08 -1.248582e+08 -3.962429e+11 -2.266901e+07
## [12349,] -3.218509e+11 -2.879000e+11 -2.373716e+15 -3.222977e+09
## [12350,] -2.529960e+11 -2.252414e+11 -1.798102e+15 -2.511032e+09
## [12351,] -4.876033e+09 -3.919609e+09 -2.998472e+13 -1.101356e+08
## [12352,] -4.331093e+05 -1.088753e+05 -1.489826e+11 -1.239992e+07
## [12353,] -9.291367e+05 -1.558631e+06 -6.376987e+10 -1.352251e+07
## [12354,] -1.270412e+08 -1.275813e+08 -3.965462e+11 -2.270637e+07
## [12355,] -3.186837e+11 -2.979859e+11 -2.376441e+15 -3.671168e+09
## [12356,] -2.393116e+11 -2.330046e+11 -1.800166e+15 -2.366608e+09
## [12357,] -4.847162e+09 -4.186394e+09 -3.001915e+13 -1.132814e+08
## [12358,] -2.280939e+05 -1.624194e+05 -1.490966e+11 -1.208185e+07
## [12359,] -1.079587e+06 -1.442214e+06 -6.381866e+10 -1.352653e+07
## [12360,] -1.268060e+08 -1.222658e+08 -3.968496e+11 -2.305297e+07
## [12361,] -3.442189e+11 -2.917101e+11 -3.095325e+13 -1.355983e+09
## [12362,] -2.484166e+11 -2.209217e+11 -2.344724e+13 -1.065343e+09
## [12363,] -4.352817e+09 -3.740709e+09 -3.910007e+11 -2.224082e+07
## [12364,] -1.561421e+07 -1.555533e+07 -1.941990e+09 -2.022851e+04
## [12365,] -6.284521e+06 -5.944887e+06 -8.312409e+08 -6.381243e+04
## [12366,] -5.595746e+07 -5.471128e+07 -5.168984e+09 -9.284651e+05
## [12367,] -3.333697e+11 -3.018644e+11 -3.095325e+13 -1.411450e+09
## [12368,] -2.476086e+11 -2.209217e+11 -2.344724e+13 -1.086629e+09
## [12369,] -3.987916e+09 -3.740709e+09 -3.910007e+11 -2.323897e+07
## [12370,] -1.712248e+07 -1.440100e+07 -1.941990e+09 -2.196106e+04
## [12371,] -6.358527e+06 -5.248868e+06 -8.312409e+08 -6.430908e+04
## [12372,] -6.296733e+07 -4.621807e+07 -5.168984e+09 -1.040014e+06

```

```

## [12373,] -3.333697e+11 -2.817295e+11 -3.095325e+13 -1.879019e+09
## [12374,] -2.590395e+11 -1.986377e+11 -2.344724e+13 -1.418942e+09
## [12375,] -4.284037e+09 -3.127956e+09 -3.910007e+11 -2.957401e+07
## [12376,] -1.669316e+07 -1.440100e+07 -1.941990e+09 -1.314157e+04
## [12377,] -6.040962e+06 -6.432966e+06 -8.312409e+08 -6.430908e+04
## [12378,] -5.758032e+07 -6.015088e+07 -5.168984e+09 -9.032714e+05
## [12379,] -3.290787e+11 -2.719226e+11 -3.095325e+13 -1.807003e+09
## [12380,] -2.623529e+11 -2.133621e+11 -2.344724e+13 -1.388551e+09
## [12381,] -4.054383e+09 -3.869927e+09 -3.923117e+11 -2.488920e+07
## [12382,] -1.736389e+07 -1.274748e+07 -1.948501e+09 -1.401461e+04
## [12383,] -6.554081e+06 -5.023063e+06 -8.340279e+08 -5.441141e+04
## [12384,] -6.109448e+07 -4.954019e+07 -5.186315e+09 -9.980720e+05
## [12385,] -3.366053e+11 -2.622886e+11 -3.105703e+13 -1.895147e+09
## [12386,] -2.468012e+11 -2.133614e+11 -2.352586e+13 -1.270221e+09
## [12387,] -4.202324e+09 -3.489125e+09 -3.923117e+11 -2.375371e+07
## [12388,] -1.730179e+07 -1.328559e+07 -1.948501e+09 -1.546259e+04
## [12389,] -6.231608e+06 -5.245368e+06 -8.340279e+08 -6.052435e+04
## [12390,] -6.203339e+07 -5.296648e+07 -5.186315e+09 -9.184345e+05
## [12391,] -2.969684e+11 -2.878968e+11 -2.377349e+15 -3.212057e+09
## [12392,] -2.345727e+11 -2.252385e+11 -1.800854e+15 -2.406160e+09
## [12393,] -4.517863e+09 -3.662253e+09 -3.003062e+13 -1.249460e+08
## [12394,] -4.012515e+05 -6.405587e+04 -1.491536e+11 -1.229548e+07
## [12395,] -7.199042e+05 -1.217869e+06 -6.384306e+10 -1.361891e+07
## [12396,] -1.298053e+08 -1.170470e+08 -3.970013e+11 -2.304882e+07
## [12397,] -3.325082e+11 -2.878959e+11 -2.378258e+15 -3.492507e+09
## [12398,] -2.562667e+11 -2.252378e+11 -1.801543e+15 -2.502527e+09
## [12399,] -4.789253e+09 -4.052244e+09 -3.004210e+13 -1.228660e+08
## [12400,] -2.337930e+05 -1.068676e+05 -1.492106e+11 -1.220164e+07
## [12401,] -1.062443e+06 -1.219556e+06 -6.386747e+10 -1.346207e+07
## [12402,] -1.281917e+08 -1.249607e+08 -3.971531e+11 -2.296431e+07
## [12403,] -2.939281e+11 -3.292914e+11 -2.378258e+15 -3.286344e+09
## [12404,] -2.168479e+11 -2.101020e+11 -1.801543e+15 -2.454069e+09
## [12405,] -4.282039e+09 -4.461963e+09 -3.005359e+13 -1.266237e+08
## [12406,] -4.087989e+05 -6.328465e+04 -1.492677e+11 -1.239532e+07
## [12407,] -9.176233e+05 -1.447725e+06 -6.389188e+10 -1.356869e+07
## [12408,] -1.292953e+08 -1.145047e+08 -3.973049e+11 -2.276563e+07
## [12409,] -3.292897e+11 -2.878943e+11 -2.380076e+15 -3.096647e+09
## [12410,] -2.489270e+11 -2.101006e+11 -1.802920e+15 -2.280297e+09
## [12411,] -4.935535e+09 -4.186889e+09 -3.007656e+13 -1.149283e+08
## [12412,] -5.620723e+05 -7.019935e+04 -1.493818e+11 -1.226463e+07
## [12413,] -9.682237e+05 -1.335608e+06 -6.394072e+10 -1.350052e+07
## [12414,] -1.312422e+08 -1.119904e+08 -3.976086e+11 -2.299777e+07
## [12415,] -3.082437e+11 -2.878935e+11 -2.380986e+15 -3.361304e+09
## [12416,] -2.408978e+11 -2.176019e+11 -1.803609e+15 -2.494189e+09
## [12417,] -4.688804e+09 -4.052633e+09 -3.008805e+13 -1.283298e+08
## [12418,] -1.708531e+05 -2.998506e+05 -1.494388e+11 -1.228044e+07
## [12419,] -8.572513e+05 -1.337375e+06 -6.396514e+10 -1.352778e+07

```

```

## [12420,] -1.277367e+08 -1.223842e+08 -3.979124e+11 -2.286342e+07
## [12421,] -3.325038e+11 -2.586695e+11 -2.382805e+15 -3.285906e+09
## [12422,] -2.465016e+11 -2.100978e+11 -1.805676e+15 -2.249124e+09
## [12423,] -4.746524e+09 -3.790685e+09 -3.011103e+13 -1.143050e+08
## [12424,] -1.220231e+06 -1.569235e+05 -1.496101e+11 -1.196404e+07
## [12425,] -9.742482e+05 -1.705413e+06 -6.403845e+10 -1.355909e+07
## [12426,] -1.299620e+08 -1.198010e+08 -3.983683e+11 -2.286245e+07
## [12427,] -3.144800e+11 -3.400675e+11 -2.385535e+15 -3.169165e+09
## [12428,] -2.175984e+11 -2.329972e+11 -1.807055e+15 -2.518171e+09
## [12429,] -4.617824e+09 -4.053022e+09 -3.013403e+13 -1.186301e+08
## [12430,] -3.560929e+05 -2.946036e+04 -1.496672e+11 -1.239097e+07
## [12431,] -9.012130e+05 -1.346226e+06 -6.408734e+10 -1.364636e+07
## [12432,] -1.354938e+08 -1.198178e+08 -3.985204e+11 -2.273262e+07
## [12433,] -3.303540e+11 -2.878886e+11 -2.386446e+15 -3.127245e+09
## [12434,] -2.385104e+11 -2.100957e+11 -1.807745e+15 -2.112554e+09
## [12435,] -4.617928e+09 -4.187482e+09 -3.014553e+13 -1.166035e+08
## [12436,] -5.890622e+05 -1.024186e+05 -1.497243e+11 -1.218196e+07
## [12437,] -9.483861e+05 -1.709407e+06 -6.408734e+10 -1.359205e+07
## [12438,] -1.213947e+08 -1.388574e+08 -3.985204e+11 -2.300731e+07
## [12439,] -3.576808e+11 -2.979767e+11 -2.386446e+15 -2.993204e+09
## [12440,] -2.481129e+11 -2.100957e+11 -1.807745e+15 -2.591897e+09
## [12441,] -4.575352e+09 -4.187482e+09 -3.014553e+13 -1.154760e+08
## [12442,] -3.205137e+05 -6.024646e+04 -1.497243e+11 -1.253327e+07
## [12443,] -9.388552e+05 -1.583533e+06 -6.408734e+10 -1.369352e+07
## [12444,] -1.253823e+08 -1.146356e+08 -3.985204e+11 -2.274404e+07
## [12445,] -3.282148e+11 -3.082386e+11 -2.386446e+15 -3.085689e+09
## [12446,] -2.529852e+11 -2.100957e+11 -1.807745e+15 -2.518094e+09
## [12447,] -4.504830e+09 -4.462779e+09 -3.014553e+13 -1.286537e+08
## [12448,] -1.732366e+05 -1.551126e+05 -1.497814e+11 -1.226553e+07
## [12449,] -9.308463e+05 -1.464322e+06 -6.411179e+10 -1.369191e+07
## [12450,] -1.222040e+08 -1.251316e+08 -3.986724e+11 -2.324484e+07
## [12451,] -3.455206e+11 -2.586641e+11 -2.389178e+15 -2.992953e+09
## [12452,] -2.562574e+11 -2.027232e+11 -1.809815e+15 -2.558732e+09
## [12453,] -4.921805e+09 -4.053411e+09 -3.018004e+13 -1.279943e+08
## [12454,] -4.455482e+05 -1.004716e+05 -1.499529e+11 -1.250212e+07
## [12455,] -9.178575e+05 -9.367536e+05 -6.420966e+10 -1.354791e+07
## [12456,] -1.308867e+08 -1.199014e+08 -3.992810e+11 -2.284908e+07
## [12457,] -3.103076e+11 -2.779701e+11 -2.391000e+15 -3.338753e+09
## [12458,] -2.497279e+11 -2.329928e+11 -1.811195e+15 -2.389149e+09
## [12459,] -4.561823e+09 -4.188075e+09 -3.021458e+13 -1.146762e+08
## [12460,] -4.625598e+05 -2.498624e+04 -1.501245e+11 -1.238675e+07
## [12461,] -1.160608e+06 -1.139564e+06 -6.425862e+10 -1.362065e+07
## [12462,] -1.311957e+08 -1.225702e+08 -3.995854e+11 -2.277224e+07
## [12463,] -3.228910e+11 -2.979709e+11 -2.392824e+15 -3.726175e+09
## [12464,] -2.206303e+11 -2.175927e+11 -1.812576e+15 -2.501304e+09
## [12465,] -4.762012e+09 -3.921618e+09 -3.022609e+13 -1.275901e+08
## [12466,] -4.036948e+05 -2.739940e+04 -1.501245e+11 -1.242878e+07

```

```

## [12467,] -1.183507e+06 -1.856715e+06 -6.428310e+10 -1.358648e+07
## [12468,] -1.293012e+08 -1.225871e+08 -3.997377e+11 -2.282524e+07
## [12469,] -3.071978e+11 -2.979700e+11 -2.393735e+15 -3.658126e+09
## [12470,] -2.529791e+11 -2.100901e+11 -1.813267e+15 -2.558346e+09
## [12471,] -4.762117e+09 -4.188273e+09 -3.023761e+13 -1.199234e+08
## [12472,] -4.218782e+05 -1.509279e+05 -1.501817e+11 -1.223511e+07
## [12473,] -9.035067e+05 -1.360449e+06 -6.428310e+10 -1.361543e+07
## [12474,] -1.295909e+08 -1.122332e+08 -3.998900e+11 -2.223047e+07
## [12475,] -3.165655e+11 -2.878812e+11 -2.394647e+15 -3.168305e+09
## [12476,] -2.620338e+11 -2.100894e+11 -1.813958e+15 -2.194729e+09
## [12477,] -4.107483e+09 -4.747788e+09 -3.024913e+13 -1.357916e+08
## [12478,] -2.061952e+05 -2.874292e+05 -1.502961e+11 -1.247128e+07
## [12479,] -9.064144e+05 -1.481013e+06 -6.433209e+10 -1.351827e+07
## [12480,] -1.309742e+08 -1.199851e+08 -4.000423e+11 -2.336902e+07
## [12481,] -3.228884e+11 -2.492655e+11 -2.395559e+15 -2.951720e+09
## [12482,] -2.546121e+11 -2.252240e+11 -1.814649e+15 -2.476793e+09
## [12483,] -4.747999e+09 -3.922001e+09 -3.027218e+13 -1.181463e+08
## [12484,] -3.998200e+05 -7.727225e+03 -1.503534e+11 -1.243456e+07
## [12485,] -9.954812e+05 -1.484735e+06 -6.438109e+10 -1.363437e+07
## [12486,] -1.277426e+08 -1.280132e+08 -4.003470e+11 -2.283158e+07
## [12487,] -3.250076e+11 -3.186630e+11 -2.398297e+15 -3.199513e+09
## [12488,] -2.464895e+11 -2.329869e+11 -1.816722e+15 -2.356941e+09
## [12489,] -4.937575e+09 -4.464107e+09 -3.029524e+13 -1.152398e+08
## [12490,] -2.929946e+05 -9.615922e+04 -1.504679e+11 -1.245587e+07
## [12491,] -6.999202e+05 -1.256969e+06 -6.440560e+10 -1.372712e+07
## [12492,] -1.302235e+08 -1.148648e+08 -4.006519e+11 -2.304107e+07
## [12493,] -3.250068e+11 -2.779628e+11 -2.399210e+15 -3.284330e+09
## [12494,] -2.191038e+11 -2.570708e+11 -1.817414e+15 -2.525167e+09
## [12495,] -4.982017e+09 -4.325543e+09 -3.031830e+13 -1.209597e+08
## [12496,] -4.542819e+05 -2.541318e+04 -1.505824e+11 -1.235106e+07
## [12497,] -1.195173e+06 -1.152653e+06 -6.445464e+10 -1.364768e+07
## [12498,] -1.253710e+08 -1.227056e+08 -4.008044e+11 -2.331343e+07
## [12499,] -3.422307e+11 -2.878763e+11 -2.400123e+15 -3.424579e+09
## [12500,] -2.424771e+11 -2.027149e+11 -1.818106e+15 -2.364676e+09
## [12501,] -4.492327e+09 -4.188965e+09 -3.031830e+13 -1.184405e+08
## [12502,] -3.495208e+05 -3.552490e+04 -1.506397e+11 -1.247732e+07
## [12503,] -1.031264e+06 -1.154294e+06 -6.447916e+10 -1.363158e+07
## [12504,] -1.310791e+08 -1.148976e+08 -4.009569e+11 -2.310174e+07
## [12505,] -3.271329e+11 -2.878746e+11 -2.401949e+15 -2.850748e+09
## [12506,] -2.480999e+11 -2.252189e+11 -1.819489e+15 -2.118821e+09
## [12507,] -4.748630e+09 -4.189163e+09 -3.034137e+13 -1.093163e+08
## [12508,] -3.664542e+05 -5.403847e+04 -1.506970e+11 -1.230419e+07
## [12509,] -9.738561e+05 -1.616396e+06 -6.450369e+10 -1.353596e+07
## [12510,] -1.297301e+08 -1.174938e+08 -4.011094e+11 -2.347871e+07
## [12511,] -3.102974e+11 -2.682199e+11 -2.401949e+15 -2.971426e+09
## [12512,] -2.480992e+11 -2.100830e+11 -1.820181e+15 -2.309554e+09
## [12513,] -4.923414e+09 -4.189262e+09 -3.035291e+13 -1.135305e+08

```

```

## [12514,] -3.837881e+05 -1.815800e+04 -1.507543e+11 -1.239867e+07
## [12515,] -9.948409e+05 -1.265550e+06 -6.452822e+10 -1.372635e+07
## [12516,] -1.289309e+08 -1.227564e+08 -4.012619e+11 -2.295562e+07
## [12517,] -3.411384e+11 -2.979617e+11 -2.402863e+15 -3.032619e+09
## [12518,] -2.546060e+11 -2.027129e+11 -1.820181e+15 -2.293987e+09
## [12519,] -4.548933e+09 -4.464617e+09 -3.035291e+13 -1.173538e+08
## [12520,] -3.556553e+05 -2.444809e+04 -1.508117e+11 -1.230444e+07
## [12521,] -9.008358e+05 -1.747582e+06 -6.455276e+10 -1.380847e+07
## [12522,] -1.306015e+08 -1.175435e+08 -4.015671e+11 -2.311962e+07
## [12523,] -3.207649e+11 -2.586509e+11 -2.404691e+15 -3.391488e+09
## [12524,] -2.472902e+11 -2.100816e+11 -1.821566e+15 -2.286077e+09
## [12525,] -4.691525e+09 -3.922958e+09 -3.038755e+13 -1.201410e+08
## [12526,] -4.273754e+05 -5.227682e+04 -1.509837e+11 -1.252556e+07
## [12527,] -9.717157e+05 -1.626125e+06 -6.462640e+10 -1.369812e+07
## [12528,] -1.309102e+08 -1.228241e+08 -4.018725e+11 -2.350414e+07
## [12529,] -3.271277e+11 -2.838832e+11 -2.407433e+15 -3.567122e+09
## [12530,] -2.562419e+11 -2.175813e+11 -1.823643e+15 -2.301397e+09
## [12531,] -4.778263e+09 -4.055455e+09 -3.042220e+13 -1.250589e+08
## [12532,] -3.600068e+05 -9.101698e+04 -1.510985e+11 -1.255223e+07
## [12533,] -9.458873e+05 -1.167467e+06 -6.467552e+10 -1.369491e+07
## [12534,] -1.298520e+08 -1.228580e+08 -4.021779e+11 -2.320663e+07
## [12535,] -3.324791e+11 -2.682144e+11 -2.408348e+15 -3.188029e+09
## [12536,] -2.400789e+11 -2.329780e+11 -1.825029e+15 -2.673173e+09
## [12537,] -4.649027e+09 -4.055552e+09 -3.043375e+13 -1.204377e+08
## [12538,] -3.590904e+05 -9.055651e+04 -1.511558e+11 -1.243637e+07
## [12539,] -1.369663e+06 -1.279342e+06 -6.472466e+10 -1.356492e+07
## [12540,] -1.407421e+08 -1.255593e+08 -4.024834e+11 -2.373158e+07
## [12541,] -3.218162e+11 -2.682128e+11 -2.410178e+15 -3.522457e+09
## [12542,] -2.537818e+11 -2.027074e+11 -1.825722e+15 -2.992452e+09
## [12543,] -4.983311e+09 -4.326749e+09 -3.045687e+13 -1.265189e+08
## [12544,] -3.938128e+05 -8.963908e+04 -1.512707e+11 -1.235261e+07
## [12545,] -9.599406e+05 -1.635884e+06 -6.474923e+10 -1.360672e+07
## [12546,] -1.323708e+08 -1.255765e+08 -4.026363e+11 -2.344840e+07
## [12547,] -3.335512e+11 -2.779516e+11 -2.412008e+15 -3.390776e+09
## [12548,] -2.213772e+11 -2.653504e+11 -1.827802e+15 -2.293182e+09
## [12549,] -4.149896e+09 -4.190449e+09 -3.049156e+13 -1.166465e+08
## [12550,] -3.360995e+05 -1.049595e+04 -1.515004e+11 -1.250035e+07
## [12551,] -9.277525e+05 -1.520328e+06 -6.484758e+10 -1.358585e+07
## [12552,] -1.338218e+08 -1.229766e+08 -4.032478e+11 -2.331594e+07
## [12553,] -3.389529e+11 -3.186475e+11 -2.414755e+15 -3.041797e+09
## [12554,] -2.456710e+11 -2.100739e+11 -1.829189e+15 -2.293036e+09
## [12555,] -4.466047e+09 -3.924011e+09 -3.051470e+13 -1.184954e+08
## [12556,] -4.068860e+05 -1.350298e+02 -1.516154e+11 -1.242163e+07
## [12557,] -9.996636e+05 -1.293208e+06 -6.492139e+10 -1.365709e+07
## [12558,] -1.289542e+08 -1.126545e+08 -4.038598e+11 -2.321844e+07
## [12559,] -3.271172e+11 -2.682057e+11 -2.418420e+15 -3.357672e+09
## [12560,] -2.314072e+11 -2.408670e+11 -1.831966e+15 -2.331748e+09

```

```

## [12561,] -4.494376e+09 -4.607344e+09 -3.054943e+13 -1.484910e+08
## [12562,] -2.230422e+05 -1.353233e+05 -1.517304e+11 -1.232744e+07
## [12563,] -1.196410e+06 -1.780056e+06 -6.494600e+10 -1.341364e+07
## [12564,] -1.268064e+08 -1.126707e+08 -4.040129e+11 -2.319122e+07
## [12565,] -3.400345e+11 -2.586384e+11 -2.419337e+15 -3.186993e+09
## [12566,] -2.456672e+11 -2.100704e+11 -1.832660e+15 -2.474816e+09
## [12567,] -4.678766e+09 -4.191043e+09 -3.056101e+13 -1.176520e+08
## [12568,] -4.628508e+05 -2.665211e+05 -1.517879e+11 -1.265971e+07
## [12569,] -1.274437e+06 -1.187367e+06 -6.497062e+10 -1.364301e+07
## [12570,] -1.328047e+08 -1.204208e+08 -4.040129e+11 -2.311061e+07
## [12571,] -3.487847e+11 -2.779443e+11 -2.420253e+15 -2.959611e+09
## [12572,] -2.472773e+11 -2.329692e+11 -1.833355e+15 -2.261630e+09
## [12573,] -4.823151e+09 -4.191142e+09 -3.057259e+13 -1.089795e+08
## [12574,] -4.916492e+05 -2.424132e+05 -1.519029e+11 -1.249071e+07
## [12575,] -9.862016e+05 -1.414451e+06 -6.501986e+10 -1.375600e+07
## [12576,] -1.281921e+08 -1.257649e+08 -4.043192e+11 -2.335606e+07
## [12577,] -3.303207e+11 -2.979450e+11 -2.421170e+15 -3.466280e+09
## [12578,] -2.529560e+11 -2.175706e+11 -1.834049e+15 -2.580693e+09
## [12579,] -4.750842e+09 -4.191241e+09 -3.058417e+13 -1.234308e+08
## [12580,] -3.741544e+05 -8.467668e+04 -1.519029e+11 -1.246437e+07
## [12581,] -9.286065e+05 -1.391210e+06 -6.501986e+10 -1.373054e+07
## [12582,] -1.322889e+08 -1.257649e+08 -4.043192e+11 -2.314833e+07
## [12583,] -3.239232e+11 -2.586361e+11 -2.422088e+15 -3.282140e+09
## [12584,] -2.408640e+11 -2.026984e+11 -1.834744e+15 -2.450436e+09
## [12585,] -4.480763e+09 -4.466762e+09 -3.059576e+13 -1.227510e+08
## [12586,] -3.454848e+05 -8.378961e+04 -1.520180e+11 -1.234380e+07
## [12587,] -1.316636e+06 -1.419909e+06 -6.509377e+10 -1.364586e+07
## [12588,] -1.252971e+08 -1.231631e+08 -4.049320e+11 -2.331622e+07
## [12589,] -3.281780e+11 -2.979417e+11 -2.424840e+15 -3.860641e+09
## [12590,] -2.505110e+11 -2.100662e+11 -1.836829e+15 -2.506745e+09
## [12591,] -4.970269e+09 -3.925064e+09 -3.064212e+13 -1.146092e+08
## [12592,] -3.427952e+05 -8.246776e+04 -1.521908e+11 -1.267124e+07
## [12593,] -1.013463e+06 -1.930316e+06 -6.514307e+10 -1.367166e+07
## [12594,] -1.258506e+08 -1.258506e+08 -4.050853e+11 -2.372989e+07
## [12595,] -3.292458e+11 -2.681994e+11 -2.425758e+15 -3.621163e+09
## [12596,] -2.400647e+11 -2.251993e+11 -1.838220e+15 -2.338924e+09
## [12597,] -4.955630e+09 -4.057402e+09 -3.065372e+13 -1.184672e+08
## [12598,] -2.519254e+05 -1.297598e+05 -1.523060e+11 -1.259199e+07
## [12599,] -9.294608e+05 -1.427203e+06 -6.519238e+10 -1.384312e+07
## [12600,] -1.283132e+08 -1.179581e+08 -4.053919e+11 -2.323443e+07
## [12601,] -3.175841e+11 -2.878517e+11 -2.427595e+15 -3.123400e+09
## [12602,] -2.416564e+11 -2.026943e+11 -1.838915e+15 -2.323184e+09
## [12603,] -4.551819e+09 -4.057596e+09 -3.067692e+13 -1.039382e+08
## [12604,] -2.364310e+05 -3.401161e+05 -1.523636e+11 -1.231838e+07
## [12605,] -1.109132e+06 -1.802556e+06 -6.521704e+10 -1.385246e+07
## [12606,] -1.338102e+08 -1.232310e+08 -4.055453e+11 -2.308054e+07
## [12607,] -3.465766e+11 -2.779354e+11 -2.430350e+15 -3.454417e+09

```



```

## [12608,] -2.603451e+11 -2.100620e+11 -1.841003e+15 -2.547060e+09
## [12609,] -4.680021e+09 -4.608693e+09 -3.070013e+13 -1.238334e+08
## [12610,] -4.017938e+05 -4.358688e+04 -1.524789e+11 -1.252894e+07
## [12611,] -1.196678e+06 -1.001437e+06 -6.526639e+10 -1.384923e+07
## [12612,] -1.310910e+08 -1.154224e+08 -4.058521e+11 -2.396590e+07
## [12613,] -3.217963e+11 -2.681946e+11 -2.431269e+15 -3.123058e+09
## [12614,] -2.513183e+11 -2.251957e+11 -1.841699e+15 -2.522480e+09
## [12615,] -4.795390e+09 -3.925639e+09 -3.071174e+13 -1.222251e+08
## [12616,] -3.374476e+05 -1.780556e+04 -1.525365e+11 -1.256606e+07
## [12617,] -1.012817e+06 -1.319408e+06 -6.529106e+10 -1.381113e+07
## [12618,] -1.281114e+08 -1.206389e+08 -4.060056e+11 -2.344896e+07
## [12619,] -4.071740e+11 -2.681938e+11 -2.432188e+15 -3.744944e+09
## [12620,] -2.221260e+11 -2.175620e+11 -1.842395e+15 -2.417591e+09
## [12621,] -4.781011e+09 -4.192428e+09 -3.072335e+13 -1.165245e+08
## [12622,] -3.998587e+05 -1.270218e+05 -1.525942e+11 -1.274128e+07
## [12623,] -1.157416e+06 -1.681151e+06 -6.531575e+10 -1.388253e+07
## [12624,] -1.324999e+08 -1.154552e+08 -4.061591e+11 -2.324819e+07
## [12625,] -3.598681e+11 -2.979350e+11 -2.432188e+15 -2.978842e+09
## [12626,] -2.586906e+11 -2.175620e+11 -1.842395e+15 -2.338480e+09
## [12627,] -4.941550e+09 -3.925734e+09 -3.072335e+13 -1.262082e+08
## [12628,] -2.192762e+05 -3.365604e+05 -1.525942e+11 -1.241857e+07
## [12629,] -9.463630e+05 -1.210796e+06 -6.531575e+10 -1.394109e+07
## [12630,] -1.314002e+08 -1.180411e+08 -4.061591e+11 -2.316748e+07
## [12631,] -3.249754e+11 -3.081962e+11 -2.432188e+15 -3.102174e+09
## [12632,] -2.513175e+11 -2.251950e+11 -1.842395e+15 -2.315003e+09
## [12633,] -4.509960e+09 -4.192428e+09 -3.072335e+13 -1.169769e+08
## [12634,] -3.028372e+05 -2.555899e+05 -1.525942e+11 -1.273596e+07
## [12635,] -1.136401e+06 -1.210796e+06 -6.531575e+10 -1.391180e+07
## [12636,] -1.333276e+08 -1.232988e+08 -4.061591e+11 -2.313294e+07
## [12637,] -3.207389e+11 -2.878476e+11 -2.432188e+15 -3.133398e+09
## [12638,] -2.480748e+11 -2.026909e+11 -1.842395e+15 -2.299418e+09
## [12639,] -4.260571e+09 -4.233288e+09 -3.073496e+13 -1.213348e+08
## [12640,] -1.663352e+05 -1.264778e+05 -1.526519e+11 -1.242396e+07
## [12641,] -1.201698e+06 -1.438179e+06 -6.534043e+10 -1.384439e+07
## [12642,] -1.193615e+08 -1.314177e+08 -4.063126e+11 -2.349856e+07
## [12643,] -3.207372e+11 -3.186294e+11 -2.434027e+15 -3.133227e+09
## [12644,] -2.578645e+11 -1.954513e+11 -1.843788e+15 -2.275993e+09
## [12645,] -4.637575e+09 -4.609108e+09 -3.074658e+13 -1.163316e+08
## [12646,] -1.195107e+06 -1.844287e+05 -1.527095e+11 -1.291249e+07
## [12647,] -1.077683e+06 -1.685116e+06 -6.536512e+10 -1.389027e+07
## [12648,] -1.333629e+08 -1.206892e+08 -4.064661e+11 -2.313613e+07
## [12649,] -3.411081e+11 -2.979333e+11 -2.434027e+15 -3.009273e+09
## [12650,] -2.480718e+11 -1.954500e+11 -1.845182e+15 -2.562998e+09
## [12651,] -4.795919e+09 -4.058375e+09 -3.076981e+13 -1.258068e+08
## [12652,] -3.407938e+05 -7.728546e+04 -1.528827e+11 -1.252457e+07
## [12653,] -9.858070e+05 -1.825197e+06 -6.548865e+10 -1.397372e+07
## [12654,] -1.348371e+08 -1.181574e+08 -4.072343e+11 -2.313835e+07

```

```

## [12655,] -3.133859e+11 -2.979292e+11 -2.438627e+15 -3.091206e+09
## [12656,] -2.464561e+11 -2.100557e+11 -1.847273e+15 -2.489382e+09
## [12657,] -4.781750e+09 -4.329765e+09 -3.080468e+13 -1.260932e+08
## [12658,] -3.468515e+05 -1.805119e+05 -1.530559e+11 -1.272104e+07
## [12659,] -9.888441e+05 -1.452878e+06 -6.553810e+10 -1.397048e+07
## [12660,] -1.348726e+08 -1.234516e+08 -4.075417e+11 -2.314154e+07
## [12661,] -3.378437e+11 -2.586205e+11 -2.440468e+15 -3.091037e+09
## [12662,] -2.488767e+11 -2.026847e+11 -1.848667e+15 -2.695698e+09
## [12663,] -4.399112e+09 -4.468805e+09 -3.082794e+13 -1.187168e+08
## [12664,] -2.872653e+05 -5.517959e+02 -1.531137e+11 -1.256736e+07
## [12665,] -1.019873e+06 -1.575466e+06 -6.556283e+10 -1.391025e+07
## [12666,] -1.321251e+08 -1.261422e+08 -4.076955e+11 -2.320650e+07
## [12667,] -3.335230e+11 -2.979267e+11 -2.441389e+15 -2.837302e+09
## [12668,] -2.448456e+11 -2.100536e+11 -1.849365e+15 -2.595489e+09
## [12669,] -4.681380e+09 -4.330168e+09 -3.085121e+13 -1.173854e+08
## [12670,] -3.441566e+05 -3.953795e+04 -1.532292e+11 -1.267891e+07
## [12671,] -1.052950e+06 -1.458410e+06 -6.561230e+10 -1.392897e+07
## [12672,] -1.264456e+08 -1.261766e+08 -4.080032e+11 -2.385986e+07
## [12673,] -3.509663e+11 -2.492251e+11 -2.444153e+15 -2.987938e+09
## [12674,] -2.529368e+11 -2.175527e+11 -1.851458e+15 -2.093260e+09
## [12675,] -4.497245e+09 -4.469214e+09 -3.087448e+13 -1.215369e+08
## [12676,] -8.659071e+04 -7.392403e+04 -1.533448e+11 -1.265793e+07
## [12677,] -9.466009e+05 -1.581226e+06 -6.563704e+10 -1.382866e+07
## [12678,] -1.264799e+08 -1.235365e+08 -4.083109e+11 -2.362985e+07
## [12679,] -3.367567e+11 -2.779225e+11 -2.445074e+15 -3.100983e+09
## [12680,] -2.529360e+11 -2.175520e+11 -1.852156e+15 -2.488849e+09
## [12681,] -4.753582e+09 -3.927075e+09 -3.088612e+13 -1.206324e+08
## [12682,] -4.341962e+05 -3.863160e+04 -1.534026e+11 -1.255215e+07
## [12683,] -1.029155e+06 -1.843827e+06 -6.571130e+10 -1.382017e+07
## [12684,] -1.336101e+08 -1.235705e+08 -4.086188e+11 -2.355171e+07
## [12685,] -3.498593e+11 -2.979208e+11 -2.447840e+15 -2.977424e+09
## [12686,] -2.496798e+11 -2.329463e+11 -1.854950e+15 -2.545518e+09
## [12687,] -4.469724e+09 -4.330872e+09 -3.093271e+13 -1.450445e+08
## [12688,] -3.734817e+05 -7.186108e+04 -1.536340e+11 -1.243667e+07
## [12689,] -1.167566e+06 -1.033811e+06 -6.578560e+10 -1.395793e+07
## [12690,] -1.317333e+08 -1.290007e+08 -4.090808e+11 -2.329590e+07
## [12691,] -3.333688e+11 -2.817286e+11 -3.105703e+13 -1.475121e+09
## [12692,] -2.500349e+11 -2.364342e+11 -2.360461e+13 -1.081187e+09
## [12693,] -3.677154e+09 -4.001339e+09 -3.936249e+11 -3.039309e+07
## [12694,] -1.773239e+07 -1.438940e+07 -1.955023e+09 -1.181746e+04
## [12695,] -6.727125e+06 -4.802222e+06 -8.368196e+08 -5.049285e+04
## [12696,] -6.166897e+07 -5.124996e+07 -5.203675e+09 -9.107409e+05
## [12697,] -3.333679e+11 -2.622879e+11 -3.116098e+13 -1.783181e+09
## [12698,] -2.524745e+11 -1.844385e+11 -2.360461e+13 -1.406632e+09
## [12699,] -4.633618e+09 -3.489215e+09 -3.936249e+11 -2.427409e+07
## [12700,] -1.748203e+07 -1.382915e+07 -1.955023e+09 -2.264016e+04
## [12701,] -6.958105e+06 -5.937437e+06 -8.368196e+08 -6.735872e+04

```

```

## [12702,] -6.299159e+07 -5.124996e+07 -5.203675e+09 -8.993569e+05
## [12703,] -3.431244e+11 -2.917084e+11 -3.116098e+13 -1.397365e+09
## [12704,] -2.524745e+11 -2.059327e+11 -2.360461e+13 -1.070545e+09
## [12705,] -4.229607e+09 -3.613960e+09 -3.936249e+11 -2.225524e+07
## [12706,] -1.717159e+07 -1.554328e+07 -1.955023e+09 -2.309120e+04
## [12707,] -6.752597e+06 -6.178920e+06 -8.368196e+08 -6.659698e+04
## [12708,] -6.129365e+07 -5.297760e+07 -5.203675e+09 -8.948233e+05
## [12709,] -3.312189e+11 -2.917084e+11 -3.116098e+13 -1.432422e+09
## [12710,] -2.557457e+11 -2.059327e+11 -2.360461e+13 -1.075860e+09
## [12711,] -4.339218e+09 -3.489215e+09 -3.936249e+11 -2.235410e+07
## [12712,] -1.698666e+07 -1.382915e+07 -1.955023e+09 -2.264016e+04
## [12713,] -6.550169e+06 -5.241868e+06 -8.368196e+08 -6.634403e+04
## [12714,] -6.261226e+07 -5.297760e+07 -5.203675e+09 -8.903012e+05
## [12715,] -3.333679e+11 -2.719210e+11 -3.116098e+13 -1.425376e+09
## [12716,] -2.492243e+11 -2.133607e+11 -2.360461e+13 -1.065243e+09
## [12717,] -4.548518e+09 -3.489215e+09 -3.936249e+11 -2.823999e+07
## [12718,] -1.723346e+07 -1.274202e+07 -1.955023e+09 -1.679274e+04
## [12719,] -6.525082e+06 -5.241868e+06 -8.368196e+08 -5.826670e+04
## [12720,] -5.671039e+07 -6.018644e+07 -5.221064e+09 -9.538083e+05
## [12721,] -3.186147e+11 -2.979192e+11 -2.449684e+15 -3.663764e+09
## [12722,] -2.480604e+11 -2.026778e+11 -1.855649e+15 -2.337076e+09
## [12723,] -4.639448e+09 -4.194407e+09 -3.095601e+13 -1.179888e+08
## [12724,] -3.625789e+05 -1.378115e+04 -1.537498e+11 -1.280254e+07
## [12725,] -9.763310e+05 -1.244662e+06 -6.581037e+10 -1.411805e+07
## [12726,] -1.249726e+08 -1.209916e+08 -4.092349e+11 -2.319942e+07
## [12727,] -3.207216e+11 -2.681780e+11 -2.450607e+15 -3.226272e+09
## [12728,] -2.529314e+11 -2.329448e+11 -1.856347e+15 -2.313533e+09
## [12729,] -4.554397e+09 -4.754319e+09 -3.096767e+13 -1.349457e+08
## [12730,] -2.045054e+05 -2.396222e+05 -1.538077e+11 -1.281869e+07
## [12731,] -1.097734e+06 -1.723021e+06 -6.583515e+10 -1.396935e+07
## [12732,] -1.378996e+08 -1.226101e+08 -4.095431e+11 -2.353813e+07
## [12733,] -3.207190e+11 -2.878287e+11 -2.453376e+15 -3.584845e+09
## [12734,] -2.464439e+11 -2.570251e+11 -1.858445e+15 -2.504374e+09
## [12735,] -4.870702e+09 -4.611287e+09 -3.099099e+13 -1.210137e+08
## [12736,] -2.759123e+05 -1.148033e+05 -1.539235e+11 -1.269110e+07
## [12737,] -1.142503e+06 -1.727035e+06 -6.588473e+10 -1.391848e+07
## [12738,] -1.269041e+08 -1.107389e+08 -4.096972e+11 -2.379006e+07
## [12739,] -3.313612e+11 -2.878279e+11 -2.454299e+15 -3.386684e+09
## [12740,] -2.464432e+11 -1.883302e+11 -1.859144e+15 -2.561450e+09
## [12741,] -4.526496e+09 -4.331475e+09 -3.100265e+13 -1.238097e+08
## [12742,] -2.085055e+05 -3.539827e+04 -1.540393e+11 -1.278186e+07
## [12743,] -8.523624e+05 -1.145772e+06 -6.593432e+10 -1.418001e+07
## [12744,] -1.326818e+08 -1.133205e+08 -4.101599e+11 -2.383579e+07
## [12745,] -3.270814e+11 -2.586073e+11 -2.456146e+15 -3.562286e+09
## [12746,] -2.267185e+11 -2.488637e+11 -1.860543e+15 -2.970563e+09
## [12747,] -4.222260e+09 -5.048022e+09 -3.103765e+13 -1.319083e+08
## [12748,] -3.299612e+05 -1.407010e+03 -1.541552e+11 -1.279279e+07

```

```

## [12749,] -1.325243e+06 -1.047844e+06 -6.600875e+10 -1.382634e+07
## [12750,] -1.294291e+08 -1.211262e+08 -4.104684e+11 -2.358264e+07
## [12751,] -3.421743e+11 -2.979116e+11 -2.457994e+15 -2.976507e+09
## [12752,] -2.537418e+11 -2.251747e+11 -1.861943e+15 -2.266368e+09
## [12753,] -4.885963e+09 -3.670489e+09 -3.106100e+13 -1.241279e+08
## [12754,] -3.368087e+05 -3.402595e+03 -1.542712e+11 -1.266533e+07
## [12755,] -1.120945e+06 -1.870903e+06 -6.603356e+10 -1.403713e+07
## [12756,] -1.256796e+08 -1.185398e+08 -4.107771e+11 -2.353940e+07
## [12757,] -3.019934e+11 -3.399953e+11 -2.459842e+15 -3.162200e+09
## [12758,] -2.578428e+11 -2.175406e+11 -1.863343e+15 -2.528251e+09
## [12759,] -4.583626e+09 -4.470951e+09 -3.107267e+13 -1.156652e+08
## [12760,] -2.394427e+05 -6.663406e+04 -1.543872e+11 -1.279865e+07
## [12761,] -9.847755e+05 -1.377974e+06 -6.610804e+10 -1.396617e+07
## [12762,] -1.336161e+08 -1.292265e+08 -4.110859e+11 -2.371712e+07
## [12763,] -3.302820e+11 -2.681685e+11 -2.461691e+15 -3.473299e+09
## [12764,] -2.512930e+11 -1.954311e+11 -1.864744e+15 -2.618623e+09
## [12765,] -4.640697e+09 -3.928799e+09 -3.109603e+13 -1.110181e+08
## [12766,] -3.247150e+05 -1.084693e+03 -1.545032e+11 -1.282560e+07
## [12767,] -1.201531e+06 -1.379769e+06 -6.613288e+10 -1.397188e+07
## [12768,] -1.325470e+08 -1.212271e+08 -4.113948e+11 -2.366211e+07
## [12769,] -3.302794e+11 -2.979058e+11 -2.464467e+15 -3.214393e+09
## [12770,] -2.653063e+11 -1.813483e+11 -1.866846e+15 -2.718954e+09
## [12771,] -4.857381e+09 -4.061394e+09 -3.113109e+13 -1.186936e+08
## [12772,] -1.458185e+05 -3.062445e+05 -1.546193e+11 -1.234960e+07
## [12773,] -1.316741e+06 -1.625735e+06 -6.620742e+10 -1.403677e+07
## [12774,] -1.317743e+08 -1.134996e+08 -4.118584e+11 -2.369606e+07
## [12775,] -3.207069e+11 -3.081648e+11 -2.466317e+15 -3.374690e+09
## [12776,] -2.313689e+11 -2.175356e+11 -1.868248e+15 -2.601656e+09
## [12777,] -4.770452e+09 -3.929278e+09 -3.115447e+13 -1.259029e+08
## [12778,] -4.405434e+05 -1.090051e+04 -1.547354e+11 -1.271419e+07
## [12779,] -1.167137e+06 -1.167137e+06 -6.625713e+10 -1.392713e+07
## [12780,] -1.218221e+08 -1.293307e+08 -4.120130e+11 -2.356389e+07
## [12781,] -3.292064e+11 -2.779032e+11 -2.467243e+15 -3.161512e+09
## [12782,] -2.368629e+11 -2.251674e+11 -1.868949e+15 -2.446731e+09
## [12783,] -4.785027e+09 -4.061686e+09 -3.116616e+13 -1.178329e+08
## [12784,] -1.793968e+05 -6.351552e+04 -1.548516e+11 -1.302481e+07
## [12785,] -1.106011e+06 -1.631587e+06 -6.628200e+10 -1.414606e+07
## [12786,] -1.387681e+08 -1.213112e+08 -4.121676e+11 -2.316638e+07
## [12787,] -3.677018e+11 -3.081631e+11 -2.468169e+15 -2.864794e+09
## [12788,] -2.213340e+11 -2.653032e+11 -1.869651e+15 -2.390804e+09
## [12789,] -5.004800e+09 -4.061784e+09 -3.117786e+13 -1.235991e+08
## [12790,] -4.484500e+05 -1.058379e+04 -1.548516e+11 -1.278369e+07
## [12791,] -1.344666e+06 -1.277268e+06 -6.628200e+10 -1.387796e+07
## [12792,] -1.334808e+08 -1.239786e+08 -4.123222e+11 -2.382340e+07
## [12793,] -3.643160e+11 -2.492029e+11 -2.470948e+15 -3.494401e+09
## [12794,] -2.344965e+11 -2.488507e+11 -1.872458e+15 -2.335303e+09
## [12795,] -4.742212e+09 -3.929853e+09 -3.122466e+13 -1.105340e+08

```

```

## [12796,] -2.450993e+05 -3.041217e+04 -1.550841e+11 -1.306305e+07
## [12797,] -1.021263e+06 -1.516185e+06 -6.638150e+10 -1.408056e+07
## [12798,] -1.340875e+08 -1.161624e+08 -4.127864e+11 -2.420946e+07
## [12799,] -3.060937e+11 -3.081597e+11 -2.471874e+15 -3.428512e+09
## [12800,] -2.529122e+11 -2.100291e+11 -1.873862e+15 -2.288354e+09
## [12801,] -4.742527e+09 -3.930140e+09 -3.125979e+13 -1.000591e+08
## [12802,] -2.809766e+05 -5.305650e+02 -1.552585e+11 -1.335619e+07
## [12803,] -1.138129e+06 -1.403205e+06 -6.645618e+10 -1.405360e+07
## [12804,] -1.330518e+08 -1.162283e+08 -4.134056e+11 -2.343334e+07
## [12805,] -3.196435e+11 -2.778960e+11 -2.475582e+15 -3.118960e+09
## [12806,] -2.456210e+11 -2.026585e+11 -1.875266e+15 -2.535107e+09
## [12807,] -4.500833e+09 -4.472790e+09 -3.128322e+13 -1.175445e+08
## [12808,] -2.864795e+05 -2.915453e+03 -1.554331e+11 -1.274770e+07
## [12809,] -1.052134e+06 -1.410456e+06 -6.655581e+10 -1.425007e+07
## [12810,] -1.322776e+08 -1.241488e+08 -4.138703e+11 -2.325890e+07
## [12811,] -3.291959e+11 -2.778935e+11 -2.478365e+15 -3.234260e+09
## [12812,] -2.480368e+11 -2.100256e+11 -1.877374e+15 -2.397920e+09
## [12813,] -4.431093e+09 -4.062855e+09 -3.130665e+13 -1.258910e+08
## [12814,] -1.306200e+05 -5.860731e+04 -1.556077e+11 -1.288158e+07
## [12815,] -1.633852e+06 -1.087319e+06 -6.663059e+10 -1.414535e+07
## [12816,] -1.331576e+08 -1.215470e+08 -4.143353e+11 -2.357061e+07
## [12817,] -3.060852e+11 -3.081512e+11 -2.481150e+15 -3.265878e+09
## [12818,] -2.504643e+11 -2.251566e+11 -1.879484e+15 -2.295536e+09
## [12819,] -4.557698e+09 -4.334392e+09 -3.134183e+13 -1.189935e+08
## [12820,] -2.093997e+05 -3.139353e+02 -1.556660e+11 -1.295677e+07
## [12821,] -1.048344e+06 -1.661000e+06 -6.665552e+10 -1.419542e+07
## [12822,] -1.345597e+08 -1.189394e+08 -4.144903e+11 -2.391624e+07
## [12823,] -3.238667e+11 -2.978900e+11 -2.482078e+15 -3.139216e+09
## [12824,] -2.408153e+11 -2.251558e+11 -1.880187e+15 -2.526408e+09
## [12825,] -4.543783e+09 -4.063342e+09 -3.136529e+13 -1.238711e+08
## [12826,] -2.815926e+05 -2.625514e+02 -1.557825e+11 -1.293020e+07
## [12827,] -1.282732e+06 -1.662970e+06 -6.668046e+10 -1.415316e+07
## [12828,] -1.320903e+08 -1.163602e+08 -4.146454e+11 -2.363196e+07
## [12829,] -3.217477e+11 -2.978891e+11 -2.483007e+15 -3.076781e+09
## [12830,] -2.874588e+11 -2.100200e+11 -1.883002e+15 -2.053194e+09
## [12831,] -4.418084e+09 -4.473915e+09 -3.141223e+13 -1.170465e+08
## [12832,] -2.259967e+05 -1.489161e+05 -1.560157e+11 -1.304900e+07
## [12833,] -1.138390e+06 -1.202067e+06 -6.678026e+10 -1.419464e+07
## [12834,] -1.305149e+08 -1.243021e+08 -4.152660e+11 -2.472104e+07
## [12835,] -3.291871e+11 -2.877984e+11 -2.487653e+15 -3.437912e+09
## [12836,] -2.636181e+11 -2.100186e+11 -1.884410e+15 -2.477261e+09
## [12837,] -4.729594e+09 -3.673360e+09 -3.142397e+13 -1.197966e+08
## [12838,] -2.697498e+05 -7.540351e+03 -1.560740e+11 -1.295232e+07
## [12839,] -1.140021e+06 -1.672839e+06 -6.680522e+10 -1.417453e+07
## [12840,] -1.308234e+08 -1.352399e+08 -4.155765e+11 -2.371151e+07
## [12841,] -3.019674e+11 -3.081444e+11 -2.488582e+15 -3.307923e+09
## [12842,] -2.456104e+11 -2.175185e+11 -1.885114e+15 -2.683163e+09

```

```

## [12843,] -4.729804e+09 -3.931674e+09 -3.144746e+13 -1.200593e+08
## [12844,] -2.830218e+05 -2.531583e+04 -1.562490e+11 -1.278684e+07
## [12845,] -1.144922e+06 -1.678774e+06 -6.688014e+10 -1.405904e+07
## [12846,] -1.336281e+08 -1.217324e+08 -4.160424e+11 -2.359413e+07
## [12847,] -3.377948e+11 -2.681432e+11 -2.491372e+15 -3.065689e+09
## [12848,] -2.213160e+11 -2.408078e+11 -1.887228e+15 -2.725106e+09
## [12849,] -4.376947e+09 -3.931865e+09 -3.147096e+13 -1.135325e+08
## [12850,] -2.657957e+05 -2.632472e+03 -1.563657e+11 -1.298521e+07
## [12851,] -1.108134e+06 -1.949047e+06 -6.695510e+10 -1.404681e+07
## [12852,] -1.325590e+08 -1.165416e+08 -4.163532e+11 -2.443001e+07
## [12853,] -3.249179e+11 -2.681416e+11 -2.493233e+15 -3.350503e+09
## [12854,] -2.480246e+11 -2.100144e+11 -1.888637e+15 -2.468738e+09
## [12855,] -4.601540e+09 -4.615751e+09 -3.149447e+13 -1.131193e+08
## [12856,] -2.209397e+05 -6.343898e+01 -1.564241e+11 -1.291020e+07
## [12857,] -1.151472e+06 -1.816536e+06 -6.698009e+10 -1.420004e+07
## [12858,] -1.301429e+08 -1.244725e+08 -4.168196e+11 -2.398158e+07
## [12859,] -3.302495e+11 -2.877910e+11 -2.496026e+15 -3.307220e+09
## [12860,] -2.480223e+11 -2.026434e+11 -1.890753e+15 -2.372732e+09
## [12861,] -4.802801e+09 -3.802174e+09 -3.152975e+13 -1.181202e+08
## [12862,] -6.323852e+04 -2.781646e+05 -1.565993e+11 -1.289988e+07
## [12863,] -1.133764e+06 -1.565507e+06 -6.703009e+10 -1.413031e+07
## [12864,] -1.345658e+08 -1.192063e+08 -4.169751e+11 -2.414169e+07
## [12865,] -3.185707e+11 -2.778774e+11 -2.496957e+15 -3.243129e+09
## [12866,] -2.488294e+11 -2.100109e+11 -1.892164e+15 -2.516956e+09
## [12867,] -4.788516e+09 -4.475141e+09 -3.155328e+13 -1.222845e+08
## [12868,] -2.460688e+05 -9.129383e+04 -1.567162e+11 -1.296451e+07
## [12869,] -1.116193e+06 -1.824784e+06 -6.708012e+10 -1.409756e+07
## [12870,] -1.253262e+08 -1.245237e+08 -4.172862e+11 -2.433348e+07
## [12871,] -3.334683e+11 -2.778758e+11 -2.498821e+15 -3.242955e+09
## [12872,] -2.569871e+11 -2.251428e+11 -1.892870e+15 -2.341005e+09
## [12873,] -4.803118e+09 -3.932632e+09 -3.156505e+13 -1.179425e+08
## [12874,] -1.963232e+05 -5.144160e+04 -1.567747e+11 -1.303456e+07
## [12875,] -1.159686e+06 -1.223948e+06 -6.710514e+10 -1.428442e+07
## [12876,] -1.343237e+08 -1.166406e+08 -4.172862e+11 -2.370014e+07
## [12877,] -3.356227e+11 -2.778742e+11 -2.500684e+15 -3.106259e+09
## [12878,] -2.190252e+11 -2.251413e+11 -1.894281e+15 -2.435996e+09
## [12879,] -4.745475e+09 -4.475448e+09 -3.158859e+13 -1.239613e+08
## [12880,] -3.578095e+05 -5.075072e+04 -1.568916e+11 -1.296491e+07
## [12881,] -1.031047e+06 -1.456196e+06 -6.718022e+10 -1.426097e+07
## [12882,] -1.283426e+08 -1.219180e+08 -4.177531e+11 -2.400305e+07
## [12883,] -3.143720e+11 -2.778734e+11 -2.501616e+15 -3.179319e+09
## [12884,] -2.496355e+11 -2.251399e+11 -1.895694e+15 -2.606893e+09
## [12885,] -4.645279e+09 -4.336707e+09 -3.161214e+13 -1.272801e+08
## [12886,] -2.271024e+05 -4.972316e+04 -1.570671e+11 -1.309993e+07
## [12887,] -1.117129e+06 -1.461734e+06 -6.725534e+10 -1.427087e+07
## [12888,] -1.347076e+08 -1.246261e+08 -4.182203e+11 -2.374480e+07
## [12889,] -2.978699e+11 -2.978699e+11 -2.504414e+15 -3.381883e+09

```

```

## [12890,] -2.488241e+11 -2.100060e+11 -1.897107e+15 -2.492064e+09
## [12891,] -4.475857e+09 -4.760328e+09 -3.163570e+13 -1.364481e+08
## [12892,] -1.212714e+05 -2.157508e+04 -1.571841e+11 -1.283699e+07
## [12893,] -1.183540e+06 -1.349065e+06 -6.730545e+10 -1.437527e+07
## [12894,] -1.287006e+08 -1.273466e+08 -4.185318e+11 -2.426397e+07
## [12895,] -3.302399e+11 -2.778694e+11 -2.506280e+15 -3.085007e+09
## [12896,] -2.578032e+11 -2.100039e+11 -1.899227e+15 -2.508058e+09
## [12897,] -4.789574e+09 -3.637333e+09 -3.167106e+13 -1.072086e+08
## [12898,] -2.685764e+05 -2.340808e+04 -1.573012e+11 -1.305191e+07
## [12899,] -1.228314e+06 -1.714606e+06 -6.733051e+10 -1.420672e+07
## [12900,] -1.325474e+08 -1.116737e+08 -4.186877e+11 -2.348795e+07
## [12901,] -3.206688e+11 -2.585646e+11 -2.507213e+15 -3.306166e+09
## [12902,] -2.439899e+11 -2.026351e+11 -1.899227e+15 -2.631410e+09
## [12903,] -4.645800e+09 -4.065875e+09 -3.167106e+13 -1.280760e+08
## [12904,] -2.234755e+05 -3.505335e+05 -1.573597e+11 -1.300897e+07
## [12905,] -1.167236e+06 -1.470987e+06 -6.738064e+10 -1.428863e+07
## [12906,] -1.323071e+08 -1.091908e+08 -4.189994e+11 -2.400432e+07
## [12907,] -3.270315e+11 -2.585630e+11 -2.509080e+15 -2.961770e+09
## [12908,] -2.561568e+11 -2.026338e+11 -1.900641e+15 -2.293340e+09
## [12909,] -4.906491e+09 -4.476470e+09 -3.170643e+13 -1.238984e+08
## [12910,] -3.575901e+05 -8.538970e+04 -1.574769e+11 -1.299310e+07
## [12911,] -1.126842e+06 -1.987641e+06 -6.740572e+10 -1.432038e+07
## [12912,] -1.412811e+08 -1.220699e+08 -4.191553e+11 -2.353339e+07
## [12913,] -3.291660e+11 -2.877787e+11 -2.510013e+15 -3.381349e+09
## [12914,] -2.399973e+11 -2.328976e+11 -1.901348e+15 -2.573245e+09
## [12915,] -4.789891e+09 -4.200744e+09 -3.170643e+13 -1.257694e+08
## [12916,] -3.941581e+05 -1.948093e+05 -1.574769e+11 -1.299310e+07
## [12917,] -1.075368e+06 -1.594321e+06 -6.740572e+10 -1.426845e+07
## [12918,] -1.279565e+08 -1.274156e+08 -4.191553e+11 -2.442403e+07
## [12919,] -3.345349e+11 -2.877787e+11 -2.510013e+15 -3.523724e+09
## [12920,] -2.512532e+11 -2.175021e+11 -1.901348e+15 -2.614558e+09
## [12921,] -4.760960e+09 -4.200744e+09 -3.170643e+13 -1.286023e+08
## [12922,] -4.423711e+05 -4.736639e+04 -1.574769e+11 -1.326875e+07
## [12923,] -1.225910e+06 -1.855883e+06 -6.745588e+10 -1.436912e+07
## [12924,] -1.329111e+08 -1.142988e+08 -4.194673e+11 -2.409723e+07
## [12925,] -3.238389e+11 -2.681258e+11 -2.511881e+15 -3.479424e+09
## [12926,] -2.520655e+11 -2.251326e+11 -1.902763e+15 -2.200842e+09
## [12927,] -4.660601e+09 -4.066363e+09 -3.173003e+13 -1.209215e+08
## [12928,] -4.694871e+05 -8.405524e+04 -1.576527e+11 -1.329090e+07
## [12929,] -9.933476e+05 -1.862134e+06 -6.753116e+10 -1.442002e+07
## [12930,] -1.272490e+08 -1.248309e+08 -4.200915e+11 -2.451674e+07
## [12931,] -3.345296e+11 -2.585576e+11 -2.515619e+15 -3.702428e+09
## [12932,] -2.512486e+11 -2.026289e+11 -1.905595e+15 -2.515500e+09
## [12933,] -4.819652e+09 -4.066850e+09 -3.178906e+13 -1.175762e+08
## [12934,] -2.531542e+05 -4.506685e+04 -1.578873e+11 -1.321541e+07
## [12935,] -1.358988e+06 -1.257997e+06 -6.760648e+10 -1.435181e+07
## [12936,] -1.338462e+08 -1.169709e+08 -4.204038e+11 -2.411875e+07

```

```

## [12937,] -2.877721e+11 -3.081181e+11 -2.517489e+15 -3.167356e+09
## [12938,] -2.399913e+11 -2.251283e+11 -1.907011e+15 -2.474828e+09
## [12939,] -4.907348e+09 -4.338317e+09 -3.180087e+13 -1.233361e+08
## [12940,] -3.158930e+05 -4.474301e+04 -1.579459e+11 -1.313974e+07
## [12941,] -1.372240e+06 -2.007080e+06 -6.763160e+10 -1.444324e+07
## [12942,] -1.335872e+08 -1.169875e+08 -4.205599e+11 -2.422039e+07
## [12943,] -3.122699e+11 -2.585553e+11 -2.518425e+15 -3.177769e+09
## [12944,] -2.822351e+11 -2.099955e+11 -1.907720e+15 -2.200340e+09
## [12945,] -5.205119e+09 -4.067045e+09 -3.181268e+13 -1.146767e+08
## [12946,] -1.754060e+05 -1.833965e+04 -1.580633e+11 -1.314000e+07
## [12947,] -1.196176e+06 -1.872576e+06 -6.765672e+10 -1.452747e+07
## [12948,] -1.349916e+08 -1.170040e+08 -4.207162e+11 -2.412201e+07
## [12949,] -3.464903e+11 -2.778581e+11 -2.519360e+15 -3.500725e+09
## [12950,] -2.439794e+11 -2.026255e+11 -1.909137e+15 -2.124756e+09
## [12951,] -4.718883e+09 -4.067240e+09 -3.183632e+13 -1.162842e+08
## [12952,] -2.005987e+05 -1.813330e+04 -1.581220e+11 -1.323222e+07
## [12953,] -1.241187e+06 -1.742736e+06 -6.768184e+10 -1.444367e+07
## [12954,] -1.355661e+08 -1.170205e+08 -4.208724e+11 -2.454274e+07
## [12955,] -3.238311e+11 -3.185491e+11 -2.520296e+15 -3.533798e+09
## [12956,] -2.602694e+11 -2.099941e+11 -1.909137e+15 -2.597136e+09
## [12957,] -4.690167e+09 -4.067240e+09 -3.183632e+13 -1.178696e+08
## [12958,] -1.685866e+05 -8.054806e+04 -1.581220e+11 -1.322137e+07
## [12959,] -1.123859e+06 -1.615618e+06 -6.768184e+10 -1.431345e+07
## [12960,] -1.300676e+08 -1.249333e+08 -4.210287e+11 -2.421940e+07
## [12961,] -3.366822e+11 -2.604505e+11 -2.523103e+15 -3.500363e+09
## [12962,] -2.496187e+11 -2.174922e+11 -1.911264e+15 -2.238193e+09
## [12963,] -4.776893e+09 -4.619074e+09 -3.187179e+13 -1.147585e+08
## [12964,] -2.052524e+05 -8.357355e+03 -1.582982e+11 -1.327606e+07
## [12965,] -1.213656e+06 -1.381206e+06 -6.775725e+10 -1.449843e+07
## [12966,] -1.276572e+08 -1.196739e+08 -4.213413e+11 -2.448249e+07
## [12967,] -2.958222e+11 -2.778549e+11 -2.523103e+15 -3.001230e+09
## [12968,] -2.305445e+11 -2.251239e+11 -1.911264e+15 -2.799111e+09
## [12969,] -4.647780e+09 -3.677066e+09 -3.189544e+13 -1.248715e+08
## [12970,] -2.175621e+05 -1.711905e+04 -1.584156e+11 -1.310838e+07
## [12971,] -1.329434e+06 -1.754863e+06 -6.783269e+10 -1.440397e+07
## [12972,] -1.293370e+08 -1.277091e+08 -4.218104e+11 -2.405705e+07
## [12973,] -3.248874e+11 -2.778525e+11 -2.525913e+15 -3.093583e+09
## [12974,] -2.463848e+11 -1.946680e+11 -1.913392e+15 -2.331022e+09
## [12975,] -4.733904e+09 -4.067825e+09 -3.190728e+13 -1.191087e+08
## [12976,] -2.099596e+05 -1.691970e+04 -1.584744e+11 -1.315716e+07
## [12977,] -1.112804e+06 -1.887244e+06 -6.783269e+10 -1.441514e+07
## [12978,] -1.215811e+08 -1.223740e+08 -4.219669e+11 -2.380695e+07
## [12979,] -3.060438e+11 -2.681131e+11 -2.526850e+15 -3.261600e+09
## [12980,] -2.439733e+11 -1.953831e+11 -1.914812e+15 -2.705094e+09
## [12981,] -4.835471e+09 -3.935603e+09 -3.193095e+13 -1.228259e+08
## [12982,] -1.758928e+05 -1.652452e+04 -1.585920e+11 -1.308718e+07
## [12983,] -1.168458e+06 -1.508292e+06 -6.788301e+10 -1.440812e+07

```



```

## [12984,] -1.323834e+08 -1.197575e+08 -4.221234e+11 -2.423672e+07
## [12985,] -3.312908e+11 -2.978483e+11 -2.528724e+15 -3.599770e+09
## [12986,] -2.368139e+11 -2.251196e+11 -1.915521e+15 -2.322975e+09
## [12987,] -4.938008e+09 -4.068117e+09 -3.194278e+13 -1.168847e+08
## [12988,] -2.735732e+05 -4.628317e+02 -1.586508e+11 -1.328773e+07
## [12989,] -1.202167e+06 -1.633149e+06 -6.790818e+10 -1.450346e+07
## [12990,] -1.371418e+08 -1.171859e+08 -4.224364e+11 -2.436977e+07
## [12991,] -3.238215e+11 -2.778484e+11 -2.530599e+15 -3.229395e+09
## [12992,] -2.586082e+11 -2.251181e+11 -1.916942e+15 -2.268417e+09
## [12993,] -4.792218e+09 -4.202924e+09 -3.196647e+13 -1.306533e+08
## [12994,] -2.719769e+05 -4.033194e+04 -1.587684e+11 -1.327169e+07
## [12995,] -1.089934e+06 -2.035325e+06 -6.795853e+10 -1.451137e+07
## [12996,] -1.332638e+08 -1.172024e+08 -4.225929e+11 -2.454302e+07
## [12997,] -3.238197e+11 -2.978449e+11 -2.532474e+15 -3.176476e+09
## [12998,] -2.352345e+11 -2.407748e+11 -1.918362e+15 -2.457500e+09
## [12999,] -4.865267e+09 -3.677900e+09 -3.200201e+13 -1.217699e+08
## [13000,] -1.309295e+05 -1.203577e+05 -1.590038e+11 -1.316377e+07
## [13001,] -1.141066e+06 -1.525231e+06 -6.810969e+10 -1.442682e+07
## [13002,] -1.281872e+08 -1.225601e+08 -4.236897e+11 -2.458418e+07
## [13003,] -4.130318e+11 -2.778428e+11 -2.537166e+15 -4.624867e+09
## [13004,] -2.455710e+11 -2.099815e+11 -1.921917e+15 -2.409107e+09
## [13005,] -4.865693e+09 -4.340431e+09 -3.204943e+13 -1.250936e+08
## [13006,] -2.438299e+05 -8.044176e+02 -1.591804e+11 -1.304538e+07
## [13007,] -1.363874e+06 -2.052805e+06 -6.816011e+10 -1.438628e+07
## [13008,] -1.292907e+08 -1.225770e+08 -4.238465e+11 -2.415460e+07
## [13009,] -3.486692e+11 -3.508740e+11 -2.539044e+15 -3.422072e+09
## [13010,] -2.544926e+11 -2.174800e+11 -1.923339e+15 -2.314353e+09
## [13011,] -5.102341e+09 -4.340633e+09 -3.207315e+13 -1.361307e+08
## [13012,] -2.572305e+05 -1.425148e+04 -1.592983e+11 -1.308878e+07
## [13013,] -1.135489e+06 -2.054995e+06 -6.818533e+10 -1.449649e+07
## [13014,] -1.401397e+08 -1.173514e+08 -4.240033e+11 -2.378712e+07
## [13015,] -3.101705e+11 -2.877524e+11 -2.539983e+15 -3.598670e+09
## [13016,] -2.512287e+11 -2.328740e+11 -1.924051e+15 -2.432829e+09
## [13017,] -4.793276e+09 -3.806604e+09 -3.208502e+13 -1.253792e+08
## [13018,] -1.171976e+05 -1.171976e+05 -1.593572e+11 -1.313752e+07
## [13019,] -1.105947e+06 -1.785362e+06 -6.821055e+10 -1.446870e+07
## [13020,] -1.331639e+08 -1.199751e+08 -4.241601e+11 -2.426384e+07
## [13021,] -3.290760e+11 -2.528277e+11 -3.126511e+13 -1.562160e+09
## [13022,] -2.467997e+11 -2.059320e+11 -2.368349e+13 -1.146097e+09
## [13023,] -4.311784e+09 -3.246386e+09 -3.949402e+11 -2.511382e+07
## [13024,] -1.553725e+07 -1.797804e+07 -1.961556e+09 -1.622263e+04
## [13025,] -7.005918e+06 -5.697119e+06 -8.396160e+08 -6.673824e+04
## [13026,] -6.300372e+07 -5.474520e+07 -5.221064e+09 -9.030797e+05
## [13027,] -3.248128e+11 -2.719202e+11 -3.126511e+13 -1.467854e+09
## [13028,] -2.557449e+11 -2.209195e+11 -2.368349e+13 -1.059905e+09
## [13029,] -4.148418e+09 -3.614052e+09 -3.949402e+11 -2.316023e+07
## [13030,] -1.501261e+07 -1.797804e+07 -1.961556e+09 -2.378177e+04

```

```

## [13031,] -6.126455e+06 -5.933713e+06 -8.396160e+08 -6.447660e+04
## [13032,] -6.549748e+07 -5.126090e+07 -5.221064e+09 -1.052047e+06
## [13033,] -3.184701e+11 -3.018619e+11 -3.126511e+13 -1.993637e+09
## [13034,] -2.532895e+11 -2.364334e+11 -2.368349e+13 -1.358320e+09
## [13035,] -4.148418e+09 -3.870117e+09 -3.949402e+11 -2.758452e+07
## [13036,] -1.673540e+07 -1.673540e+07 -1.961556e+09 -1.315418e+04
## [13037,] -6.248482e+06 -5.697119e+06 -8.396160e+08 -5.420913e+04
## [13038,] -6.037225e+07 -5.653031e+07 -5.221064e+09 -1.005923e+06
## [13039,] -3.366036e+11 -3.018619e+11 -3.126511e+13 -1.720704e+09
## [13040,] -2.484143e+11 -2.059320e+11 -2.368349e+13 -1.352347e+09
## [13041,] -4.270647e+09 -3.489306e+09 -3.949402e+11 -2.714651e+07
## [13042,] -1.728908e+07 -1.553725e+07 -1.961556e+09 -1.492021e+04
## [13043,] -6.546258e+06 -5.697119e+06 -8.396160e+08 -5.558837e+04
## [13044,] -5.852700e+07 -5.126090e+07 -5.221064e+09 -1.022796e+06
## [13045,] -3.290760e+11 -3.121899e+11 -3.126511e+13 -1.751771e+09
## [13046,] -2.484143e+11 -2.133600e+11 -2.368349e+13 -1.328588e+09
## [13047,] -4.380886e+09 -3.741083e+09 -3.962578e+11 -2.158354e+07
## [13048,] -1.594544e+07 -1.734479e+07 -1.968100e+09 -1.182544e+04
## [13049,] -6.693791e+06 -4.646304e+06 -8.424171e+08 -6.165751e+04
## [13050,] -6.225820e+07 -4.724146e+07 -5.238482e+09 -9.436413e+05
## [13051,] -3.366662e+11 -2.778404e+11 -2.539983e+15 -3.313812e+09
## [13052,] -2.512287e+11 -2.174793e+11 -1.924051e+15 -2.448859e+09
## [13053,] -4.721298e+09 -4.340935e+09 -3.210875e+13 -1.228480e+08
## [13054,] -1.486567e+05 -2.400713e+05 -1.594751e+11 -1.291706e+07
## [13055,] -1.359558e+06 -1.302959e+06 -6.826102e+10 -1.456633e+07
## [13056,] -1.337522e+08 -1.226447e+08 -4.244739e+11 -2.436152e+07
## [13057,] -3.143352e+11 -3.291362e+11 -2.541863e+15 -3.112903e+09
## [13058,] -2.297508e+11 -2.407665e+11 -1.926186e+15 -2.337531e+09
## [13059,] -4.880946e+09 -4.069579e+09 -3.212062e+13 -1.162282e+08
## [13060,] -2.179329e+05 -1.353117e+04 -1.595340e+11 -1.348074e+07
## [13061,] -1.152522e+06 -1.925224e+06 -6.828625e+10 -1.465092e+07
## [13062,] -1.334932e+08 -1.148386e+08 -4.246309e+11 -2.408634e+07
## [13063,] -3.420930e+11 -2.978357e+11 -2.542802e+15 -2.948646e+09
## [13064,] -2.804929e+11 -2.174772e+11 -1.926186e+15 -2.392759e+09
## [13065,] -5.087836e+09 -4.341036e+09 -3.212062e+13 -1.233294e+08
## [13066,] -3.877368e+05 -2.113740e+04 -1.595930e+11 -1.320843e+07
## [13067,] -1.218274e+06 -1.793539e+06 -6.831150e+10 -1.426502e+07
## [13068,] -1.329584e+08 -1.174342e+08 -4.247878e+11 -2.445939e+07
## [13069,] -3.345031e+11 -2.978349e+11 -2.543742e+15 -3.509408e+09
## [13070,] -2.544888e+11 -2.174765e+11 -1.926898e+15 -2.595190e+09
## [13071,] -4.721508e+09 -3.806981e+09 -3.213250e+13 -1.292269e+08
## [13072,] -1.202305e+05 -1.135493e+03 -1.595930e+11 -1.317051e+07
## [13073,] -1.273023e+06 -1.982215e+06 -6.831150e+10 -1.445837e+07
## [13074,] -1.348971e+08 -1.174342e+08 -4.247878e+11 -2.445939e+07
## [13075,] -3.248709e+11 -2.680989e+11 -2.543742e+15 -3.722348e+09
## [13076,] -2.479835e+11 -2.174765e+11 -1.926898e+15 -2.670105e+09
## [13077,] -5.013670e+09 -3.807075e+09 -3.214437e+13 -1.162612e+08

```

```

## [13078,] -1.514747e+05 -6.886150e+04 -1.597700e+11 -1.331203e+07
## [13079,] -1.017467e+06 -1.547964e+06 -6.841251e+10 -1.466515e+07
## [13080,] -1.358035e+08 -1.254121e+08 -4.254160e+11 -2.406512e+07
## [13081,] -3.195770e+11 -2.877459e+11 -2.547504e+15 -3.133224e+09
## [13082,] -2.544857e+11 -1.953689e+11 -1.929747e+15 -2.321502e+09
## [13083,] -5.028828e+09 -4.070067e+09 -3.218001e+13 -1.365357e+08
## [13084,] -2.890045e+05 -1.687624e+05 -1.598290e+11 -1.336119e+07
## [13085,] -1.511559e+06 -1.801735e+06 -6.841251e+10 -1.453768e+07
## [13086,] -1.311386e+08 -1.175336e+08 -4.257302e+11 -2.418593e+07
## [13087,] -3.259289e+11 -2.778323e+11 -2.549386e+15 -3.153955e+09
## [13088,] -2.685873e+11 -2.174722e+11 -1.931173e+15 -2.152576e+09
## [13089,] -4.621983e+09 -4.070262e+09 -3.220378e+13 -1.346214e+08
## [13090,] -2.122627e+05 -6.726673e+04 -1.600061e+11 -1.311737e+07
## [13091,] -1.251970e+06 -1.942225e+06 -6.848832e+10 -1.455517e+07
## [13092,] -1.367130e+08 -1.175667e+08 -4.260446e+11 -2.393092e+07
## [13093,] -3.377371e+11 -2.308763e+11 -2.552210e+15 -4.094280e+09
## [13094,] -2.471694e+11 -2.099703e+11 -1.933312e+15 -2.788032e+09
## [13095,] -4.751267e+09 -3.938097e+09 -3.223946e+13 -1.225704e+08
## [13096,] -2.770051e+05 -1.656379e+05 -1.601243e+11 -1.324218e+07
## [13097,] -1.520969e+06 -1.557486e+06 -6.853888e+10 -1.443979e+07
## [13098,] -1.345012e+08 -1.150024e+08 -4.262018e+11 -2.463425e+07
## [13099,] -3.301968e+11 -2.680917e+11 -2.552210e+15 -3.642337e+09
## [13100,] -2.383761e+11 -2.174694e+11 -1.934025e+15 -2.352429e+09
## [13101,] -5.044443e+09 -3.938288e+09 -3.226325e+13 -1.041210e+08
## [13102,] -2.599661e+05 -3.655768e+04 -1.602424e+11 -1.325874e+07
## [13103,] -1.373099e+06 -1.563213e+06 -6.861476e+10 -1.464810e+07
## [13104,] -1.320675e+08 -1.150516e+08 -4.266737e+11 -2.444356e+07
## [13105,] -3.301942e+11 -2.978249e+11 -2.555035e+15 -3.248350e+09
## [13106,] -2.544795e+11 -2.174679e+11 -1.935452e+15 -2.504156e+09
## [13107,] -4.722978e+09 -4.205699e+09 -3.229895e+13 -1.178349e+08
## [13108,] -2.354215e+05 -1.969313e+03 -1.604198e+11 -1.342804e+07
## [13109,] -1.220231e+06 -1.822308e+06 -6.866537e+10 -1.467484e+07
## [13110,] -1.329291e+08 -1.229156e+08 -4.269884e+11 -2.418720e+07
## [13111,] -2.988405e+11 -3.291213e+11 -2.557862e+15 -3.800968e+09
## [13112,] -2.407538e+11 -2.407538e+11 -1.938308e+15 -2.778908e+09
## [13113,] -4.853551e+09 -4.071237e+09 -3.232277e+13 -1.231531e+08
## [13114,] -1.553775e+05 -2.107115e+03 -1.605381e+11 -1.329745e+07
## [13115,] -1.139956e+06 -1.698235e+06 -6.874133e+10 -1.468488e+07
## [13116,] -1.396882e+08 -1.203269e+08 -4.274607e+11 -2.474257e+07
## [13117,] -3.111907e+11 -2.877344e+11 -2.560691e+15 -3.619045e+09
## [13118,] -2.281843e+11 -2.328578e+11 -1.939737e+15 -2.343975e+09
## [13119,] -5.285903e+09 -4.071432e+09 -3.234659e+13 -1.570726e+08
## [13120,] -3.099430e+05 -3.863160e+04 -1.606564e+11 -1.350521e+07
## [13121,] -1.110355e+06 -2.105693e+06 -6.876665e+10 -1.481133e+07
## [13122,] -1.349387e+08 -1.256518e+08 -4.276182e+11 -2.413491e+07
## [13123,] -3.586244e+11 -2.778226e+11 -2.560691e+15 -3.008097e+09
## [13124,] -2.512118e+11 -2.250949e+11 -1.939737e+15 -2.266088e+09

```

```

## [13125,] -5.030345e+09 -4.342949e+09 -3.234659e+13 -1.145165e+08
## [13126,] -1.344599e+04 -1.054733e+05 -1.607156e+11 -1.312436e+07
## [13127,] -1.261530e+06 -1.455827e+06 -6.879198e+10 -1.455776e+07
## [13128,] -1.346785e+08 -1.151664e+08 -4.277757e+11 -2.393121e+07
## [13129,] -3.101501e+11 -3.291169e+11 -2.562578e+15 -3.226443e+09
## [13130,] -2.561120e+11 -2.025939e+11 -1.941881e+15 -2.235085e+09
## [13131,] -4.652052e+09 -4.482301e+09 -3.238235e+13 -1.179511e+08
## [13132,] -1.703482e+05 -3.030567e+04 -1.608339e+11 -1.340713e+07
## [13133,] -1.232077e+06 -1.706211e+06 -6.884266e+10 -1.458815e+07
## [13134,] -1.352701e+08 -1.230343e+08 -4.280908e+11 -2.446424e+07
## [13135,] -3.195623e+11 -3.080766e+11 -2.563521e+15 -3.376286e+09
## [13136,] -2.399539e+11 -2.099612e+11 -1.942596e+15 -2.795554e+09
## [13137,] -4.666550e+09 -4.482505e+09 -3.240619e+13 -1.207285e+08
## [13138,] -7.628607e+04 -9.452578e+03 -1.610116e+11 -1.333662e+07
## [13139,] -1.226282e+06 -1.842997e+06 -6.891871e+10 -1.471461e+07
## [13140,] -1.353235e+08 -1.257546e+08 -4.285637e+11 -2.440409e+07
## [13141,] -3.388079e+11 -2.680799e+11 -2.566353e+15 -3.573782e+09
## [13142,] -2.197349e+11 -2.407478e+11 -1.944026e+15 -2.769719e+09
## [13143,] -4.695402e+09 -3.809339e+09 -3.243005e+13 -1.187007e+08
## [13144,] -1.558357e+05 -6.032150e+04 -1.610709e+11 -1.314138e+07
## [13145,] -1.445078e+06 -1.716207e+06 -6.896943e+10 -1.469247e+07
## [13146,] -1.334169e+08 -1.257889e+08 -4.288791e+11 -2.491844e+07
## [13147,] -3.049764e+11 -3.185051e+11 -2.568242e+15 -3.419301e+09
## [13148,] -2.281784e+11 -2.250891e+11 -1.945457e+15 -2.211775e+09
## [13149,] -4.724344e+09 -4.072310e+09 -3.245391e+13 -1.187340e+08
## [13150,] -2.188471e+05 -5.957317e+04 -1.611894e+11 -1.366035e+07
## [13151,] -1.275300e+06 -1.985056e+06 -6.899480e+10 -1.468705e+07
## [13152,] -1.331583e+08 -1.204946e+08 -4.290369e+11 -2.474716e+07
## [13153,] -2.957814e+11 -2.978124e+11 -2.569187e+15 -3.495934e+09
## [13154,] -2.447398e+11 -2.099556e+11 -1.948320e+15 -2.709798e+09
## [13155,] -5.031755e+09 -4.207384e+09 -3.250166e+13 -1.165300e+08
## [13156,] -2.595922e+05 -2.770378e+04 -1.614266e+11 -1.359482e+07
## [13157,] -1.282213e+06 -1.249099e+06 -6.909631e+10 -1.482360e+07
## [13158,] -1.318512e+08 -1.205617e+08 -4.296681e+11 -2.430335e+07
## [13159,] -3.388017e+11 -2.978091e+11 -2.572967e+15 -3.068649e+09
## [13160,] -2.577489e+11 -2.328482e+11 -1.949036e+15 -2.219052e+09
## [13161,] -4.739163e+09 -4.483324e+09 -3.250166e+13 -1.167561e+08
## [13162,] -1.891579e+05 -9.960157e+04 -1.614266e+11 -1.353988e+07
## [13163,] -1.090029e+06 -1.726232e+06 -6.909631e+10 -1.467664e+07
## [13164,] -1.348914e+08 -1.179482e+08 -4.296681e+11 -2.477758e+07
## [13165,] -2.998461e+11 -2.585094e+11 -2.573912e+15 -3.787885e+09
## [13166,] -2.439363e+11 -2.569251e+11 -1.949752e+15 -2.675964e+09
## [13167,] -4.753690e+09 -3.809999e+09 -3.251360e+13 -1.229599e+08
## [13168,] -1.341564e+05 -5.735619e+04 -1.615452e+11 -1.357859e+07
## [13169,] -1.187500e+06 -1.481757e+06 -6.914710e+10 -1.483537e+07
## [13170,] -1.338172e+08 -1.286087e+08 -4.299840e+11 -2.423587e+07
## [13171,] -3.475352e+11 -2.585086e+11 -2.574858e+15 -3.130744e+09

```

```

## [13172,] -2.602242e+11 -2.328467e+11 -1.950468e+15 -2.406108e+09
## [13173,] -4.553885e+09 -3.810093e+09 -3.252555e+13 -1.222814e+08
## [13174,] -7.212351e+04 -9.815990e+04 -1.616046e+11 -1.321297e+07
## [13175,] -1.084579e+06 -2.126992e+06 -6.917250e+10 -1.460783e+07
## [13176,] -1.310980e+08 -1.232717e+08 -4.302999e+11 -2.440438e+07
## [13177,] -2.957748e+11 -3.184974e+11 -2.576750e+15 -3.440329e+09
## [13178,] -2.660464e+11 -2.174501e+11 -1.953335e+15 -2.700803e+09
## [13179,] -4.725499e+09 -4.208078e+09 -3.258531e+13 -1.235265e+08
## [13180,] -2.393530e+05 -2.595194e+04 -1.618420e+11 -1.350243e+07
## [13181,] -1.228246e+06 -2.150280e+06 -6.927415e+10 -1.460870e+07
## [13182,] -1.341827e+08 -1.180644e+08 -4.307740e+11 -2.404999e+07
## [13183,] -3.355475e+11 -2.778057e+11 -2.580536e+15 -3.439970e+09
## [13184,] -2.503833e+11 -2.099493e+11 -1.954769e+15 -2.534657e+09
## [13185,] -4.768872e+09 -3.810659e+09 -3.259727e+13 -1.237762e+08
## [13186,] -1.713083e+05 -2.843241e+05 -1.619014e+11 -1.351901e+07
## [13187,] -1.176136e+06 -2.010979e+06 -6.929958e+10 -1.467085e+07
## [13188,] -1.358869e+08 -1.207127e+08 -4.310902e+11 -2.469125e+07
## [13189,] -3.387937e+11 -2.585032e+11 -2.581483e+15 -3.385436e+09
## [13190,] -2.367722e+11 -1.953446e+11 -1.955487e+15 -2.683730e+09
## [13191,] -4.611394e+09 -4.625620e+09 -3.262120e+13 -1.139973e+08
## [13192,] -1.825695e+05 -2.521866e+04 -1.620203e+11 -1.350283e+07
## [13193,] -1.472767e+06 -1.878436e+06 -6.935044e+10 -1.473148e+07
## [13194,] -1.320443e+08 -1.233905e+08 -4.314066e+11 -2.476596e+07
## [13195,] -3.333888e+11 -2.877147e+11 -2.583377e+15 -3.109153e+09
## [13196,] -2.471436e+11 -2.328394e+11 -1.957639e+15 -2.683492e+09
## [13197,] -4.900288e+09 -3.556967e+09 -3.264513e+13 -1.192291e+08
## [13198,] -1.451656e+05 -5.375465e+04 -1.621391e+11 -1.357995e+07
## [13199,] -1.336880e+06 -1.882628e+06 -6.940132e+10 -1.464167e+07
## [13200,] -1.315124e+08 -1.260805e+08 -4.315648e+11 -2.455961e+07
## [13201,] -3.269616e+11 -2.491106e+11 -2.584324e+15 -3.288266e+09
## [13202,] -2.359805e+11 -2.174451e+11 -1.958357e+15 -2.725597e+09
## [13203,] -4.798357e+09 -4.345568e+09 -3.265710e+13 -1.197034e+08
## [13204,] -2.962796e+05 -9.343025e+04 -1.621986e+11 -1.366817e+07
## [13205,] -1.205890e+06 -1.884725e+06 -6.942677e+10 -1.478301e+07
## [13206,] -1.351223e+08 -1.155768e+08 -4.317230e+11 -2.470974e+07
## [13207,] -3.248325e+11 -2.680640e+11 -2.585272e+15 -3.385080e+09
## [13208,] -2.375586e+11 -2.025773e+11 -1.959075e+15 -2.674936e+09
## [13209,] -4.769506e+09 -3.811226e+09 -3.266907e+13 -1.204082e+08
## [13210,] -1.275234e+05 -4.823403e+01 -1.622580e+11 -1.344862e+07
## [13211,] -1.251081e+06 -2.024003e+06 -6.945222e+10 -1.475495e+07
## [13212,] -1.362552e+08 -1.181806e+08 -4.318813e+11 -2.432624e+07
## [13213,] -3.122084e+11 -2.977974e+11 -2.586220e+15 -3.605362e+09
## [13214,] -2.273896e+11 -2.250746e+11 -1.959793e+15 -2.599875e+09
## [13215,] -4.755165e+09 -3.941646e+09 -3.268105e+13 -1.174572e+08
## [13216,] -1.987685e+05 -4.734699e+03 -1.623175e+11 -1.374576e+07
## [13217,] -1.022839e+06 -1.388039e+06 -6.947768e+10 -1.482875e+07
## [13218,] -1.346019e+08 -1.261319e+08 -4.320396e+11 -2.478447e+07

```

```

## [13219,] -3.280257e+11 -2.877115e+11 -2.587168e+15 -3.406626e+09
## [13220,] -2.577373e+11 -2.174437e+11 -1.959793e+15 -2.509677e+09
## [13221,] -4.683370e+09 -3.941742e+09 -3.269302e+13 -1.215931e+08
## [13222,] -1.181899e+02 -9.157109e+04 -1.624365e+11 -1.350926e+07
## [13223,] -9.963353e+05 -1.278305e+06 -6.952860e+10 -1.458836e+07
## [13224,] -1.335289e+08 -1.156425e+08 -4.323563e+11 -2.556833e+07
## [13225,] -3.080528e+11 -3.080528e+11 -2.590013e+15 -3.108556e+09
## [13226,] -2.495645e+11 -2.025746e+11 -1.961948e+15 -2.302593e+09
## [13227,] -4.900930e+09 -3.941934e+09 -3.271698e+13 -1.209352e+08
## [13228,] -1.416930e+05 -9.110922e+04 -1.624960e+11 -1.355329e+07
## [13229,] -1.416706e+06 -1.280033e+06 -6.955407e+10 -1.473322e+07
## [13230,] -1.349685e+08 -1.235433e+08 -4.328315e+11 -2.504960e+07
## [13231,] -3.258897e+11 -2.977924e+11 -2.591910e+15 -3.649716e+09
## [13232,] -2.431206e+11 -2.250703e+11 -1.964104e+15 -2.632598e+09
## [13233,] -4.916024e+09 -4.074846e+09 -3.276493e+13 -1.216942e+08
## [13234,] -4.992783e+04 -1.388313e+05 -1.627937e+11 -1.334609e+07
## [13235,] -1.266513e+06 -1.905764e+06 -6.968150e+10 -1.474372e+07
## [13236,] -1.347438e+08 -1.262693e+08 -4.333070e+11 -2.497677e+07
## [13237,] -3.101212e+11 -2.680561e+11 -2.594758e+15 -3.683299e+09
## [13238,] -2.544456e+11 -2.250674e+11 -1.966981e+15 -2.349021e+09
## [13239,] -4.346777e+09 -4.346777e+09 -3.280091e+13 -1.254684e+08
## [13240,] -2.046160e+05 -4.890868e+04 -1.629724e+11 -1.371409e+07
## [13241,] -1.260638e+06 -1.778833e+06 -6.975801e+10 -1.484438e+07
## [13242,] -1.336879e+08 -1.183801e+08 -4.337828e+11 -2.458262e+07
## [13243,] -3.608246e+11 -2.398836e+11 -2.597607e+15 -2.943835e+09
## [13244,] -2.391329e+11 -2.328283e+11 -1.968420e+15 -2.317527e+09
## [13245,] -4.829206e+09 -4.075626e+09 -3.286092e+13 -1.239175e+08
## [13246,] -9.414163e+04 -2.658903e+05 -1.632706e+11 -1.350566e+07
## [13247,] -1.291436e+06 -1.660212e+06 -6.988562e+10 -1.482846e+07
## [13248,] -1.477023e+08 -1.158891e+08 -4.347351e+11 -2.434388e+07
## [13249,] -3.322940e+11 -2.680482e+11 -2.604260e+15 -2.813260e+09
## [13250,] -2.536217e+11 -2.099318e+11 -1.972741e+15 -2.549090e+09
## [13251,] -4.785982e+09 -3.943373e+09 -3.289696e+13 -1.191224e+08
## [13252,] -1.500268e+05 -4.444988e+03 -1.633899e+11 -1.369847e+07
## [13253,] -1.455938e+06 -1.664153e+06 -6.993669e+10 -1.485914e+07
## [13254,] -1.363327e+08 -1.264583e+08 -4.350528e+11 -2.490535e+07
## [13255,] -3.258766e+11 -2.680466e+11 -2.606163e+15 -3.096726e+09
## [13256,] -2.660228e+11 -2.025622e+11 -1.974903e+15 -2.193606e+09
## [13257,] -4.829950e+09 -3.943757e+09 -3.294504e+13 -1.205642e+08
## [13258,] -1.905162e+05 -1.261273e+02 -1.636287e+11 -1.372663e+07
## [13259,] -1.335679e+06 -1.203072e+06 -7.003890e+10 -1.510306e+07
## [13260,] -1.297607e+08 -1.265098e+08 -4.355295e+11 -2.505985e+07
## [13261,] -3.344430e+11 -2.584814e+11 -2.608066e+15 -3.784500e+09
## [13262,] -2.375407e+11 -2.328202e+11 -1.976345e+15 -2.491694e+09
## [13263,] -4.801215e+09 -4.917952e+09 -3.298112e+13 -1.176445e+08
## [13264,] -8.555054e+04 -1.293198e+05 -1.638079e+11 -1.359473e+07
## [13265,] -1.284775e+06 -2.080928e+06 -7.011561e+10 -1.491177e+07

```

```

## [13266,] -1.395502e+08 -1.265786e+08 -4.361656e+11 -2.454204e+07
## [13267,] -3.387652e+11 -2.584783e+11 -2.611875e+15 -3.148293e+09
## [13268,] -2.511704e+11 -2.250558e+11 -1.978509e+15 -2.073368e+09
## [13269,] -5.021356e+09 -4.076699e+09 -3.299315e+13 -1.167546e+08
## [13270,] -9.467892e+02 -1.287708e+05 -1.638676e+11 -1.364992e+07
## [13271,] -7.642927e+05 -1.943930e+06 -7.014119e+10 -1.510393e+07
## [13272,] -1.395502e+08 -1.160373e+08 -4.361656e+11 -2.442362e+07
## [13273,] -3.312134e+11 -2.680419e+11 -2.611875e+15 -3.547160e+09
## [13274,] -2.487364e+11 -2.407110e+11 -1.979231e+15 -2.395164e+09
## [13275,] -4.600507e+09 -4.211548e+09 -3.300518e+13 -1.229584e+08
## [13276,] -2.718494e+05 -8.135376e+03 -1.639872e+11 -1.353470e+07
## [13277,] -1.334937e+06 -2.231714e+06 -7.019236e+10 -1.494085e+07
## [13278,] -1.348208e+08 -1.186629e+08 -4.364838e+11 -2.462840e+07
## [13279,] -2.807318e+11 -3.290687e+11 -2.614734e+15 -3.317593e+09
## [13280,] -2.552499e+11 -2.174230e+11 -1.980674e+15 -2.450913e+09
## [13281,] -5.186178e+09 -3.944429e+09 -3.302926e+13 -1.204519e+08
## [13282,] -2.408626e+04 -4.301448e+04 -1.640470e+11 -1.328903e+07
## [13283,] -1.440746e+06 -1.685910e+06 -7.021795e+10 -1.494297e+07
## [13284,] -1.462025e+08 -1.215817e+08 -4.368021e+11 -2.498931e+07
## [13285,] -3.216255e+11 -2.490855e+11 -2.615687e+15 -3.064840e+09
## [13286,] -2.289175e+11 -2.328150e+11 -1.981396e+15 -2.347540e+09
## [13287,] -4.787250e+09 -4.211846e+09 -3.304130e+13 -1.197804e+08
## [13288,] -1.545113e+05 -7.908014e+04 -1.641068e+11 -1.382183e+07
## [13289,] -1.315865e+06 -1.442581e+06 -7.024355e+10 -1.508194e+07
## [13290,] -1.340415e+08 -1.213348e+08 -4.369613e+11 -2.459178e+07
## [13291,] -3.365944e+11 -2.584745e+11 -2.616640e+15 -3.546705e+09
## [13292,] -2.328143e+11 -2.328143e+11 -1.982118e+15 -2.722965e+09
## [13293,] -5.022006e+09 -3.944717e+09 -3.306538e+13 -1.246739e+08
## [13294,] -3.087190e+05 -4.206890e+04 -1.642264e+11 -1.362319e+07
## [13295,] -1.618106e+06 -1.568568e+06 -7.032036e+10 -1.498939e+07
## [13296,] -1.261608e+08 -1.213685e+08 -4.372798e+11 -2.494047e+07
## [13297,] -3.132217e+11 -2.876844e+11 -2.618547e+15 -3.200199e+09
## [13298,] -2.471162e+11 -2.099213e+11 -1.983563e+15 -2.378863e+09
## [13299,] -4.729807e+09 -3.814434e+09 -3.307743e+13 -1.214399e+08
## [13300,] -3.070230e+05 -1.664258e+04 -1.643461e+11 -1.383347e+07
## [13301,] -1.511484e+06 -2.103033e+06 -7.037160e+10 -1.501643e+07
## [13302,] -1.355194e+08 -1.187962e+08 -4.377577e+11 -2.474860e+07
## [13303,] -3.195096e+11 -2.584706e+11 -2.621409e+15 -3.613163e+09
## [13304,] -2.430973e+11 -2.025512e+11 -1.986454e+15 -2.362767e+09
## [13305,] -4.658622e+09 -3.945293e+09 -3.313770e+13 -1.257133e+08
## [13306,] -2.061952e+05 -5.446722e+02 -1.645856e+11 -1.376199e+07
## [13307,] -1.199287e+06 -1.836364e+06 -7.047412e+10 -1.512396e+07
## [13308,] -1.347381e+08 -1.188461e+08 -4.382359e+11 -2.514205e+07
## [13309,] -3.452942e+11 -3.184543e+11 -2.624273e+15 -2.941514e+09
## [13310,] -2.455014e+11 -2.250463e+11 -1.987900e+15 -2.655030e+09
## [13311,] -4.904782e+09 -4.212738e+09 -3.314976e+13 -1.176495e+08
## [13312,] -1.270001e+05 -1.567154e+04 -1.646455e+11 -1.384525e+07

```

```

## [13313,] -1.343036e+06 -1.459148e+06 -7.047412e+10 -1.514686e+07
## [13314,] -1.367076e+08 -1.241386e+08 -4.383954e+11 -2.471949e+07
## [13315,] -3.301292e+11 -2.680308e+11 -2.625228e+15 -3.210146e+09
## [13316,] -2.519734e+11 -2.250456e+11 -1.988624e+15 -2.378341e+09
## [13317,] -4.904996e+09 -4.489056e+09 -3.317388e+13 -1.176827e+08
## [13318,] -2.692738e+05 -1.002548e+04 -1.647653e+11 -1.388996e+07
## [13319,] -1.257037e+06 -1.976023e+06 -7.052542e+10 -1.512821e+07
## [13320,] -1.375663e+08 -1.241556e+08 -4.385549e+11 -2.462010e+07
## [13321,] -3.290573e+11 -2.876770e+11 -2.627138e+15 -3.601417e+09
## [13322,] -2.454991e+11 -2.250442e+11 -1.990071e+15 -2.260998e+09
## [13323,] -4.963921e+09 -4.489159e+09 -3.318595e+13 -1.163406e+08
## [13324,] -3.610329e+04 -1.510293e+04 -1.648252e+11 -1.352562e+07
## [13325,] -1.610649e+06 -1.842582e+06 -7.055107e+10 -1.508839e+07
## [13326,] -1.359229e+08 -1.189128e+08 -4.388739e+11 -2.507674e+07
## [13327,] -2.836911e+11 -3.080189e+11 -2.628094e+15 -3.273563e+09
## [13328,] -2.778487e+11 -2.487242e+11 -1.990795e+15 -2.116733e+09
## [13329,] -4.803122e+09 -4.078359e+09 -3.319802e+13 -1.248616e+08
## [13330,] -2.156843e+05 -3.839169e+04 -1.649451e+11 -1.407443e+07
## [13331,] -1.329187e+06 -1.715807e+06 -7.060239e+10 -1.498610e+07
## [13332,] -1.323374e+08 -1.215538e+08 -4.390335e+11 -2.527655e+07
## [13333,] -3.258556e+11 -2.680276e+11 -2.629049e+15 -3.578897e+09
## [13334,] -2.446929e+11 -2.250413e+11 -1.992966e+15 -2.385812e+09
## [13335,] -4.659456e+09 -4.213433e+09 -3.323424e+13 -1.246790e+08
## [13336,] -1.180362e+05 -2.427745e+05 -1.650651e+11 -1.405233e+07
## [13337,] -1.496004e+06 -1.986779e+06 -7.065373e+10 -1.497515e+07
## [13338,] -1.348623e+08 -1.163668e+08 -4.393527e+11 -2.536419e+07
## [13339,] -2.957274e+11 -2.876738e+11 -2.630961e+15 -3.770789e+09
## [13340,] -2.359448e+11 -1.953095e+11 -1.992966e+15 -2.688019e+09
## [13341,] -4.645178e+09 -4.078651e+09 -3.323424e+13 -1.223526e+08
## [13342,] -3.746033e+05 -3.186827e+04 -1.650651e+11 -1.350971e+07
## [13343,] -1.484028e+06 -1.850889e+06 -7.065373e+10 -1.492204e+07
## [13344,] -1.390816e+08 -1.189795e+08 -4.395124e+11 -2.457062e+07
## [13345,] -3.279846e+11 -2.977574e+11 -2.631917e+15 -3.012035e+09
## [13346,] -2.312396e+11 -2.174102e+11 -1.993691e+15 -2.401612e+09
## [13347,] -4.876466e+09 -4.213631e+09 -3.325840e+13 -1.198524e+08
## [13348,] -1.554257e+05 -1.112498e+04 -1.651850e+11 -1.376888e+07
## [13349,] -1.359024e+06 -1.855050e+06 -7.070508e+10 -1.501738e+07
## [13350,] -1.382900e+08 -1.324429e+08 -4.399916e+11 -2.477171e+07
## [13351,] -3.144314e+11 -3.020139e+11 -1.524704e+13 -1.386765e+09
## [13352,] -2.608325e+11 -2.134878e+11 -1.154971e+13 -1.063632e+09
## [13353,] -3.997181e+09 -3.724089e+09 -1.926003e+11 -2.040512e+07
## [13354,] -1.949797e+07 -1.319551e+07 -9.565912e+08 -6.219524e+02
## [13355,] -7.432762e+06 -6.376498e+06 -4.094551e+08 -1.536698e+04
## [13356,] -6.195229e+07 -4.929953e+07 -2.546153e+09 -6.286116e+05
## [13357,] -3.443785e+11 -2.918570e+11 -1.524704e+13 -1.324996e+09
## [13358,] -2.485522e+11 -2.210496e+11 -1.154971e+13 -1.042573e+09
## [13359,] -4.266251e+09 -3.852928e+09 -1.926003e+11 -2.012243e+07

```



```

## [13360,] -1.813936e+07 -1.604372e+07 -9.565912e+08 -5.158154e+02
## [13361,] -7.513226e+06 -6.376498e+06 -4.094551e+08 -1.561115e+04
## [13362,] -6.157611e+07 -5.271763e+07 -2.546153e+09 -6.267155e+05
## [13363,] -3.081914e+11 -2.918570e+11 -1.524704e+13 -1.421689e+09
## [13364,] -2.517980e+11 -2.287430e+11 -1.154971e+13 -1.021725e+09
## [13365,] -3.970756e+09 -3.724089e+09 -1.926003e+11 -2.049979e+07
## [13366,] -1.917004e+07 -1.604372e+07 -9.565912e+08 -7.790424e+02
## [13367,] -7.540144e+06 -6.376498e+06 -4.094551e+08 -1.598103e+04
## [13368,] -6.176405e+07 -5.446964e+07 -2.546153e+09 -6.248223e+05
## [13369,] -3.378466e+11 -3.020139e+11 -1.524704e+13 -1.324996e+09
## [13370,] -2.349924e+11 -2.210496e+11 -1.154971e+13 -1.042573e+09
## [13371,] -4.171079e+09 -3.724089e+09 -1.926003e+11 -2.021644e+07
## [13372,] -1.865114e+07 -1.604372e+07 -9.565912e+08 -6.595562e+02
## [13373,] -7.648296e+06 -5.890608e+06 -4.094551e+08 -1.585726e+04
## [13374,] -6.026851e+07 -5.099426e+07 -2.546153e+09 -6.305105e+05
## [13375,] -3.249705e+11 -2.818739e+11 -1.524704e+13 -1.393715e+09
## [13376,] -2.469372e+11 -2.060576e+11 -1.154971e+13 -1.032123e+09
## [13377,] -3.931378e+09 -4.390292e+09 -1.935207e+11 -2.156268e+07
## [13378,] -1.935974e+07 -1.544582e+07 -9.611627e+08 -4.204375e+02
## [13379,] -7.269012e+06 -5.886899e+06 -4.114119e+08 -1.074062e+04
## [13380,] -5.972422e+07 -4.600636e+07 -2.558321e+09 -7.222558e+05
## [13381,] -3.333662e+11 -2.500230e+11 -3.136942e+13 -1.576869e+09
## [13382,] -2.549244e+11 -1.879373e+11 -2.376250e+13 -1.168119e+09
## [13383,] -4.339420e+09 -3.163520e+09 -3.962578e+11 -2.439242e+07
## [13384,] -1.672915e+07 -1.494896e+07 -1.968100e+09 -1.920214e+04
## [13385,] -6.195722e+06 -5.461765e+06 -8.424171e+08 -6.020445e+04
## [13386,] -6.188109e+07 -4.790173e+07 -5.238482e+09 -1.026765e+06
## [13387,] -3.732362e+11 -3.121890e+11 -3.136942e+13 -1.720641e+09
## [13388,] -2.631814e+11 -2.059313e+11 -2.376250e+13 -1.299131e+09
## [13389,] -4.202622e+09 -3.741083e+09 -3.962578e+11 -2.704550e+07
## [13390,] -1.740697e+07 -1.437781e+07 -1.968100e+09 -1.584956e+04
## [13391,] -6.563553e+06 -5.009372e+06 -8.452228e+08 -5.400721e+04
## [13392,] -6.058214e+07 -5.128278e+07 -5.255929e+09 -1.045373e+06
## [13393,] -3.344424e+11 -2.719186e+11 -3.147390e+13 -1.814610e+09
## [13394,] -2.340713e+11 -2.524722e+11 -2.384164e+13 -1.229855e+09
## [13395,] -4.450537e+09 -3.614236e+09 -3.975776e+11 -2.502432e+07
## [13396,] -1.727637e+07 -1.326332e+07 -1.974655e+09 -1.739204e+04
## [13397,] -5.878596e+06 -6.664484e+06 -8.452228e+08 -5.890143e+04
## [13398,] -6.189312e+07 -4.958323e+07 -5.255929e+09 -9.756154e+05
## [13399,] -3.195211e+11 -2.719186e+11 -3.147390e+13 -1.666880e+09
## [13400,] -2.606897e+11 -2.133586e+11 -2.384164e+13 -1.201572e+09
## [13401,] -4.325742e+09 -3.614236e+09 -3.975776e+11 -2.533945e+07
## [13402,] -1.684511e+07 -1.733843e+07 -1.974655e+09 -1.719591e+04
## [13403,] -6.715238e+06 -5.689826e+06 -8.452228e+08 -6.130662e+04
## [13404,] -6.058214e+07 -5.476781e+07 -5.255929e+09 -9.685365e+05
## [13405,] -3.070025e+11 -3.121882e+11 -3.147390e+13 -1.689789e+09
## [13406,] -2.364312e+11 -2.133579e+11 -2.392091e+13 -1.340273e+09

```

```

## [13407,] -4.367244e+09 -3.128469e+09 -3.988995e+11 -2.482294e+07
## [13408,] -1.802187e+07 -1.551919e+07 -1.981221e+09 -2.177305e+04
## [13409,] -5.898697e+06 -5.922550e+06 -8.480332e+08 -4.988413e+04
## [13410,] -6.059404e+07 -5.129373e+07 -5.273405e+09 -1.027438e+06
## [13411,] -3.090483e+11 -2.977548e+11 -2.634786e+15 -3.533886e+09
## [13412,] -2.414896e+11 -2.025416e+11 -1.996589e+15 -2.579397e+09
## [13413,] -4.818489e+09 -3.687917e+09 -3.329465e+13 -1.201319e+08
## [13414,] -2.310522e+05 -1.657647e+03 -1.654251e+11 -1.371966e+07
## [13415,] -1.519311e+06 -1.731859e+06 -7.080785e+10 -1.499165e+07
## [13416,] -1.363626e+08 -1.216886e+08 -4.403112e+11 -2.527786e+07
## [13417,] -3.485763e+11 -2.777582e+11 -2.636700e+15 -3.478519e+09
## [13418,] -2.471018e+11 -2.099080e+11 -1.997314e+15 -3.106406e+09
## [13419,] -4.746215e+09 -3.946637e+09 -3.330674e+13 -1.283136e+08
## [13420,] -2.169352e+05 -1.328348e+04 -1.654251e+11 -1.370309e+07
## [13421,] -1.471321e+06 -1.863385e+06 -7.080785e+10 -1.499925e+07
## [13422,] -1.361011e+08 -1.352648e+08 -4.404710e+11 -2.469928e+07
## [13423,] -3.441872e+11 -2.876680e+11 -2.637657e+15 -2.820314e+09
## [13424,] -2.462937e+11 -2.327966e+11 -1.999490e+15 -2.721051e+09
## [13425,] -4.351413e+09 -4.490592e+09 -3.335511e+13 -1.307656e+08
## [13426,] -2.273938e+05 -3.459781e+04 -1.657255e+11 -1.392553e+07
## [13427,] -1.480604e+06 -1.873831e+06 -7.093642e+10 -1.518139e+07
## [13428,] -1.403939e+08 -1.271122e+08 -4.411106e+11 -2.472968e+07
## [13429,] -3.376536e+11 -2.977490e+11 -2.641487e+15 -3.124761e+09
## [13430,] -2.585165e+11 -2.174024e+11 -2.001666e+15 -2.408744e+09
## [13431,] -4.532979e+09 -4.079823e+09 -3.337931e+13 -1.239499e+08
## [13432,] -1.734147e+05 -1.488267e+03 -1.657856e+11 -1.407076e+07
## [13433,] -1.401829e+06 -2.454355e+06 -7.098788e+10 -1.514744e+07
## [13434,] -1.370653e+08 -1.271639e+08 -4.415907e+11 -2.539964e+07
## [13435,] -3.258417e+11 -2.977465e+11 -2.644362e+15 -3.510854e+09
## [13436,] -2.454855e+11 -1.953000e+11 -2.003118e+15 -2.337469e+09
## [13437,] -4.848658e+09 -4.491104e+09 -3.341563e+13 -1.171066e+08
## [13438,] -9.136772e+04 -1.670096e+03 -1.659660e+11 -1.377065e+07
## [13439,] -1.512086e+06 -2.019223e+06 -7.103935e+10 -1.508685e+07
## [13440,] -1.365233e+08 -1.271811e+08 -4.417507e+11 -2.580699e+07
## [13441,] -3.441792e+11 -2.876606e+11 -2.646279e+15 -3.187160e+09
## [13442,] -2.383029e+11 -2.250297e+11 -2.004570e+15 -2.440396e+09
## [13443,] -4.689752e+09 -3.947597e+09 -3.342774e+13 -1.327932e+08
## [13444,] -1.465196e+05 -1.141696e+04 -1.660863e+11 -1.374879e+07
## [13445,] -1.239791e+06 -1.886404e+06 -7.109085e+10 -1.527077e+07
## [13446,] -1.379610e+08 -1.218741e+08 -4.420710e+11 -2.501412e+07
## [13447,] -3.279706e+11 -2.777494e+11 -2.647238e+15 -3.325341e+09
## [13448,] -2.406833e+11 -2.076757e+11 -2.006023e+15 -2.305906e+09
## [13449,] -4.863564e+09 -4.352220e+09 -3.345197e+13 -1.273376e+08
## [13450,] -1.039108e+05 -9.961962e+02 -1.661465e+11 -1.394319e+07
## [13451,] -1.332254e+06 -1.758103e+06 -7.114237e+10 -1.524821e+07
## [13452,] -1.354782e+08 -1.272501e+08 -4.423913e+11 -2.492176e+07
## [13453,] -3.269013e+11 -2.876574e+11 -2.650116e+15 -3.271552e+09

```

```

## [13454,] -2.181538e+11 -2.487067e+11 -2.007477e+15 -2.529044e+09
## [13455,] -5.250749e+09 -3.947981e+09 -3.347621e+13 -1.309404e+08
## [13456,] -2.201645e+05 -3.785461e+04 -1.663270e+11 -1.398819e+07
## [13457,] -1.547698e+06 -1.894809e+06 -7.119390e+10 -1.523333e+07
## [13458,] -1.374889e+08 -1.193298e+08 -4.428720e+11 -2.528047e+07
## [13459,] -2.846644e+11 -3.290345e+11 -2.652035e+15 -3.314161e+09
## [13460,] -2.576845e+11 -2.173952e+11 -2.008930e+15 -2.472103e+09
## [13461,] -4.776897e+09 -3.689587e+09 -3.351258e+13 -1.195165e+08
## [13462,] -1.917188e+05 -7.702240e+02 -1.664475e+11 -1.392717e+07
## [13463,] -1.251731e+06 -1.901126e+06 -7.127124e+10 -1.533565e+07
## [13464,] -1.366841e+08 -1.219922e+08 -4.431927e+11 -2.499581e+07
## [13465,] -3.111064e+11 -2.876533e+11 -2.654916e+15 -3.677458e+09
## [13466,] -2.543978e+11 -2.173924e+11 -2.011840e+15 -2.660794e+09
## [13467,] -4.748321e+09 -4.492231e+09 -3.354897e+13 -1.141362e+08
## [13468,] -9.033590e+04 -9.842745e+03 -1.666885e+11 -1.387766e+07
## [13469,] -1.369269e+06 -2.335635e+06 -7.134861e+10 -1.528448e+07
## [13470,] -1.347857e+08 -1.301035e+08 -4.436738e+11 -2.546362e+07
## [13471,] -2.967186e+11 -2.876508e+11 -2.657797e+15 -3.249567e+09
## [13472,] -2.462793e+11 -1.881869e+11 -2.013295e+15 -2.423491e+09
## [13473,] -4.450545e+09 -4.081482e+09 -3.358538e+13 -1.223798e+08
## [13474,] -3.748652e+05 -2.967056e+04 -1.668091e+11 -1.362901e+07
## [13475,] -1.715606e+06 -2.051929e+06 -7.142603e+10 -1.526406e+07
## [13476,] -1.307025e+08 -1.247523e+08 -4.441552e+11 -2.557141e+07
## [13477,] -3.258277e+11 -2.777389e+11 -2.659719e+15 -3.410728e+09
## [13478,] -2.430679e+11 -2.025244e+11 -2.014751e+15 -2.618803e+09
## [13479,] -4.879455e+09 -4.081580e+09 -3.359752e+13 -1.223967e+08
## [13480,] -1.561979e+05 -2.736895e+03 -1.668694e+11 -1.406764e+07
## [13481,] -1.552607e+06 -2.194882e+06 -7.142603e+10 -1.529474e+07
## [13482,] -1.258410e+08 -1.329182e+08 -4.443158e+11 -2.534967e+07
## [13483,] -3.018146e+11 -2.977323e+11 -2.660681e+15 -2.948478e+09
## [13484,] -2.535763e+11 -2.025237e+11 -2.015480e+15 -2.463361e+09
## [13485,] -4.835793e+09 -4.081678e+09 -3.360966e+13 -1.275619e+08
## [13486,] -1.615337e+05 -1.628964e+04 -1.669297e+11 -1.419113e+07
## [13487,] -1.481981e+06 -1.083179e+06 -7.145185e+10 -1.528153e+07
## [13488,] -1.359885e+08 -1.221273e+08 -4.444763e+11 -2.619575e+07
## [13489,] -3.226410e+11 -2.777365e+11 -2.662604e+15 -3.270416e+09
## [13490,] -2.568531e+11 -2.098891e+11 -2.016936e+15 -2.463209e+09
## [13491,] -4.677309e+09 -4.778059e+09 -3.364610e+13 -1.259637e+08
## [13492,] -2.319934e+05 -2.930277e+05 -1.671107e+11 -1.412980e+07
## [13493,] -1.139727e+06 -2.060695e+06 -7.152932e+10 -1.540325e+07
## [13494,] -1.250882e+08 -1.275088e+08 -4.447976e+11 -2.522830e+07
## [13495,] -3.343908e+11 -2.777349e+11 -2.664528e+15 -3.227742e+09
## [13496,] -2.438646e+11 -2.025209e+11 -2.018394e+15 -1.778007e+09
## [13497,] -4.734854e+09 -3.818966e+09 -3.365826e+13 -1.046491e+08
## [13498,] -8.669867e+04 -3.470078e+02 -1.671710e+11 -1.446835e+07
## [13499,] -1.501430e+06 -2.206217e+06 -7.155516e+10 -1.561794e+07
## [13500,] -1.332648e+08 -1.169445e+08 -4.449582e+11 -2.421262e+07

```

```

## [13501,] -3.300923e+11 -2.679976e+11 -2.665490e+15 -2.817961e+09
## [13502,] -2.422642e+11 -2.250152e+11 -2.019123e+15 -2.643298e+09
## [13503,] -4.521465e+09 -4.082263e+09 -3.368257e+13 -1.329219e+08
## [13504,] -1.237748e+05 -9.892748e+04 -1.673522e+11 -1.413596e+07
## [13505,] -1.521006e+06 -2.071679e+06 -7.165854e+10 -1.535242e+07
## [13506,] -1.347207e+08 -1.303128e+08 -4.456011e+11 -2.509856e+07
## [13507,] -3.258199e+11 -3.290196e+11 -2.668378e+15 -3.008848e+09
## [13508,] -2.470767e+11 -2.327745e+11 -2.021310e+15 -2.250172e+09
## [13509,] -5.042601e+09 -4.217302e+09 -3.370689e+13 -1.190976e+08
## [13510,] -2.212558e+05 -5.720988e+04 -1.674126e+11 -1.413049e+07
## [13511,] -1.367768e+06 -1.932865e+06 -7.165854e+10 -1.533321e+07
## [13512,] -1.303128e+08 -1.303128e+08 -4.456011e+11 -2.514654e+07
## [13513,] -3.387127e+11 -2.977257e+11 -2.668378e+15 -3.101573e+09
## [13514,] -2.535702e+11 -2.173831e+11 -2.021310e+15 -2.304365e+09
## [13515,] -4.465542e+09 -4.354337e+09 -3.370689e+13 -1.223173e+08
## [13516,] -6.801395e+04 -1.502163e+05 -1.674730e+11 -1.416990e+07
## [13517,] -1.381062e+06 -1.427568e+06 -7.168440e+10 -1.541229e+07
## [13518,] -1.355732e+08 -1.303303e+08 -4.457619e+11 -2.495057e+07
## [13519,] -3.387118e+11 -2.679944e+11 -2.669340e+15 -2.998549e+09
## [13520,] -2.543870e+11 -2.173824e+11 -2.022039e+15 -2.227072e+09
## [13521,] -4.968660e+09 -3.819438e+09 -3.371905e+13 -1.272446e+08
## [13522,] -6.045670e+04 -9.796847e+04 -1.674730e+11 -1.407461e+07
## [13523,] -1.087287e+06 -2.073879e+06 -7.168440e+10 -1.542385e+07
## [13524,] -1.339064e+08 -1.414883e+08 -4.457619e+11 -2.501037e+07
## [13525,] -3.258190e+11 -2.679944e+11 -2.669340e+15 -3.847545e+09
## [13526,] -2.478830e+11 -2.327737e+11 -2.022039e+15 -2.319893e+09
## [13527,] -4.592428e+09 -4.354438e+09 -3.371905e+13 -1.198007e+08
## [13528,] -1.869047e+05 -5.684494e+04 -1.674730e+11 -1.415868e+07
## [13529,] -1.462954e+06 -2.073879e+06 -7.168440e+10 -1.528928e+07
## [13530,] -1.292397e+08 -1.249231e+08 -4.457619e+11 -2.549142e+07
## [13531,] -3.279496e+11 -2.584309e+11 -2.670304e+15 -3.301770e+09
## [13532,] -2.398701e+11 -2.250108e+11 -2.023498e+15 -2.820873e+09
## [13533,] -4.778904e+09 -4.082752e+09 -3.374338e+13 -1.244609e+08
## [13534,] -7.517581e+04 -5.611856e+04 -1.675938e+11 -1.415895e+07
## [13535,] -1.752677e+06 -1.675607e+06 -7.173613e+10 -1.512138e+07
## [13536,] -1.403881e+08 -1.170602e+08 -4.460836e+11 -2.573703e+07
## [13537,] -3.322315e+11 -2.679920e+11 -2.672230e+15 -3.641965e+09
## [13538,] -2.454635e+11 -1.952804e+11 -2.024228e+15 -2.446376e+09
## [13539,] -4.924814e+09 -4.217699e+09 -3.375555e+13 -1.130745e+08
## [13540,] -2.150332e+04 -9.653872e+04 -1.676543e+11 -1.392434e+07
## [13541,] -1.411472e+06 -2.226694e+06 -7.178788e+10 -1.530935e+07
## [13542,] -1.342543e+08 -1.196973e+08 -4.464054e+11 -2.540153e+07
## [13543,] -3.322306e+11 -2.977215e+11 -2.673194e+15 -3.344487e+09
## [13544,] -2.438578e+11 -2.406638e+11 -2.024958e+15 -2.486585e+09
## [13545,] -4.480053e+09 -4.217799e+09 -3.376772e+13 -1.196385e+08
## [13546,] -5.859252e+04 -2.560843e+04 -1.677752e+11 -1.405292e+07
## [13547,] -1.378513e+06 -1.945635e+06 -7.181376e+10 -1.537683e+07

```

```

## [13548,] -1.370774e+08 -1.250256e+08 -4.467273e+11 -2.541694e+07
## [13549,] -3.441523e+11 -2.876360e+11 -2.675121e+15 -3.496925e+09
## [13550,] -2.422567e+11 -2.106239e+11 -2.026418e+15 -2.398243e+09
## [13551,] -4.466257e+09 -4.355043e+09 -3.379207e+13 -1.224356e+08
## [13552,] -2.086731e+05 -4.597980e+04 -1.678962e+11 -1.405320e+07
## [13553,] -1.325032e+06 -1.815300e+06 -7.186554e+10 -1.543118e+07
## [13554,] -1.370953e+08 -1.223808e+08 -4.468883e+11 -2.512385e+07
## [13555,] -3.311545e+11 -2.679889e+11 -2.676085e+15 -3.195014e+09
## [13556,] -2.181345e+11 -2.250072e+11 -2.027149e+15 -2.128161e+09
## [13557,] -4.808419e+09 -4.083240e+09 -3.380425e+13 -1.280750e+08
## [13558,] -1.460987e+05 -7.044661e+03 -1.678962e+11 -1.392489e+07
## [13559,] -1.370593e+06 -2.089314e+06 -7.186554e+10 -1.525823e+07
## [13560,] -1.359767e+08 -1.171429e+08 -4.468883e+11 -2.541258e+07
## [13561,] -3.311527e+11 -2.777236e+11 -2.678014e+15 -3.079998e+09
## [13562,] -2.265475e+11 -2.025113e+11 -2.028610e+15 -2.405969e+09
## [13563,] -5.468643e+09 -4.494690e+09 -3.384080e+13 -1.485480e+08
## [13564,] -1.025752e+05 -5.447016e+01 -1.680777e+11 -1.394200e+07
## [13565,] -1.422387e+06 -2.389663e+06 -7.194324e+10 -1.529532e+07
## [13566,] -1.338063e+08 -1.250940e+08 -4.473714e+11 -2.559285e+07
## [13567,] -3.430552e+11 -2.777220e+11 -2.679944e+15 -3.069492e+09
## [13568,] -2.543785e+11 -2.098765e+11 -2.030071e+15 -2.195765e+09
## [13569,] -4.925672e+09 -4.083631e+09 -3.385299e+13 -1.190693e+08
## [13570,] -1.118401e+05 -4.431017e+01 -1.681382e+11 -1.417704e+07
## [13571,] -1.483358e+06 -2.098160e+06 -7.196915e+10 -1.545521e+07
## [13572,] -1.343782e+08 -1.251111e+08 -4.475325e+11 -2.511850e+07
## [13573,] -3.121247e+11 -2.876319e+11 -2.679944e+15 -3.743161e+09
## [13574,] -2.296446e+11 -2.327649e+11 -2.030802e+15 -2.692312e+09
## [13575,] -4.494895e+09 -4.494895e+09 -3.386518e+13 -1.209205e+08
## [13576,] -7.507528e+04 -2.064268e+04 -1.681988e+11 -1.390888e+07
## [13577,] -1.414342e+06 -1.825610e+06 -7.199506e+10 -1.529960e+07
## [13578,] -1.291761e+08 -1.360658e+08 -4.476937e+11 -2.541490e+07
## [13579,] -3.028218e+11 -3.079722e+11 -2.680909e+15 -3.708934e+09
## [13580,] -2.503030e+11 -1.952743e+11 -2.030802e+15 -2.534746e+09
## [13581,] -4.579494e+09 -3.951055e+09 -3.386518e+13 -1.331863e+08
## [13582,] -8.303046e+04 -2.368948e+04 -1.682593e+11 -1.421103e+07
## [13583,] -1.290637e+06 -2.396756e+06 -7.202098e+10 -1.545951e+07
## [13584,] -1.355259e+08 -1.198479e+08 -4.478548e+11 -2.530208e+07
## [13585,] -3.110825e+11 -3.079714e+11 -2.681874e+15 -3.343692e+09
## [13586,] -2.486815e+11 -1.952737e+11 -2.031533e+15 -2.381857e+09
## [13587,] -4.722351e+09 -4.083826e+09 -3.387737e+13 -1.234827e+08
## [13588,] -1.905696e+05 -5.185837e+04 -1.683199e+11 -1.404298e+07
## [13589,] -1.361947e+06 -1.831810e+06 -7.207283e+10 -1.550242e+07
## [13590,] -1.363987e+08 -1.225161e+08 -4.481773e+11 -2.530542e+07
## [13591,] -3.142075e+11 -2.876287e+11 -2.683804e+15 -3.215427e+09
## [13592,] -2.576581e+11 -2.025065e+11 -2.033727e+15 -2.180230e+09
## [13593,] -4.636748e+09 -4.356052e+09 -3.391396e+13 -1.196101e+08
## [13594,] -3.826005e+04 -5.820790e+03 -1.685016e+11 -1.407136e+07

```

```

## [13595,] -1.297591e+06 -2.256439e+06 -7.212470e+10 -1.544497e+07
## [13596,] -1.339301e+08 -1.279060e+08 -4.484998e+11 -2.535694e+07
## [13597,] -3.194509e+11 -2.876262e+11 -2.686702e+15 -3.697033e+09
## [13598,] -2.519243e+11 -2.025051e+11 -2.035191e+15 -2.591777e+09
## [13599,] -5.000159e+09 -4.084314e+09 -3.393836e+13 -1.261405e+08
## [13600,] -2.034517e+04 -5.047568e+04 -1.685622e+11 -1.390970e+07
## [13601,] -1.512198e+06 -2.118130e+06 -7.220254e+10 -1.556734e+07
## [13602,] -1.284999e+08 -1.199650e+08 -4.489839e+11 -2.575517e+07
## [13603,] -3.332909e+11 -2.777139e+11 -2.689601e+15 -3.017235e+09
## [13604,] -2.551897e+11 -2.249970e+11 -2.037387e+15 -2.263990e+09
## [13605,] -4.897617e+09 -4.219685e+09 -3.399941e+13 -1.276414e+08
## [13606,] -6.283948e+04 -3.525269e+05 -1.688654e+11 -1.403304e+07
## [13607,] -1.595093e+06 -1.852553e+06 -7.233236e+10 -1.526987e+07
## [13608,] -1.360184e+08 -1.200487e+08 -4.497912e+11 -2.602543e+07
## [13609,] -2.926405e+11 -2.777107e+11 -2.693469e+15 -3.331863e+09
## [13610,] -2.494821e+11 -2.249941e+11 -2.040317e+15 -2.294680e+09
## [13611,] -4.810327e+09 -3.952303e+09 -3.402384e+13 -1.218312e+08
## [13612,] -1.521654e+05 -3.204811e+01 -1.690475e+11 -1.419596e+07
## [13613,] -2.018441e+06 -1.597024e+06 -7.235834e+10 -1.530270e+07
## [13614,] -1.360362e+08 -1.123271e+08 -4.499527e+11 -2.537800e+07
## [13615,] -3.332856e+11 -2.977023e+11 -2.695404e+15 -3.026978e+09
## [13616,] -2.478625e+11 -2.024989e+11 -2.041782e+15 -2.294533e+09
## [13617,] -4.898045e+09 -4.357161e+09 -3.404828e+13 -1.253558e+08
## [13618,] -2.968109e+04 -8.503282e+04 -1.691689e+11 -1.422998e+07
## [13619,] -1.625813e+06 -1.727437e+06 -7.241031e+10 -1.537616e+07
## [13620,] -1.305456e+08 -1.254018e+08 -4.502759e+11 -2.520080e+07
## [13621,] -3.226106e+11 -2.876180e+11 -2.696372e+15 -3.130314e+09
## [13622,] -2.519159e+11 -2.098639e+11 -2.043249e+15 -2.412432e+09
## [13623,] -4.781862e+09 -4.496739e+09 -3.408496e+13 -1.205327e+08
## [13624,] -9.105262e+03 -4.611097e+04 -1.693511e+11 -1.413490e+07
## [13625,] -1.748430e+06 -2.291006e+06 -7.251431e+10 -1.542325e+07
## [13626,] -1.420706e+08 -1.254703e+08 -4.509226e+11 -2.546043e+07
## [13627,] -3.354368e+11 -2.679691e+11 -2.700244e+15 -3.078047e+09
## [13628,] -2.543616e+11 -1.952602e+11 -2.046183e+15 -2.294094e+09
## [13629,] -4.884046e+09 -4.085779e+09 -3.412166e+13 -1.205831e+08
## [13630,] -1.313058e+05 -2.551071e+04 -1.694726e+11 -1.423630e+07
## [13631,] -1.726593e+06 -2.295635e+06 -7.256634e+10 -1.539673e+07
## [13632,] -1.384223e+08 -1.175899e+08 -4.512461e+11 -2.569375e+07
## [13633,] -2.936414e+11 -3.397663e+11 -2.703151e+15 -4.043209e+09
## [13634,] -2.406405e+11 -2.173575e+11 -2.047651e+15 -2.372308e+09
## [13635,] -4.624584e+09 -4.497354e+09 -3.415838e+13 -1.243400e+08
## [13636,] -5.795799e+04 -1.296497e+05 -1.696550e+11 -1.421421e+07
## [13637,] -1.732623e+06 -1.745562e+06 -7.264442e+10 -1.554985e+07
## [13638,] -1.365119e+08 -1.228885e+08 -4.517317e+11 -2.540241e+07
## [13639,] -3.141887e+11 -3.079510e+11 -2.705089e+15 -3.450190e+09
## [13640,] -2.390492e+11 -2.098576e+11 -2.049853e+15 -2.809346e+09
## [13641,] -4.441581e+09 -4.358271e+09 -3.418287e+13 -1.276639e+08

```

```

## [13642,] -1.680850e+05 -2.339633e+02 -1.698375e+11 -1.424276e+07
## [13643,] -1.405088e+06 -1.749603e+06 -7.269650e+10 -1.544986e+07
## [13644,] -1.393766e+08 -1.229393e+08 -4.522174e+11 -2.603249e+07
## [13645,] -3.419384e+11 -2.679628e+11 -2.707998e+15 -3.341306e+09
## [13646,] -2.327442e+11 -2.249833e+11 -2.051323e+15 -2.740815e+09
## [13647,] -4.441887e+09 -4.358574e+09 -3.421962e+13 -1.305702e+08
## [13648,] -6.303884e+04 -8.469465e+03 -1.700201e+11 -1.405801e+07
## [13649,] -1.678536e+06 -1.888084e+06 -7.277464e+10 -1.559549e+07
## [13650,] -1.408292e+08 -1.229732e+08 -4.525414e+11 -2.606031e+07
## [13651,] -3.311228e+11 -2.976890e+11 -2.710909e+15 -3.341041e+09
## [13652,] -2.335254e+11 -2.486587e+11 -2.053527e+15 -2.614660e+09
## [13653,] -4.611086e+09 -3.954033e+09 -3.424414e+13 -1.308445e+08
## [13654,] -2.456747e+05 -8.753010e+03 -1.701418e+11 -1.434496e+07
## [13655,] -1.345021e+06 -1.759725e+06 -7.282676e+10 -1.549535e+07
## [13656,] -1.335769e+08 -1.283731e+08 -4.528655e+11 -2.601484e+07
## [13657,] -3.215389e+11 -2.976881e+11 -2.711879e+15 -3.728685e+09
## [13658,] -2.527185e+11 -2.024866e+11 -2.054998e+15 -2.254535e+09
## [13659,] -4.725817e+09 -4.359078e+09 -3.428092e+13 -1.210315e+08
## [13660,] -8.481905e+04 -4.893645e+02 -1.703855e+11 -1.414285e+07
## [13661,] -1.456749e+06 -2.180866e+06 -7.293106e+10 -1.569774e+07
## [13662,] -1.378300e+08 -1.284424e+08 -4.535141e+11 -2.577801e+07
## [13663,] -3.474028e+11 -2.876016e+11 -2.715763e+15 -3.118187e+09
## [13664,] -2.486541e+11 -2.327376e+11 -2.057940e+15 -2.292923e+09
## [13665,] -4.683059e+09 -4.087343e+09 -3.431773e+13 -1.434509e+08
## [13666,] -4.039335e+04 -6.077275e+04 -1.704464e+11 -1.422163e+07
## [13667,] -1.411581e+06 -2.040561e+06 -7.295715e+10 -1.567659e+07
## [13668,] -1.334240e+08 -1.284944e+08 -4.540009e+11 -2.594738e+07
## [13669,] -3.365004e+11 -3.183697e+11 -2.718678e+15 -3.340334e+09
## [13670,] -2.438224e+11 -2.173461e+11 -2.059412e+15 -2.580962e+09
## [13671,] -4.668954e+09 -4.222465e+09 -3.434228e+13 -1.307449e+08
## [13672,] -9.233108e+04 -9.782206e+03 -1.705684e+11 -1.456711e+07
## [13673,] -1.608129e+06 -2.335168e+06 -7.300934e+10 -1.563433e+07
## [13674,] -1.379017e+08 -1.205013e+08 -4.541632e+11 -2.563912e+07
## [13675,] -3.343396e+11 -2.679525e+11 -2.720622e+15 -2.803460e+09
## [13676,] -2.634259e+11 -2.173447e+11 -2.060885e+15 -2.547945e+09
## [13677,] -4.900933e+09 -4.359886e+09 -3.437911e+13 -1.191011e+08
## [13678,] -3.321345e+04 -1.771513e+05 -1.707513e+11 -1.436330e+07
## [13679,] -1.374281e+06 -2.051491e+06 -7.308765e+10 -1.571463e+07
## [13680,] -1.410469e+08 -1.340305e+08 -4.544878e+11 -2.537655e+07
## [13681,] -3.279032e+11 -2.679517e+11 -2.721594e+15 -3.536791e+09
## [13682,] -2.535271e+11 -2.173432e+11 -2.062358e+15 -2.207835e+09
## [13683,] -5.018977e+09 -4.499302e+09 -3.439140e+13 -1.182057e+08
## [13684,] -6.180179e+04 -2.235131e+03 -1.708123e+11 -1.443703e+07
## [13685,] -1.387607e+06 -2.196693e+06 -7.311377e+10 -1.575572e+07
## [13686,] -1.422043e+08 -1.153534e+08 -4.546502e+11 -2.533604e+07
## [13687,] -3.332609e+11 -2.679509e+11 -2.722566e+15 -3.096809e+09
## [13688,] -2.559836e+11 -2.173432e+11 -2.062358e+15 -2.276975e+09

```

```

## [13689,] -4.871775e+09 -4.087929e+09 -3.439140e+13 -1.211829e+08
## [13690,] -1.246150e+05 -6.305419e+04 -1.708123e+11 -1.439172e+07
## [13691,] -1.434223e+06 -2.196693e+06 -7.311377e+10 -1.571291e+07
## [13692,] -1.365537e+08 -1.205516e+08 -4.546502e+11 -2.560176e+07
## [13693,] -3.375790e+11 -2.976790e+11 -2.722566e+15 -2.973584e+09
## [13694,] -2.559836e+11 -2.327332e+11 -2.062358e+15 -2.292484e+09
## [13695,] -4.974694e+09 -4.499404e+09 -3.440368e+13 -1.198209e+08
## [13696,] -1.088148e+05 -1.465561e+04 -1.708734e+11 -1.451662e+07
## [13697,] -1.917598e+06 -1.917598e+06 -7.313988e+10 -1.565679e+07
## [13698,] -1.371315e+08 -1.258815e+08 -4.548127e+11 -2.596192e+07
## [13699,] -3.441075e+11 -3.183654e+11 -2.723539e+15 -2.892742e+09
## [13700,] -2.718160e+11 -2.173425e+11 -2.063095e+15 -2.426362e+09
## [13701,] -4.626662e+09 -4.222961e+09 -3.440368e+13 -1.286863e+08
## [13702,] -9.919684e+04 -1.465561e+04 -1.708734e+11 -1.444850e+07
## [13703,] -1.607315e+06 -1.190700e+06 -7.316601e+10 -1.567838e+07
## [13704,] -1.419555e+08 -1.232276e+08 -4.549751e+11 -2.594533e+07
## [13705,] -2.826179e+11 -2.976773e+11 -2.724512e+15 -4.379661e+09
## [13706,] -2.659266e+11 -2.098443e+11 -2.063832e+15 -2.490638e+09
## [13707,] -4.871988e+09 -3.955379e+09 -3.441597e+13 -1.256349e+08
## [13708,] -9.361719e+04 -1.086862e+04 -1.709954e+11 -1.436386e+07
## [13709,] -1.523307e+06 -1.659424e+06 -7.319214e+10 -1.566501e+07
## [13710,] -1.349340e+08 -1.259158e+08 -4.551376e+11 -2.612408e+07
## [13711,] -3.195202e+11 -2.917051e+11 -3.157855e+13 -1.830460e+09
## [13712,] -2.524714e+11 -1.914689e+11 -2.392091e+13 -1.382171e+09
## [13713,] -4.230005e+09 -3.367016e+09 -3.988995e+11 -2.827248e+07
## [13714,] -1.751886e+07 -1.380643e+07 -1.981221e+09 -2.025982e+04
## [13715,] -6.660539e+06 -5.454624e+06 -8.480332e+08 -6.340311e+04
## [13716,] -6.171698e+07 -5.302211e+07 -5.273405e+09 -9.466128e+05
## [13717,] -3.333644e+11 -2.435398e+11 -3.157855e+13 -1.576748e+09
## [13718,] -2.411880e+11 -2.286085e+11 -2.392091e+13 -1.184708e+09
## [13719,] -4.108363e+09 -3.489576e+09 -3.988995e+11 -2.860738e+07
## [13720,] -1.751886e+07 -1.380643e+07 -1.981221e+09 -2.047266e+04
## [13721,] -6.459506e+06 -5.227881e+06 -8.480332e+08 -5.277346e+04
## [13722,] -6.323028e+07 -5.302211e+07 -5.273405e+09 -1.042044e+06
## [13723,] -3.280050e+11 -2.622847e+11 -3.157855e+13 -1.870551e+09
## [13724,] -2.111157e+11 -2.690380e+11 -2.392091e+13 -1.310741e+09
## [13725,] -3.962099e+09 -4.408843e+09 -3.988995e+11 -2.482294e+07
## [13726,] -1.623232e+07 -1.551919e+07 -1.981221e+09 -2.090167e+04
## [13727,] -6.838970e+06 -5.005952e+06 -8.480332e+08 -6.539487e+04
## [13728,] -6.134152e+07 -5.302211e+07 -5.273405e+09 -9.188769e+05
## [13729,] -3.290734e+11 -2.719178e+11 -3.157855e+13 -1.474828e+09
## [13730,] -2.484120e+11 -2.209174e+11 -2.392091e+13 -1.140457e+09
## [13731,] -4.216401e+09 -3.367016e+09 -3.988995e+11 -2.338431e+07
## [13732,] -1.733206e+07 -1.436622e+07 -1.981221e+09 -2.288731e+04
## [13733,] -6.384913e+06 -5.686181e+06 -8.480332e+08 -6.071474e+04
## [13734,] -5.875709e+07 -5.479044e+07 -5.290910e+09 -9.388019e+05
## [13735,] -3.312145e+11 -2.622839e+11 -3.168337e+13 -1.446275e+09

```



```

## [13736,] -2.500310e+11 -2.051937e+11 -2.400032e+13 -1.269894e+09
## [13737,] -4.189359e+09 -3.502043e+09 -4.002237e+11 -2.588460e+07
## [13738,] -1.646739e+07 -1.436043e+07 -1.987798e+09 -1.681651e+04
## [13739,] -5.918832e+06 -5.682537e+06 -8.508482e+08 -4.956857e+04
## [13740,] -6.248342e+07 -4.960475e+07 -5.290910e+09 -1.063256e+06
## [13741,] -3.364942e+11 -2.875934e+11 -2.725485e+15 -3.525352e+09
## [13742,] -2.390343e+11 -2.098436e+11 -2.064569e+15 -2.713961e+09
## [13743,] -4.741481e+09 -3.955475e+09 -3.442826e+13 -1.330313e+08
## [13744,] -7.218919e+04 -8.840859e+02 -1.709954e+11 -1.416668e+07
## [13745,] -1.572130e+06 -2.203494e+06 -7.319214e+10 -1.553712e+07
## [13746,] -1.294660e+08 -1.232785e+08 -4.554626e+11 -2.618868e+07
## [13747,] -3.268314e+11 -2.698802e+11 -2.727431e+15 -3.470052e+09
## [13748,] -2.446165e+11 -2.173390e+11 -2.066781e+15 -2.331045e+09
## [13749,] -5.034468e+09 -4.223458e+09 -3.446515e+13 -1.203635e+08
## [13750,] -1.659116e+05 -2.394726e+05 -1.712397e+11 -1.450041e+07
## [13751,] -1.957676e+06 -1.667309e+06 -7.329670e+10 -1.563097e+07
## [13752,] -1.358406e+08 -1.209321e+08 -4.557878e+11 -2.615534e+07
## [13753,] -3.068963e+11 -3.079298e+11 -2.729378e+15 -2.773206e+09
## [13754,] -2.478359e+11 -2.249673e+11 -2.067518e+15 -2.253302e+09
## [13755,] -5.109115e+09 -4.223557e+09 -3.447744e+13 -1.187779e+08
## [13756,] -1.053146e+05 -3.335843e+04 -1.713008e+11 -1.420670e+07
## [13757,] -1.425378e+06 -2.214851e+06 -7.332285e+10 -1.564866e+07
## [13758,] -1.504577e+08 -1.206859e+08 -4.559504e+11 -2.752706e+07
## [13759,] -3.247010e+11 -2.875893e+11 -2.730352e+15 -3.670233e+09
## [13760,] -2.486427e+11 -1.811655e+11 -2.068994e+15 -2.322997e+09
## [13761,] -4.946177e+09 -4.088906e+09 -3.451436e+13 -1.271845e+08
## [13762,] -6.894173e+04 -1.283946e+03 -1.714842e+11 -1.426339e+07
## [13763,] -1.599884e+06 -2.370330e+06 -7.340133e+10 -1.570955e+07
## [13764,] -1.292980e+08 -1.455638e+08 -4.564384e+11 -2.648137e+07
## [13765,] -3.343272e+11 -2.875861e+11 -2.734249e+15 -3.075080e+09
## [13766,] -2.609221e+11 -1.952365e+11 -2.071946e+15 -2.730092e+09
## [13767,] -4.814886e+09 -3.956436e+09 -3.455129e+13 -1.244185e+08
## [13768,] -1.682605e+05 -1.395589e+03 -1.716065e+11 -1.420177e+07
## [13769,] -1.668453e+06 -1.681151e+06 -7.347986e+10 -1.552990e+07
## [13770,] -1.387703e+08 -1.261045e+08 -4.569267e+11 -2.596560e+07
## [13771,] -3.310999e+11 -2.776753e+11 -2.736199e+15 -3.189660e+09
## [13772,] -2.592658e+11 -2.024694e+11 -2.073423e+15 -2.330381e+09
## [13773,] -4.858879e+09 -3.956724e+09 -3.458824e+13 -1.277607e+08
## [13774,] -8.283682e+04 -1.176974e+03 -1.718512e+11 -1.464987e+07
## [13775,] -1.303936e+06 -2.697109e+06 -7.355842e+10 -1.588247e+07
## [13776,] -1.448275e+08 -1.208538e+08 -4.575782e+11 -2.688277e+07
## [13777,] -3.268201e+11 -2.875811e+11 -2.740100e+15 -3.468881e+09
## [13778,] -2.535124e+11 -2.249586e+11 -2.076379e+15 -2.687397e+09
## [13779,] -4.557601e+09 -4.361904e+09 -3.462521e+13 -1.459248e+08
## [13780,] -9.970487e+03 -1.151513e+04 -1.719736e+11 -1.414083e+07
## [13781,] -1.309176e+06 -2.868409e+06 -7.363703e+10 -1.588901e+07
## [13782,] -1.346799e+08 -1.262075e+08 -4.579041e+11 -2.567169e+07

```

```

## [13783,] -3.343193e+11 -3.079180e+11 -2.743027e+15 -3.033116e+09
## [13784,] -2.526947e+11 -2.173283e+11 -2.077858e+15 -2.695655e+09
## [13785,] -4.487421e+09 -4.362106e+09 -3.464986e+13 -1.231572e+08
## [13786,] -6.884546e+04 -9.770440e+02 -1.720961e+11 -1.438333e+07
## [13787,] -1.851804e+06 -1.695050e+06 -7.366325e+10 -1.579356e+07
## [13788,] -1.386324e+08 -1.316772e+08 -4.582301e+11 -2.565081e+07
## [13789,] -2.996980e+11 -3.289513e+11 -2.744004e+15 -3.157469e+09
## [13790,] -2.502533e+11 -2.173276e+11 -2.078597e+15 -2.221522e+09
## [13791,] -4.947467e+09 -4.225047e+09 -3.466219e+13 -1.187996e+08
## [13792,] -7.981770e+03 -3.197749e+04 -1.722186e+11 -1.428196e+07
## [13793,] -1.417616e+06 -2.249099e+06 -7.371568e+10 -1.588382e+07
## [13794,] -1.392146e+08 -1.235841e+08 -4.583932e+11 -2.561008e+07
## [13795,] -3.257510e+11 -2.875770e+11 -2.744980e+15 -3.567934e+09
## [13796,] -2.422025e+11 -2.327162e+11 -2.079337e+15 -2.628535e+09
## [13797,] -5.140836e+09 -4.225147e+09 -3.467453e+13 -1.276450e+08
## [13798,] -6.421068e+04 -2.023873e+03 -1.722186e+11 -1.454244e+07
## [13799,] -1.752596e+06 -1.831396e+06 -7.374191e+10 -1.586255e+07
## [13800,] -1.400992e+08 -1.262933e+08 -4.587194e+11 -2.703773e+07
## [13801,] -3.343157e+11 -2.976581e+11 -2.746934e+15 -3.136299e+09
## [13802,] -2.486305e+11 -2.249543e+11 -2.080816e+15 -2.329643e+09
## [13803,] -4.874442e+09 -3.957590e+09 -3.469920e+13 -1.312522e+08
## [13804,] -3.109648e+05 -7.957991e+02 -1.723411e+11 -1.462246e+07
## [13805,] -1.528479e+06 -2.253686e+06 -7.376814e+10 -1.569713e+07
## [13806,] -1.364587e+08 -1.209883e+08 -4.588825e+11 -2.594930e+07
## [13807,] -3.268131e+11 -2.679303e+11 -2.747910e+15 -3.262729e+09
## [13808,] -2.692646e+11 -2.173247e+11 -2.081556e+15 -2.737536e+09
## [13809,] -4.801854e+09 -3.827187e+09 -3.472389e+13 -1.293754e+08
## [13810,] -1.536954e+05 -7.384095e+04 -1.724637e+11 -1.455438e+07
## [13811,] -1.595518e+06 -2.115462e+06 -7.384686e+10 -1.582049e+07
## [13812,] -1.401535e+08 -1.236691e+08 -4.592089e+11 -2.551561e+07
## [13813,] -2.885734e+11 -2.976556e+11 -2.749865e+15 -3.241295e+09
## [13814,] -2.358528e+11 -2.327118e+11 -2.083777e+15 -2.745790e+09
## [13815,] -4.758647e+09 -4.225743e+09 -3.474858e+13 -1.325244e+08
## [13816,] -1.355257e+05 -2.456899e+03 -1.725864e+11 -1.476597e+07
## [13817,] -1.523910e+06 -1.977312e+06 -7.387311e+10 -1.582267e+07
## [13818,] -1.320924e+08 -1.373703e+08 -4.595354e+11 -2.574919e+07
## [13819,] -3.539914e+11 -2.776616e+11 -2.752798e+15 -3.230431e+09
## [13820,] -2.295896e+11 -2.098233e+11 -2.085999e+15 -3.159621e+09
## [13821,] -4.644140e+09 -3.827660e+09 -3.478564e+13 -1.352417e+08
## [13822,] -1.415678e+04 -9.334115e+03 -1.728318e+11 -1.458938e+07
## [13823,] -1.642693e+06 -2.126591e+06 -7.397816e+10 -1.572226e+07
## [13824,] -1.430925e+08 -1.264308e+08 -4.600254e+11 -2.584541e+07
## [13825,] -3.606741e+11 -2.875680e+11 -2.755732e+15 -3.021767e+09
## [13826,] -2.609057e+11 -2.024563e+11 -2.087482e+15 -2.243653e+09
## [13827,] -4.860903e+09 -3.958551e+09 -3.482271e+13 -1.297529e+08
## [13828,] -4.563964e+04 -3.937204e+02 -1.730160e+11 -1.445905e+07
## [13829,] -1.575773e+06 -2.587314e+06 -7.408328e+10 -1.584009e+07

```

```

## [13830,] -1.363933e+08 -1.159780e+08 -4.608425e+11 -2.628764e+07
## [13831,] -3.204404e+11 -3.289372e+11 -2.759647e+15 -3.533247e+09
## [13832,] -2.502411e+11 -2.173162e+11 -2.090447e+15 -2.652366e+09
## [13833,] -4.602168e+09 -4.226736e+09 -3.487217e+13 -1.227659e+08
## [13834,] -1.194264e+05 -3.272034e+03 -1.732002e+11 -1.443679e+07
## [13835,] -1.470579e+06 -2.139984e+06 -7.413587e+10 -1.581711e+07
## [13836,] -1.398042e+08 -1.186030e+08 -4.611696e+11 -2.563256e+07
## [13837,] -3.225516e+11 -3.079010e+11 -2.762586e+15 -2.839574e+09
## [13838,] -2.486183e+11 -1.952176e+11 -2.092673e+15 -2.040482e+09
## [13839,] -4.861543e+09 -4.091936e+09 -3.489692e+13 -1.260687e+08
## [13840,] -1.230233e+05 -2.339633e+02 -1.733846e+11 -1.444855e+07
## [13841,] -1.842084e+06 -1.868813e+06 -7.421478e+10 -1.561746e+07
## [13842,] -1.359061e+08 -1.160438e+08 -4.614968e+11 -2.644192e+07
## [13843,] -3.528724e+11 -2.679169e+11 -2.764545e+15 -2.889291e+09
## [13844,] -2.211105e+11 -2.327015e+11 -2.094157e+15 -2.593812e+09
## [13845,] -4.760228e+09 -4.227233e+09 -3.493405e+13 -1.320657e+08
## [13846,] -2.388746e+04 -5.597384e+04 -1.735691e+11 -1.445464e+07
## [13847,] -1.678972e+06 -1.743140e+06 -7.429374e+10 -1.596318e+07
## [13848,] -1.424720e+08 -1.293620e+08 -4.621515e+11 -2.577612e+07
## [13849,] -3.674109e+11 -2.875582e+11 -2.767486e+15 -3.734751e+09
## [13850,] -2.592416e+11 -1.952142e+11 -2.096385e+15 -2.560636e+09
## [13851,] -5.083483e+09 -3.959609e+09 -3.495882e+13 -1.196572e+08
## [13852,] -1.599162e+05 -1.508149e+02 -1.736306e+11 -1.475690e+07
## [13853,] -1.424429e+06 -2.453398e+06 -7.432007e+10 -1.600459e+07
## [13854,] -1.393470e+08 -1.293620e+08 -4.621515e+11 -2.592213e+07
## [13855,] -3.332203e+11 -2.679145e+11 -2.767486e+15 -3.632932e+09
## [13856,] -2.486145e+11 -2.486145e+11 -2.096385e+15 -2.273622e+09
## [13857,] -4.774893e+09 -4.504018e+09 -3.495882e+13 -1.210351e+08
## [13858,] -3.371664e+04 -2.600119e+04 -1.736306e+11 -1.476836e+07
## [13859,] -1.543936e+06 -1.745158e+06 -7.432007e+10 -1.585578e+07
## [13860,] -1.407631e+08 -1.213247e+08 -4.621515e+11 -2.572754e+07
## [13861,] -3.407948e+11 -2.679145e+11 -2.767486e+15 -3.000304e+09
## [13862,] -2.518599e+11 -2.024474e+11 -2.097128e+15 -2.471051e+09
## [13863,] -4.950154e+09 -3.959705e+09 -3.497121e+13 -1.264070e+08
## [13864,] -2.104921e+05 -1.900783e+04 -1.736921e+11 -1.476277e+07
## [13865,] -1.747178e+06 -2.016184e+06 -7.434640e+10 -1.598716e+07
## [13866,] -1.346033e+08 -1.266715e+08 -4.623153e+11 -2.660453e+07
## [13867,] -3.321443e+11 -2.875574e+11 -2.768467e+15 -3.010439e+09
## [13868,] -2.617241e+11 -2.326978e+11 -2.097871e+15 -3.014054e+09
## [13869,] -4.804184e+09 -4.645911e+09 -3.499599e+13 -1.321536e+08
## [13870,] -1.667414e+04 -2.526722e+04 -1.738152e+11 -1.441552e+07
## [13871,] -1.674183e+06 -2.616897e+06 -7.439908e+10 -1.591316e+07
## [13872,] -1.363280e+08 -1.187695e+08 -4.628067e+11 -2.639405e+07
## [13873,] -3.386184e+11 -2.875549e+11 -2.771409e+15 -3.487984e+09
## [13874,] -2.510433e+11 -2.249354e+11 -2.100100e+15 -2.494999e+09
## [13875,] -4.703367e+09 -4.646119e+09 -3.502078e+13 -1.286033e+08
## [13876,] -9.399164e+04 -4.404348e+03 -1.739383e+11 -1.458620e+07

```

```

## [13877,] -1.529084e+06 -2.313732e+06 -7.445178e+10 -1.598806e+07
## [13878,] -1.419923e+08 -1.267403e+08 -4.629706e+11 -2.577846e+07
## [13879,] -3.225429e+11 -2.679106e+11 -2.772391e+15 -3.454947e+09
## [13880,] -2.502311e+11 -2.024446e+11 -2.100100e+15 -2.494999e+09
## [13881,] -4.674804e+09 -4.093011e+09 -3.503318e+13 -1.257876e+08
## [13882,] -4.973679e+04 -5.026603e+01 -1.740615e+11 -1.439910e+07
## [13883,] -1.707649e+06 -2.171397e+06 -7.450450e+10 -1.592972e+07
## [13884,] -1.380816e+08 -1.241113e+08 -4.634623e+11 -2.554708e+07
## [13885,] -3.299931e+11 -2.776430e+11 -2.775336e+15 -3.498640e+09
## [13886,] -2.567633e+11 -2.249333e+11 -2.102331e+15 -2.296302e+09
## [13887,] -4.848342e+09 -4.093207e+09 -3.505798e+13 -1.230200e+08
## [13888,] -4.613723e+04 -4.713702e+03 -1.741231e+11 -1.469506e+07
## [13889,] -1.561074e+06 -2.175904e+06 -7.455724e+10 -1.586758e+07
## [13890,] -1.412106e+08 -1.268091e+08 -4.636263e+11 -2.572447e+07
## [13891,] -3.246601e+11 -2.875508e+11 -2.776318e+15 -3.609670e+09
## [13892,] -2.494164e+11 -2.098065e+11 -2.103819e+15 -2.350896e+09
## [13893,] -4.718259e+09 -4.505044e+09 -3.508279e+13 -1.320359e+08
## [13894,] -3.096901e+04 -4.925777e+03 -1.742463e+11 -1.474112e+07
## [13895,] -1.612434e+06 -2.325370e+06 -7.458362e+10 -1.603827e+07
## [13896,] -1.300812e+08 -1.214931e+08 -4.637903e+11 -2.615889e+07
## [13897,] -3.289206e+11 -2.776406e+11 -2.778282e+15 -3.071268e+09
## [13898,] -2.502265e+11 -1.811343e+11 -2.104563e+15 -2.319463e+09
## [13899,] -4.848661e+09 -3.830024e+09 -3.509520e+13 -1.157519e+08
## [13900,] -8.684533e+03 -2.336135e+04 -1.743079e+11 -1.468977e+07
## [13901,] -1.516185e+06 -2.479800e+06 -7.461000e+10 -1.606012e+07
## [13902,] -1.384349e+08 -1.215268e+08 -4.641185e+11 -2.630938e+07
## [13903,] -3.429639e+11 -2.776398e+11 -2.779265e+15 -3.112642e+09
## [13904,] -2.366183e+11 -2.326889e+11 -2.106796e+15 -2.366357e+09
## [13905,] -4.505660e+09 -4.505660e+09 -3.515727e+13 -1.254896e+08
## [13906,] -1.125363e+05 -2.229931e+04 -1.746162e+11 -1.474197e+07
## [13907,] -1.636627e+06 -2.339374e+06 -7.474197e+10 -1.602785e+07
## [13908,] -1.312979e+08 -1.296577e+08 -4.649393e+11 -2.612793e+07
## [13909,] -3.429594e+11 -2.679011e+11 -2.784180e+15 -3.019331e+09
## [13910,] -2.405783e+11 -2.024364e+11 -2.109031e+15 -2.295643e+09
## [13911,] -4.449733e+09 -4.229121e+09 -3.516970e+13 -1.290490e+08
## [13912,] -6.345392e+04 -2.275803e+04 -1.747396e+11 -1.475371e+07
## [13913,] -2.013450e+06 -2.055433e+06 -7.482121e+10 -1.601085e+07
## [13914,] -1.360370e+08 -1.242987e+08 -4.652678e+11 -2.599692e+07
## [13915,] -3.204170e+11 -2.678995e+11 -2.786147e+15 -3.101655e+09
## [13916,] -2.413732e+11 -2.172969e+11 -2.110521e+15 -2.777000e+09
## [13917,] -4.805879e+09 -4.366548e+09 -3.519455e+13 -1.319535e+08
## [13918,] -1.366759e+05 -5.151095e+04 -1.748631e+11 -1.465104e+07
## [13919,] -1.657063e+06 -2.501507e+06 -7.484763e+10 -1.605626e+07
## [13920,] -1.357758e+08 -1.243157e+08 -4.654321e+11 -2.651982e+07
## [13921,] -3.418660e+11 -2.976239e+11 -2.787131e+15 -3.453599e+09
## [13922,] -2.518446e+11 -2.097988e+11 -2.112012e+15 -2.264365e+09
## [13923,] -5.668859e+09 -4.366750e+09 -3.521941e+13 -1.141204e+08

```

```

## [13924,] -1.508792e+04 -2.108411e+04 -1.749248e+11 -1.470833e+07
## [13925,] -1.867393e+06 -2.351076e+06 -7.487406e+10 -1.605452e+07
## [13926,] -1.402925e+08 -1.297273e+08 -4.655964e+11 -2.601250e+07
## [13927,] -3.183085e+11 -2.875410e+11 -2.788115e+15 -3.227305e+09
## [13928,] -2.421694e+11 -2.024336e+11 -2.112012e+15 -2.248951e+09
## [13929,] -4.576809e+09 -4.506275e+09 -3.523184e+13 -1.274761e+08
## [13930,] -3.503526e+05 -2.086281e+04 -1.749866e+11 -1.406356e+07
## [13931,] -1.937160e+06 -2.353420e+06 -7.490049e+10 -1.611180e+07
## [13932,] -1.330542e+08 -1.408963e+08 -4.659252e+11 -2.601589e+07
## [13933,] -3.418624e+11 -2.583346e+11 -2.791068e+15 -3.585934e+09
## [13934,] -2.469810e+11 -2.172934e+11 -2.114249e+15 -2.583459e+09
## [13935,] -4.577015e+09 -4.094772e+09 -3.525671e+13 -1.270383e+08
## [13936,] -1.179942e+05 -2.440033e+04 -1.751719e+11 -1.456623e+07
## [13937,] -1.530483e+06 -2.212123e+06 -7.497981e+10 -1.623678e+07
## [13938,] -1.325379e+08 -1.244009e+08 -4.662540e+11 -2.696777e+07
## [13939,] -3.058097e+11 -2.976189e+11 -2.793038e+15 -3.132278e+09
## [13940,] -2.534717e+11 -2.097953e+11 -2.115741e+15 -2.217922e+09
## [13941,] -4.806621e+09 -4.230016e+09 -3.528159e+13 -1.332820e+08
## [13942,] -3.747499e+04 -4.465378e+03 -1.752337e+11 -1.457775e+07
## [13943,] -1.556762e+06 -1.932015e+06 -7.500626e+10 -1.593989e+07
## [13944,] -1.375796e+08 -1.298318e+08 -4.665830e+11 -2.643940e+07
## [13945,] -3.673849e+11 -2.776269e+11 -2.795008e+15 -3.038923e+09
## [13946,] -2.429632e+11 -2.172905e+11 -2.117233e+15 -2.469001e+09
## [13947,] -4.563381e+09 -4.367558e+09 -3.531893e+13 -1.243080e+08
## [13948,] -1.108814e+05 -5.467981e+04 -1.754191e+11 -1.468087e+07
## [13949,] -1.830652e+06 -1.938393e+06 -7.508564e+10 -1.598564e+07
## [13950,] -1.367924e+08 -1.192029e+08 -4.670767e+11 -2.649993e+07
## [13951,] -3.267685e+11 -2.776245e+11 -2.797965e+15 -3.709117e+09
## [13952,] -2.485908e+11 -2.097918e+11 -2.119473e+15 -2.682804e+09
## [13953,] -4.706198e+09 -4.230612e+09 -3.535629e+13 -1.274123e+08
## [13954,] -1.309396e+04 -1.582889e+02 -1.756047e+11 -1.471560e+07
## [13955,] -1.944782e+06 -2.530597e+06 -7.516506e+10 -1.606291e+07
## [13956,] -1.346154e+08 -1.299363e+08 -4.675707e+11 -2.647426e+07
## [13957,] -3.353466e+11 -2.976131e+11 -2.799937e+15 -3.463393e+09
## [13958,] -2.650301e+11 -2.172869e+11 -2.120967e+15 -2.444498e+09
## [13959,] -4.865699e+09 -4.095750e+09 -3.538121e+13 -1.211462e+08
## [13960,] -3.122957e+05 -2.433058e+02 -1.758522e+11 -1.502677e+07
## [13961,] -1.794276e+06 -1.690676e+06 -7.529752e+10 -1.587780e+07
## [13962,] -1.383393e+08 -1.193365e+08 -4.683945e+11 -2.618190e+07
## [13963,] -3.225142e+11 -2.776189e+11 -2.804871e+15 -3.618212e+09
## [13964,] -2.600379e+11 -2.172827e+11 -2.125452e+15 -2.201735e+09
## [13965,] -4.822524e+09 -4.368568e+09 -3.544353e+13 -1.221539e+08
## [13966,] -1.032758e+04 -1.261519e+05 -1.760380e+11 -1.485998e+07
## [13967,] -1.950285e+06 -1.964011e+06 -7.540357e+10 -1.617722e+07
## [13968,] -1.378307e+08 -1.300757e+08 -4.688892e+11 -2.618087e+07
## [13969,] -3.172397e+11 -2.583206e+11 -2.808820e+15 -3.193802e+09
## [13970,] -2.534586e+11 -2.097834e+11 -2.128444e+15 -2.451769e+09

```

```

## [13971,] -4.984184e+09 -3.963745e+09 -3.549344e+13 -1.565055e+08
## [13972,] -1.131935e+05 -2.817357e+03 -1.763479e+11 -1.494130e+07
## [13973,] -1.942992e+06 -1.970441e+06 -7.548316e+10 -1.606956e+07
## [13974,] -1.342553e+08 -1.441365e+08 -4.693841e+11 -2.680809e+07
## [13975,] -3.321055e+11 -2.678789e+11 -2.811785e+15 -3.628788e+09
## [13976,] -2.510127e+11 -1.951839e+11 -2.129942e+15 -2.581828e+09
## [13977,] -4.636023e+09 -4.369174e+09 -3.551840e+13 -1.360481e+08
## [13978,] -9.354239e+04 -2.940792e+04 -1.764099e+11 -1.466597e+07
## [13979,] -1.531882e+06 -1.972587e+06 -7.550970e+10 -1.609537e+07
## [13980,] -1.387829e+08 -1.194868e+08 -4.698793e+11 -2.674512e+07
## [13981,] -2.935479e+11 -2.776116e+11 -2.813762e+15 -3.506144e+09
## [13982,] -2.510096e+11 -1.811096e+11 -2.132937e+15 -2.581517e+09
## [13983,] -4.809058e+09 -3.964322e+09 -3.556836e+13 -1.211681e+08
## [13984,] -1.353828e+04 -1.532912e+04 -1.766580e+11 -1.464940e+07
## [13985,] -1.818926e+06 -2.417147e+06 -7.561590e+10 -1.605300e+07
## [13986,] -1.379922e+08 -1.275157e+08 -4.703747e+11 -2.658342e+07
## [13987,] -3.246244e+11 -2.583144e+11 -2.816728e+15 -3.418134e+09
## [13988,] -2.461557e+11 -2.097785e+11 -2.133686e+15 -2.656157e+09
## [13989,] -4.693733e+09 -4.097315e+09 -3.558085e+13 -1.460821e+08
## [13990,] -9.075898e+04 -7.285330e+02 -1.767821e+11 -1.503469e+07
## [13991,] -1.744432e+06 -2.271616e+06 -7.566903e+10 -1.617555e+07
## [13992,] -1.542040e+08 -1.275330e+08 -4.705399e+11 -2.782713e+07
## [13993,] -2.669103e+11 -3.506124e+11 -2.817718e+15 -5.577220e+09
## [13994,] -2.350145e+11 -2.097771e+11 -2.135185e+15 -2.395187e+09
## [13995,] -4.765924e+09 -3.833903e+09 -3.560585e+13 -1.254025e+08
## [13996,] -7.284765e+04 -1.458172e+04 -1.769063e+11 -1.481026e+07
## [13997,] -1.559280e+06 -2.741970e+06 -7.572218e+10 -1.617995e+07
## [13998,] -1.403048e+08 -1.222185e+08 -4.708704e+11 -2.617674e+07
## [13999,] -3.462097e+11 -2.975964e+11 -2.819697e+15 -3.119549e+09
## [14000,] -2.389626e+11 -2.249006e+11 -2.135935e+15 -2.639226e+09
## [14001,] -4.896978e+09 -4.651120e+09 -3.561835e+13 -1.299133e+08
## [14002,] -9.852413e+04 -8.571094e+02 -1.769684e+11 -1.482188e+07
## [14003,] -1.648183e+06 -2.278532e+06 -7.574876e+10 -1.618215e+07
## [14004,] -1.389089e+08 -1.275847e+08 -4.710357e+11 -2.678809e+07
## [14005,] -3.267484e+11 -2.583113e+11 -2.820687e+15 -3.627960e+09
## [14006,] -2.477651e+11 -2.248999e+11 -2.136685e+15 -2.630819e+09
## [14007,] -4.970602e+09 -4.370084e+09 -3.563085e+13 -1.299307e+08
## [14008,] -4.672997e+04 -1.996500e+03 -1.770305e+11 -1.483351e+07
## [14009,] -1.338718e+06 -2.431424e+06 -7.577535e+10 -1.641808e+07
## [14010,] -1.286857e+08 -1.386450e+08 -4.712010e+11 -2.632729e+07
## [14011,] -3.203850e+11 -2.776044e+11 -2.822667e+15 -3.119293e+09
## [14012,] -2.625124e+11 -2.024095e+11 -2.138185e+15 -2.215763e+09
## [14013,] -4.970818e+09 -4.097902e+09 -3.565586e+13 -1.210554e+08
## [14014,] -1.497192e+05 -1.403343e+04 -1.770926e+11 -1.507591e+07
## [14015,] -1.492231e+06 -2.914667e+06 -7.580194e+10 -1.635277e+07
## [14016,] -1.420655e+08 -1.196372e+08 -4.713663e+11 -2.622471e+07
## [14017,] -3.473046e+11 -2.678702e+11 -2.822667e+15 -3.057143e+09

```

```

## [14018,] -2.135060e+11 -2.485718e+11 -2.138185e+15 -2.402834e+09
## [14019,] -4.665721e+09 -4.509764e+09 -3.565586e+13 -1.236021e+08
## [14020,] -5.653929e+04 -7.161549e+04 -1.770926e+11 -1.502383e+07
## [14021,] -1.591582e+06 -1.862134e+06 -7.582853e+10 -1.637483e+07
## [14022,] -1.426548e+08 -1.249470e+08 -4.715317e+11 -2.608565e+07
## [14023,] -3.396568e+11 -2.975931e+11 -2.823657e+15 -3.015973e+09
## [14024,] -2.559040e+11 -2.024089e+11 -2.138935e+15 -2.162558e+09
## [14025,] -4.780914e+09 -3.834376e+09 -3.566837e+13 -1.236191e+08
## [14026,] -3.989122e+04 -3.263670e+04 -1.771547e+11 -1.494314e+07
## [14027,] -1.717769e+06 -2.285458e+06 -7.582853e+10 -1.631137e+07
## [14028,] -1.386810e+08 -1.196539e+08 -4.715317e+11 -2.623254e+07
## [14029,] -3.374876e+11 -2.776036e+11 -2.823657e+15 -3.406620e+09
## [14030,] -2.413439e+11 -2.097729e+11 -2.139685e+15 -2.663894e+09
## [14031,] -4.752116e+09 -3.965188e+09 -3.568089e+13 -1.323981e+08
## [14032,] -1.211862e+05 -1.092791e+05 -1.772169e+11 -1.506462e+07
## [14033,] -1.607858e+06 -2.002752e+06 -7.588173e+10 -1.635544e+07
## [14034,] -1.384353e+08 -1.276711e+08 -4.718626e+11 -2.646937e+07
## [14035,] -3.235554e+11 -2.678678e+11 -2.825638e+15 -3.277143e+09
## [14036,] -2.389581e+11 -2.024075e+11 -2.140436e+15 -2.434523e+09
## [14037,] -4.680553e+09 -4.098391e+09 -3.571843e+13 -1.339002e+08
## [14038,] -5.985102e+03 -1.197995e+03 -1.774034e+11 -1.488611e+07
## [14039,] -2.399928e+06 -2.148488e+06 -7.593496e+10 -1.624894e+07
## [14040,] -1.401842e+08 -1.250324e+08 -4.723590e+11 -2.676466e+07
## [14041,] -3.237470e+11 -2.927111e+11 -3.178837e+13 -1.591464e+09
## [14042,] -2.590333e+11 -1.914676e+11 -2.407986e+13 -1.059656e+09
## [14043,] -4.326043e+09 -3.489757e+09 -4.015500e+11 -2.269566e+07
## [14044,] -1.744371e+07 -1.362937e+07 -1.994385e+09 -1.369376e+04
## [14045,] -6.476686e+06 -5.220895e+06 -8.536679e+08 -5.190153e+04
## [14046,] -6.249550e+07 -4.961552e+07 -5.308444e+09 -9.057947e+05
## [14047,] -3.387655e+11 -2.817230e+11 -3.178837e+13 -1.397022e+09
## [14048,] -2.557411e+11 -2.209159e+11 -2.407986e+13 -1.334229e+09
## [14049,] -4.284838e+09 -3.614511e+09 -4.015500e+11 -2.589237e+07
## [14050,] -1.750607e+07 -1.379507e+07 -1.994385e+09 -1.800184e+04
## [14051,] -6.830979e+06 -5.678894e+06 -8.536679e+08 -6.195765e+04
## [14052,] -5.622828e+07 -6.211768e+07 -5.308444e+09 -9.801492e+05
## [14053,] -3.248084e+11 -3.018577e+11 -3.178837e+13 -1.643942e+09
## [14054,] -2.582083e+11 -2.209159e+11 -2.407986e+13 -1.212686e+09
## [14055,] -4.148910e+09 -3.870593e+09 -4.015500e+11 -2.452618e+07
## [14056,] -1.750607e+07 -1.550715e+07 -1.994385e+09 -2.069716e+04
## [14057,] -6.501680e+06 -6.156147e+06 -8.536679e+08 -6.343159e+04
## [14058,] -6.344507e+07 -5.480175e+07 -5.308444e+09 -9.426054e+05
## [14059,] -3.312137e+11 -3.018577e+11 -3.178837e+13 -1.598908e+09
## [14060,] -2.451867e+11 -2.059286e+11 -2.407986e+13 -1.190193e+09
## [14061,] -4.055064e+09 -3.489757e+09 -4.015500e+11 -2.504726e+07
## [14062,] -1.826298e+07 -1.324663e+07 -1.994385e+09 -2.112851e+04
## [14063,] -6.805359e+06 -4.999115e+06 -8.536679e+08 -6.442384e+04
## [14064,] -6.478650e+07 -5.480175e+07 -5.308444e+09 -9.379639e+05

```

```

## [14065,] -3.312137e+11 -2.817230e+11 -3.178837e+13 -1.576626e+09
## [14066,] -2.459906e+11 -2.133565e+11 -2.407986e+13 -1.190193e+09
## [14067,] -4.339822e+09 -3.367194e+09 -4.015500e+11 -2.431928e+07
## [14068,] -1.769379e+07 -1.435464e+07 -1.994385e+09 -2.069716e+04
## [14069,] -6.856646e+06 -5.220895e+06 -8.536679e+08 -6.343159e+04
## [14070,] -6.517235e+07 -5.131562e+07 -5.308444e+09 -9.449304e+05
## [14071,] -3.235519e+11 -2.875066e+11 -2.829603e+15 -3.191988e+09
## [14072,] -2.625069e+11 -2.172656e+11 -2.143439e+15 -2.284515e+09
## [14073,] -4.942096e+09 -3.965670e+09 -3.574348e+13 -1.170610e+08
## [14074,] -9.840904e+04 -1.262271e+04 -1.775900e+11 -1.512922e+07
## [14075,] -1.746774e+06 -3.108784e+06 -7.604146e+10 -1.635682e+07
## [14076,] -1.413745e+08 -1.224214e+08 -4.728558e+11 -2.641806e+07
## [14077,] -3.246096e+11 -2.775955e+11 -2.833570e+15 -3.526438e+09
## [14078,] -2.334330e+11 -2.248905e+11 -2.146444e+15 -2.291983e+09
## [14079,] -4.883836e+09 -4.371397e+09 -3.579359e+13 -1.330388e+08
## [14080,] -1.064883e+05 -1.293360e+04 -1.777766e+11 -1.488120e+07
## [14081,] -1.883047e+06 -2.460105e+06 -7.609474e+10 -1.621078e+07
## [14082,] -1.431419e+08 -1.251350e+08 -4.733528e+11 -2.630644e+07
## [14083,] -3.016651e+11 -2.775947e+11 -2.834562e+15 -3.319172e+09
## [14084,] -2.241211e+11 -2.326491e+11 -2.147196e+15 -2.393990e+09
## [14085,] -4.883943e+09 -3.966151e+09 -3.580613e+13 -1.226443e+08
## [14086,] -4.221949e+04 -3.603364e+04 -1.779012e+11 -1.483549e+07
## [14087,] -2.080664e+06 -2.621349e+06 -7.614803e+10 -1.616386e+07
## [14088,] -1.349941e+08 -1.305816e+08 -4.736843e+11 -2.705155e+07
## [14089,] -3.193187e+11 -3.182663e+11 -2.836547e+15 -3.854462e+09
## [14090,] -2.550739e+11 -2.097645e+11 -2.148699e+15 -2.530682e+09
## [14091,] -4.483125e+09 -4.371700e+09 -3.583120e+13 -1.431770e+08
## [14092,] -4.755743e+03 -1.005842e+03 -1.780880e+11 -1.496835e+07
## [14093,] -2.003098e+06 -2.472105e+06 -7.622801e+10 -1.626529e+07
## [14094,] -1.432150e+08 -1.252034e+08 -4.740159e+11 -2.695550e+07
## [14095,] -3.140722e+11 -2.678576e+11 -2.838533e+15 -2.923307e+09
## [14096,] -2.349996e+11 -2.172592e+11 -2.150203e+15 -2.704813e+09
## [14097,] -4.796987e+09 -4.099467e+09 -3.585628e+13 -1.345801e+08
## [14098,] -6.522147e+04 -1.005842e+03 -1.780880e+11 -1.484166e+07
## [14099,] -1.711245e+06 -2.322574e+06 -7.625468e+10 -1.630314e+07
## [14100,] -1.311817e+08 -1.306340e+08 -4.741817e+11 -2.648094e+07
## [14101,] -3.140713e+11 -2.975797e+11 -2.839526e+15 -3.159614e+09
## [14102,] -2.526187e+11 -2.248854e+11 -2.151708e+15 -2.645916e+09
## [14103,] -4.913994e+09 -4.943386e+09 -3.589392e+13 -1.197662e+08
## [14104,] -3.458644e+04 -3.186827e+04 -1.782750e+11 -1.493993e+07
## [14105,] -1.743059e+06 -2.329566e+06 -7.633472e+10 -1.628600e+07
## [14106,] -1.381779e+08 -1.199717e+08 -4.746794e+11 -2.722399e+07
## [14107,] -3.267283e+11 -2.874951e+11 -2.843500e+15 -3.138351e+09
## [14108,] -2.413297e+11 -2.097596e+11 -2.153966e+15 -2.604121e+09
## [14109,] -4.653622e+09 -4.099956e+09 -3.591903e+13 -1.322505e+08
## [14110,] -6.709245e+04 -2.192039e+03 -1.783997e+11 -1.483662e+07
## [14111,] -1.773131e+06 -2.186738e+06 -7.638810e+10 -1.623502e+07

```



```

## [14112,] -1.418958e+08 -1.279994e+08 -4.750113e+11 -2.622531e+07
## [14113,] -3.140670e+11 -2.874943e+11 -2.844494e+15 -4.005598e+09
## [14114,] -2.045899e+11 -2.326418e+11 -2.154719e+15 -3.289821e+09
## [14115,] -4.958437e+09 -4.235186e+09 -3.593159e+13 -1.223501e+08
## [14116,] -1.766234e+03 -6.290079e+04 -1.784620e+11 -1.509643e+07
## [14117,] -1.747097e+06 -2.334234e+06 -7.638810e+10 -1.645716e+07
## [14118,] -1.404920e+08 -1.307388e+08 -4.751774e+11 -2.682482e+07
## [14119,] -3.494843e+11 -2.678520e+11 -2.845488e+15 -3.024369e+09
## [14120,] -2.526148e+11 -2.326410e+11 -2.155472e+15 -2.306663e+09
## [14121,] -5.092203e+09 -3.967306e+09 -3.595670e+13 -1.318221e+08
## [14122,] -2.076581e+04 -9.873085e+03 -1.786492e+11 -1.491197e+07
## [14123,] -1.822844e+06 -2.498607e+06 -7.652163e+10 -1.646030e+07
## [14124,] -1.377413e+08 -1.200889e+08 -4.758417e+11 -2.722986e+07
## [14125,] -3.374645e+11 -2.775827e+11 -2.849466e+15 -2.952706e+09
## [14126,] -2.501715e+11 -1.873541e+11 -2.158486e+15 -2.259858e+09
## [14127,] -4.914851e+09 -3.733808e+09 -3.599440e+13 -1.208186e+08
## [14128,] -5.044821e+04 -4.020928e+04 -1.787740e+11 -1.501611e+07
## [14129,] -1.190033e+06 -2.988180e+06 -7.654835e+10 -1.658216e+07
## [14130,] -1.400157e+08 -1.308262e+08 -4.760079e+11 -2.627229e+07
## [14131,] -3.407199e+11 -2.775818e+11 -2.850461e+15 -3.264298e+09
## [14132,] -2.526110e+11 -2.172506e+11 -2.159239e+15 -2.408692e+09
## [14133,] -4.988825e+09 -3.837121e+09 -3.603211e+13 -1.208690e+08
## [14134,] -9.722369e+04 -2.882568e+03 -1.789613e+11 -1.526611e+07
## [14135,] -1.711565e+06 -2.663582e+06 -7.660181e+10 -1.654269e+07
## [14136,] -1.378131e+08 -1.175468e+08 -4.765065e+11 -2.677660e+07
## [14137,] -3.352979e+11 -2.975672e+11 -2.854443e+15 -2.753205e+09
## [14138,] -2.550600e+11 -2.172478e+11 -2.162256e+15 -2.236419e+09
## [14139,] -5.645072e+09 -3.837310e+09 -3.605726e+13 -1.640003e+08
## [14140,] -6.929529e+04 -1.744043e+04 -1.792737e+11 -1.505774e+07
## [14141,] -1.773456e+06 -2.517970e+06 -7.673553e+10 -1.637467e+07
## [14142,] -1.348464e+08 -1.228953e+08 -4.775046e+11 -2.671263e+07
## [14143,] -3.130096e+11 -2.874812e+11 -2.860421e+15 -3.658021e+09
## [14144,] -2.477347e+11 -2.172435e+11 -2.166784e+15 -2.545180e+09
## [14145,] -4.784825e+09 -4.236777e+09 -3.613278e+13 -1.342418e+08
## [14146,] -1.125773e+05 -4.365071e+04 -1.794613e+11 -1.505238e+07
## [14147,] -1.766503e+06 -2.079165e+06 -7.681582e+10 -1.640117e+07
## [14148,] -1.404982e+08 -1.282935e+08 -4.778375e+11 -2.715077e+07
## [14149,] -3.203513e+11 -3.288470e+11 -2.861418e+15 -3.646664e+09
## [14150,] -2.501623e+11 -2.172428e+11 -2.167539e+15 -2.677740e+09
## [14151,] -4.741590e+09 -3.709387e+09 -3.614537e+13 -1.359627e+08
## [14152,] -9.710936e+04 -3.760765e+03 -1.795864e+11 -1.527337e+07
## [14153,] -1.783647e+06 -2.376452e+06 -7.686937e+10 -1.640561e+07
## [14154,] -1.416534e+08 -1.283108e+08 -4.780041e+11 -2.652637e+07
## [14155,] -3.140499e+11 -3.078137e+11 -2.864410e+15 -3.022772e+09
## [14156,] -2.534163e+11 -1.951481e+11 -2.169805e+15 -2.528530e+09
## [14157,] -4.528151e+09 -4.799739e+09 -3.618316e+13 -1.224566e+08
## [14158,] -3.065784e+04 -4.046996e+03 -1.797741e+11 -1.523302e+07

```

```

## [14159,] -2.219812e+06 -2.234455e+06 -7.694973e+10 -1.628927e+07
## [14160,] -1.352310e+08 -1.310886e+08 -4.785038e+11 -2.745784e+07
## [14161,] -3.277745e+11 -2.488895e+11 -2.866405e+15 -3.273557e+09
## [14162,] -2.318430e+11 -2.485375e+11 -2.172073e+15 -2.677266e+09
## [14163,] -4.829106e+09 -4.237474e+09 -3.622097e+13 -1.319503e+08
## [14164,] -5.792856e+04 -8.343609e+04 -1.798993e+11 -1.508812e+07
## [14165,] -1.728763e+06 -2.701127e+06 -7.700332e+10 -1.646841e+07
## [14166,] -1.414777e+08 -1.366798e+08 -4.790037e+11 -2.649965e+07
## [14167,] -2.904807e+11 -2.975556e+11 -2.868401e+15 -3.252088e+09
## [14168,] -2.318423e+11 -2.405146e+11 -2.172829e+15 -2.668799e+09
## [14169,] -4.800269e+09 -4.102501e+09 -3.624619e+13 -1.383121e+08
## [14170,] -4.075041e+04 -1.994610e+04 -1.800246e+11 -1.525107e+07
## [14171,] -1.891235e+06 -2.547156e+06 -7.705694e+10 -1.656457e+07
## [14172,] -1.367155e+08 -1.311761e+08 -4.793372e+11 -2.670056e+07
## [14173,] -3.628087e+11 -2.775649e+11 -2.871397e+15 -3.885922e+09
## [14174,] -2.575108e+11 -2.023759e+11 -2.175098e+15 -2.495469e+09
## [14175,] -4.858669e+09 -4.237872e+09 -3.627142e+13 -1.289123e+08
## [14176,] -4.271561e+03 -6.442629e+03 -1.802126e+11 -1.525150e+07
## [14177,] -1.764797e+06 -2.554478e+06 -7.713739e+10 -1.649545e+07
## [14178,] -1.398472e+08 -1.178619e+08 -4.796707e+11 -2.716355e+07
## [14179,] -3.235146e+11 -2.975522e+11 -2.872396e+15 -3.759064e+09
## [14180,] -2.509652e+11 -2.097386e+11 -2.176611e+15 -2.359448e+09
## [14181,] -4.873485e+09 -3.710504e+09 -3.629666e+13 -1.128446e+08
## [14182,] -7.298227e+03 -1.635268e+01 -1.804006e+11 -1.546822e+07
## [14183,] -2.043837e+06 -2.409550e+06 -7.724473e+10 -1.666817e+07
## [14184,] -1.416232e+08 -1.231835e+08 -4.803382e+11 -2.664904e+07
## [14185,] -3.109129e+11 -2.975481e+11 -2.877392e+15 -3.885351e+09
## [14186,] -2.373359e+11 -2.248586e+11 -2.179640e+15 -2.422611e+09
## [14187,] -4.362008e+09 -4.657168e+09 -3.634716e+13 -1.245384e+08
## [14188,] -8.963908e+04 -5.408785e+03 -1.805888e+11 -1.555089e+07
## [14189,] -1.712205e+06 -2.728826e+06 -7.729843e+10 -1.679706e+07
## [14190,] -1.448286e+08 -1.259055e+08 -4.808391e+11 -2.685844e+07
## [14191,] -3.450599e+11 -2.678251e+11 -2.879392e+15 -3.083301e+09
## [14192,] -2.525887e+11 -1.951379e+11 -2.181155e+15 -2.143531e+09
## [14193,] -4.888750e+09 -3.970483e+09 -3.637242e+13 -1.283387e+08
## [14194,] -3.488264e+04 -5.521713e+03 -1.806515e+11 -1.497416e+07
## [14195,] -1.831769e+06 -2.571605e+06 -7.732529e+10 -1.664283e+07
## [14196,] -1.399918e+08 -1.232513e+08 -4.810062e+11 -2.749019e+07
## [14197,] -3.150816e+11 -3.182283e+11 -2.880393e+15 -3.072875e+09
## [14198,] -2.477195e+11 -2.248564e+11 -2.181912e+15 -2.211593e+09
## [14199,] -4.729183e+09 -3.970579e+09 -3.638506e+13 -1.234241e+08
## [14200,] -7.589823e+04 -5.026989e+04 -1.807143e+11 -1.545721e+07
## [14201,] -1.900873e+06 -1.982903e+06 -7.735215e+10 -1.671720e+07
## [14202,] -1.346633e+08 -1.313512e+08 -4.810062e+11 -2.679198e+07
## [14203,] -3.203348e+11 -2.874648e+11 -2.880393e+15 -3.114345e+09
## [14204,] -2.318334e+11 -2.326152e+11 -2.181912e+15 -2.304094e+09
## [14205,] -4.947577e+09 -3.970579e+09 -3.638506e+13 -1.220327e+08

```

```

## [14206,] -4.658472e+04 -5.026989e+04 -1.807143e+11 -1.543376e+07
## [14207,] -1.860507e+06 -2.733878e+06 -7.735215e+10 -1.643359e+07
## [14208,] -1.419810e+08 -1.259226e+08 -4.810062e+11 -2.741495e+07
## [14209,] -3.266960e+11 -2.582647e+11 -2.880393e+15 -3.379830e+09
## [14210,] -2.256264e+11 -2.485276e+11 -2.181912e+15 -2.795026e+09
## [14211,] -4.417890e+09 -4.376248e+09 -3.639769e+13 -1.255431e+08
## [14212,] -3.713261e+04 -5.061311e+04 -1.807770e+11 -1.511330e+07
## [14213,] -2.200092e+06 -2.578963e+06 -7.740588e+10 -1.650970e+07
## [14214,] -1.391796e+08 -1.259569e+08 -4.813403e+11 -2.740589e+07
## [14215,] -3.088334e+11 -2.874631e+11 -2.882394e+15 -3.769563e+09
## [14216,] -2.558584e+11 -2.023683e+11 -2.183428e+15 -2.786295e+09
## [14217,] -4.586636e+09 -4.516027e+09 -3.642297e+13 -1.284080e+08
## [14218,] -3.914995e+04 -2.331466e+04 -1.809654e+11 -1.514273e+07
## [14219,] -2.061353e+06 -2.428565e+06 -7.745964e+10 -1.652611e+07
## [14220,] -1.350122e+08 -1.233192e+08 -4.816746e+11 -2.730922e+07
## [14221,] -3.309680e+11 -2.488758e+11 -2.884395e+15 -3.357837e+09
## [14222,] -2.525841e+11 -2.023662e+11 -2.185703e+15 -2.414032e+09
## [14223,] -5.141497e+09 -4.516335e+09 -3.646091e+13 -1.486513e+08
## [14224,] -3.054000e+02 -2.378365e+04 -1.810910e+11 -1.510821e+07
## [14225,] -1.995837e+06 -2.749060e+06 -7.751341e+10 -1.641110e+07
## [14226,] -1.406674e+08 -1.314563e+08 -4.820090e+11 -2.750062e+07
## [14227,] -2.975397e+11 -3.288242e+11 -2.887399e+15 -3.145030e+09
## [14228,] -2.271652e+11 -2.405004e+11 -2.187220e+15 -2.342678e+09
## [14229,] -4.460342e+09 -4.376855e+09 -3.647356e+13 -1.277665e+08
## [14230,] -3.824810e+04 -5.269696e+04 -1.811539e+11 -1.517801e+07
## [14231,] -1.848353e+06 -2.916754e+06 -7.754030e+10 -1.632599e+07
## [14232,] -1.449758e+08 -1.287439e+08 -4.821762e+11 -2.682258e+07
## [14233,] -3.266890e+11 -3.182214e+11 -2.888401e+15 -3.197427e+09
## [14234,] -2.469066e+11 -1.951319e+11 -2.187978e+15 -2.366220e+09
## [14235,] -4.686933e+09 -3.971350e+09 -3.648621e+13 -1.219365e+08
## [14236,] -5.046195e+04 -1.440034e+05 -1.812167e+11 -1.539978e+07
## [14237,] -2.042002e+06 -2.287307e+06 -7.756720e+10 -1.634406e+07
## [14238,] -1.427162e+08 -1.207598e+08 -4.825107e+11 -2.723664e+07
## [14239,] -3.483435e+11 -3.395980e+11 -2.889402e+15 -3.010436e+09
## [14240,] -2.485207e+11 -2.023635e+11 -2.188737e+15 -2.421709e+09
## [14241,] -4.687037e+09 -4.104459e+09 -3.649887e+13 -1.357295e+08
## [14242,] -8.861710e+04 -5.375465e+04 -1.813424e+11 -1.534158e+07
## [14243,] -2.306809e+06 -1.736286e+06 -7.762101e+10 -1.663136e+07
## [14244,] -1.362516e+08 -1.234380e+08 -4.828454e+11 -2.695356e+07
## [14245,] -3.650383e+11 -2.975356e+11 -2.892409e+15 -3.176037e+09
## [14246,] -2.574945e+11 -2.172207e+11 -2.191015e+15 -2.024143e+09
## [14247,] -4.919459e+09 -3.971735e+09 -3.653684e+13 -1.264366e+08
## [14248,] -1.111869e+05 -2.521866e+04 -1.814682e+11 -1.518453e+07
## [14249,] -1.858757e+06 -2.296561e+06 -7.767484e+10 -1.656786e+07
## [14250,] -1.405286e+08 -1.288654e+08 -4.833476e+11 -2.735158e+07
## [14251,] -3.320324e+11 -2.678133e+11 -2.894414e+15 -3.061367e+09
## [14252,] -2.558491e+11 -2.172193e+11 -2.192534e+15 -2.429322e+09

```

```

## [14253,] -4.905002e+09 -3.841098e+09 -3.656217e+13 -1.333900e+08
## [14254,] -6.583173e+04 -7.487379e+03 -1.816569e+11 -1.545351e+07
## [14255,] -2.116218e+06 -2.305835e+06 -7.778255e+10 -1.678515e+07
## [14256,] -1.360616e+08 -1.235229e+08 -4.836826e+11 -2.694354e+07
## [14257,] -3.129788e+11 -2.775448e+11 -2.896420e+15 -3.133815e+09
## [14258,] -2.525757e+11 -2.248448e+11 -2.194053e+15 -2.195214e+09
## [14259,] -4.919888e+09 -3.841287e+09 -3.658751e+13 -1.334253e+08
## [14260,] -2.766309e+04 -7.620160e+03 -1.817198e+11 -1.550647e+07
## [14261,] -1.761388e+06 -2.940292e+06 -7.778255e+10 -1.672491e+07
## [14262,] -1.302622e+08 -1.343917e+08 -4.836826e+11 -2.766888e+07
## [14263,] -3.119352e+11 -2.975306e+11 -2.898426e+15 -3.324278e+09
## [14264,] -2.460935e+11 -2.023573e+11 -2.195573e+15 -2.264013e+09
## [14265,] -4.890780e+09 -4.105340e+09 -3.661286e+13 -1.228002e+08
## [14266,] -9.346762e+04 -3.557542e+03 -1.819087e+11 -1.554805e+07
## [14267,] -1.982344e+06 -2.948159e+06 -7.786339e+10 -1.651560e+07
## [14268,] -1.417567e+08 -1.289521e+08 -4.841853e+11 -2.769300e+07
## [14269,] -3.385028e+11 -3.077831e+11 -2.900434e+15 -2.928264e+09
## [14270,] -2.517579e+11 -2.172150e+11 -2.197093e+15 -2.420882e+09
## [14271,] -4.631033e+09 -4.240757e+09 -3.663821e+13 -1.198366e+08
## [14272,] -1.120856e+05 -8.162960e+03 -1.819716e+11 -1.532550e+07
## [14273,] -1.970699e+06 -2.466821e+06 -7.789034e+10 -1.666169e+07
## [14274,] -1.409213e+08 -1.235909e+08 -4.843529e+11 -2.660366e+07
## [14275,] -3.288128e+11 -2.775416e+11 -2.900434e+15 -3.676896e+09
## [14276,] -2.357407e+11 -2.172150e+11 -2.197093e+15 -2.699887e+09
## [14277,] -4.789160e+09 -4.240857e+09 -3.665089e+13 -1.289575e+08
## [14278,] -3.377698e+03 -2.774761e+02 -1.820346e+11 -1.545438e+07
## [14279,] -2.000503e+06 -2.170497e+06 -7.791730e+10 -1.680440e+07
## [14280,] -1.418113e+08 -1.290042e+08 -4.846882e+11 -2.715304e+07
## [14281,] -3.129737e+11 -2.975272e+11 -2.902441e+15 -3.542332e+09
## [14282,] -2.493187e+11 -2.172121e+11 -2.200136e+15 -2.615935e+09
## [14283,] -4.862185e+09 -4.434155e+09 -3.668895e+13 -1.333247e+08
## [14284,] -4.004358e+03 -3.584057e+02 -1.822236e+11 -1.521533e+07
## [14285,] -1.817113e+06 -2.476432e+06 -7.799820e+10 -1.681516e+07
## [14286,] -1.401426e+08 -1.290389e+08 -4.850236e+11 -2.700704e+07
## [14287,] -3.341752e+11 -2.775384e+11 -2.904450e+15 -3.122706e+09
## [14288,] -2.318158e+11 -2.023532e+11 -2.200136e+15 -2.404644e+09
## [14289,] -4.746221e+09 -4.804081e+09 -3.670164e+13 -1.224551e+08
## [14290,] -1.895569e+05 -3.877179e+02 -1.822867e+11 -1.567858e+07
## [14291,] -1.808018e+06 -2.329100e+06 -7.805216e+10 -1.663505e+07
## [14292,] -1.459217e+08 -1.237099e+08 -4.855270e+11 -2.686935e+07
## [14293,] -3.309478e+11 -2.874426e+11 -2.907464e+15 -3.453686e+09
## [14294,] -2.509384e+11 -2.404846e+11 -2.203181e+15 -2.716136e+09
## [14295,] -4.862612e+09 -4.378979e+09 -3.673972e+13 -1.248337e+08
## [14296,] -1.232378e+05 -4.076275e+04 -1.824758e+11 -1.541437e+07
## [14297,] -1.962469e+06 -2.488471e+06 -7.813314e+10 -1.661374e+07
## [14298,] -1.338080e+08 -1.291431e+08 -4.860306e+11 -2.760521e+07
## [14299,] -3.320184e+11 -2.582414e+11 -2.910480e+15 -3.029159e+09

```

```

## [14300,] -2.476951e+11 -2.097113e+11 -2.206227e+15 -2.396096e+09
## [14301,] -4.448920e+09 -4.519005e+09 -3.679053e+13 -1.284358e+08
## [14302,] -2.585356e+04 -3.057228e+04 -1.827913e+11 -1.527485e+07
## [14303,] -1.904878e+06 -3.159649e+06 -7.826819e+10 -1.677726e+07
## [14304,] -1.426008e+08 -1.319474e+08 -4.867025e+11 -2.736124e+07
## [14305,] -3.341655e+11 -2.775295e+11 -2.915510e+15 -3.452968e+09
## [14306,] -2.256003e+11 -2.325887e+11 -2.209276e+15 -2.133414e+09
## [14307,] -4.819768e+09 -4.107103e+09 -3.684137e+13 -1.185040e+08
## [14308,] -6.525269e+04 -3.137912e+04 -1.829807e+11 -1.529861e+07
## [14309,] -2.075244e+06 -2.825604e+06 -7.832224e+10 -1.684209e+07
## [14310,] -1.398114e+08 -1.265580e+08 -4.872067e+11 -2.791377e+07
## [14311,] -3.287970e+11 -2.677943e+11 -2.918530e+15 -3.551977e+09
## [14312,] -2.493080e+11 -2.023435e+11 -2.210801e+15 -2.606551e+09
## [14313,] -4.393855e+09 -5.715550e+09 -3.686680e+13 -1.275922e+08
## [14314,] -4.987321e+04 -3.219648e+04 -1.831702e+11 -1.564520e+07
## [14315,] -1.983937e+06 -2.833316e+06 -7.840335e+10 -1.688509e+07
## [14316,] -1.427103e+08 -1.320527e+08 -4.877112e+11 -2.738417e+07
## [14317,] -3.245338e+11 -2.874320e+11 -2.920544e+15 -3.268837e+09
## [14318,] -2.517426e+11 -2.172008e+11 -2.212327e+15 -2.800374e+09
## [14319,] -4.576398e+09 -4.242848e+09 -3.690497e+13 -1.409828e+08
## [14320,] -1.953389e+04 -1.378115e+04 -1.832966e+11 -1.560422e+07
## [14321,] -1.962811e+06 -2.519911e+06 -7.848451e+10 -1.680726e+07
## [14322,] -1.493992e+08 -1.320878e+08 -4.880476e+11 -2.794150e+07
## [14323,] -3.077645e+11 -2.582321e+11 -2.922559e+15 -3.529430e+09
## [14324,] -2.541882e+11 -2.023401e+11 -2.214617e+15 -2.540325e+09
## [14325,] -4.704943e+09 -4.243047e+09 -3.693043e+13 -1.288639e+08
## [14326,] -1.251335e+05 -1.181215e+04 -1.834862e+11 -1.570498e+07
## [14327,] -2.080928e+06 -2.224870e+06 -7.856571e+10 -1.699148e+07
## [14328,] -1.382623e+08 -1.213651e+08 -4.885526e+11 -2.718656e+07
## [14329,] -3.245295e+11 -2.582298e+11 -2.925582e+15 -3.141774e+09
## [14330,] -2.404719e+11 -2.097022e+11 -2.216144e+15 -2.316384e+09
## [14331,] -4.791699e+09 -4.107985e+09 -3.695589e+13 -1.237232e+08
## [14332,] -3.539827e+04 -6.726673e+04 -1.836127e+11 -1.547558e+07
## [14333,] -1.809539e+06 -2.851352e+06 -7.859278e+10 -1.694927e+07
## [14334,] -1.368767e+08 -1.240330e+08 -4.887209e+11 -2.725696e+07
## [14335,] -3.202950e+11 -2.677880e+11 -2.926591e+15 -2.895943e+09
## [14336,] -2.420649e+11 -2.171965e+11 -2.216908e+15 -2.531924e+09
## [14337,] -4.952631e+09 -4.380900e+09 -3.698137e+13 -1.239901e+08
## [14338,] -6.476952e+04 -6.766367e+04 -1.836760e+11 -1.566406e+07
## [14339,] -1.759157e+06 -2.690588e+06 -7.861986e+10 -1.703241e+07
## [14340,] -1.436975e+08 -1.377360e+08 -4.888893e+11 -2.704047e+07
## [14341,] -3.298588e+11 -2.775198e+11 -2.927599e+15 -3.079229e+09
## [14342,] -2.476837e+11 -1.951055e+11 -2.217671e+15 -2.324052e+09
## [14343,] -4.548842e+09 -4.243544e+09 -3.699411e+13 -1.374046e+08
## [14344,] -2.746488e+03 -3.471160e+04 -1.837393e+11 -1.533536e+07
## [14345,] -2.073395e+06 -2.693095e+06 -7.864695e+10 -1.680061e+07
## [14346,] -1.397272e+08 -1.240671e+08 -4.890577e+11 -2.771213e+07

```

```

## [14347,] -3.352324e+11 -2.775190e+11 -2.928608e+15 -3.473738e+09
## [14348,] -2.349322e+11 -2.404689e+11 -2.219200e+15 -3.036213e+09
## [14349,] -4.879461e+09 -4.108376e+09 -3.700685e+13 -1.384058e+08
## [14350,] -3.425755e+04 -3.425755e+04 -1.838658e+11 -1.549377e+07
## [14351,] -2.461783e+06 -2.698113e+06 -7.870113e+10 -1.676088e+07
## [14352,] -1.363887e+08 -1.322284e+08 -4.893947e+11 -2.757720e+07
## [14353,] -3.202907e+11 -2.775166e+11 -2.931634e+15 -3.617749e+09
## [14354,] -2.468724e+11 -2.171915e+11 -2.222257e+15 -2.200169e+09
## [14355,] -4.720362e+09 -4.381507e+09 -3.705784e+13 -1.240923e+08
## [14356,] -4.178103e+04 -1.745770e+03 -1.841191e+11 -1.564737e+07
## [14357,] -2.016357e+06 -3.214214e+06 -7.880955e+10 -1.691076e+07
## [14358,] -1.398356e+08 -1.241692e+08 -4.900689e+11 -2.744607e+07
## [14359,] -3.352262e+11 -2.874197e+11 -2.935672e+15 -3.047602e+09
## [14360,] -2.484857e+11 -1.915336e+11 -2.223787e+15 -2.580442e+09
## [14361,] -4.836331e+09 -3.975878e+09 -3.708335e+13 -1.267050e+08
## [14362,] -2.270274e+04 -1.875631e+03 -1.842459e+11 -1.571855e+07
## [14363,] -2.177031e+06 -2.553990e+06 -7.886379e+10 -1.678236e+07
## [14364,] -1.444372e+08 -1.215504e+08 -4.904062e+11 -2.757508e+07
## [14365,] -3.461036e+11 -2.775118e+11 -2.937692e+15 -3.026888e+09
## [14366,] -2.533601e+11 -2.096938e+11 -2.225317e+15 -2.261178e+09
## [14367,] -4.807472e+09 -4.109160e+09 -3.710887e+13 -1.236943e+08
## [14368,] -3.230625e+04 -7.169731e+04 -1.843092e+11 -1.564191e+07
## [14369,] -1.967439e+06 -2.879809e+06 -7.889092e+10 -1.698214e+07
## [14370,] -1.418783e+08 -1.323514e+08 -4.905749e+11 -2.755797e+07
## [14371,] -3.258716e+11 -2.817230e+11 -3.178837e+13 -1.576626e+09
## [14372,] -2.656810e+11 -1.986323e+11 -2.407986e+13 -1.151337e+09
## [14373,] -4.367446e+09 -3.614511e+09 -4.015500e+11 -2.431928e+07
## [14374,] -1.610009e+07 -1.610009e+07 -1.994385e+09 -2.005848e+04
## [14375,] -6.401994e+06 -6.401994e+06 -8.536679e+08 -6.318473e+04
## [14376,] -6.117813e+07 -5.131562e+07 -5.308444e+09 -9.612856e+05
## [14377,] -3.195185e+11 -2.917035e+11 -3.178837e+13 -1.584036e+09
## [14378,] -2.508422e+11 -1.914676e+11 -2.407986e+13 -1.179025e+09
## [14379,] -4.298551e+09 -3.614511e+09 -4.015500e+11 -2.421616e+07
## [14380,] -1.744371e+07 -1.550715e+07 -1.994385e+09 -2.134585e+04
## [14381,] -6.501680e+06 -6.156147e+06 -8.536679e+08 -6.392675e+04
## [14382,] -6.249550e+07 -5.480175e+07 -5.308444e+09 -9.495890e+05
## [14383,] -3.420280e+11 -2.917035e+11 -3.178837e+13 -1.539837e+09
## [14384,] -2.590333e+11 -2.286070e+11 -2.407986e+13 -1.145838e+09
## [14385,] -4.230204e+09 -3.246821e+09 -4.015500e+11 -2.473395e+07
## [14386,] -1.756853e+07 -1.492533e+07 -1.994385e+09 -2.091228e+04
## [14387,] -6.602136e+06 -5.220895e+06 -8.536679e+08 -6.318473e+04
## [14388,] -5.895242e+07 -6.211768e+07 -5.308444e+09 -9.542591e+05
## [14389,] -3.519095e+11 -2.622832e+11 -3.178837e+13 -1.525243e+09
## [14390,] -2.615163e+11 -2.209159e+11 -2.407986e+13 -1.151337e+09
## [14391,] -4.381291e+09 -3.614511e+09 -4.015500e+11 -2.380588e+07
## [14392,] -1.781950e+07 -1.435464e+07 -1.994385e+09 -2.112851e+04
## [14393,] -6.882362e+06 -5.678894e+06 -8.536679e+08 -6.392675e+04

```

```

## [14394,] -6.306438e+07 -4.961552e+07 -5.308444e+09 -9.426054e+05
## [14395,] -3.431190e+11 -3.121856e+11 -3.178837e+13 -1.539837e+09
## [14396,] -2.640112e+11 -2.133565e+11 -2.407986e+13 -1.134881e+09
## [14397,] -4.203018e+09 -3.614511e+09 -4.015500e+11 -2.473395e+07
## [14398,] -1.781950e+07 -1.435464e+07 -1.994385e+09 -2.134585e+04
## [14399,] -7.063720e+06 -4.999115e+06 -8.536679e+08 -6.417506e+04
## [14400,] -6.249550e+07 -5.840243e+07 -5.308444e+09 -9.356475e+05
## [14401,] -3.406414e+11 -2.974972e+11 -2.938703e+15 -2.955444e+09
## [14402,] -2.149257e+11 -2.302312e+11 -2.226083e+15 -2.331068e+09
## [14403,] -4.437616e+09 -4.109258e+09 -3.712163e+13 -1.317540e+08
## [14404,] -5.686380e+03 -8.482107e+02 -1.844360e+11 -1.548919e+07
## [14405,] -2.126190e+06 -2.720754e+06 -7.894519e+10 -1.695028e+07
## [14406,] -1.399260e+08 -1.407766e+08 -4.909123e+11 -2.747357e+07
## [14407,] -3.036277e+11 -3.181775e+11 -2.939713e+15 -3.516824e+09
## [14408,] -2.404606e+11 -2.325710e+11 -2.227614e+15 -2.465976e+09
## [14409,] -5.057701e+09 -3.976360e+09 -3.714716e+13 -1.235126e+08
## [14410,] -1.549605e+04 -1.480397e+04 -1.845628e+11 -1.564839e+07
## [14411,] -1.976023e+06 -2.725798e+06 -7.899947e+10 -1.702353e+07
## [14412,] -1.402454e+08 -1.216346e+08 -4.912499e+11 -2.776635e+07
## [14413,] -3.181758e+11 -2.974947e+11 -2.941735e+15 -3.752602e+09
## [14414,] -2.364979e+11 -2.023270e+11 -2.229145e+15 -2.401797e+09
## [14415,] -5.072816e+09 -4.382418e+09 -3.717270e+13 -1.240123e+08
## [14416,] -2.837933e+04 -2.293242e+03 -1.846263e+11 -1.567215e+07
## [14417,] -2.475181e+06 -2.263792e+06 -7.902662e+10 -1.695704e+07
## [14418,] -1.402635e+08 -1.243055e+08 -4.914187e+11 -2.739730e+07
## [14419,] -3.025990e+11 -2.974939e+11 -2.942746e+15 -3.439603e+09
## [14420,] -2.271244e+11 -2.325688e+11 -2.229911e+15 -2.738760e+09
## [14421,] -4.635506e+09 -4.522191e+09 -3.718547e+13 -1.354718e+08
## [14422,] -2.334267e+04 -1.203577e+05 -1.846897e+11 -1.550151e+07
## [14423,] -1.952804e+06 -2.416197e+06 -7.905378e+10 -1.693909e+07
## [14424,] -1.357829e+08 -1.270054e+08 -4.915876e+11 -2.778246e+07
## [14425,] -3.504975e+11 -3.077458e+11 -2.944768e+15 -3.026299e+09
## [14426,] -2.541712e+11 -2.171829e+11 -2.231443e+15 -2.747097e+09
## [14427,] -4.851964e+09 -3.976841e+09 -3.721102e+13 -1.238303e+08
## [14428,] -4.279294e+01 -1.574815e+04 -1.848801e+11 -1.583850e+07
## [14429,] -2.641877e+06 -2.272999e+06 -7.913527e+10 -1.688129e+07
## [14430,] -1.420604e+08 -1.297865e+08 -4.922633e+11 -2.776422e+07
## [14431,] -3.298413e+11 -3.287716e+11 -2.947803e+15 -3.005574e+09
## [14432,] -2.566293e+11 -2.248079e+11 -2.232976e+15 -2.291409e+09
## [14433,] -4.678779e+09 -4.110140e+09 -3.723659e+13 -1.352993e+08
## [14434,] -6.575740e+03 -4.094808e+04 -1.850706e+11 -1.591621e+07
## [14435,] -2.415199e+06 -2.430471e+06 -7.921680e+10 -1.706185e+07
## [14436,] -1.404083e+08 -1.244419e+08 -4.927704e+11 -2.759946e+07
## [14437,] -3.683709e+11 -2.582103e+11 -2.950840e+15 -2.804426e+09
## [14438,] -2.716335e+11 -2.248057e+11 -2.235277e+15 -2.078913e+09
## [14439,] -4.565449e+09 -4.383430e+09 -3.730053e+13 -1.327222e+08
## [14440,] -1.916828e+04 -7.796672e+04 -1.852612e+11 -1.566179e+07

```

```

## [14441,] -2.055609e+06 -2.753623e+06 -7.929838e+10 -1.699575e+07
## [14442,] -1.438687e+08 -1.271604e+08 -4.931086e+11 -2.815898e+07
## [14443,] -2.924239e+11 -3.287672e+11 -2.952865e+15 -3.638271e+09
## [14444,] -2.240350e+11 -2.404509e+11 -2.237578e+15 -2.814894e+09
## [14445,] -4.751276e+09 -3.977613e+09 -3.731332e+13 -1.393314e+08
## [14446,] -3.605685e+04 -3.168052e+03 -1.853247e+11 -1.560296e+07
## [14447,] -2.001887e+06 -2.756160e+06 -7.932558e+10 -1.717239e+07
## [14448,] -1.424552e+08 -1.382027e+08 -4.932777e+11 -2.719754e+07
## [14449,] -3.373722e+11 -3.077382e+11 -2.953878e+15 -3.005072e+09
## [14450,] -2.357014e+11 -2.248035e+11 -2.237578e+15 -2.875469e+09
## [14451,] -4.867408e+09 -4.246034e+09 -3.731332e+13 -1.398260e+08
## [14452,] -5.823793e+04 -7.882250e+04 -1.853883e+11 -1.563848e+07
## [14453,] -1.840840e+06 -3.094250e+06 -7.935278e+10 -1.702859e+07
## [14454,] -1.401973e+08 -1.271949e+08 -4.934469e+11 -2.746829e+07
## [14455,] -3.649811e+11 -2.677658e+11 -2.954891e+15 -2.923800e+09
## [14456,] -2.119164e+11 -2.484712e+11 -2.238345e+15 -3.224673e+09
## [14457,] -5.044453e+09 -4.383733e+09 -3.733892e+13 -1.330164e+08
## [14458,] -3.272510e+04 -3.342290e+03 -1.854518e+11 -1.545044e+07
## [14459,] -2.020135e+06 -2.761237e+06 -7.937999e+10 -1.710381e+07
## [14460,] -1.431002e+08 -1.219045e+08 -4.939546e+11 -2.783218e+07
## [14461,] -3.150156e+11 -2.874017e+11 -2.957931e+15 -3.159955e+09
## [14462,] -2.428404e+11 -2.096798e+11 -2.240648e+15 -2.432574e+09
## [14463,] -4.838776e+09 -3.978094e+09 -3.737733e+13 -1.318646e+08
## [14464,] -1.366112e+03 -1.284419e+05 -1.856426e+11 -1.573358e+07
## [14465,] -2.042832e+06 -2.937148e+06 -7.948888e+10 -1.708852e+07
## [14466,] -1.414421e+08 -1.355280e+08 -4.944626e+11 -2.726585e+07
## [14467,] -3.244990e+11 -2.677611e+11 -2.960973e+15 -3.045493e+09
## [14468,] -2.541597e+11 -2.096777e+11 -2.242953e+15 -2.267225e+09
## [14469,] -4.824438e+09 -3.978287e+09 -3.740295e+13 -1.290306e+08
## [14470,] -3.108745e+04 -1.467303e+05 -1.858335e+11 -1.585851e+07
## [14471,] -1.635141e+06 -2.942389e+06 -7.954336e+10 -1.726791e+07
## [14472,] -1.394928e+08 -1.246465e+08 -4.948014e+11 -2.662331e+07
## [14473,] -3.066974e+11 -2.873976e+11 -2.963002e+15 -3.716467e+09
## [14474,] -2.541573e+11 -2.096756e+11 -2.245258e+15 -2.488450e+09
## [14475,] -4.709137e+09 -3.718887e+09 -3.744139e+13 -1.288450e+08
## [14476,] -2.507327e+04 -1.323045e+05 -1.860882e+11 -1.588881e+07
## [14477,] -2.289526e+06 -2.172298e+06 -7.967962e+10 -1.713683e+07
## [14478,] -1.415512e+08 -1.301175e+08 -4.954793e+11 -2.762735e+07
## [14479,] -3.560159e+11 -2.974730e+11 -2.968077e+15 -3.923345e+09
## [14480,] -2.517065e+11 -2.171673e+11 -2.248334e+15 -2.545115e+09
## [14481,] -4.854306e+09 -4.384947e+09 -3.749268e+13 -1.346816e+08
## [14482,] -4.062711e+04 -2.003252e+04 -1.862155e+11 -1.568759e+07
## [14483,] -2.152432e+06 -2.637705e+06 -7.978871e+10 -1.720689e+07
## [14484,] -1.444864e+08 -1.301872e+08 -4.961577e+11 -2.805106e+07
## [14485,] -3.276827e+11 -2.488094e+11 -2.972140e+15 -3.296410e+09
## [14486,] -2.171637e+11 -2.566100e+11 -2.252181e+15 -2.873912e+09
## [14487,] -4.986993e+09 -4.525172e+09 -3.755684e+13 -1.226617e+08

```



```

## [14488,] -2.819428e+04 -8.673468e+04 -1.865342e+11 -1.573562e+07
## [14489,] -1.959901e+06 -2.642672e+06 -7.984329e+10 -1.715449e+07
## [14490,] -1.394087e+08 -1.275226e+08 -4.966668e+11 -2.829134e+07
## [14491,] -3.077212e+11 -3.077212e+11 -2.974173e+15 -3.546969e+09
## [14492,] -2.224867e+11 -2.905341e+11 -2.253721e+15 -2.304986e+09
## [14493,] -4.972437e+09 -4.112786e+09 -3.758252e+13 -1.316648e+08
## [14494,] -9.703784e+03 -5.075072e+04 -1.867256e+11 -1.597958e+07
## [14495,] -2.106314e+06 -2.979205e+06 -7.992519e+10 -1.718161e+07
## [14496,] -1.332966e+08 -1.248684e+08 -4.970063e+11 -2.776271e+07
## [14497,] -3.341116e+11 -2.677484e+11 -2.977223e+15 -3.023610e+09
## [14498,] -2.468398e+11 -2.404337e+11 -2.255262e+15 -2.040297e+09
## [14499,] -4.972653e+09 -3.979830e+09 -3.760821e+13 -1.370378e+08
## [14500,] -2.248224e+04 -4.972316e+04 -1.867894e+11 -1.567118e+07
## [14501,] -1.956864e+06 -2.655108e+06 -7.997981e+10 -1.706434e+07
## [14502,] -1.426256e+08 -1.196271e+08 -4.975159e+11 -2.828106e+07
## [14503,] -3.213049e+11 -2.974630e+11 -2.980274e+15 -3.425369e+09
## [14504,] -2.325423e+11 -2.171587e+11 -2.257573e+15 -2.727402e+09
## [14505,] -5.722716e+09 -4.113374e+09 -3.765962e+13 -1.501513e+08
## [14506,] -1.184538e+04 -2.317487e+04 -1.871085e+11 -1.602820e+07
## [14507,] -1.856924e+06 -2.507311e+06 -8.008911e+10 -1.740744e+07
## [14508,] -1.364604e+08 -1.331262e+08 -4.980257e+11 -2.788682e+07
## [14509,] -3.234198e+11 -2.974614e+11 -2.982310e+15 -3.105737e+09
## [14510,] -2.420228e+11 -2.096623e+11 -2.259886e+15 -2.320001e+09
## [14511,] -4.870501e+09 -4.386466e+09 -3.768533e+13 -1.242270e+08
## [14512,] -6.816345e+02 -5.178879e+04 -1.871724e+11 -1.578444e+07
## [14513,] -2.152791e+06 -2.832801e+06 -8.014378e+10 -1.706574e+07
## [14514,] -1.438812e+08 -1.223605e+08 -4.985357e+11 -2.784786e+07
## [14515,] -3.255408e+11 -2.395888e+11 -2.985364e+15 -3.414022e+09
## [14516,] -2.665571e+11 -2.404277e+11 -2.261429e+15 -2.121138e+09
## [14517,] -4.625629e+09 -4.668438e+09 -3.772392e+13 -1.263872e+08
## [14518,] -6.957737e+03 -2.411473e+04 -1.873640e+11 -1.597509e+07
## [14519,] -1.932865e+06 -3.005642e+06 -8.019848e+10 -1.735929e+07
## [14520,] -1.413273e+08 -1.331967e+08 -4.987058e+11 -2.750336e+07
## [14521,] -3.244773e+11 -3.181378e+11 -2.986383e+15 -3.105396e+09
## [14522,] -2.444208e+11 -2.022975e+11 -2.262200e+15 -2.304179e+09
## [14523,] -5.107374e+09 -4.386769e+09 -3.772392e+13 -1.224182e+08
## [14524,] -4.109665e+04 -1.436556e+05 -1.873640e+11 -1.604073e+07
## [14525,] -2.378856e+06 -2.517001e+06 -8.019848e+10 -1.733886e+07
## [14526,] -1.379337e+08 -1.359731e+08 -4.987058e+11 -2.764160e+07
## [14527,] -3.298079e+11 -2.974580e+11 -2.986383e+15 -3.074312e+09
## [14528,] -2.341051e+11 -2.247803e+11 -2.262200e+15 -2.366900e+09
## [14529,] -4.856223e+09 -3.849722e+09 -3.772392e+13 -1.306586e+08
## [14530,] -2.670209e+03 -5.234474e+01 -1.874279e+11 -1.573765e+07
## [14531,] -2.351029e+06 -2.366097e+06 -8.022584e+10 -1.734931e+07
## [14532,] -1.393787e+08 -1.304838e+08 -4.990460e+11 -2.811264e+07
## [14533,] -3.244755e+11 -2.774715e+11 -2.988420e+15 -3.567928e+09
## [14534,] -2.468314e+11 -2.171530e+11 -2.263744e+15 -2.609451e+09

```

```

## [14535,] -4.526817e+09 -4.249520e+09 -3.776253e+13 -1.319104e+08
## [14536,] -2.884460e+04 -5.425183e+04 -1.876197e+11 -1.583884e+07
## [14537,] -2.052279e+06 -2.914875e+06 -8.030793e+10 -1.732346e+07
## [14538,] -1.431126e+08 -1.360444e+08 -4.993864e+11 -2.798940e+07
## [14539,] -3.395080e+11 -2.774691e+11 -2.991478e+15 -3.646015e+09
## [14540,] -2.574169e+11 -2.325327e+11 -2.267604e+15 -2.518703e+09
## [14541,] -4.485073e+09 -4.669169e+09 -3.781404e+13 -1.353688e+08
## [14542,] -9.562919e+04 -1.364274e+02 -1.878116e+11 -1.543232e+07
## [14543,] -2.016835e+06 -2.380223e+06 -8.039006e+10 -1.725685e+07
## [14544,] -1.463348e+08 -1.333202e+08 -4.998971e+11 -2.758463e+07
## [14545,] -3.265973e+11 -3.181309e+11 -2.994537e+15 -3.220013e+09
## [14546,] -2.468269e+11 -1.950610e+11 -2.268377e+15 -2.397978e+09
## [14547,] -4.471576e+09 -4.387984e+09 -3.787847e+13 -1.436168e+08
## [14548,] -1.114433e+04 -5.750268e+04 -1.881957e+11 -1.592338e+07
## [14549,] -2.488761e+06 -2.396756e+06 -8.058188e+10 -1.717910e+07
## [14550,] -1.424556e+08 -1.307109e+08 -5.012604e+11 -2.746044e+07
## [14551,] -3.234033e+11 -2.774611e+11 -3.001680e+15 -2.940180e+09
## [14552,] -2.428073e+11 -2.404149e+11 -2.274562e+15 -2.342098e+09
## [14553,] -4.471985e+09 -4.115432e+09 -3.793006e+13 -1.285539e+08
## [14554,] -3.628936e+04 -1.530729e+05 -1.883879e+11 -1.584653e+07
## [14555,] -1.994628e+06 -2.879291e+06 -8.063672e+10 -1.733037e+07
## [14556,] -1.404812e+08 -1.280063e+08 -5.014310e+11 -2.816266e+07
## [14557,] -3.139326e+11 -2.677286e+11 -3.002702e+15 -3.187669e+09
## [14558,] -2.348789e+11 -2.247688e+11 -2.274562e+15 -2.303005e+09
## [14559,] -4.887151e+09 -4.388389e+09 -3.793006e+13 -1.247845e+08
## [14560,] -7.413532e+03 -2.806101e+04 -1.883879e+11 -1.610887e+07
## [14561,] -2.078636e+06 -3.048184e+06 -8.063672e+10 -1.747362e+07
## [14562,] -1.407650e+08 -1.226481e+08 -5.014310e+11 -2.771988e+07
## [14563,] -3.128891e+11 -2.774603e+11 -3.002702e+15 -3.166656e+09
## [14564,] -2.533093e+11 -2.096476e+11 -2.276110e+15 -2.248684e+09
## [14565,] -5.305706e+09 -4.388591e+09 -3.795587e+13 -1.194977e+08
## [14566,] -2.080105e+04 -1.542711e+05 -1.885161e+11 -1.587653e+07
## [14567,] -1.998947e+06 -3.227379e+06 -8.069159e+10 -1.731859e+07
## [14568,] -1.349007e+08 -1.362941e+08 -5.017721e+11 -2.795066e+07
## [14569,] -3.212841e+11 -2.677271e+11 -3.004745e+15 -3.198029e+09
## [14570,] -2.270807e+11 -2.247673e+11 -2.276110e+15 -2.397230e+09
## [14571,] -4.486199e+09 -4.388591e+09 -3.795587e+13 -1.309732e+08
## [14572,] -3.272034e+03 -3.997697e+02 -1.885161e+11 -1.619909e+07
## [14573,] -1.746087e+06 -3.056194e+06 -8.071903e+10 -1.755440e+07
## [14574,] -1.431006e+08 -1.363120e+08 -5.019427e+11 -2.778186e+07
## [14575,] -3.255225e+11 -2.974414e+11 -3.006788e+15 -3.499809e+09
## [14576,] -2.607098e+11 -2.171402e+11 -2.277658e+15 -2.233179e+09
## [14577,] -4.742330e+09 -4.251214e+09 -3.798168e+13 -1.343840e+08
## [14578,] -2.724784e+04 -1.022231e+05 -1.886443e+11 -1.599591e+07
## [14579,] -2.263332e+06 -2.413347e+06 -8.077392e+10 -1.732134e+07
## [14580,] -1.402881e+08 -1.335674e+08 -5.022841e+11 -2.839419e+07
## [14581,] -3.139283e+11 -2.873615e+11 -3.007810e+15 -3.477699e+09

```

```

## [14582,] -2.484316e+11 -2.096455e+11 -2.278432e+15 -2.485173e+09
## [14583,] -4.873061e+09 -4.251313e+09 -3.799460e+13 -1.315054e+08
## [14584,] -5.305650e+02 -6.084812e+04 -1.887725e+11 -1.608581e+07
## [14585,] -2.106092e+06 -3.417340e+06 -8.080137e+10 -1.756128e+07
## [14586,] -1.366451e+08 -1.281101e+08 -5.024548e+11 -2.798299e+07
## [14587,] -3.212798e+11 -2.873599e+11 -3.009855e+15 -2.799734e+09
## [14588,] -2.508619e+11 -2.022817e+11 -2.279981e+15 -2.225303e+09
## [14589,] -4.858673e+09 -3.982916e+09 -3.802042e+13 -1.260765e+08
## [14590,] -2.595005e+03 -9.661687e+03 -1.888367e+11 -1.616383e+07
## [14591,] -2.211486e+06 -2.900074e+06 -8.085629e+10 -1.728735e+07
## [14592,] -1.400591e+08 -1.254498e+08 -5.027963e+11 -2.802450e+07
## [14593,] -3.066568e+11 -2.677215e+11 -3.011901e+15 -3.389960e+09
## [14594,] -2.524881e+11 -2.096427e+11 -2.281530e+15 -2.317941e+09
## [14595,] -4.815210e+09 -4.251712e+09 -3.804626e+13 -1.294234e+08
## [14596,] -1.928693e+04 -6.409235e+02 -1.889650e+11 -1.594300e+07
## [14597,] -2.407605e+06 -2.577981e+06 -8.088376e+10 -1.726923e+07
## [14598,] -1.437837e+08 -1.308857e+08 -5.029671e+11 -2.790602e+07
## [14599,] -3.493352e+11 -2.677215e+11 -3.011901e+15 -3.477339e+09
## [14600,] -2.460086e+11 -2.096427e+11 -2.281530e+15 -2.691159e+09
## [14601,] -4.829747e+09 -3.852093e+09 -3.804626e+13 -1.376468e+08
## [14602,] -3.941649e+04 -1.046807e+05 -1.889650e+11 -1.592514e+07
## [14603,] -2.213760e+06 -2.737922e+06 -8.088376e+10 -1.730187e+07
## [14604,] -1.429423e+08 -1.336557e+08 -5.031380e+11 -2.771214e+07
## [14605,] -3.255164e+11 -2.774514e+11 -3.013947e+15 -3.378939e+09
## [14606,] -2.443997e+11 -2.096406e+11 -2.283855e+15 -2.517092e+09
## [14607,] -4.714487e+09 -4.389705e+09 -3.809796e+13 -1.352729e+08
## [14608,] -2.743988e+04 -1.609446e+05 -1.892218e+11 -1.614673e+07
## [14609,] -1.912691e+06 -3.082969e+06 -8.099367e+10 -1.745414e+07
## [14610,] -1.430154e+08 -1.309731e+08 -5.038216e+11 -2.827632e+07
## [14611,] -3.202181e+11 -2.974330e+11 -3.017017e+15 -3.186462e+09
## [14612,] -2.340807e+11 -2.325135e+11 -2.287733e+15 -2.293982e+09
## [14613,] -4.962423e+09 -4.117099e+09 -3.814970e+13 -1.195195e+08
## [14614,] -2.767326e+04 -1.810117e+03 -1.895430e+11 -1.583729e+07
## [14615,] -2.190491e+06 -2.600113e+06 -8.113117e+10 -1.758880e+07
## [14616,] -1.425165e+08 -1.203134e+08 -5.045056e+11 -2.829610e+07
## [14617,] -3.170572e+11 -3.504288e+11 -3.022138e+15 -3.443545e+09
## [14618,] -2.516659e+11 -2.247550e+11 -2.289285e+15 -2.508424e+09
## [14619,] -4.404194e+09 -4.390313e+09 -3.817558e+13 -1.422851e+08
## [14620,] -3.281362e+04 -1.112073e+05 -1.898002e+11 -1.627417e+07
## [14621,] -2.438531e+06 -2.453876e+06 -8.124126e+10 -1.758152e+07
## [14622,] -1.330384e+08 -1.366512e+08 -5.051902e+11 -2.918851e+07
## [14623,] -3.287050e+11 -2.774426e+11 -3.025213e+15 -3.454222e+09
## [14624,] -2.476107e+11 -2.171274e+11 -2.291614e+15 -2.648220e+09
## [14625,] -4.816589e+09 -3.984362e+09 -3.821442e+13 -1.376343e+08
## [14626,] -1.475939e+04 -1.112073e+05 -1.898002e+11 -1.597470e+07
## [14627,] -2.599078e+06 -2.614919e+06 -8.129633e+10 -1.757788e+07
## [14628,] -1.417698e+08 -1.284216e+08 -5.055326e+11 -2.803992e+07

```

```

## [14629,] -3.548500e+11 -2.873443e+11 -3.029315e+15 -2.867645e+09
## [14630,] -2.427877e+11 -2.403955e+11 -2.294722e+15 -2.348030e+09
## [14631,] -4.587467e+09 -4.118080e+09 -3.827920e+13 -1.226822e+08
## [14632,] -8.936931e+03 -1.702725e+05 -1.901863e+11 -1.608905e+07
## [14633,] -2.271939e+06 -2.786180e+06 -8.140652e+10 -1.753772e+07
## [14634,] -1.356412e+08 -1.367584e+08 -5.062179e+11 -2.830101e+07
## [14635,] -3.548482e+11 -2.677065e+11 -3.031367e+15 -2.947889e+09
## [14636,] -2.372220e+11 -2.096287e+11 -2.297054e+15 -2.419089e+09
## [14637,] -4.773949e+09 -4.391427e+09 -3.831809e+13 -1.382696e+08
## [14638,] -4.152612e+03 -6.569065e+04 -1.903795e+11 -1.628754e+07
## [14639,] -2.190853e+06 -2.475470e+06 -8.148922e+10 -1.756926e+07
## [14640,] -1.424680e+08 -1.258438e+08 -5.067321e+11 -2.836363e+07
## [14641,] -2.974180e+11 -2.974180e+11 -3.035473e+15 -4.129832e+09
## [14642,] -2.640110e+11 -2.096259e+11 -2.300165e+15 -2.655709e+09
## [14643,] -5.038162e+09 -3.854370e+09 -3.835700e+13 -1.329603e+08
## [14644,] -3.616078e+03 -1.414224e+04 -1.905728e+11 -1.628196e+07
## [14645,] -2.285781e+06 -2.801507e+06 -8.157195e+10 -1.758848e+07
## [14646,] -1.656798e+08 -1.205818e+08 -5.072466e+11 -2.946929e+07
## [14647,] -3.254963e+11 -2.677018e+11 -3.037527e+15 -3.174226e+09
## [14648,] -2.549203e+11 -2.096252e+11 -2.300943e+15 -2.292738e+09
## [14649,] -5.038271e+09 -3.854465e+09 -3.836998e+13 -1.248973e+08
## [14650,] -2.775371e+03 -1.174070e+05 -1.905728e+11 -1.631207e+07
## [14651,] -2.012626e+06 -3.682786e+06 -8.157195e+10 -1.768325e+07
## [14652,] -1.474213e+08 -1.285949e+08 -5.072466e+11 -2.832433e+07
## [14653,] -3.244337e+11 -3.728308e+11 -3.037527e+15 -4.409735e+09
## [14654,] -2.492188e+11 -2.096252e+11 -2.300943e+15 -2.548058e+09
## [14655,] -4.574024e+09 -4.673661e+09 -3.836998e+13 -1.501553e+08
## [14656,] -6.452085e+04 -1.174070e+05 -1.905728e+11 -1.585150e+07
## [14657,] -2.243785e+06 -2.970770e+06 -8.159954e+10 -1.758255e+07
## [14658,] -1.442605e+08 -1.313407e+08 -5.074181e+11 -2.797690e+07
## [14659,] -3.362159e+11 -2.873361e+11 -3.039582e+15 -3.552247e+09
## [14660,] -2.800844e+11 -2.096238e+11 -2.302499e+15 -2.885994e+09
## [14661,] -4.774688e+09 -3.854749e+09 -3.840891e+13 -1.282459e+08
## [14662,] -2.853400e+04 -7.350910e+04 -1.908307e+11 -1.616240e+07
## [14663,] -2.400259e+06 -2.649633e+06 -8.168233e+10 -1.765533e+07
## [14664,] -1.414730e+08 -1.314107e+08 -5.081046e+11 -2.797126e+07
## [14665,] -2.984296e+11 -2.873337e+11 -3.042665e+15 -3.205377e+09
## [14666,] -2.565573e+11 -2.096217e+11 -2.304835e+15 -2.207725e+09
## [14667,] -4.862082e+09 -4.392338e+09 -3.843488e+13 -1.426500e+08
## [14668,] -2.175906e+05 -7.392403e+04 -1.908952e+11 -1.592953e+07
## [14669,] -1.728080e+06 -3.153133e+06 -8.170994e+10 -1.738657e+07
## [14670,] -1.481146e+08 -1.233260e+08 -5.082763e+11 -2.782763e+07
## [14671,] -3.460101e+11 -2.487561e+11 -3.043694e+15 -3.540782e+09
## [14672,] -2.459851e+11 -2.247398e+11 -2.305614e+15 -2.588702e+09
## [14673,] -4.309694e+09 -4.532371e+09 -3.846086e+13 -1.464618e+08
## [14674,] -2.374596e+04 -9.903472e+03 -1.910242e+11 -1.631913e+07
## [14675,] -2.184434e+06 -2.819441e+06 -8.176517e+10 -1.757986e+07

```

```

## [14676,] -1.395415e+08 -1.314633e+08 -5.086198e+11 -2.854267e+07
## [14677,] -3.460083e+11 -2.774265e+11 -3.045751e+15 -3.048780e+09
## [14678,] -2.532786e+11 -2.096196e+11 -2.307172e+15 -2.268910e+09
## [14679,] -4.818710e+09 -3.986292e+09 -3.847385e+13 -1.309542e+08
## [14680,] -9.752006e+03 -1.216335e+05 -1.910887e+11 -1.625908e+07
## [14681,] -2.018224e+06 -2.060256e+06 -8.182042e+10 -1.756799e+07
## [14682,] -1.361874e+08 -1.370266e+08 -5.087916e+11 -2.801626e+07
## [14683,] -3.340507e+11 -2.974080e+11 -3.047808e+15 -3.089918e+09
## [14684,] -2.332765e+11 -2.171117e+11 -2.308731e+15 -2.747590e+09
## [14685,] -4.689133e+09 -4.392946e+09 -3.851284e+13 -1.331719e+08
## [14686,] -6.820791e+03 -4.076275e+04 -1.912824e+11 -1.617543e+07
## [14687,] -2.078768e+06 -3.528411e+06 -8.187568e+10 -1.756024e+07
## [14688,] -1.432959e+08 -1.287856e+08 -5.091353e+11 -2.868241e+07
## [14689,] -3.297535e+11 -2.774232e+11 -3.049866e+15 -3.629519e+09
## [14690,] -2.631671e+11 -2.247347e+11 -2.311069e+15 -2.299560e+09
## [14691,] -4.892173e+09 -3.855698e+09 -3.853885e+13 -1.305628e+08
## [14692,] -2.928212e+02 -1.243131e+05 -1.914116e+11 -1.623577e+07
## [14693,] -2.202541e+06 -3.007762e+06 -8.198627e+10 -1.780461e+07
## [14694,] -1.368538e+08 -1.261525e+08 -5.098230e+11 -2.819175e+07
## [14695,] -3.107655e+11 -2.974039e+11 -3.052955e+15 -3.048190e+09
## [14696,] -2.557285e+11 -2.247333e+11 -2.312629e+15 -2.169063e+09
## [14697,] -4.351825e+09 -4.819453e+09 -3.856486e+13 -1.286910e+08
## [14698,] -4.847704e+04 -1.699930e+04 -1.915408e+11 -1.650765e+07
## [14699,] -2.144681e+06 -2.840008e+06 -8.198627e+10 -1.758998e+07
## [14700,] -1.454005e+08 -1.261697e+08 -5.099949e+11 -2.804756e+07
## [14701,] -3.365991e+11 -2.817230e+11 -3.178837e+13 -1.569234e+09
## [14702,] -2.476025e+11 -1.986323e+11 -2.407986e+13 -1.190193e+09
## [14703,] -4.203018e+09 -3.614511e+09 -4.015500e+11 -2.473395e+07
## [14704,] -1.688754e+07 -1.492533e+07 -1.994385e+09 -2.027026e+04
## [14705,] -6.327734e+06 -5.447488e+06 -8.536679e+08 -6.343159e+04
## [14706,] -6.174100e+07 -4.961552e+07 -5.308444e+09 -9.565984e+05
## [14707,] -3.431190e+11 -3.121856e+11 -3.178837e+13 -1.481877e+09
## [14708,] -2.508422e+11 -2.364297e+11 -2.407986e+13 -1.179025e+09
## [14709,] -4.055064e+09 -3.489757e+09 -4.015500e+11 -2.483817e+07
## [14710,] -1.845471e+07 -1.324663e+07 -1.994385e+09 -2.112851e+04
## [14711,] -6.551812e+06 -5.447488e+06 -8.536679e+08 -6.367893e+04
## [14712,] -6.080431e+07 -4.961552e+07 -5.308444e+09 -9.542591e+05
## [14713,] -3.322873e+11 -3.018577e+11 -3.178837e+13 -1.554501e+09
## [14714,] -2.606873e+11 -2.059286e+11 -2.407986e+13 -1.145838e+09
## [14715,] -4.203018e+09 -3.741456e+09 -4.015500e+11 -2.442262e+07
## [14716,] -1.750607e+07 -1.379507e+07 -1.994385e+09 -2.027026e+04
## [14717,] -6.779788e+06 -5.678894e+06 -8.536679e+08 -6.343159e+04
## [14718,] -5.968974e+07 -5.131562e+07 -5.308444e+09 -9.589406e+05
## [14719,] -3.453062e+11 -3.121856e+11 -3.178837e+13 -1.525243e+09
## [14720,] -2.656810e+11 -1.914676e+11 -2.407986e+13 -1.156848e+09
## [14721,] -4.339822e+09 -3.614511e+09 -4.015500e+11 -2.452618e+07
## [14722,] -1.682630e+07 -1.550715e+07 -1.994385e+09 -2.048315e+04

```

```

## [14723,] -6.652653e+06 -5.678894e+06 -8.536679e+08 -6.318473e+04
## [14724,] -6.099107e+07 -5.480175e+07 -5.308444e+09 -9.589406e+05
## [14725,] -3.269366e+11 -3.121856e+11 -3.178837e+13 -1.569234e+09
## [14726,] -2.411865e+11 -2.209159e+11 -2.407986e+13 -1.201413e+09
## [14727,] -4.298551e+09 -3.367194e+09 -4.015500e+11 -2.442262e+07
## [14728,] -1.707193e+07 -1.324663e+07 -1.994385e+09 -2.005848e+04
## [14729,] -6.933938e+06 -5.220895e+06 -8.536679e+08 -6.467311e+04
## [14730,] -6.382691e+07 -5.304437e+07 -5.308444e+09 -9.472583e+05
## [14731,] -3.212426e+11 -2.676891e+11 -3.053985e+15 -3.397169e+09
## [14732,] -2.540895e+11 -2.171075e+11 -2.313410e+15 -2.538643e+09
## [14733,] -4.819665e+09 -4.120434e+09 -3.859088e+13 -1.352180e+08
## [14734,] -4.726295e+03 -4.295112e+04 -1.917346e+11 -1.627259e+07
## [14735,] -2.253318e+06 -3.735766e+06 -8.206926e+10 -1.773295e+07
## [14736,] -1.434240e+08 -1.245960e+08 -5.103390e+11 -2.870125e+07
## [14737,] -3.254806e+11 -2.676875e+11 -3.056045e+15 -3.089238e+09
## [14738,] -2.411698e+11 -1.950185e+11 -2.317312e+15 -2.449145e+09
## [14739,] -4.951774e+09 -3.987546e+09 -3.864296e+13 -1.245544e+08
## [14740,] -6.777503e+04 -2.579130e+05 -1.919286e+11 -1.630916e+07
## [14741,] -2.277286e+06 -3.199436e+06 -8.217997e+10 -1.780422e+07
## [14742,] -1.423527e+08 -1.262727e+08 -5.110275e+11 -2.854190e+07
## [14743,] -3.286752e+11 -2.676844e+11 -3.060168e+15 -3.528247e+09
## [14744,] -2.395775e+11 -1.950171e+11 -2.318874e+15 -2.729570e+09
## [14745,] -4.834846e+09 -3.987739e+09 -3.866900e+13 -1.360561e+08
## [14746,] -9.842745e+03 -1.659498e+02 -1.920580e+11 -1.612924e+07
## [14747,] -2.294431e+06 -3.202170e+06 -8.220767e+10 -1.769904e+07
## [14748,] -1.420855e+08 -1.372772e+08 -5.111997e+11 -2.855006e+07
## [14749,] -3.254763e+11 -2.774144e+11 -3.061199e+15 -3.385691e+09
## [14750,] -2.340511e+11 -2.247275e+11 -2.318874e+15 -3.106204e+09
## [14751,] -4.834952e+09 -4.256596e+09 -3.868203e+13 -1.253076e+08
## [14752,] -1.185869e+04 -8.202948e+04 -1.921227e+11 -1.621336e+07
## [14753,] -2.326582e+06 -2.863235e+06 -8.223536e+10 -1.774265e+07
## [14754,] -1.421037e+08 -1.236317e+08 -5.113719e+11 -2.817583e+07
## [14755,] -3.201792e+11 -2.676820e+11 -3.063262e+15 -3.109397e+09
## [14756,] -2.508221e+11 -2.324826e+11 -2.320437e+15 -2.244555e+09
## [14757,] -4.762555e+09 -4.256696e+09 -3.869506e+13 -1.279157e+08
## [14758,] -7.355766e+03 -8.246776e+04 -1.921874e+11 -1.646675e+07
## [14759,] -2.124006e+06 -2.543254e+06 -8.226306e+10 -1.783599e+07
## [14760,] -1.395657e+08 -1.263243e+08 -5.115442e+11 -2.831114e+07
## [14761,] -3.405326e+11 -2.774128e+11 -3.063262e+15 -3.026801e+09
## [14762,] -2.451660e+11 -2.171003e+11 -2.321219e+15 -2.236803e+09
## [14763,] -4.967053e+09 -4.256796e+09 -3.870809e+13 -1.246397e+08
## [14764,] -4.174356e+04 -1.926148e+04 -1.922521e+11 -1.622567e+07
## [14765,] -2.111951e+06 -3.388584e+06 -8.229077e+10 -1.785489e+07
## [14766,] -1.387548e+08 -1.373488e+08 -5.118888e+11 -2.873649e+07
## [14767,] -3.201766e+11 -2.774104e+11 -3.066358e+15 -3.288342e+09
## [14768,] -2.623230e+11 -2.096049e+11 -2.323564e+15 -2.122980e+09
## [14769,] -4.734232e+09 -4.394871e+09 -3.876024e+13 -1.268207e+08

```

```

## [14770,] -1.386486e+03 -6.715220e+03 -1.925112e+11 -1.620824e+07
## [14771,] -2.222044e+06 -3.221342e+06 -8.240163e+10 -1.773994e+07
## [14772,] -1.451183e+08 -1.211194e+08 -5.127507e+11 -2.834260e+07
## [14773,] -3.297359e+11 -3.076416e+11 -3.070488e+15 -3.005739e+09
## [14774,] -2.247209e+11 -2.403655e+11 -2.325910e+15 -2.416309e+09
## [14775,] -4.792231e+09 -4.395073e+09 -3.878633e+13 -1.275634e+08
## [14776,] -1.215335e+04 -1.347617e+05 -1.926407e+11 -1.652231e+07
## [14777,] -2.408126e+06 -3.408306e+06 -8.248483e+10 -1.787107e+07
## [14778,] -1.460030e+08 -1.431254e+08 -5.129232e+11 -2.878566e+07
## [14779,] -3.222852e+11 -3.076407e+11 -3.071520e+15 -3.516187e+09
## [14780,] -2.443581e+11 -2.403647e+11 -2.326693e+15 -2.594861e+09
## [14781,] -4.705890e+09 -3.728773e+09 -3.881243e+13 -1.294966e+08
## [14782,] -1.181879e+04 -1.358860e+05 -1.927703e+11 -1.627496e+07
## [14783,] -2.187416e+06 -2.889153e+06 -8.251257e+10 -1.775743e+07
## [14784,] -1.451735e+08 -1.292021e+08 -5.132683e+11 -2.862253e+07
## [14785,] -3.275961e+11 -2.676741e+11 -3.073587e+15 -3.706412e+09
## [14786,] -2.524413e+11 -2.096000e+11 -2.329041e+15 -2.313454e+09
## [14787,] -4.836228e+09 -4.257793e+09 -3.883853e+13 -1.392363e+08
## [14788,] -1.768800e+03 -2.144062e+04 -1.929000e+11 -1.618512e+07
## [14789,] -1.830528e+06 -3.237821e+06 -8.256807e+10 -1.799852e+07
## [14790,] -1.417702e+08 -1.319719e+08 -5.136134e+11 -2.906310e+07
## [14791,] -3.536996e+11 -2.774031e+11 -3.075654e+15 -2.914057e+09
## [14792,] -2.524405e+11 -2.247173e+11 -2.329824e+15 -2.321191e+09
## [14793,] -4.563697e+09 -4.677527e+09 -3.885159e+13 -1.336308e+08
## [14794,] -7.804036e+02 -8.781822e+04 -1.929649e+11 -1.621528e+07
## [14795,] -2.686428e+06 -2.734889e+06 -8.262359e+10 -1.783288e+07
## [14796,] -1.435034e+08 -1.319895e+08 -5.137861e+11 -2.854468e+07
## [14797,] -3.254632e+11 -2.774023e+11 -3.076687e+15 -3.191982e+09
## [14798,] -2.573534e+11 -2.247159e+11 -2.331390e+15 -2.586137e+09
## [14799,] -5.027757e+09 -3.989380e+09 -3.889077e+13 -1.253470e+08
## [14800,] -9.198806e+03 -1.398581e+05 -1.932243e+11 -1.637242e+07
## [14801,] -2.145397e+06 -3.615058e+06 -8.270690e+10 -1.780254e+07
## [14802,] -1.415763e+08 -1.320597e+08 -5.144769e+11 -2.837301e+07
## [14803,] -2.873034e+11 -3.394306e+11 -3.080824e+15 -3.570847e+09
## [14804,] -2.499957e+11 -2.247122e+11 -2.335308e+15 -2.407440e+09
## [14805,] -4.721310e+09 -4.258591e+09 -3.894304e+13 -1.433627e+08
## [14806,] -1.144964e+04 -9.194143e+04 -1.935490e+11 -1.636109e+07
## [14807,] -2.505569e+06 -3.270904e+06 -8.290146e+10 -1.784356e+07
## [14808,] -1.439736e+08 -1.294281e+08 -5.155140e+11 -2.910213e+07
## [14809,] -3.318660e+11 -2.872985e+11 -3.087034e+15 -3.481753e+09
## [14810,] -2.540641e+11 -2.170840e+11 -2.339229e+15 -2.795698e+09
## [14811,] -4.750647e+09 -4.678782e+09 -3.900843e+13 -1.276204e+08
## [14812,] -2.131846e+02 -5.368381e+04 -1.938088e+11 -1.661607e+07
## [14813,] -2.223731e+06 -3.456439e+06 -8.295709e+10 -1.785233e+07
## [14814,] -1.423286e+08 -1.377969e+08 -5.162059e+11 -2.894166e+07
## [14815,] -3.307896e+11 -2.973730e+11 -3.091178e+15 -3.296934e+09
## [14816,] -2.293437e+11 -2.170811e+11 -2.342368e+15 -2.446725e+09

```

```

## [14817,] -4.751069e+09 -4.259488e+09 -3.906078e+13 -1.265095e+08
## [14818,] -3.105512e+04 -2.541318e+04 -1.940039e+11 -1.670785e+07
## [14819,] -2.611955e+06 -2.772931e+06 -8.304056e+10 -1.797555e+07
## [14820,] -1.463725e+08 -1.350196e+08 -5.163790e+11 -2.842433e+07
## [14821,] -3.350908e+11 -2.773902e+11 -3.092214e+15 -3.107011e+09
## [14822,] -2.435402e+11 -2.095867e+11 -2.343939e+15 -2.838264e+09
## [14823,] -4.911323e+09 -3.990828e+09 -3.908697e+13 -1.425626e+08
## [14824,] -2.355795e+04 -2.590272e+04 -1.941339e+11 -1.629613e+07
## [14825,] -2.437051e+06 -2.316057e+06 -8.317979e+10 -1.808299e+07
## [14826,] -1.348304e+08 -1.351084e+08 -5.172447e+11 -2.927521e+07
## [14827,] -3.201498e+11 -2.773854e+11 -3.098436e+15 -3.524889e+09
## [14828,] -2.499842e+11 -2.095839e+11 -2.347082e+15 -2.249782e+09
## [14829,] -4.985378e+09 -4.124555e+09 -3.913938e+13 -1.268484e+08
## [14830,] -7.998158e+03 -2.689583e+04 -1.943942e+11 -1.662350e+07
## [14831,] -2.380883e+06 -2.957088e+06 -8.323551e+10 -1.764803e+07
## [14832,] -1.436195e+08 -1.269262e+08 -5.175912e+11 -2.850695e+07
## [14833,] -3.243815e+11 -3.076178e+11 -3.099474e+15 -3.200620e+09
## [14834,] -2.403438e+11 -2.246999e+11 -2.348654e+15 -2.634149e+09
## [14835,] -4.926647e+09 -4.260286e+09 -3.916559e+13 -1.350263e+08
## [14836,] -8.416162e+01 -9.902364e+04 -1.945244e+11 -1.640558e+07
## [14837,] -2.428899e+06 -2.631752e+06 -8.326338e+10 -1.808162e+07
## [14838,] -1.482638e+08 -1.296542e+08 -5.177645e+11 -2.892554e+07
## [14839,] -3.383286e+11 -2.973655e+11 -3.100511e+15 -3.404028e+09
## [14840,] -2.556930e+11 -1.949915e+11 -2.348654e+15 -2.535179e+09
## [14841,] -4.956184e+09 -4.398113e+09 -3.917870e+13 -1.369972e+08
## [14842,] -9.833890e+01 -8.413316e+03 -1.945895e+11 -1.639365e+07
## [14843,] -2.265908e+06 -3.133624e+06 -8.329125e+10 -1.788008e+07
## [14844,] -1.468473e+08 -1.296890e+08 -5.181112e+11 -2.841650e+07
## [14845,] -3.350811e+11 -2.973630e+11 -3.103626e+15 -3.023523e+09
## [14846,] -2.548709e+11 -2.022191e+11 -2.351013e+15 -2.031815e+09
## [14847,] -5.015631e+09 -4.125144e+09 -3.921805e+13 -1.350974e+08
## [14848,] -1.009566e+05 -4.175605e+04 -1.947850e+11 -1.608753e+07
## [14849,] -2.754486e+06 -2.970243e+06 -8.337490e+10 -1.785384e+07
## [14850,] -1.440165e+08 -1.270295e+08 -5.186315e+11 -2.899241e+07
## [14851,] -3.318502e+11 -2.872837e+11 -3.105703e+15 -2.972326e+09
## [14852,] -2.246949e+11 -2.324509e+11 -2.354160e+15 -2.675393e+09
## [14853,] -4.927398e+09 -3.992084e+09 -3.925742e+13 -1.286600e+08
## [14854,] -2.248077e+02 -1.029083e+05 -1.950457e+11 -1.683854e+07
## [14855,] -2.830281e+06 -2.494261e+06 -8.348649e+10 -1.800852e+07
## [14856,] -1.409289e+08 -1.353039e+08 -5.191520e+11 -2.922375e+07
## [14857,] -3.426713e+11 -2.973580e+11 -3.109859e+15 -2.921401e+09
## [14858,] -2.340164e+11 -2.170690e+11 -2.355734e+15 -2.751288e+09
## [14859,] -4.810866e+09 -3.992373e+09 -3.929680e+13 -1.381406e+08
## [14860,] -3.286025e+03 -9.873085e+03 -1.952413e+11 -1.655254e+07
## [14861,] -2.627192e+06 -2.988709e+06 -8.357024e+10 -1.800716e+07
## [14862,] -1.384374e+08 -1.496373e+08 -5.196727e+11 -2.846432e+07
## [14863,] -3.415783e+11 -2.561972e+11 -3.112978e+15 -3.886583e+09

```



```

## [14864,] -2.565047e+11 -2.095741e+11 -2.358097e+15 -2.302943e+09
## [14865,] -4.440979e+09 -4.681291e+09 -3.932307e+13 -1.282721e+08
## [14866,] -1.761952e+01 -3.006881e+05 -1.953718e+11 -1.679647e+07
## [14867,] -2.680119e+06 -2.506344e+06 -8.362609e+10 -1.813694e+07
## [14868,] -1.476321e+08 -1.298805e+08 -5.200200e+11 -2.846786e+07
## [14869,] -3.296991e+11 -3.076060e+11 -3.114018e+15 -2.992017e+09
## [14870,] -2.540449e+11 -2.170662e+11 -2.358885e+15 -2.233335e+09
## [14871,] -4.695729e+09 -3.992663e+09 -3.933621e+13 -1.292395e+08
## [14872,] -2.810198e+04 -3.078641e+04 -1.953718e+11 -1.684541e+07
## [14873,] -2.176264e+06 -2.993995e+06 -8.362609e+10 -1.819130e+07
## [14874,] -1.461818e+08 -1.298805e+08 -5.200200e+11 -2.901959e+07
## [14875,] -3.190821e+11 -2.647573e+11 -3.115058e+15 -3.534510e+09
## [14876,] -2.483524e+11 -2.095727e+11 -2.359673e+15 -2.097393e+09
## [14877,] -4.913465e+09 -4.126126e+09 -3.934935e+13 -1.355186e+08
## [14878,] -6.669719e+04 -2.264093e+03 -1.954371e+11 -1.605910e+07
## [14879,] -2.375557e+06 -3.533580e+06 -8.370991e+10 -1.805210e+07
## [14880,] -1.436624e+08 -1.272363e+08 -5.207150e+11 -2.836012e+07
## [14881,] -3.318387e+11 -2.773693e+11 -3.119221e+15 -3.273201e+09
## [14882,] -2.930476e+11 -2.170626e+11 -2.362826e+15 -3.165002e+09
## [14883,] -4.739386e+09 -3.861964e+09 -3.940193e+13 -1.302804e+08
## [14884,] -8.340698e+02 -2.288244e+05 -1.957635e+11 -1.676682e+07
## [14885,] -2.458954e+06 -3.542203e+06 -8.379376e+10 -1.773532e+07
## [14886,] -1.431441e+08 -1.300025e+08 -5.212365e+11 -2.869138e+07
## [14887,] -3.222435e+11 -2.773677e+11 -3.121303e+15 -3.668187e+09
## [14888,] -2.573208e+11 -2.095685e+11 -2.364403e+15 -2.225170e+09
## [14889,] -4.797522e+09 -4.126813e+09 -3.944138e+13 -1.373552e+08
## [14890,] -4.861664e+03 -1.642723e+05 -1.958942e+11 -1.657832e+07
## [14891,] -2.297256e+06 -3.365555e+06 -8.384969e+10 -1.794300e+07
## [14892,] -1.440227e+08 -1.327632e+08 -5.214105e+11 -2.940907e+07
## [14893,] -3.329098e+11 -2.872698e+11 -3.123386e+15 -3.478598e+09
## [14894,] -2.223829e+11 -2.170598e+11 -2.365981e+15 -2.294432e+09
## [14895,] -4.855800e+09 -4.540194e+09 -3.945454e+13 -1.376185e+08
## [14896,] -1.156140e+03 -1.655135e+05 -1.960249e+11 -1.649976e+07
## [14897,] -2.919052e+06 -2.852384e+06 -8.390564e+10 -1.793932e+07
## [14898,] -1.454993e+08 -1.355707e+08 -5.217584e+11 -2.861343e+07
## [14899,] -3.404800e+11 -2.676353e+11 -3.124427e+15 -4.413589e+09
## [14900,] -2.540372e+11 -2.403265e+11 -2.366770e+15 -2.232613e+09
## [14901,] -4.870504e+09 -4.400343e+09 -3.946770e+13 -1.277518e+08
## [14902,] -2.104862e+04 -2.317579e+05 -1.960249e+11 -1.654220e+07
## [14903,] -2.593414e+06 -2.852384e+06 -8.390564e+10 -1.817279e+07
## [14904,] -1.361464e+08 -1.355885e+08 -5.219323e+11 -2.877546e+07
## [14905,] -3.404791e+11 -2.973455e+11 -3.125469e+15 -3.001300e+09
## [14906,] -2.515892e+11 -2.170583e+11 -2.367559e+15 -2.224882e+09
## [14907,] -4.797840e+09 -3.993725e+09 -3.948086e+13 -1.277691e+08
## [14908,] -1.846661e+03 -1.211295e+04 -1.961556e+11 -1.680439e+07
## [14909,] -2.188863e+06 -3.198889e+06 -8.396160e+10 -1.808137e+07
## [14910,] -1.421103e+08 -1.247045e+08 -5.222804e+11 -2.933375e+07

```

```

## [14911,] -3.211811e+11 -2.973439e+11 -3.127554e+15 -3.522349e+09
## [14912,] -2.340031e+11 -1.949733e+11 -2.369928e+15 -2.428065e+09
## [14913,] -5.182560e+09 -4.400749e+09 -3.952036e+13 -1.655155e+08
## [14914,] -1.449095e+05 -1.124338e+05 -1.962864e+11 -1.603114e+07
## [14915,] -2.406277e+06 -3.388022e+06 -8.407359e+10 -1.847243e+07
## [14916,] -1.541054e+08 -1.274432e+08 -5.228027e+11 -2.838131e+07
## [14917,] -2.953112e+11 -3.075915e+11 -3.131724e+15 -3.689872e+09
## [14918,] -2.239099e+11 -2.170541e+11 -2.372298e+15 -2.565636e+09
## [14919,] -4.626152e+09 -4.401155e+09 -3.957305e+13 -1.278900e+08
## [14920,] -3.171669e+02 -1.705248e+05 -1.965482e+11 -1.663452e+07
## [14921,] -1.975636e+06 -3.041783e+06 -8.412961e+10 -1.799114e+07
## [14922,] -1.315632e+08 -1.470945e+08 -5.231511e+11 -3.014544e+07
## [14923,] -2.822889e+11 -3.393861e+11 -3.132768e+15 -4.302040e+09
## [14924,] -2.162982e+11 -2.403205e+11 -2.373088e+15 -3.182162e+09
## [14925,] -5.018662e+09 -4.263479e+09 -3.958623e+13 -1.264908e+08
## [14926,] -6.170888e+03 -3.609168e+04 -1.966136e+11 -1.663467e+07
## [14927,] -1.842208e+06 -3.044449e+06 -8.415763e+10 -1.781909e+07
## [14928,] -1.451433e+08 -1.330098e+08 -5.238482e+11 -3.003456e+07
## [14929,] -3.286104e+11 -2.773556e+11 -3.136942e+15 -3.815001e+09
## [14930,] -2.523937e+11 -2.095566e+11 -2.377832e+15 -2.277822e+09
## [14931,] -4.755810e+09 -4.263978e+09 -3.965216e+13 -1.381335e+08
## [14932,] -1.386486e+03 -7.202504e+04 -1.969411e+11 -1.667803e+07
## [14933,] -2.455936e+06 -3.231774e+06 -8.429778e+10 -1.813019e+07
## [14934,] -1.431869e+08 -1.275985e+08 -5.243713e+11 -2.876186e+07
## [14935,] -3.307483e+11 -2.394766e+11 -3.140074e+15 -3.433329e+09
## [14936,] -2.435070e+11 -1.949658e+11 -2.378623e+15 -2.589725e+09
## [14937,] -4.712916e+09 -4.128679e+09 -3.969174e+13 -1.404109e+08
## [14938,] -6.880098e+02 -1.775374e+05 -1.972688e+11 -1.671535e+07
## [14939,] -2.851713e+06 -3.071174e+06 -8.443806e+10 -1.801252e+07
## [14940,] -1.452906e+08 -1.304036e+08 -5.252437e+11 -2.846987e+07
## [14941,] -3.328904e+11 -2.872518e+11 -3.146344e+15 -3.050887e+09
## [14942,] -2.238997e+11 -2.324236e+11 -2.383372e+15 -2.672469e+09
## [14943,] -4.960812e+09 -3.995657e+09 -3.974455e+13 -1.358089e+08
## [14944,] -3.836065e+03 -3.965959e+04 -1.973999e+11 -1.683172e+07
## [14945,] -2.581908e+06 -3.076533e+06 -8.449420e+10 -1.817995e+07
## [14946,] -1.421529e+08 -1.304210e+08 -5.254183e+11 -2.927537e+07
## [14947,] -3.296719e+11 -2.872518e+11 -3.146344e+15 -3.367577e+09
## [14948,] -2.387228e+11 -2.246681e+11 -2.383372e+15 -2.331828e+09
## [14949,] -4.902012e+09 -4.129071e+09 -3.974455e+13 -1.283518e+08
## [14950,] -3.257047e+04 -1.218468e+05 -1.974655e+11 -1.704673e+07
## [14951,] -3.013383e+06 -2.280839e+06 -8.455036e+10 -1.830195e+07
## [14952,] -1.467922e+08 -1.277367e+08 -5.257675e+11 -2.931782e+07
## [14953,] -3.318132e+11 -3.075771e+11 -3.149481e+15 -2.908202e+09
## [14954,] -2.548370e+11 -2.021889e+11 -2.385748e+15 -2.556111e+09
## [14955,] -4.292361e+09 -4.264976e+09 -3.978418e+13 -1.417812e+08
## [14956,] -1.425878e+04 -1.609520e+04 -1.975968e+11 -1.678936e+07
## [14957,] -2.375321e+06 -3.087264e+06 -8.460654e+10 -1.818928e+07

```

```

## [14958,] -1.379947e+08 -1.305083e+08 -5.262916e+11 -2.894214e+07
## [14959,] -3.350395e+11 -2.394676e+11 -3.152620e+15 -3.531240e+09
## [14960,] -2.491341e+11 -2.147783e+11 -2.388126e+15 -3.217227e+09
## [14961,] -5.080115e+09 -4.129661e+09 -3.982383e+13 -1.356718e+08
## [14962,] -3.289528e+03 -1.245287e+05 -1.977937e+11 -1.680204e+07
## [14963,] -2.839235e+06 -3.092637e+06 -8.466274e+10 -1.814376e+07
## [14964,] -1.474654e+08 -1.332920e+08 -5.266411e+11 -2.925556e+07
## [14965,] -3.243354e+11 -2.872452e+11 -3.154713e+15 -3.081174e+09
## [14966,] -2.254319e+11 -2.170384e+11 -2.389712e+15 -2.418199e+09
## [14967,] -4.976429e+09 -4.129857e+09 -3.985027e+13 -1.282532e+08
## [14968,] -1.537456e+04 -2.543552e+05 -1.979907e+11 -1.689432e+07
## [14969,] -2.267380e+06 -3.275881e+06 -8.474707e+10 -1.805057e+07
## [14970,] -1.501302e+08 -1.251658e+08 -5.269907e+11 -2.878212e+07
## [14971,] -3.243328e+11 -2.580543e+11 -3.157855e+15 -3.552973e+09
## [14972,] -2.491303e+11 -2.403025e+11 -2.392091e+15 -2.169430e+09
## [14973,] -4.671575e+09 -4.265874e+09 -3.990318e+13 -1.397094e+08
## [14974,] -2.675567e+04 -1.866669e+05 -1.981878e+11 -1.634147e+07
## [14975,] -2.259517e+06 -2.303979e+06 -8.483145e+10 -1.824565e+07
## [14976,] -1.361764e+08 -1.418193e+08 -5.276904e+11 -2.968210e+07
## [14977,] -3.106777e+11 -2.773379e+11 -3.159950e+15 -3.377248e+09
## [14978,] -2.347663e+11 -2.324140e+11 -2.393678e+15 -2.378101e+09
## [14979,] -4.700443e+09 -4.403892e+09 -3.992965e+13 -1.363026e+08
## [14980,] -2.725793e+04 -8.089541e+04 -1.983193e+11 -1.683382e+07
## [14981,] -2.451914e+06 -3.298048e+06 -8.497216e+10 -1.847177e+07
## [14982,] -1.456224e+08 -1.307179e+08 -5.283904e+11 -2.896356e+07
## [14983,] -3.307281e+11 -2.486677e+11 -3.164142e+15 -3.366070e+09
## [14984,] -2.208267e+11 -2.324104e+11 -2.397648e+15 -2.330500e+09
## [14985,] -5.141285e+09 -4.404298e+09 -3.998262e+13 -1.223326e+08
## [14986,] -1.894888e+04 -4.532676e+04 -1.985824e+11 -1.715417e+07
## [14987,] -2.738782e+06 -2.953935e+06 -8.500032e+10 -1.845726e+07
## [14988,] -1.354287e+08 -1.447757e+08 -5.285655e+11 -2.919119e+07
## [14989,] -3.200936e+11 -2.872362e+11 -3.166239e+15 -3.574498e+09
## [14990,] -2.475073e+11 -2.170306e+11 -2.398443e+15 -3.061595e+09
## [14991,] -4.845585e+09 -4.266573e+09 -3.999587e+13 -1.263174e+08
## [14992,] -6.336156e+04 -9.195702e+01 -1.987140e+11 -1.676137e+07
## [14993,] -2.367649e+06 -3.863261e+06 -8.505665e+10 -1.850414e+07
## [14994,] -1.431079e+08 -1.477254e+08 -5.290910e+11 -2.889346e+07
## [14995,] -3.200918e+11 -2.676021e+11 -3.168337e+15 -3.142453e+09
## [14996,] -2.499331e+11 -2.095370e+11 -2.400032e+15 -2.353833e+09
## [14997,] -4.860380e+09 -4.266773e+09 -4.002237e+13 -1.313413e+08
## [14998,] -4.465378e+03 -1.998928e+04 -1.988456e+11 -1.670675e+07
## [14999,] -2.525882e+06 -3.135789e+06 -8.511300e+10 -1.835720e+07
## [15000,] -1.657137e+08 -1.419832e+08 -5.292662e+11 -2.852975e+07
## [15001,] -3.469975e+11 -2.773299e+11 -3.170436e+15 -3.607642e+09
## [15002,] -2.531855e+11 -2.021745e+11 -2.402417e+15 -2.229365e+09
## [15003,] -4.831556e+09 -3.866714e+09 -4.006213e+13 -1.285303e+08
## [15004,] -3.708499e+03 -2.660479e+05 -1.989773e+11 -1.695795e+07

```

```

## [15005,] -2.596023e+06 -3.320288e+06 -8.519755e+10 -1.849903e+07
## [15006,] -1.372482e+08 -1.364083e+08 -5.299673e+11 -2.972517e+07
## [15007,] -3.285797e+11 -2.773275e+11 -3.173585e+15 -3.247377e+09
## [15008,] -2.466955e+11 -2.021731e+11 -2.404007e+15 -2.687209e+09
## [15009,] -4.673142e+09 -3.866999e+09 -4.010192e+13 -1.439711e+08
## [15010,] -2.083709e+01 -2.108411e+04 -1.991749e+11 -1.691544e+07
## [15011,] -2.445122e+06 -3.325860e+06 -8.525395e+10 -1.833530e+07
## [15012,] -1.501740e+08 -1.308927e+08 -5.301427e+11 -3.006065e+07
## [15013,] -3.480928e+11 -2.773267e+11 -3.174635e+15 -3.915879e+09
## [15014,] -2.475005e+11 -2.170242e+11 -2.405598e+15 -2.213783e+09
## [15015,] -4.802923e+09 -4.131822e+09 -4.011519e+13 -1.281253e+08
## [15016,] -3.958101e+03 -1.973809e+05 -1.992408e+11 -1.717423e+07
## [15017,] -2.478308e+06 -3.152047e+06 -8.528215e+10 -1.852720e+07
## [15018,] -1.409717e+08 -1.392720e+08 -5.304935e+11 -2.902364e+07
## [15019,] -3.211403e+11 -3.285771e+11 -3.176736e+15 -3.058740e+09
## [15020,] -2.515517e+11 -2.095314e+11 -2.406394e+15 -2.497032e+09
## [15021,] -4.817547e+09 -3.998459e+09 -4.012846e+13 -1.293301e+08
## [15022,] -5.937922e+03 -8.754670e+04 -1.993067e+11 -1.717438e+07
## [15023,] -2.496192e+06 -3.331437e+06 -8.531036e+10 -1.854223e+07
## [15024,] -1.373019e+08 -1.392720e+08 -5.304935e+11 -2.921737e+07
## [15025,] -2.932532e+11 -3.179792e+11 -3.176736e+15 -3.247116e+09
## [15026,] -2.402891e+11 -2.324023e+11 -2.406394e+15 -3.016036e+09
## [15027,] -4.861233e+09 -4.267571e+09 -4.012846e+13 -1.314815e+08
## [15028,] -6.210417e+02 -3.530716e+05 -1.993067e+11 -1.670170e+07
## [15029,] -2.298739e+06 -3.154761e+06 -8.531036e+10 -1.855913e+07
## [15030,] -1.438276e+08 -1.336804e+08 -5.304935e+11 -2.906234e+07
## [15031,] -3.301418e+11 -2.817230e+11 -3.178837e+13 -1.569234e+09
## [15032,] -2.541028e+11 -2.286070e+11 -2.407986e+13 -1.173461e+09
## [15033,] -4.271146e+09 -3.246821e+09 -4.015500e+11 -2.473395e+07
## [15034,] -1.788252e+07 -1.435464e+07 -1.994385e+09 -2.048315e+04
## [15035,] -6.882362e+06 -5.447488e+06 -8.536679e+08 -6.367893e+04
## [15036,] -6.192919e+07 -4.961552e+07 -5.308444e+09 -9.565984e+05
## [15037,] -3.431190e+11 -2.817230e+11 -3.178837e+13 -1.539837e+09
## [15038,] -2.656810e+11 -2.133565e+11 -2.407986e+13 -1.145838e+09
## [15039,] -4.148910e+09 -3.367194e+09 -4.015500e+11 -2.483817e+07
## [15040,] -1.781950e+07 -1.324663e+07 -1.994385e+09 -2.069716e+04
## [15041,] -6.627371e+06 -5.915114e+06 -8.536679e+08 -6.318473e+04
## [15042,] -6.192919e+07 -5.131562e+07 -5.308444e+09 -9.519226e+05
## [15043,] -3.431190e+11 -2.817230e+11 -3.178837e+13 -1.561858e+09
## [15044,] -2.615163e+11 -2.286070e+11 -2.407986e+13 -1.156848e+09
## [15045,] -4.381291e+09 -3.741456e+09 -4.015500e+11 -2.401058e+07
## [15046,] -1.634038e+07 -1.492533e+07 -1.994385e+09 -1.984781e+04
## [15047,] -6.652653e+06 -4.999115e+06 -8.536679e+08 -6.293835e+04
## [15048,] -5.987478e+07 -5.480175e+07 -5.308444e+09 -9.636336e+05
## [15049,] -3.333626e+11 -2.528238e+11 -3.178837e+13 -1.569234e+09
## [15050,] -2.532857e+11 -2.059286e+11 -2.407986e+13 -1.173461e+09
## [15051,] -4.189458e+09 -3.614511e+09 -4.015500e+11 -2.504726e+07

```

```

## [15052,] -1.604029e+07 -1.379507e+07 -1.994385e+09 -1.860715e+04
## [15053,] -6.526722e+06 -6.156147e+06 -8.536679e+08 -6.417506e+04
## [15054,] -6.287447e+07 -5.480175e+07 -5.308444e+09 -9.356475e+05
## [15055,] -3.420280e+11 -2.917035e+11 -3.178837e+13 -1.532531e+09
## [15056,] -2.427826e+11 -2.364297e+11 -2.407986e+13 -1.179025e+09
## [15057,] -4.189458e+09 -3.614511e+09 -4.015500e+11 -2.452618e+07
## [15058,] -1.707193e+07 -1.435464e+07 -1.994385e+09 -2.005848e+04
## [15059,] -6.985707e+06 -5.220895e+06 -8.536679e+08 -6.417506e+04
## [15060,] -6.136546e+07 -5.480175e+07 -5.308444e+09 -9.519226e+05
## [15061,] -3.317894e+11 -2.394497e+11 -3.177786e+15 -3.204682e+09
## [15062,] -2.125110e+11 -2.170220e+11 -2.407986e+15 -2.368857e+09
## [15063,] -4.630935e+09 -4.405820e+09 -4.018155e+13 -1.371316e+08
## [15064,] -5.658768e+03 -2.731897e+05 -1.995704e+11 -1.687955e+07
## [15065,] -2.845213e+06 -2.996111e+06 -8.545148e+10 -1.839797e+07
## [15066,] -1.391158e+08 -1.338042e+08 -5.317222e+11 -2.980855e+07
## [15067,] -3.360928e+11 -2.486532e+11 -3.184094e+15 -3.183095e+09
## [15068,] -2.418762e+11 -2.323964e+11 -2.412764e+15 -2.528950e+09
## [15069,] -4.717219e+09 -3.738858e+09 -4.023469e+13 -1.333082e+08
## [15070,] -7.111496e+03 -1.429614e+05 -1.999663e+11 -1.725016e+07
## [15071,] -2.412540e+06 -3.181964e+06 -8.559271e+10 -1.862079e+07
## [15072,] -1.408691e+08 -1.230105e+08 -5.322492e+11 -2.920942e+07
## [15073,] -3.296377e+11 -2.972964e+11 -3.187250e+15 -3.037315e+09
## [15074,] -2.589204e+11 -2.095244e+11 -2.414358e+15 -2.528796e+09
## [15075,] -4.731922e+09 -3.999522e+09 -4.027456e+13 -1.309547e+08
## [15076,] -2.741964e+04 -1.435398e+05 -2.000323e+11 -1.728130e+07
## [15077,] -2.699670e+06 -3.364994e+06 -8.564923e+10 -1.850714e+07
## [15078,] -1.446227e+08 -1.284112e+08 -5.326007e+11 -2.925183e+07
## [15079,] -3.339306e+11 -2.773154e+11 -3.189354e+15 -3.193188e+09
## [15080,] -2.714488e+11 -2.170142e+11 -2.416750e+15 -2.635730e+09
## [15081,] -4.775431e+09 -4.268869e+09 -4.030115e+13 -1.317094e+08
## [15082,] -6.730251e+03 -1.447002e+05 -2.001644e+11 -1.712694e+07
## [15083,] -2.376452e+06 -3.370603e+06 -8.570577e+10 -1.865990e+07
## [15084,] -1.420804e+08 -1.395246e+08 -5.329523e+11 -2.955390e+07
## [15085,] -3.003499e+11 -3.075432e+11 -3.191460e+15 -3.277834e+09
## [15086,] -2.458775e+11 -1.963680e+11 -2.417547e+15 -2.585916e+09
## [15087,] -4.448723e+09 -4.269069e+09 -4.032775e+13 -1.351297e+08
## [15088,] -1.227737e+03 -4.048219e+05 -2.003626e+11 -1.673460e+07
## [15089,] -2.568763e+06 -3.749366e+06 -8.579062e+10 -1.863309e+07
## [15090,] -1.418499e+08 -1.312251e+08 -5.334799e+11 -2.972218e+07
## [15091,] -2.952613e+11 -2.872141e+11 -3.194619e+15 -3.752502e+09
## [15092,] -2.539848e+11 -2.095188e+11 -2.420739e+15 -2.181999e+09
## [15093,] -4.921717e+09 -4.269369e+09 -4.036767e+13 -1.277434e+08
## [15094,] -3.481392e+02 -2.104921e+05 -2.004948e+11 -1.730718e+07
## [15095,] -2.207488e+06 -2.862201e+06 -8.581892e+10 -1.870752e+07
## [15096,] -1.453094e+08 -1.395968e+08 -5.336559e+11 -2.913327e+07
## [15097,] -3.034189e+11 -2.972897e+11 -3.195673e+15 -3.684211e+09
## [15098,] -2.482922e+11 -2.170092e+11 -2.422335e+15 -2.635181e+09

```

```

## [15099,] -4.704215e+09 -4.133983e+09 -4.040761e+13 -1.389124e+08
## [15100,] -6.775660e+00 -2.869378e+05 -2.006932e+11 -1.723945e+07
## [15101,] -2.408174e+06 -3.390273e+06 -8.590382e+10 -1.835138e+07
## [15102,] -1.477009e+08 -1.340695e+08 -5.343599e+11 -2.925682e+07
## [15103,] -3.264244e+11 -2.872100e+11 -3.199889e+15 -3.150337e+09
## [15104,] -2.394780e+11 -2.021559e+11 -2.423933e+15 -2.511587e+09
## [15105,] -4.661451e+09 -4.407747e+09 -4.043425e+13 -1.449335e+08
## [15106,] -5.599171e+03 -2.699617e+04 -2.008255e+11 -1.705446e+07
## [15107,] -2.567734e+06 -2.875143e+06 -8.596045e+10 -1.854572e+07
## [15108,] -1.468666e+08 -1.368907e+08 -5.347121e+11 -2.924746e+07
## [15109,] -3.179577e+11 -2.773049e+11 -3.203053e+15 -3.046331e+09
## [15110,] -2.507195e+11 -2.246289e+11 -2.426329e+15 -2.211914e+09
## [15111,] -4.661660e+09 -3.869566e+09 -4.046089e+13 -1.417123e+08
## [15112,] -1.268689e+03 -1.517603e+05 -2.009578e+11 -1.737036e+07
## [15113,] -2.635968e+06 -2.556921e+06 -8.601710e+10 -1.873259e+07
## [15114,] -1.480848e+08 -1.314002e+08 -5.352406e+11 -2.918169e+07
## [15115,] -3.221741e+11 -2.972822e+11 -3.205163e+15 -3.515640e+09
## [15116,] -2.442614e+11 -2.021525e+11 -2.427927e+15 -2.462661e+09
## [15117,] -4.805889e+09 -4.270267e+09 -4.048755e+13 -1.290853e+08
## [15118,] -2.384790e+03 -2.537389e+05 -2.011564e+11 -1.712304e+07
## [15119,] -2.564258e+06 -3.781989e+06 -8.610210e+10 -1.852792e+07
## [15120,] -1.437668e+08 -1.286885e+08 -5.354168e+11 -2.957915e+07
## [15121,] -3.158556e+11 -2.872043e+11 -3.207274e+15 -3.449460e+09
## [15122,] -2.402673e+11 -2.095111e+11 -2.429526e+15 -2.454465e+09
## [15123,] -4.806206e+09 -4.001359e+09 -4.052754e+13 -1.339388e+08
## [15124,] -2.931966e+03 -4.244340e+02 -2.012888e+11 -1.705552e+07
## [15125,] -2.680419e+06 -3.236721e+06 -8.615879e+10 -1.857490e+07
## [15126,] -1.432300e+08 -1.287231e+08 -5.357694e+11 -3.017142e+07
## [15127,] -3.296192e+11 -2.773001e+11 -3.209385e+15 -3.683006e+09
## [15128,] -2.630471e+11 -2.246239e+11 -2.431926e+15 -2.188582e+09
## [15129,] -5.312614e+09 -4.135162e+09 -4.056756e+13 -1.247085e+08
## [15130,] -6.397288e+00 -2.976788e+05 -2.015539e+11 -1.727241e+07
## [15131,] -2.503199e+06 -3.613896e+06 -8.630061e+10 -1.878603e+07
## [15132,] -1.450642e+08 -1.234516e+08 -5.368277e+11 -2.976307e+07
## [15133,] -3.190001e+11 -2.772961e+11 -3.214667e+15 -3.603787e+09
## [15134,] -2.402621e+11 -2.246210e+11 -2.435127e+15 -2.700956e+09
## [15135,] -4.982684e+09 -4.409168e+09 -4.062095e+13 -1.411835e+08
## [15136,] -1.149926e+03 -3.001855e+05 -2.017528e+11 -1.719856e+07
## [15137,] -2.446269e+06 -3.081360e+06 -8.635736e+10 -1.860833e+07
## [15138,] -1.430900e+08 -1.343527e+08 -5.371807e+11 -2.987124e+07
## [15139,] -3.349856e+11 -3.075229e+11 -3.216780e+15 -4.065084e+09
## [15140,] -2.816663e+11 -2.095048e+11 -2.436728e+15 -2.734628e+09
## [15141,] -4.778177e+09 -4.002229e+09 -4.064765e+13 -1.350694e+08
## [15142,] -3.075226e+02 -6.305419e+04 -2.018854e+11 -1.740360e+07
## [15143,] -2.392357e+06 -3.443949e+06 -8.644254e+10 -1.890012e+07
## [15144,] -1.462934e+08 -1.288966e+08 -5.375338e+11 -3.016335e+07
## [15145,] -3.296113e+11 -2.666009e+11 -3.218895e+15 -3.470400e+09

```

```

## [15146,] -2.154861e+11 -2.402591e+11 -2.438330e+15 -2.575655e+09
## [15147,] -4.135850e+09 -5.131868e+09 -4.066101e+13 -1.570830e+08
## [15148,] -5.489408e+02 -2.269276e+05 -2.020181e+11 -1.689126e+07
## [15149,] -2.517728e+06 -2.596171e+06 -8.647094e+10 -1.885987e+07
## [15150,] -1.400124e+08 -1.316456e+08 -5.377104e+11 -3.027700e+07
## [15151,] -3.253429e+11 -2.772912e+11 -3.221010e+15 -3.243460e+09
## [15152,] -2.672152e+11 -2.169928e+11 -2.440733e+15 -3.658154e+09
## [15153,] -4.865816e+09 -3.871277e+09 -4.070109e+13 -1.453017e+08
## [15154,] -4.703438e+04 -3.225134e+04 -2.021508e+11 -1.729859e+07
## [15155,] -3.100167e+06 -2.929819e+06 -8.655617e+10 -1.859523e+07
## [15156,] -1.415046e+08 -1.458073e+08 -5.384171e+11 -3.038976e+07
## [15157,] -3.349794e+11 -2.580054e+11 -3.224184e+15 -3.636605e+09
## [15158,] -2.339358e+11 -2.169914e+11 -2.442336e+15 -2.828177e+09
## [15159,] -4.807902e+09 -4.136440e+09 -4.074120e+13 -1.282275e+08
## [15160,] -1.281537e+02 -3.970418e+05 -2.024164e+11 -1.741727e+07
## [15161,] -2.516710e+06 -3.648843e+06 -8.664144e+10 -1.874647e+07
## [15162,] -1.406881e+08 -1.345122e+08 -5.387706e+11 -2.994647e+07
## [15163,] -3.264026e+11 -2.772872e+11 -3.226301e+15 -4.171859e+09
## [15164,] -2.523299e+11 -2.021387e+11 -2.443940e+15 -2.649739e+09
## [15165,] -4.493985e+09 -4.272265e+09 -4.075457e+13 -1.471475e+08
## [15166,] -1.632889e+03 -1.657623e+05 -2.024828e+11 -1.741120e+07
## [15167,] -2.426565e+06 -3.841664e+06 -8.666987e+10 -1.852857e+07
## [15168,] -1.493518e+08 -1.401390e+08 -5.389474e+11 -2.958919e+07
## [15169,] -3.393050e+11 -2.772856e+11 -3.228419e+15 -3.054600e+09
## [15170,] -2.394578e+11 -2.323662e+11 -2.445544e+15 -2.271627e+09
## [15171,] -4.822746e+09 -4.136735e+09 -4.078132e+13 -1.433999e+08
## [15172,] -5.230530e+03 -1.663851e+05 -2.025493e+11 -1.711388e+07
## [15173,] -2.959769e+06 -2.777004e+06 -8.669831e+10 -1.883627e+07
## [15174,] -1.496631e+08 -1.317859e+08 -5.391243e+11 -2.941550e+07
## [15175,] -3.189889e+11 -2.972639e+11 -3.228419e+15 -3.064911e+09
## [15176,] -2.482702e+11 -2.246116e+11 -2.445544e+15 -2.271627e+09
## [15177,] -4.983978e+09 -4.272465e+09 -4.078132e+13 -1.297059e+08
## [15178,] -3.173140e+01 -1.111054e+05 -2.025493e+11 -1.746742e+07
## [15179,] -2.506005e+06 -3.289172e+06 -8.669831e+10 -1.887888e+07
## [15180,] -1.505428e+08 -1.373381e+08 -5.391243e+11 -2.937657e+07
## [15181,] -3.296034e+11 -3.075136e+11 -3.228419e+15 -3.054600e+09
## [15182,] -2.458502e+11 -2.021367e+11 -2.446347e+15 -2.607914e+09
## [15183,] -4.286258e+09 -4.837400e+09 -4.079470e+13 -1.330826e+08
## [15184,] -9.703784e+03 -1.116154e+05 -2.026157e+11 -1.756746e+07
## [15185,] -3.221122e+06 -2.462023e+06 -8.672675e+10 -1.880885e+07
## [15186,] -1.476392e+08 -1.345654e+08 -5.393011e+11 -2.986683e+07
## [15187,] -3.210970e+11 -3.393042e+11 -3.229478e+15 -3.317491e+09
## [15188,] -2.410475e+11 -2.021367e+11 -2.446347e+15 -2.649503e+09
## [15189,] -4.382727e+09 -4.550600e+09 -4.079470e+13 -1.434182e+08
## [15190,] -1.761847e+04 -3.111694e+05 -2.026157e+11 -1.727485e+07
## [15191,] -2.733221e+06 -3.294718e+06 -8.675519e+10 -1.864563e+07
## [15192,] -1.465153e+08 -1.263998e+08 -5.396549e+11 -3.001451e+07

```

```

## [15193,] -3.469444e+11 -2.579992e+11 -3.232657e+15 -3.602228e+09
## [15194,] -2.474594e+11 -2.323632e+11 -2.448754e+15 -2.294590e+09
## [15195,] -4.593580e+09 -4.551116e+09 -4.086162e+13 -1.334124e+08
## [15196,] -6.032469e+03 -1.707773e+05 -2.030146e+11 -1.753089e+07
## [15197,] -3.290780e+06 -2.324438e+06 -8.689750e+10 -1.844614e+07
## [15198,] -1.451441e+08 -1.319087e+08 -5.403629e+11 -2.959060e+07
## [15199,] -3.274596e+11 -2.675508e+11 -3.236897e+15 -2.961920e+09
## [15200,] -2.466500e+11 -2.094916e+11 -2.451966e+15 -2.607368e+09
## [15201,] -4.896667e+09 -3.743532e+09 -4.090181e+13 -1.366277e+08
## [15202,] -6.362341e+04 -2.409707e+05 -2.032808e+11 -1.750653e+07
## [15203,] -2.871205e+06 -2.805089e+06 -8.701142e+10 -1.895199e+07
## [15204,] -1.492835e+08 -1.403562e+08 -5.410714e+11 -2.946776e+07
## [15205,] -3.382104e+11 -2.871789e+11 -3.240079e+15 -3.012608e+09
## [15206,] -2.515057e+11 -2.021298e+11 -2.454377e+15 -2.240007e+09
## [15207,] -4.342259e+09 -4.693952e+09 -4.092861e+13 -1.332590e+08
## [15208,] -1.497699e+03 -7.137032e+04 -2.032808e+11 -1.755649e+07
## [15209,] -2.579748e+06 -3.319731e+06 -8.701142e+10 -1.894772e+07
## [15210,] -1.455063e+08 -1.292438e+08 -5.410714e+11 -2.958480e+07
## [15211,] -3.360458e+11 -2.675484e+11 -3.240079e+15 -3.053671e+09
## [15212,] -2.474541e+11 -1.949017e+11 -2.454377e+15 -2.301855e+09
## [15213,] -4.838463e+09 -4.411502e+09 -4.092861e+13 -1.294207e+08
## [15214,] -5.368417e+03 -3.708551e+04 -2.032808e+11 -1.748781e+07
## [15215,] -2.057669e+06 -3.143371e+06 -8.701142e+10 -1.870082e+07
## [15216,] -1.463736e+08 -1.238595e+08 -5.410714e+11 -2.964992e+07
## [15217,] -3.232043e+11 -3.075043e+11 -3.240079e+15 -3.074307e+09
## [15218,] -2.261440e+11 -2.246036e+11 -2.454377e+15 -2.380349e+09
## [15219,] -5.134168e+09 -4.411604e+09 -4.094201e+13 -1.261254e+08
## [15220,] -3.586750e+03 -3.214835e+05 -2.034140e+11 -1.741957e+07
## [15221,] -2.568910e+06 -3.148792e+06 -8.706841e+10 -1.887142e+07
## [15222,] -1.452730e+08 -1.320316e+08 -5.416030e+11 -3.021183e+07
## [15223,] -3.095716e+11 -2.579906e+11 -3.244324e+15 -3.316259e+09
## [15224,] -2.663607e+11 -2.482587e+11 -2.457592e+15 -3.001772e+09
## [15225,] -4.824338e+09 -4.138209e+09 -4.098223e+13 -1.318832e+08
## [15226,] -8.913091e+01 -3.232189e+05 -2.035471e+11 -1.735146e+07
## [15227,] -2.592036e+06 -3.892755e+06 -8.715394e+10 -1.879338e+07
## [15228,] -1.610024e+08 -1.320668e+08 -5.419576e+11 -2.918513e+07
## [15229,] -3.263860e+11 -2.675436e+11 -3.246448e+15 -3.220181e+09
## [15230,] -2.597021e+11 -2.094846e+11 -2.460005e+15 -2.201278e+09
## [15231,] -5.015526e+09 -3.492574e+09 -4.102247e+13 -1.510994e+08
## [15232,] -2.381809e+03 -2.381809e+03 -2.037470e+11 -1.761386e+07
## [15233,] -3.127567e+06 -2.990294e+06 -8.721097e+10 -1.891316e+07
## [15234,] -1.544288e+08 -1.433339e+08 -5.423122e+11 -2.939596e+07
## [15235,] -3.613514e+11 -2.972489e+11 -3.247510e+15 -2.810897e+09
## [15236,] -2.450336e+11 -2.169757e+11 -2.460005e+15 -2.419563e+09
## [15237,] -4.538241e+09 -4.004937e+09 -4.102247e+13 -1.353236e+08
## [15238,] -2.346423e+04 -7.425681e+04 -2.037470e+11 -1.755132e+07
## [15239,] -2.567881e+06 -3.165085e+06 -8.723950e+10 -1.877073e+07

```



```

## [15240,] -1.436389e+08 -1.376786e+08 -5.424896e+11 -3.041202e+07
## [15241,] -3.210797e+11 -2.772687e+11 -3.250697e+15 -3.793324e+09
## [15242,] -2.523107e+11 -2.094811e+11 -2.464030e+15 -2.332209e+09
## [15243,] -4.767305e+09 -4.274863e+09 -4.110301e+13 -1.405942e+08
## [15244,] -2.625514e+02 -3.310859e+05 -2.041470e+11 -1.732799e+07
## [15245,] -3.074603e+06 -3.006172e+06 -8.738220e+10 -1.890184e+07
## [15246,] -1.437305e+08 -1.349735e+08 -5.433770e+11 -3.029589e+07
## [15247,] -3.074924e+11 -2.871674e+11 -3.254949e+15 -3.251295e+09
## [15248,] -2.498704e+11 -2.169708e+11 -2.465641e+15 -2.300828e+09
## [15249,] -4.724254e+09 -4.005710e+09 -4.112988e+13 -1.318359e+08
## [15250,] -3.641747e+02 -1.836420e+05 -2.043472e+11 -1.755270e+07
## [15251,] -2.341150e+06 -3.733994e+06 -8.746788e+10 -1.920021e+07
## [15252,] -1.460905e+08 -1.295220e+08 -5.439098e+11 -3.057204e+07
## [15253,] -3.349511e+11 -2.972405e+11 -3.258140e+15 -3.511111e+09
## [15254,] -2.506797e+11 -2.245913e+11 -2.468058e+15 -2.499259e+09
## [15255,] -4.753284e+09 -4.840270e+09 -4.115675e+13 -1.426599e+08
## [15256,] -3.272034e+03 -7.890833e+04 -2.044807e+11 -1.767821e+07
## [15257,] -2.704192e+06 -3.370042e+06 -8.752502e+10 -1.881997e+07
## [15258,] -1.484511e+08 -1.406823e+08 -5.442651e+11 -2.950017e+07
## [15259,] -3.085235e+11 -2.972397e+11 -3.259204e+15 -4.277819e+09
## [15260,] -2.547560e+11 -2.094762e+11 -2.469670e+15 -2.474834e+09
## [15261,] -4.943073e+09 -4.553694e+09 -4.119708e+13 -1.273950e+08
## [15262,] -5.422275e+03 -1.862710e+05 -2.046142e+11 -1.760960e+07
## [15263,] -2.809545e+06 -3.748774e+06 -8.761076e+10 -1.897212e+07
## [15264,] -1.549926e+08 -1.351155e+08 -5.447983e+11 -3.069381e+07
## [15265,] -2.962218e+11 -3.074865e+11 -3.262397e+15 -3.689683e+09
## [15266,] -2.402284e+11 -2.169658e+11 -2.471282e+15 -2.647065e+09
## [15267,] -4.724885e+09 -4.139881e+09 -4.121052e+13 -1.419837e+08
## [15268,] -6.390704e+01 -2.569825e+05 -2.046810e+11 -1.744116e+07
## [15269,] -2.679519e+06 -3.378464e+06 -8.761076e+10 -1.893368e+07
## [15270,] -1.447580e+08 -1.351333e+08 -5.449761e+11 -3.023989e+07
## [15271,] -3.023376e+11 -2.675294e+11 -3.265591e+15 -3.250423e+09
## [15272,] -2.613450e+11 -2.021133e+11 -2.473702e+15 -2.154639e+09
## [15273,] -4.539991e+09 -4.140176e+09 -4.125088e+13 -1.383208e+08
## [15274,] -9.812452e+03 -1.296497e+05 -2.048814e+11 -1.710069e+07
## [15275,] -3.069674e+06 -2.866856e+06 -8.769655e+10 -1.906485e+07
## [15276,] -1.419293e+08 -1.436452e+08 -5.453317e+11 -2.978464e+07
## [15277,] -3.253063e+11 -2.570292e+11 -3.265591e+15 -3.488423e+09
## [15278,] -2.410219e+11 -1.948855e+11 -2.473702e+15 -2.284560e+09
## [15279,] -4.884807e+09 -4.554106e+09 -4.125088e+13 -1.286484e+08
## [15280,] -3.398762e+01 -1.889187e+05 -2.048814e+11 -1.716242e+07
## [15281,] -2.623081e+06 -3.386897e+06 -8.769655e+10 -1.897072e+07
## [15282,] -1.471264e+08 -1.324183e+08 -5.455096e+11 -2.980604e+07
## [15283,] -3.200114e+11 -3.074831e+11 -3.266656e+15 -3.020748e+09
## [15284,] -2.482427e+11 -1.948849e+11 -2.474509e+15 -2.450227e+09
## [15285,] -4.826567e+09 -4.140274e+09 -4.126433e+13 -1.337004e+08
## [15286,] -1.111503e+02 -2.600907e+05 -2.049483e+11 -1.762289e+07

```

```

## [15287,] -3.040717e+06 -3.392524e+06 -8.775377e+10 -1.887731e+07
## [15288,] -1.494766e+08 -1.324358e+08 -5.456875e+11 -3.016827e+07
## [15289,] -3.285009e+11 -3.074814e+11 -3.268787e+15 -3.411516e+09
## [15290,] -2.490502e+11 -2.169615e+11 -2.476123e+15 -3.244557e+09
## [15291,] -4.654049e+09 -4.276461e+09 -4.131818e+13 -1.469105e+08
## [15292,] -8.852613e+04 -1.329724e+05 -2.052826e+11 -1.758611e+07
## [15293,] -2.720754e+06 -3.406613e+06 -8.789688e+10 -1.876999e+07
## [15294,] -1.452118e+08 -1.325238e+08 -5.465775e+11 -3.038150e+07
## [15295,] -3.360183e+11 -2.772518e+11 -3.273051e+15 -3.814337e+09
## [15296,] -2.547460e+11 -2.169579e+11 -2.480161e+15 -2.654552e+09
## [15297,] -4.583231e+09 -4.140963e+09 -4.135858e+13 -1.414362e+08
## [15298,] -3.652906e+03 -1.942700e+05 -2.054164e+11 -1.736817e+07
## [15299,] -2.707108e+06 -3.409435e+06 -8.792552e+10 -1.887879e+07
## [15300,] -1.472562e+08 -1.353110e+08 -5.467556e+11 -3.061463e+07
## [15301,] -3.284965e+11 -2.972280e+11 -3.274118e+15 -3.699992e+09
## [15302,] -2.162029e+11 -2.245804e+11 -2.480161e+15 -2.902488e+09
## [15303,] -4.726145e+09 -3.876033e+09 -4.137205e+13 -1.331163e+08
## [15304,] -3.878795e+04 -1.962961e+05 -2.056172e+11 -1.756812e+07
## [15305,] -2.749618e+06 -3.420732e+06 -8.804012e+10 -1.907210e+07
## [15306,] -1.511498e+08 -1.353999e+08 -5.476464e+11 -3.068343e+07
## [15307,] -2.962085e+11 -2.871486e+11 -3.279452e+15 -3.756432e+09
## [15308,] -2.292127e+11 -2.094629e+11 -2.485011e+15 -2.425216e+09
## [15309,] -4.813414e+09 -4.277361e+09 -4.143945e+13 -1.332044e+08
## [15310,] -1.373814e+04 -3.534349e+05 -2.058180e+11 -1.764369e+07
## [15311,] -2.722216e+06 -3.610410e+06 -8.809745e+10 -1.917127e+07
## [15312,] -1.476581e+08 -1.326470e+08 -5.478247e+11 -2.998010e+07
## [15313,] -3.327776e+11 -2.772454e+11 -3.281587e+15 -3.859765e+09
## [15314,] -2.885464e+11 -1.948754e+11 -2.485819e+15 -3.262018e+09
## [15315,] -4.930406e+09 -4.842610e+09 -4.145294e+13 -1.425615e+08
## [15316,] -1.953091e+03 -1.386036e+05 -2.059520e+11 -1.743784e+07
## [15317,] -2.894299e+06 -3.434879e+06 -8.818347e+10 -1.897704e+07
## [15318,] -1.442440e+08 -1.354711e+08 -5.483596e+11 -3.062452e+07
## [15319,] -3.137023e+11 -2.871453e+11 -3.283723e+15 -3.586654e+09
## [15320,] -2.458108e+11 -2.094601e+11 -2.488246e+15 -3.851435e+09
## [15321,] -4.346490e+09 -4.842929e+09 -4.149341e+13 -1.446231e+08
## [15322,] -9.453592e+04 -5.319284e+03 -2.061531e+11 -1.770717e+07
## [15323,] -2.624913e+06 -3.443382e+06 -8.826954e+10 -1.927170e+07
## [15324,] -1.466082e+08 -1.355244e+08 -5.488948e+11 -2.991240e+07
## [15325,] -3.327732e+11 -2.772414e+11 -3.286928e+15 -3.431803e+09
## [15326,] -2.245717e+11 -2.646573e+11 -2.489865e+15 -2.901500e+09
## [15327,] -4.901695e+09 -4.278061e+09 -4.153390e+13 -1.401816e+08
## [15328,] -3.075906e+03 -9.092480e+04 -2.062871e+11 -1.785213e+07
## [15329,] -2.988920e+06 -2.756160e+06 -8.829824e+10 -1.913222e+07
## [15330,] -1.483893e+08 -1.246431e+08 -5.492518e+11 -2.981140e+07
## [15331,] -3.002711e+11 -2.972147e+11 -3.291204e+15 -3.675867e+09
## [15332,] -2.816095e+11 -2.094559e+11 -2.493104e+15 -2.831685e+09
## [15333,] -4.713444e+09 -4.278461e+09 -4.158792e+13 -1.407502e+08

```

```

## [15334,] -1.770782e+04 -2.791327e+05 -2.065554e+11 -1.782126e+07
## [15335,] -3.384984e+06 -3.277541e+06 -8.841308e+10 -1.885100e+07
## [15336,] -1.493398e+08 -1.301140e+08 -5.499660e+11 -2.998878e+07
## [15337,] -3.242205e+11 -2.772357e+11 -3.294412e+15 -3.028814e+09
## [15338,] -2.539132e+11 -2.020948e+11 -2.495534e+15 -2.205737e+09
## [15339,] -4.917004e+09 -4.416681e+09 -4.161494e+13 -1.295930e+08
## [15340,] -6.790544e+03 -9.371074e+04 -2.066896e+11 -1.789721e+07
## [15341,] -2.853675e+06 -3.648259e+06 -8.847053e+10 -1.929283e+07
## [15342,] -1.502373e+08 -1.412811e+08 -5.501447e+11 -2.980086e+07
## [15343,] -3.210442e+11 -3.178836e+11 -3.294412e+15 -2.957430e+09
## [15344,] -2.458040e+11 -2.094538e+11 -2.495534e+15 -2.221002e+09
## [15345,] -4.656343e+09 -4.556891e+09 -4.161494e+13 -1.327094e+08
## [15346,] -4.041792e+04 -3.653449e+05 -2.066896e+11 -1.801097e+07
## [15347,] -2.837124e+06 -3.283077e+06 -8.847053e+10 -1.911225e+07
## [15348,] -1.467562e+08 -1.356668e+08 -5.503233e+11 -3.001863e+07
## [15349,] -3.231591e+11 -2.485732e+11 -3.295482e+15 -3.496910e+09
## [15350,] -2.124335e+11 -2.169437e+11 -2.496345e+15 -2.392317e+09
## [15351,] -5.020614e+09 -4.009483e+09 -4.165549e+13 -1.428353e+08
## [15352,] -3.630101e+04 -3.690492e+05 -2.069582e+11 -1.805593e+07
## [15353,] -2.716520e+06 -3.294163e+06 -8.858548e+10 -1.932831e+07
## [15354,] -1.482653e+08 -1.329464e+08 -5.508595e+11 -3.042539e+07
## [15355,] -3.381606e+11 -2.675041e+11 -3.299763e+15 -3.048943e+09
## [15356,] -2.323168e+11 -2.323168e+11 -2.499588e+15 -2.779479e+09
## [15357,] -4.844418e+09 -4.143323e+09 -4.168254e+13 -1.448805e+08
## [15358,] -1.582889e+02 -1.484446e+05 -2.070925e+11 -1.792339e+07
## [15359,] -2.689284e+06 -3.856056e+06 -8.864299e+10 -1.931156e+07
## [15360,] -1.433892e+08 -1.442502e+08 -5.512171e+11 -3.066715e+07
## [15361,] -3.258716e+11 -2.719162e+11 -3.178837e+13 -1.591464e+09
## [15362,] -2.332848e+11 -2.286070e+11 -2.407986e+13 -1.207043e+09
## [15363,] -4.230204e+09 -4.001920e+09 -4.015500e+11 -2.401058e+07
## [15364,] -1.701036e+07 -1.379507e+07 -1.994385e+09 -2.048315e+04
## [15365,] -7.063720e+06 -4.999115e+06 -8.536679e+08 -6.392675e+04
## [15366,] -6.155309e+07 -5.131562e+07 -5.308444e+09 -9.519226e+05
## [15367,] -3.333626e+11 -3.121856e+11 -3.178837e+13 -1.517972e+09
## [15368,] -2.435826e+11 -2.059286e+11 -2.407986e+13 -1.195796e+09
## [15369,] -4.284838e+09 -4.001920e+09 -4.015500e+11 -2.401058e+07
## [15370,] -1.763111e+07 -1.492533e+07 -1.994385e+09 -2.091228e+04
## [15371,] -6.303077e+06 -6.156147e+06 -8.536679e+08 -6.171368e+04
## [15372,] -6.230644e+07 -4.961552e+07 -5.308444e+09 -9.449304e+05
## [15373,] -3.248076e+11 -3.121847e+11 -3.189354e+13 -1.467502e+09
## [15374,] -2.532849e+11 -2.133557e+11 -2.415953e+13 -1.412321e+09
## [15375,] -4.243929e+09 -3.715985e+09 -4.028785e+11 -2.697642e+07
## [15376,] -1.688126e+07 -1.378940e+07 -2.000984e+09 -1.152300e+04
## [15377,] -6.775809e+06 -5.675253e+06 -8.564923e+08 -5.800730e+04
## [15378,] -6.081623e+07 -4.795463e+07 -5.326007e+09 -1.017553e+06
## [15379,] -3.508037e+11 -2.719154e+11 -3.189354e+13 -1.743595e+09
## [15380,] -2.372185e+11 -2.364290e+11 -2.415953e+13 -1.394089e+09

```

```

## [15381,] -4.243929e+09 -3.367282e+09 -4.028785e+11 -2.484579e+07
## [15382,] -1.579615e+07 -1.378940e+07 -2.000984e+09 -1.881618e+04
## [15383,] -7.243323e+06 -4.995699e+06 -8.564923e+08 -5.497610e+04
## [15384,] -6.100301e+07 -5.132657e+07 -5.326007e+09 -1.027233e+06
## [15385,] -3.552328e+11 -2.622816e+11 -3.199889e+13 -1.576505e+09
## [15386,] -2.492182e+11 -2.059272e+11 -2.423933e+13 -1.151233e+09
## [15387,] -4.271346e+09 -3.367371e+09 -4.042093e+11 -2.433436e+07
## [15388,] -1.699775e+07 -1.434306e+07 -2.007593e+09 -2.179471e+04
## [15389,] -6.493888e+06 -5.213913e+06 -8.593213e+08 -6.520195e+04
## [15390,] -6.138941e+07 -4.963705e+07 -5.343599e+09 -9.502354e+05
## [15391,] -3.370757e+11 -2.871314e+11 -3.301905e+15 -3.540594e+09
## [15392,] -2.291980e+11 -2.482176e+11 -2.501210e+15 -2.352361e+09
## [15393,] -4.431315e+09 -4.557614e+09 -4.170959e+13 -1.350129e+08
## [15394,] -5.611856e+04 -2.121783e+05 -2.071597e+11 -1.770321e+07
## [15395,] -2.726605e+06 -3.862060e+06 -8.870051e+10 -1.918292e+07
## [15396,] -1.471946e+08 -1.330345e+08 -5.517537e+11 -3.017762e+07
## [15397,] -3.242127e+11 -2.675010e+11 -3.304047e+15 -3.322067e+09
## [15398,] -2.596601e+11 -2.245594e+11 -2.503645e+15 -2.167093e+09
## [15399,] -4.830390e+09 -3.749425e+09 -4.175019e+13 -1.399755e+08
## [15400,] -6.456744e+04 -2.889059e+05 -2.073614e+11 -1.780423e+07
## [15401,] -2.683222e+06 -3.491761e+06 -8.875805e+10 -1.933843e+07
## [15402,] -1.507183e+08 -1.330521e+08 -5.519326e+11 -3.004155e+07
## [15403,] -3.370731e+11 -2.772277e+11 -3.305119e+15 -3.079475e+09
## [15404,] -2.260996e+11 -2.245594e+11 -2.503645e+15 -2.431479e+09
## [15405,] -4.859531e+09 -4.417696e+09 -4.175019e+13 -1.319221e+08
## [15406,] -4.076275e+04 -4.714998e+05 -2.073614e+11 -1.784201e+07
## [15407,] -3.169545e+06 -3.491761e+06 -8.875805e+10 -1.928238e+07
## [15408,] -1.469229e+08 -1.222388e+08 -5.519326e+11 -3.015972e+07
## [15409,] -3.316821e+11 -2.871273e+11 -3.307262e+15 -3.640659e+09
## [15410,] -2.498330e+11 -2.169359e+11 -2.505268e+15 -2.702478e+09
## [15411,] -5.021589e+09 -4.279860e+09 -4.177726e+13 -1.521532e+08
## [15412,] -3.908293e+03 -5.831172e+04 -2.075631e+11 -1.770413e+07
## [15413,] -2.923388e+06 -4.075775e+06 -8.887319e+10 -1.895305e+07
## [15414,] -1.455498e+08 -1.331226e+08 -5.526486e+11 -3.021961e+07
## [15415,] -3.468787e+11 -2.971997e+11 -3.310479e+15 -3.037817e+09
## [15416,] -2.268681e+11 -2.169337e+11 -2.507705e+15 -2.495516e+09
## [15417,] -4.225655e+09 -4.845588e+09 -4.183144e+13 -1.494009e+08
## [15418,] -2.490309e+03 -4.778172e+05 -2.077649e+11 -1.741707e+07
## [15419,] -3.116226e+06 -3.327533e+06 -8.893079e+10 -1.901766e+07
## [15420,] -1.538035e+08 -1.415901e+08 -5.531858e+11 -3.002148e+07
## [15421,] -3.680491e+11 -3.178689e+11 -3.312624e+15 -2.825739e+09
## [15422,] -2.530833e+11 -2.169323e+11 -2.509330e+15 -2.289103e+09
## [15423,] -4.977726e+09 -4.144504e+09 -4.184499e+13 -1.310846e+08
## [15424,] -2.898987e+03 -1.549922e+05 -2.078322e+11 -1.805796e+07
## [15425,] -2.814824e+06 -3.153675e+06 -8.895959e+10 -1.940711e+07
## [15426,] -1.491098e+08 -1.277263e+08 -5.533650e+11 -3.016115e+07
## [15427,] -3.220856e+11 -2.772212e+11 -3.313696e+15 -3.120306e+09

```

```

## [15428,] -2.474016e+11 -2.094412e+11 -2.510142e+15 -2.273532e+09
## [15429,] -4.918933e+09 -4.280460e+09 -4.185854e+13 -1.311021e+08
## [15430,] -9.245758e+03 -2.199925e+05 -2.078995e+11 -1.776772e+07
## [15431,] -2.850423e+06 -3.892152e+06 -8.898840e+10 -1.938359e+07
## [15432,] -1.485259e+08 -1.473615e+08 -5.533650e+11 -3.000363e+07
## [15433,] -3.220848e+11 -2.821493e+11 -3.314769e+15 -3.246417e+09
## [15434,] -2.514520e+11 -2.094405e+11 -2.510955e+15 -2.288957e+09
## [15435,] -4.715858e+09 -4.144897e+09 -4.189921e+13 -1.429139e+08
## [15436,] -1.285033e+04 -1.574082e+05 -2.081015e+11 -1.774933e+07
## [15437,] -2.697210e+06 -3.526114e+06 -8.910369e+10 -1.940619e+07
## [15438,] -1.497697e+08 -1.332638e+08 -5.540819e+11 -3.108228e+07
## [15439,] -3.263275e+11 -2.871191e+11 -3.317990e+15 -3.214373e+09
## [15440,] -2.433796e+11 -2.169280e+11 -2.514208e+15 -2.543763e+09
## [15441,] -5.172230e+09 -4.559265e+09 -4.192633e+13 -1.372520e+08
## [15442,] -1.308817e+02 -1.052749e+05 -2.083036e+11 -1.810345e+07
## [15443,] -2.799870e+06 -3.718653e+06 -8.916137e+10 -1.945427e+07
## [15444,] -1.518646e+08 -1.417174e+08 -5.544405e+11 -3.001453e+07
## [15445,] -3.381437e+11 -2.971922e+11 -3.320137e+15 -3.016549e+09
## [15446,] -2.547128e+11 -2.169273e+11 -2.515021e+15 -3.049345e+09
## [15447,] -4.716173e+09 -4.281060e+09 -4.193990e+13 -1.417200e+08
## [15448,] -4.027587e+03 -1.052749e+05 -2.083036e+11 -1.801471e+07
## [15449,] -2.816312e+06 -3.910264e+06 -8.916137e+10 -1.941102e+07
## [15450,] -1.495330e+08 -1.389007e+08 -5.546199e+11 -3.070868e+07
## [15451,] -3.241970e+11 -2.579332e+11 -3.323360e+15 -4.126880e+09
## [15452,] -2.433766e+11 -2.323006e+11 -2.517462e+15 -2.642585e+09
## [15453,] -5.127712e+09 -4.559781e+09 -4.199418e+13 -1.281777e+08
## [15454,] -1.563429e+05 -1.077688e+05 -2.086406e+11 -1.757504e+07
## [15455,] -2.701177e+06 -3.736357e+06 -8.933449e+10 -1.934341e+07
## [15456,] -1.502126e+08 -1.334049e+08 -5.555171e+11 -3.065821e+07
## [15457,] -3.157594e+11 -3.178577e+11 -3.326584e+15 -2.944814e+09
## [15458,] -2.547082e+11 -2.401834e+11 -2.519905e+15 -2.158127e+09
## [15459,] -4.731295e+09 -4.702542e+09 -4.203492e+13 -1.294175e+08
## [15460,] -8.312720e+03 -6.514343e+04 -2.087755e+11 -1.788940e+07
## [15461,] -2.784956e+06 -4.128395e+06 -8.936337e+10 -1.923377e+07
## [15462,] -1.476028e+08 -1.334226e+08 -5.556967e+11 -3.074624e+07
## [15463,] -3.316644e+11 -2.636405e+11 -3.328734e+15 -3.363141e+09
## [15464,] -2.506292e+11 -2.094314e+11 -2.521534e+15 -2.234007e+09
## [15465,] -4.935236e+09 -4.420033e+09 -4.206208e+13 -1.376767e+08
## [15466,] -6.051467e+03 -6.592587e+04 -2.089105e+11 -1.818110e+07
## [15467,] -2.978519e+06 -2.861166e+06 -8.947890e+10 -1.939431e+07
## [15468,] -1.482593e+08 -1.307423e+08 -5.564151e+11 -3.070053e+07
## [15469,] -3.468607e+11 -2.303090e+11 -3.331961e+15 -3.025871e+09
## [15470,] -2.393853e+11 -2.401797e+11 -2.523978e+15 -3.138649e+09
## [15471,] -4.434164e+09 -4.420236e+09 -4.208926e+13 -1.631054e+08
## [15472,] -5.960301e+04 -1.666345e+05 -2.091130e+11 -1.806092e+07
## [15473,] -3.368303e+06 -3.386334e+06 -8.953669e+10 -1.946400e+07
## [15474,] -1.428108e+08 -1.363084e+08 -5.567745e+11 -3.030765e+07

```

```

## [15475,] -3.147069e+11 -3.074297e+11 -3.334113e+15 -3.139538e+09
## [15476,] -2.530663e+11 -2.020680e+11 -2.527239e+15 -2.550717e+09
## [15477,] -4.906618e+09 -4.561019e+09 -4.215724e+13 -1.392805e+08
## [15478,] -9.879294e+04 -1.133581e+05 -2.093831e+11 -1.768320e+07
## [15479,] -3.111695e+06 -3.958766e+06 -8.962342e+10 -1.932863e+07
## [15480,] -1.486440e+08 -1.335815e+08 -5.573138e+11 -3.122246e+07
## [15481,] -3.295139e+11 -2.674765e+11 -3.337343e+15 -3.493387e+09
## [15482,] -2.506223e+11 -2.020666e+11 -2.528870e+15 -2.310685e+09
## [15483,] -4.761296e+09 -4.282860e+09 -4.218445e+13 -1.417983e+08
## [15484,] -1.002392e+05 -1.149069e+05 -2.095858e+11 -1.744611e+07
## [15485,] -2.832133e+06 -3.967894e+06 -8.971018e+10 -1.942223e+07
## [15486,] -1.493029e+08 -1.449486e+08 -5.580332e+11 -3.109627e+07
## [15487,] -3.210061e+11 -2.674733e+11 -3.341651e+15 -3.254866e+09
## [15488,] -2.522463e+11 -2.245341e+11 -2.532134e+15 -2.179726e+09
## [15489,] -4.449133e+09 -4.561535e+09 -4.222527e+13 -1.322963e+08
## [15490,] -2.608998e+04 -2.776812e+05 -2.097210e+11 -1.815118e+07
## [15491,] -2.842430e+06 -4.381190e+06 -8.982594e+10 -1.954450e+07
## [15492,] -1.452921e+08 -1.421362e+08 -5.585731e+11 -3.106846e+07
## [15493,] -3.220596e+11 -3.074204e+11 -3.345962e+15 -3.014535e+09
## [15494,] -2.538754e+11 -2.245312e+11 -2.535400e+15 -2.164319e+09
## [15495,] -4.878296e+09 -4.283560e+09 -4.227974e+13 -1.247721e+08
## [15496,] -3.715943e+03 -2.435281e+05 -2.100592e+11 -1.822194e+07
## [15497,] -2.883389e+06 -3.795673e+06 -8.991280e+10 -1.954308e+07
## [15498,] -1.502939e+08 -1.337582e+08 -5.591133e+11 -3.029845e+07
## [15499,] -3.241770e+11 -2.579153e+11 -3.348119e+15 -3.034870e+09
## [15500,] -2.322837e+11 -2.245304e+11 -2.536217e+15 -2.436467e+09
## [15501,] -5.115138e+09 -4.283660e+09 -4.229336e+13 -1.290338e+08
## [15502,] -2.862926e+03 -3.226978e+05 -2.100592e+11 -1.819648e+07
## [15503,] -2.575528e+06 -3.989232e+06 -8.991280e+10 -1.953007e+07
## [15504,] -1.662464e+08 -1.393513e+08 -5.591133e+11 -3.132131e+07
## [15505,] -3.295043e+11 -2.723095e+11 -3.349197e+15 -3.437533e+09
## [15506,] -2.489930e+11 -2.481841e+11 -2.537034e+15 -2.607458e+09
## [15507,] -5.281257e+09 -3.501160e+09 -4.230699e+13 -1.271557e+08
## [15508,] -7.000513e+04 -1.774087e+05 -2.102622e+11 -1.807625e+07
## [15509,] -2.726757e+06 -3.431481e+06 -8.999971e+10 -1.962850e+07
## [15510,] -1.428352e+08 -1.366119e+08 -5.598339e+11 -3.054337e+07
## [15511,] -3.273652e+11 -3.074153e+11 -3.352434e+15 -3.169486e+09
## [15512,] -2.506116e+11 -2.245268e+11 -2.540304e+15 -2.209410e+09
## [15513,] -4.878937e+09 -4.422268e+09 -4.236151e+13 -1.550431e+08
## [15514,] -7.122342e+04 -1.793450e+05 -2.104653e+11 -1.784284e+07
## [15515,] -2.932488e+06 -2.915711e+06 -9.008666e+10 -1.964012e+07
## [15516,] -1.369275e+08 -1.539491e+08 -5.601944e+11 -3.197877e+07
## [15517,] -3.043201e+11 -2.971647e+11 -3.355672e+15 -4.196069e+09
## [15518,] -2.449572e+11 -1.877337e+11 -2.541939e+15 -2.293943e+09
## [15519,] -4.605395e+09 -4.422573e+09 -4.240242e+13 -1.440928e+08
## [15520,] -1.027906e+05 -1.228089e+05 -2.106008e+11 -1.808338e+07
## [15521,] -2.693396e+06 -2.923545e+06 -9.017365e+10 -1.971704e+07

```

```

## [15522,] -1.502066e+08 -1.395498e+08 -5.610961e+11 -3.047027e+07
## [15523,] -3.359457e+11 -2.870863e+11 -3.361073e+15 -2.921974e+09
## [15524,] -2.555029e+11 -2.169003e+11 -2.546030e+15 -2.201289e+09
## [15525,] -4.997366e+09 -4.563290e+09 -4.245700e+13 -1.292422e+08
## [15526,] -8.554038e+03 -1.832493e+05 -2.108719e+11 -1.833861e+07
## [15527,] -2.652768e+06 -4.025946e+06 -9.026068e+10 -1.976793e+07
## [15528,] -1.499321e+08 -1.367548e+08 -5.612765e+11 -3.037310e+07
## [15529,] -3.634982e+11 -2.870863e+11 -3.361073e+15 -3.502423e+09
## [15530,] -2.465612e+11 -1.948248e+11 -2.546849e+15 -2.459564e+09
## [15531,] -5.012391e+09 -4.149129e+09 -4.248430e+13 -1.292769e+08
## [15532,] -1.080680e+03 -1.723922e+04 -2.110075e+11 -1.766182e+07
## [15533,] -3.021294e+06 -3.647675e+06 -9.031873e+10 -1.952489e+07
## [15534,] -1.424461e+08 -1.367906e+08 -5.616375e+11 -3.176406e+07
## [15535,] -3.043133e+11 -2.771834e+11 -3.364315e+15 -3.253035e+09
## [15536,] -2.465597e+11 -2.322726e+11 -2.548486e+15 -2.948193e+09
## [15537,] -5.116777e+09 -4.015486e+09 -4.249796e+13 -1.526363e+08
## [15538,] -2.182720e+04 -4.288553e+05 -2.111432e+11 -1.819262e+07
## [15539,] -3.043703e+06 -4.038221e+06 -9.037679e+10 -1.964698e+07
## [15540,] -1.491289e+08 -1.312846e+08 -5.619986e+11 -3.129743e+07
## [15541,] -3.094721e+11 -2.870798e+11 -3.369723e+15 -3.534868e+09
## [15542,] -2.237479e+11 -2.245160e+11 -2.552583e+15 -2.418974e+09
## [15543,] -4.606640e+09 -4.015970e+09 -4.256627e+13 -1.358898e+08
## [15544,] -1.481885e+04 -8.167969e+04 -2.114825e+11 -1.807272e+07
## [15545,] -3.005801e+06 -4.053591e+06 -9.052204e+10 -1.986410e+07
## [15546,] -1.483837e+08 -1.369515e+08 -5.632632e+11 -3.112989e+07
## [15547,] -3.337787e+11 -2.771770e+11 -3.372970e+15 -3.220525e+09
## [15548,] -2.596110e+11 -1.948181e+11 -2.555042e+15 -2.285010e+09
## [15549,] -4.837191e+09 -4.286061e+09 -4.262095e+13 -1.403900e+08
## [15550,] -1.381261e+05 -8.387811e+04 -2.118221e+11 -1.829612e+07
## [15551,] -2.920253e+06 -4.072074e+06 -9.069648e+10 -1.952597e+07
## [15552,] -1.467137e+08 -1.426833e+08 -5.639865e+11 -3.144521e+07
## [15553,] -3.348529e+11 -2.870740e+11 -3.377301e+15 -3.589856e+09
## [15554,] -2.457449e+11 -2.245102e+11 -2.559143e+15 -2.731045e+09
## [15555,] -4.999095e+09 -4.150508e+09 -4.267567e+13 -1.437062e+08
## [15556,] -3.214166e+04 -1.938661e+05 -2.119580e+11 -1.813093e+07
## [15557,] -2.823087e+06 -4.075158e+06 -9.072557e+10 -1.994685e+07
## [15558,] -1.540883e+08 -1.398750e+08 -5.643483e+11 -3.182585e+07
## [15559,] -3.284107e+11 -2.971464e+11 -3.379467e+15 -3.063301e+09
## [15560,] -2.433374e+11 -2.245094e+11 -2.559964e+15 -2.284572e+09
## [15561,] -4.636140e+09 -4.565148e+09 -4.270305e+13 -1.324300e+08
## [15562,] -5.782561e+04 -4.755743e+03 -2.120940e+11 -1.841818e+07
## [15563,] -3.344895e+06 -3.508344e+06 -9.078376e+10 -1.979864e+07
## [15564,] -1.473497e+08 -1.315299e+08 -5.645293e+11 -3.065726e+07
## [15565,] -3.284098e+11 -2.578920e+11 -3.380551e+15 -3.545049e+09
## [15566,] -2.465475e+11 -2.093971e+11 -2.561606e+15 -2.346880e+09
## [15567,] -4.823492e+09 -4.017132e+09 -4.273043e+13 -1.348854e+08
## [15568,] -3.890843e+04 -3.510766e+05 -2.122300e+11 -1.820148e+07

```

```

## [15569,] -2.941183e+06 -3.709229e+06 -9.092933e+10 -1.989388e+07
## [15570,] -1.471520e+08 -1.371662e+08 -5.654345e+11 -3.067307e+07
## [15571,] -3.380886e+11 -2.971406e+11 -3.387056e+15 -2.879841e+09
## [15572,] -2.645834e+11 -2.093929e+11 -2.566534e+15 -2.981697e+09
## [15573,] -5.104217e+09 -3.756634e+09 -4.279892e+13 -1.553916e+08
## [15574,] -9.345928e+03 -1.999695e+05 -2.125701e+11 -1.808790e+07
## [15575,] -3.586811e+06 -2.999816e+06 -9.101673e+10 -1.984871e+07
## [15576,] -1.498513e+08 -1.372378e+08 -5.661591e+11 -3.060093e+07
## [15577,] -3.326886e+11 -2.870642e+11 -3.390311e+15 -3.401437e+09
## [15578,] -2.530271e+11 -2.020329e+11 -2.569001e+15 -2.191680e+09
## [15579,] -4.809813e+09 -3.899376e+09 -4.284005e+13 -1.355143e+08
## [15580,] -2.540343e+04 -2.754309e+05 -2.128425e+11 -1.840071e+07
## [15581,] -3.215420e+06 -2.840008e+06 -9.110417e+10 -1.989101e+07
## [15582,] -1.531291e+08 -1.317228e+08 -5.665217e+11 -3.129695e+07
## [15583,] -3.146606e+11 -3.073839e+11 -3.392482e+15 -3.521889e+09
## [15584,] -2.513969e+11 -2.168796e+11 -2.569823e+15 -2.546705e+09
## [15585,] -4.552150e+09 -4.425928e+09 -4.285376e+13 -1.454552e+08
## [15586,] -1.261567e+01 -2.027124e+05 -2.128425e+11 -1.856101e+07
## [15587,] -3.162855e+06 -3.539903e+06 -9.110417e+10 -1.946882e+07
## [15588,] -1.564042e+08 -1.400920e+08 -5.665217e+11 -3.178081e+07
## [15589,] -3.104904e+11 -2.771609e+11 -3.394654e+15 -3.931186e+09
## [15590,] -2.361762e+11 -2.020295e+11 -2.573113e+15 -2.866990e+09
## [15591,] -4.752445e+09 -4.152182e+09 -4.290863e+13 -1.452766e+08
## [15592,] -1.983403e+04 -3.118859e+05 -2.131832e+11 -1.849118e+07
## [15593,] -3.141583e+06 -3.933871e+06 -9.124999e+10 -1.989446e+07
## [15594,] -1.482288e+08 -1.318105e+08 -5.674285e+11 -3.209450e+07
## [15595,] -3.273276e+11 -2.870577e+11 -3.398999e+15 -3.346591e+09
## [15596,] -2.237284e+11 -2.244964e+11 -2.574759e+15 -2.570861e+09
## [15597,] -4.709461e+09 -4.566904e+09 -4.293608e+13 -1.498910e+08
## [15598,] -8.497935e+04 -2.075576e+05 -2.133195e+11 -1.815311e+07
## [15599,] -3.597180e+06 -2.858065e+06 -9.130836e+10 -1.990810e+07
## [15600,] -1.407860e+08 -1.402186e+08 -5.677914e+11 -3.088952e+07
## [15601,] -3.273267e+11 -2.870569e+11 -3.400085e+15 -2.989922e+09
## [15602,] -2.497673e+11 -1.877066e+11 -2.575582e+15 -2.236909e+09
## [15603,] -4.971908e+09 -3.757852e+09 -4.297727e+13 -1.366694e+08
## [15604,] -1.318504e+04 -6.901860e+05 -2.135241e+11 -1.848556e+07
## [15605,] -3.068603e+06 -4.146425e+06 -9.139594e+10 -1.964053e+07
## [15606,] -1.500759e+08 -1.374527e+08 -5.683360e+11 -3.173206e+07
## [15607,] -3.188474e+11 -2.870536e+11 -3.404434e+15 -3.677440e+09
## [15608,] -2.322454e+11 -2.322454e+11 -2.578877e+15 -2.712204e+09
## [15609,] -5.001688e+09 -4.152871e+09 -4.300474e+13 -1.404010e+08
## [15610,] -4.019837e+03 -9.578048e+04 -2.135924e+11 -1.800153e+07
## [15611,] -2.935263e+06 -4.351809e+06 -9.142514e+10 -1.980418e+07
## [15612,] -1.489240e+08 -1.319158e+08 -5.685176e+11 -3.083042e+07
## [15613,] -3.337522e+11 -2.674267e+11 -3.405522e+15 -3.133889e+09
## [15614,] -2.554712e+11 -2.093818e+11 -2.579700e+15 -2.376783e+09
## [15615,] -4.913471e+09 -4.567627e+09 -4.303222e+13 -1.311689e+08

```



```

## [15616,] -3.394150e+04 -1.486803e+05 -2.137288e+11 -1.820493e+07
## [15617,] -3.079321e+06 -3.961199e+06 -9.151277e+10 -1.999094e+07
## [15618,] -1.481235e+08 -1.432132e+08 -5.692442e+11 -3.078464e+07
## [15619,] -3.478945e+11 -2.971231e+11 -3.409874e+15 -3.964978e+09
## [15620,] -2.322417e+11 -2.322417e+11 -2.582997e+15 -3.096272e+09
## [15621,] -5.046851e+09 -3.888031e+09 -4.308720e+13 -1.293275e+08
## [15622,] -6.871353e+03 -3.750150e+05 -2.140019e+11 -1.858299e+07
## [15623,] -3.264937e+06 -3.591849e+06 -9.162968e+10 -2.001828e+07
## [15624,] -1.359168e+08 -1.375961e+08 -5.697895e+11 -3.108969e+07
## [15625,] -3.220050e+11 -2.971197e+11 -3.414229e+15 -2.978653e+09
## [15626,] -2.612372e+11 -2.244863e+11 -2.586296e+15 -2.167460e+09
## [15627,] -4.442004e+09 -4.020038e+09 -4.314222e+13 -1.356621e+08
## [15628,] -1.908375e+04 -3.787678e+05 -2.142752e+11 -1.859648e+07
## [15629,] -3.619185e+06 -3.789125e+06 -9.171742e+10 -1.996859e+07
## [15630,] -1.511633e+08 -1.376499e+08 -5.703351e+11 -3.084883e+07
## [15631,] -3.315940e+11 -2.870454e+11 -3.415318e+15 -2.948129e+09
## [15632,] -2.385347e+11 -2.401220e+11 -2.587121e+15 -2.235897e+09
## [15633,] -5.017586e+09 -4.568453e+09 -4.314222e+13 -1.317891e+08
## [15634,] -4.847704e+04 -5.882950e+04 -2.142752e+11 -1.862866e+07
## [15635,] -3.220190e+06 -3.416775e+06 -9.171742e+10 -2.001245e+07
## [15636,] -1.479439e+08 -1.404721e+08 -5.703351e+11 -3.086213e+07
## [15637,] -3.337442e+11 -2.870454e+11 -3.415318e+15 -3.039921e+09
## [15638,] -2.449156e+11 -2.093755e+11 -2.587121e+15 -2.251266e+09
## [15639,] -4.625223e+09 -4.428063e+09 -4.314222e+13 -1.349316e+08
## [15640,] -1.189866e+04 -2.847208e+04 -2.143435e+11 -1.869325e+07
## [15641,] -3.032089e+06 -4.386949e+06 -9.174667e+10 -1.988343e+07
## [15642,] -1.479625e+08 -1.376678e+08 -5.705170e+11 -3.095045e+07
## [15643,] -3.612072e+11 -2.674188e+11 -3.416407e+15 -4.058847e+09
## [15644,] -2.123547e+11 -2.481369e+11 -2.587946e+15 -2.344511e+09
## [15645,] -4.899772e+09 -3.759070e+09 -4.315598e+13 -1.325286e+08
## [15646,] -9.636785e+04 -2.933587e+05 -2.143435e+11 -1.860951e+07
## [15647,] -2.764895e+06 -3.792100e+06 -9.174667e+10 -2.009839e+07
## [15648,] -1.430549e+08 -1.404902e+08 -5.705170e+11 -3.096377e+07
## [15649,] -3.315914e+11 -2.771432e+11 -3.418586e+15 -3.174734e+09
## [15650,] -2.513785e+11 -2.093734e+11 -2.589597e+15 -2.336514e+09
## [15651,] -4.856232e+09 -4.073693e+09 -4.319727e+13 -1.411516e+08
## [15652,] -5.671385e+04 -2.202793e+05 -2.145486e+11 -1.862285e+07
## [15653,] -2.960400e+06 -3.806995e+06 -9.189301e+10 -1.986938e+07
## [15654,] -1.477830e+08 -1.463318e+08 -5.716091e+11 -3.230754e+07
## [15655,] -3.434999e+11 -2.771400e+11 -3.422947e+15 -3.366241e+09
## [15656,] -2.291161e+11 -2.481323e+11 -2.592900e+15 -2.391432e+09
## [15657,] -4.442717e+09 -4.569176e+09 -4.323859e+13 -1.384831e+08
## [15658,] -4.467839e+04 -2.231577e+05 -2.148223e+11 -1.822653e+07
## [15659,] -3.050746e+06 -4.246103e+06 -9.195158e+10 -2.006719e+07
## [15660,] -1.443306e+08 -1.434694e+08 -5.717912e+11 -3.161263e+07
## [15661,] -3.146357e+11 -3.283748e+11 -3.424037e+15 -2.937354e+09
## [15662,] -2.497505e+11 -2.093699e+11 -2.593726e+15 -2.710772e+09

```

```

## [15663,] -4.900735e+09 -4.154841e+09 -4.327992e+13 -1.475489e+08
## [15664,] -7.068607e+04 -1.059702e+05 -2.150276e+11 -1.836737e+07
## [15665,] -3.010148e+06 -3.824908e+06 -9.206877e+10 -2.016942e+07
## [15666,] -1.499201e+08 -1.378651e+08 -5.725199e+11 -3.184929e+07
## [15667,] -3.478791e+11 -2.674101e+11 -3.428401e+15 -2.876725e+09
## [15668,] -2.361539e+11 -2.322284e+11 -2.597859e+15 -2.430812e+09
## [15669,] -5.153459e+09 -4.429487e+09 -4.333506e+13 -1.279775e+08
## [15670,] -2.800377e+05 -8.750471e+02 -2.152330e+11 -1.858583e+07
## [15671,] -3.314832e+06 -3.833880e+06 -9.215671e+10 -1.997457e+07
## [15672,] -1.493907e+08 -1.407439e+08 -5.730668e+11 -3.105626e+07
## [15673,] -3.011844e+11 -2.870331e+11 -3.431676e+15 -3.247633e+09
## [15674,] -2.229386e+11 -2.244732e+11 -2.601167e+15 -2.335480e+09
## [15675,] -4.684121e+09 -4.291566e+09 -4.337644e+13 -1.332932e+08
## [15676,] -1.405219e+05 -6.529955e+04 -2.154385e+11 -1.867644e+07
## [15677,] -3.249271e+06 -4.438315e+06 -9.221536e+10 -1.994001e+07
## [15678,] -1.503070e+08 -1.351582e+08 -5.734315e+11 -3.178439e+07
## [15679,] -3.209325e+11 -2.674061e+11 -3.433860e+15 -3.184038e+09
## [15680,] -2.457063e+11 -2.168526e+11 -2.601167e+15 -2.143586e+09
## [15681,] -4.872217e+09 -4.291566e+09 -4.337644e+13 -1.294544e+08
## [15682,] -2.515076e+04 -2.297025e+05 -2.154385e+11 -1.845151e+07
## [15683,] -3.077498e+06 -3.467814e+06 -9.224470e+10 -2.033431e+07
## [15684,] -1.544619e+08 -1.324077e+08 -5.736139e+11 -3.089530e+07
## [15685,] -3.759016e+11 -2.870307e+11 -3.434952e+15 -5.209557e+09
## [15686,] -2.369392e+11 -1.876854e+11 -2.601994e+15 -2.676299e+09
## [15687,] -4.916257e+09 -4.021783e+09 -4.339024e+13 -1.424034e+08
## [15688,] -1.697540e+04 -3.084473e+05 -2.155756e+11 -1.843261e+07
## [15689,] -3.219477e+06 -4.040678e+06 -9.227403e+10 -2.012495e+07
## [15690,] -1.509319e+08 -1.379908e+08 -5.737963e+11 -3.114374e+07
## [15691,] -3.269348e+11 -2.817213e+11 -3.199889e+13 -1.547040e+09
## [15692,] -2.419824e+11 -1.914663e+11 -2.423933e+13 -1.201307e+09
## [15693,] -4.257676e+09 -3.489938e+09 -4.042093e+11 -2.402556e+07
## [15694,] -1.705930e+07 -1.378372e+07 -2.007593e+09 -1.495159e+04
## [15695,] -6.670088e+06 -4.992283e+06 -8.593213e+08 -6.445255e+04
## [15696,] -6.270904e+07 -4.963705e+07 -5.343599e+09 -9.455752e+05
## [15697,] -3.420262e+11 -2.528223e+11 -3.199889e+13 -1.503363e+09
## [15698,] -2.484090e+11 -1.914663e+11 -2.423933e+13 -1.340050e+09
## [15699,] -4.298751e+09 -3.367371e+09 -4.042093e+11 -2.412828e+07
## [15700,] -1.650934e+07 -1.434306e+07 -2.007593e+09 -2.049365e+04
## [15701,] -6.670088e+06 -4.992283e+06 -8.593213e+08 -6.495167e+04
## [15702,] -6.346942e+07 -5.306663e+07 -5.343599e+09 -1.007051e+06
## [15703,] -3.541227e+11 -2.622816e+11 -3.199889e+13 -1.547040e+09
## [15704,] -2.508399e+11 -2.059265e+11 -2.431926e+13 -1.028059e+09
## [15705,] -4.230502e+09 -3.490028e+09 -4.055422e+11 -2.143899e+07
## [15706,] -1.644259e+07 -1.548910e+07 -2.014213e+09 -2.666976e+04
## [15707,] -6.691497e+06 -5.210424e+06 -8.621551e+08 -7.308212e+04
## [15708,] -6.291083e+07 -4.797580e+07 -5.361220e+09 -8.807233e+05
## [15709,] -3.355159e+11 -2.817205e+11 -3.210441e+13 -1.334855e+09

```

```

## [15710,] -2.549190e+11 -2.059265e+11 -2.431926e+13 -1.007358e+09
## [15711,] -4.055356e+09 -3.490028e+09 -4.055422e+11 -2.212282e+07
## [15712,] -1.761186e+07 -1.322995e+07 -2.014213e+09 -2.815119e+04
## [15713,] -7.025510e+06 -5.903969e+06 -8.621551e+08 -5.922232e+04
## [15714,] -6.028133e+07 -5.134847e+07 -5.361220e+09 -1.032764e+06
## [15715,] -3.049353e+11 -3.018551e+11 -3.210441e+13 -1.846116e+09
## [15716,] -2.557387e+11 -2.209138e+11 -2.431926e+13 -1.345939e+09
## [15717,] -4.108852e+09 -3.741737e+09 -4.055422e+11 -2.797996e+07
## [15718,] -1.723828e+07 -1.377805e+07 -2.014213e+09 -1.495607e+04
## [15719,] -6.415225e+06 -5.903969e+06 -8.621551e+08 -6.261213e+04
## [15720,] -6.140138e+07 -5.134847e+07 -5.361220e+09 -9.728549e+05
## [15721,] -3.262323e+11 -2.674045e+11 -3.436045e+15 -3.110667e+09
## [15722,] -2.473157e+11 -2.093622e+11 -2.602822e+15 -2.296297e+09
## [15723,] -4.916364e+09 -4.857830e+09 -4.340404e+13 -1.316419e+08
## [15724,] -1.897413e+04 -4.963755e+05 -2.155756e+11 -1.868321e+07
## [15725,] -3.011686e+06 -4.240310e+06 -9.227403e+10 -2.016459e+07
## [15726,] -1.521103e+08 -1.351937e+08 -5.737963e+11 -3.099700e+07
## [15727,] -3.315773e+11 -2.870298e+11 -3.436045e+15 -2.997361e+09
## [15728,] -2.603923e+11 -2.093615e+11 -2.603649e+15 -2.188676e+09
## [15729,] -4.770791e+09 -4.430097e+09 -4.341784e+13 -1.434409e+08
## [15730,] -4.951540e+03 -1.104949e+05 -2.156442e+11 -1.832406e+07
## [15731,] -3.169600e+06 -4.243458e+06 -9.230338e+10 -2.022878e+07
## [15732,] -1.568888e+08 -1.408346e+08 -5.739788e+11 -3.214860e+07
## [15733,] -3.219868e+11 -2.870290e+11 -3.437137e+15 -3.279141e+09
## [15734,] -2.361480e+11 -2.168498e+11 -2.604477e+15 -2.659303e+09
## [15735,] -4.843677e+09 -4.430403e+09 -4.345926e+13 -1.333991e+08
## [15736,] -1.402619e+04 -3.118517e+05 -2.158499e+11 -1.842043e+07
## [15737,] -3.128215e+06 -4.481628e+06 -9.242079e+10 -2.021215e+07
## [15738,] -1.426169e+08 -1.409072e+08 -5.747089e+11 -3.125326e+07
## [15739,] -3.283607e+11 -2.771263e+11 -3.441510e+15 -3.007155e+09
## [15740,] -2.369348e+11 -2.168476e+11 -2.606961e+15 -2.249526e+09
## [15741,] -4.684958e+09 -3.890795e+09 -4.348689e+13 -1.339184e+08
## [15742,] -9.387923e+04 -2.355995e+05 -2.159871e+11 -1.862618e+07
## [15743,] -2.875920e+06 -3.487764e+06 -9.245016e+10 -2.024108e+07
## [15744,] -1.522234e+08 -1.409253e+08 -5.748916e+11 -3.119493e+07
## [15745,] -3.304996e+11 -2.771255e+11 -3.442603e+15 -3.037814e+09
## [15746,] -2.579107e+11 -2.244674e+11 -2.607790e+15 -2.180736e+09
## [15747,] -4.873391e+09 -4.571346e+09 -4.352834e+13 -1.425858e+08
## [15748,] -3.043350e+04 -4.055613e+05 -2.161930e+11 -1.874917e+07
## [15749,] -3.208956e+06 -4.473802e+06 -9.253828e+10 -1.979191e+07
## [15750,] -1.450045e+08 -1.409979e+08 -5.756223e+11 -3.191490e+07
## [15751,] -3.198671e+11 -2.870216e+11 -3.446979e+15 -3.583998e+09
## [15752,] -2.416928e+11 -2.168441e+11 -2.611104e+15 -2.802783e+09
## [15753,] -5.080231e+09 -4.571449e+09 -4.354216e+13 -1.522612e+08
## [15754,] -4.838287e+04 -6.189915e+05 -2.162616e+11 -1.842138e+07
## [15755,] -3.159160e+06 -4.271839e+06 -9.256767e+10 -2.012749e+07
## [15756,] -1.490673e+08 -1.298596e+08 -5.756223e+11 -3.157779e+07

```

```

## [15757,] -3.251598e+11 -3.283564e+11 -3.446979e+15 -3.973447e+09
## [15758,] -2.440915e+11 -2.729510e+11 -2.611104e+15 -2.880616e+09
## [15759,] -4.786212e+09 -4.022849e+09 -4.354216e+13 -1.473931e+08
## [15760,] -2.359550e+04 -2.393231e+05 -2.163303e+11 -1.880766e+07
## [15761,] -3.040931e+06 -3.878897e+06 -9.259706e+10 -2.027548e+07
## [15762,] -1.537982e+08 -1.298770e+08 -5.758050e+11 -3.158638e+07
## [15763,] -3.380380e+11 -2.771207e+11 -3.449168e+15 -3.429294e+09
## [15764,] -2.505443e+11 -2.168426e+11 -2.612763e+15 -2.641812e+09
## [15765,] -4.800917e+09 -4.023043e+09 -4.356981e+13 -1.277978e+08
## [15766,] -6.736189e+04 -2.408207e+05 -2.164676e+11 -1.855011e+07
## [15767,] -3.290724e+06 -3.326418e+06 -9.265585e+10 -2.027599e+07
## [15768,] -1.488312e+08 -1.299119e+08 -5.761706e+11 -3.213045e+07
## [15769,] -3.315650e+11 -2.673935e+11 -3.451357e+15 -3.385593e+09
## [15770,] -2.440870e+11 -2.093510e+11 -2.616080e+15 -2.279607e+09
## [15771,] -5.095816e+09 -4.293368e+09 -4.362514e+13 -1.521161e+08
## [15772,] -5.734155e+04 -2.430758e+05 -2.166737e+11 -1.821802e+07
## [15773,] -2.921245e+06 -4.093072e+06 -9.277349e+10 -2.006549e+07
## [15774,] -1.509571e+08 -1.382961e+08 -5.769021e+11 -3.128890e+07
## [15775,] -3.219720e+11 -2.771158e+11 -3.455739e+15 -3.695714e+09
## [15776,] -2.473013e+11 -2.093489e+11 -2.618570e+15 -2.420940e+09
## [15777,] -4.903838e+09 -4.293769e+09 -4.368050e+13 -1.324742e+08
## [15778,] -3.103358e+04 -2.468578e+05 -2.170175e+11 -1.875753e+07
## [15779,] -3.177059e+06 -3.915100e+06 -9.295009e+10 -1.970822e+07
## [15780,] -1.498954e+08 -1.300861e+08 -5.780003e+11 -3.167606e+07
## [15781,] -3.478503e+11 -2.970822e+11 -3.463413e+15 -2.854151e+09
## [15782,] -3.187919e+11 -2.093447e+11 -2.623553e+15 -3.164698e+09
## [15783,] -5.171793e+09 -3.763100e+09 -4.374975e+13 -1.294476e+08
## [15784,] -2.976540e+04 -3.309100e+05 -2.173615e+11 -1.842390e+07
## [15785,] -3.416945e+06 -4.528923e+06 -9.303845e+10 -2.026383e+07
## [15786,] -1.514205e+08 -1.470352e+08 -5.785498e+11 -3.210741e+07
## [15787,] -3.240830e+11 -2.484536e+11 -3.465607e+15 -3.341200e+09
## [15788,] -2.432778e+11 -2.093433e+11 -2.625215e+15 -2.271067e+09
## [15789,] -4.846230e+09 -4.294570e+09 -4.379133e+13 -1.469649e+08
## [15790,] -2.324005e+04 -2.529697e+05 -2.175680e+11 -1.894662e+07
## [15791,] -3.003470e+06 -4.130259e+06 -9.312685e+10 -2.031100e+07
## [15792,] -1.421978e+08 -1.442025e+08 -5.790995e+11 -3.217411e+07
## [15793,] -3.294078e+11 -2.771062e+11 -3.468899e+15 -3.515543e+09
## [15794,] -2.513432e+11 -2.322019e+11 -2.627709e+15 -3.191706e+09
## [15795,] -4.978484e+09 -4.158684e+09 -4.381906e+13 -1.628913e+08
## [15796,] -1.054535e+05 -2.537389e+05 -2.176369e+11 -1.866862e+07
## [15797,] -3.485823e+06 -3.939329e+06 -9.318581e+10 -2.007783e+07
## [15798,] -1.485829e+08 -1.302256e+08 -5.794661e+11 -3.216430e+07
## [15799,] -3.304776e+11 -2.771054e+11 -3.469997e+15 -3.373247e+09
## [15800,] -2.489076e+11 -2.093398e+11 -2.629373e+15 -2.396079e+09
## [15801,] -4.846762e+09 -4.433353e+09 -4.386067e+13 -1.483296e+08
## [15802,] -3.163953e+04 -3.370925e+05 -2.178435e+11 -1.871424e+07
## [15803,] -3.117143e+06 -3.752918e+06 -9.324479e+10 -2.023692e+07

```

```

## [15804,] -1.527518e+08 -1.386018e+08 -5.800163e+11 -3.185174e+07
## [15805,] -3.104290e+11 -3.177414e+11 -3.473292e+15 -3.471114e+09
## [15806,] -2.408779e+11 -2.244472e+11 -2.631036e+15 -2.387995e+09
## [15807,] -4.920008e+09 -3.893465e+09 -4.387454e+13 -1.315176e+08
## [15808,] -4.040563e+04 -3.379804e+05 -2.179124e+11 -1.868215e+07
## [15809,] -3.552508e+06 -3.951472e+06 -9.330379e+10 -2.030369e+07
## [15810,] -1.533629e+08 -1.414519e+08 -5.801998e+11 -3.145638e+07
## [15811,] -3.358527e+11 -2.673761e+11 -3.475489e+15 -2.963828e+09
## [15812,] -2.100792e+11 -2.562416e+11 -2.633533e+15 -2.887112e+09
## [15813,] -4.588408e+09 -4.295471e+09 -4.391618e+13 -1.489145e+08
## [15814,] -5.788443e+04 -3.406511e+05 -2.181192e+11 -1.861177e+07
## [15815,] -3.162747e+06 -3.764770e+06 -9.336280e+10 -2.042818e+07
## [15816,] -1.633581e+08 -1.330944e+08 -5.807503e+11 -3.355631e+07
## [15817,] -3.166881e+11 -2.770997e+11 -3.477687e+15 -3.492752e+09
## [15818,] -2.653540e+11 -2.019787e+11 -2.634366e+15 -2.125771e+09
## [15819,] -4.979346e+09 -4.433862e+09 -4.393006e+13 -1.318279e+08
## [15820,] -1.045819e+05 -4.342768e+05 -2.181882e+11 -1.890263e+07
## [15821,] -3.182946e+06 -3.767736e+06 -9.339232e+10 -2.045727e+07
## [15822,] -1.467144e+08 -1.387098e+08 -5.811174e+11 -3.144555e+07
## [15823,] -3.489370e+11 -2.869971e+11 -3.479885e+15 -2.923045e+09
## [15824,] -2.497100e+11 -2.168213e+11 -2.637697e+15 -2.597946e+09
## [15825,] -4.660101e+09 -4.862305e+09 -4.398562e+13 -1.360167e+08
## [15826,] -2.661588e+04 -1.927910e+05 -2.185331e+11 -1.900083e+07
## [15827,] -3.338470e+06 -3.782583e+06 -9.353996e+10 -2.030573e+07
## [15828,] -1.461906e+08 -1.331826e+08 -5.816684e+11 -3.163259e+07
## [15829,] -3.187844e+11 -2.673698e+11 -3.484285e+15 -3.148616e+09
## [15830,] -2.488984e+11 -2.168199e+11 -2.639364e+15 -2.564820e+09
## [15831,] -4.804306e+09 -4.026145e+09 -4.401341e+13 -1.495566e+08
## [15832,] -3.753418e+04 -3.469236e+05 -2.186022e+11 -1.860645e+07
## [15833,] -3.114877e+06 -3.981910e+06 -9.359905e+10 -2.051012e+07
## [15834,] -1.511889e+08 -1.304699e+08 -5.820358e+11 -3.191963e+07
## [15835,] -3.467338e+11 -2.673690e+11 -3.485385e+15 -2.892479e+09
## [15836,] -2.562354e+11 -2.321909e+11 -2.640197e+15 -2.177954e+09
## [15837,] -4.994884e+09 -4.296273e+09 -4.402731e+13 -1.348520e+08
## [15838,] -1.232807e+05 -2.654177e+05 -2.186712e+11 -1.893619e+07
## [15839,] -3.045996e+06 -3.599964e+06 -9.359905e+10 -2.053679e+07
## [15840,] -1.479692e+08 -1.387998e+08 -5.820358e+11 -3.152872e+07
## [15841,] -3.031917e+11 -3.283248e+11 -3.486485e+15 -3.514094e+09
## [15842,] -2.521442e+11 -2.019725e+11 -2.641865e+15 -2.655758e+09
## [15843,] -4.703593e+09 -4.434778e+09 -4.405511e+13 -1.537374e+08
## [15844,] -3.584822e+04 -3.505335e+05 -2.188783e+11 -1.871662e+07
## [15845,] -3.334506e+06 -4.600758e+06 -9.368772e+10 -2.070018e+07
## [15846,] -1.506759e+08 -1.305397e+08 -5.827711e+11 -3.245671e+07
## [15847,] -3.304609e+11 -2.578137e+11 -3.490889e+15 -2.993179e+09
## [15848,] -2.513279e+11 -2.093272e+11 -2.644367e+15 -2.207985e+09
## [15849,] -4.892397e+09 -4.026727e+09 -4.409683e+13 -1.339699e+08
## [15850,] -5.144160e+04 -1.975168e+05 -2.190165e+11 -1.860740e+07

```

```

## [15851,] -3.233367e+06 -3.997172e+06 -9.374686e+10 -2.023021e+07
## [15852,] -1.504385e+08 -1.361193e+08 -5.833228e+11 -3.161572e+07
## [15853,] -3.083402e+11 -2.970598e+11 -3.493092e+15 -3.168881e+09
## [15854,] -2.529556e+11 -2.093258e+11 -2.646035e+15 -2.223113e+09
## [15855,] -4.966094e+09 -4.296974e+09 -4.412466e+13 -1.551330e+08
## [15856,] -3.994007e+04 -1.988775e+05 -2.191547e+11 -1.846643e+07
## [15857,] -3.348474e+06 -4.408743e+06 -9.383560e+10 -2.021994e+07
## [15858,] -1.525192e+08 -1.361371e+08 -5.835068e+11 -3.209713e+07
## [15859,] -3.467257e+11 -2.301990e+11 -3.495295e+15 -3.338815e+09
## [15860,] -2.321842e+11 -2.244327e+11 -2.647704e+15 -2.323519e+09
## [15861,] -4.966309e+09 -4.027115e+09 -4.415249e+13 -1.377006e+08
## [15862,] -1.562462e+05 -5.006451e+04 -2.192929e+11 -1.795120e+07
## [15863,] -3.226720e+06 -2.752102e+06 -9.386519e+10 -2.039927e+07
## [15864,] -1.470107e+08 -1.334120e+08 -5.840589e+11 -3.170399e+07
## [15865,] -3.187740e+11 -2.770853e+11 -3.497500e+15 -3.105896e+09
## [15866,] -2.989324e+11 -1.947412e+11 -2.649374e+15 -3.384770e+09
## [15867,] -5.403548e+09 -4.161246e+09 -4.418034e+13 -1.712508e+08
## [15868,] -4.117104e+04 -4.525942e+05 -2.194312e+11 -1.894444e+07
## [15869,] -3.252632e+06 -4.018589e+06 -9.395399e+10 -2.040669e+07
## [15870,] -1.511577e+08 -1.334650e+08 -5.846112e+11 -3.148761e+07
## [15871,] -3.358323e+11 -2.484292e+11 -3.500807e+15 -2.972068e+09
## [15872,] -2.611755e+11 -2.244291e+11 -2.651880e+15 -2.139272e+09
## [15873,] -4.748129e+09 -4.436101e+09 -4.423605e+13 -1.490880e+08
## [15874,] -7.870241e+04 -3.614755e+05 -2.197079e+11 -1.877665e+07
## [15875,] -3.350096e+06 -3.458713e+06 -9.404283e+10 -2.041410e+07
## [15876,] -1.535398e+08 -1.390700e+08 -5.847954e+11 -3.301847e+07
## [15877,] -3.293815e+11 -2.770820e+11 -3.501910e+15 -3.840514e+09
## [15878,] -2.456593e+11 -2.019636e+11 -2.652715e+15 -2.323077e+09
## [15879,] -4.952214e+09 -3.895944e+09 -4.423605e+13 -1.473042e+08
## [15880,] -7.096263e+04 -2.781646e+05 -2.197772e+11 -1.885445e+07
## [15881,] -2.955038e+06 -3.284185e+06 -9.410207e+10 -2.067254e+07
## [15882,] -1.468318e+08 -1.307668e+08 -5.851638e+11 -3.199886e+07
## [15883,] -3.379935e+11 -2.578043e+11 -3.504116e+15 -2.941412e+09
## [15884,] -2.513187e+11 -2.321783e+11 -2.654386e+15 -2.176741e+09
## [15885,] -4.952429e+09 -4.576824e+09 -4.426392e+13 -1.308090e+08
## [15886,] -3.708551e+04 -3.633155e+05 -2.198464e+11 -1.914719e+07
## [15887,] -3.464399e+06 -4.437671e+06 -9.410207e+10 -2.035702e+07
## [15888,] -1.479941e+08 -1.419431e+08 -5.851638e+11 -3.189065e+07
## [15889,] -3.566661e+11 -3.072967e+11 -3.505220e+15 -2.941329e+09
## [15890,] -2.313965e+11 -2.244262e+11 -2.655222e+15 -2.299458e+09
## [15891,] -4.676596e+09 -5.011637e+09 -4.427786e+13 -1.334734e+08
## [15892,] -1.173023e+05 -1.442355e+05 -2.199156e+11 -1.908214e+07
## [15893,] -3.358493e+06 -4.440891e+06 -9.413171e+10 -2.059035e+07
## [15894,] -1.486142e+08 -1.477402e+08 -5.855324e+11 -3.149020e+07
## [15895,] -3.124840e+11 -3.072958e+11 -3.506323e+15 -3.567916e+09
## [15896,] -2.392657e+11 -2.168056e+11 -2.656058e+15 -2.604505e+09
## [15897,] -4.850060e+09 -4.028085e+09 -4.429180e+13 -1.456050e+08

```

```

## [15898,] -1.127620e+05 -9.361719e+04 -2.199848e+11 -1.881609e+07
## [15899,] -3.274720e+06 -4.043136e+06 -9.419098e+10 -2.056416e+07
## [15900,] -1.536345e+08 -1.308192e+08 -5.857167e+11 -3.174102e+07
## [15901,] -3.304477e+11 -2.770780e+11 -3.507427e+15 -3.136368e+09
## [15902,] -2.361012e+11 -2.019601e+11 -2.656894e+15 -2.401555e+09
## [15903,] -4.705480e+09 -4.298276e+09 -4.430574e+13 -1.374067e+08
## [15904,] -1.188778e+05 -3.670095e+05 -2.201233e+11 -1.910869e+07
## [15905,] -3.189275e+06 -3.851255e+06 -9.422063e+10 -2.038018e+07
## [15906,] -1.533758e+08 -1.363869e+08 -5.860854e+11 -3.416235e+07
## [15907,] -3.379873e+11 -2.970456e+11 -3.511844e+15 -2.981404e+09
## [15908,] -2.424459e+11 -2.019567e+11 -2.661077e+15 -2.108591e+09
## [15909,] -5.131656e+09 -4.162627e+09 -4.437549e+13 -1.340814e+08
## [15910,] -1.370603e+05 -2.854661e+05 -2.204005e+11 -1.904419e+07
## [15911,] -3.490048e+06 -3.675750e+06 -9.436893e+10 -2.061022e+07
## [15912,] -1.516779e+08 -1.325724e+08 -5.868232e+11 -3.293634e+07
## [15913,] -3.261695e+11 -2.770724e+11 -3.515158e+15 -3.567186e+09
## [15914,] -2.400531e+11 -2.244189e+11 -2.663588e+15 -2.620387e+09
## [15915,] -4.821903e+09 -3.897184e+09 -4.441736e+13 -1.380415e+08
## [15916,] -2.386112e+02 -5.792506e+05 -2.206778e+11 -1.874657e+07
## [15917,] -3.578191e+06 -3.504338e+06 -9.451734e+10 -2.068953e+07
## [15918,] -1.459324e+08 -1.365476e+08 -5.877461e+11 -3.287035e+07
## [15919,] -3.566542e+11 -3.072856e+11 -3.519580e+15 -2.859949e+09
## [15920,] -2.424414e+11 -2.321680e+11 -2.666100e+15 -2.448662e+09
## [15921,] -5.359722e+09 -4.299379e+09 -4.445925e+13 -1.310538e+08
## [15922,] -9.979458e+04 -2.162809e+05 -2.208859e+11 -1.859880e+07
## [15923,] -3.275162e+06 -3.696289e+06 -9.457674e+10 -2.074363e+07
## [15924,] -1.571639e+08 -1.393946e+08 -5.881155e+11 -3.294280e+07
## [15925,] -3.293657e+11 -2.869660e+11 -3.521791e+15 -3.656250e+09
## [15926,] -2.521204e+11 -1.806715e+11 -2.667775e+15 -2.290588e+09
## [15927,] -4.866142e+09 -3.768071e+09 -4.448719e+13 -1.366591e+08
## [15928,] -9.561029e+04 -3.782037e+05 -2.209553e+11 -1.901944e+07
## [15929,] -3.349369e+06 -4.287014e+06 -9.460644e+10 -2.064346e+07
## [15930,] -1.518285e+08 -1.451216e+08 -5.883002e+11 -3.263635e+07
## [15931,] -2.980540e+11 -3.282959e+11 -3.522898e+15 -3.021414e+09
## [15932,] -2.472542e+11 -2.167935e+11 -2.670290e+15 -2.274867e+09
## [15933,] -4.881075e+09 -5.013584e+09 -4.452912e+13 -1.333076e+08
## [15934,] -9.703317e+04 -5.874213e+05 -2.211635e+11 -1.892247e+07
## [15935,] -3.375768e+06 -4.095545e+06 -9.469559e+10 -2.055295e+07
## [15936,] -1.507075e+08 -1.338713e+08 -5.888545e+11 -3.252591e+07
## [15937,] -3.379749e+11 -2.770635e+11 -3.527324e+15 -2.990420e+09
## [15938,] -2.578510e+11 -2.093041e+11 -2.671966e+15 -2.488433e+09
## [15939,] -5.314848e+09 -4.030122e+09 -4.458505e+13 -1.544583e+08
## [15940,] -1.961336e+05 -2.234466e+05 -2.215803e+11 -1.929508e+07
## [15941,] -2.625656e+06 -4.518521e+06 -9.484426e+10 -2.015804e+07
## [15942,] -1.484593e+08 -1.395571e+08 -5.897790e+11 -3.414517e+07
## [15943,] -3.325748e+11 -2.970306e+11 -3.531753e+15 -2.959586e+09
## [15944,] -2.384556e+11 -2.093013e+11 -2.675321e+15 -3.297634e+09

```

```

## [15945,] -4.736555e+09 -4.438850e+09 -4.461303e+13 -1.485699e+08
## [15946,] -4.170610e+04 -4.850278e+05 -2.215803e+11 -1.932785e+07
## [15947,] -3.282302e+06 -3.722780e+06 -9.484426e+10 -2.078843e+07
## [15948,] -1.444232e+08 -1.284944e+08 -5.899640e+11 -3.250996e+07
## [15949,] -3.358057e+11 -2.770587e+11 -3.533969e+15 -3.282114e+09
## [15950,] -2.440311e+11 -2.244066e+11 -2.677839e+15 -2.544866e+09
## [15951,] -4.665214e+09 -4.439257e+09 -4.466901e+13 -1.481345e+08
## [15952,] -3.453052e+05 -1.461864e+04 -2.218584e+11 -2.377506e+07
## [15953,] -3.137791e+06 -4.746123e+06 -9.499305e+10 -2.084567e+07
## [15954,] -1.532751e+08 -1.396654e+08 -5.908894e+11 -3.245803e+07
## [15955,] -3.093412e+11 -2.770555e+11 -3.538402e+15 -3.745571e+09
## [15956,] -2.456336e+11 -2.092964e+11 -2.681198e+15 -3.032406e+09
## [15957,] -4.985603e+09 -4.868061e+09 -4.473905e+13 -1.311641e+08
## [15958,] -1.586475e+05 -3.079383e+05 -2.222758e+11 -1.871794e+07
## [15959,] -3.639157e+06 -3.752326e+06 -9.514195e+10 -2.062135e+07
## [15960,] -1.536473e+08 -1.397377e+08 -5.916302e+11 -3.215270e+07
## [15961,] -3.314920e+11 -2.673279e+11 -3.542839e+15 -3.238842e+09
## [15962,] -2.603174e+11 -1.947135e+11 -2.683719e+15 -2.511699e+09
## [15963,] -4.708940e+09 -4.031384e+09 -4.476707e+13 -1.407167e+08
## [15964,] -6.245697e+04 -4.968063e+05 -2.223454e+11 -1.908775e+07
## [15965,] -3.070210e+06 -4.148293e+06 -9.520154e+10 -2.090800e+07
## [15966,] -1.507326e+08 -1.397738e+08 -5.920008e+11 -3.253759e+07
## [15967,] -3.510892e+11 -2.869488e+11 -3.545058e+15 -2.838174e+09
## [15968,] -2.661423e+11 -2.321511e+11 -2.685400e+15 -2.047408e+09
## [15969,] -4.824769e+09 -4.301784e+09 -4.479511e+13 -1.513767e+08
## [15970,] -5.363941e+03 -2.336748e+05 -2.225543e+11 -1.950100e+07
## [15971,] -3.840705e+06 -4.356912e+06 -9.526116e+10 -2.068926e+07
## [15972,] -1.484656e+08 -1.342429e+08 -5.927423e+11 -3.213685e+07
## [15973,] -3.357934e+11 -2.869455e+11 -3.549498e+15 -4.023393e+09
## [15974,] -2.653020e+11 -2.400299e+11 -2.689604e+15 -2.829597e+09
## [15975,] -4.913046e+09 -4.166177e+09 -4.487927e+13 -1.512320e+08
## [15976,] -4.154397e+04 -4.049775e+05 -2.229026e+11 -1.914773e+07
## [15977,] -3.284351e+06 -3.781989e+06 -9.544011e+10 -2.090110e+07
## [15978,] -1.399184e+08 -1.574195e+08 -5.934842e+11 -3.314253e+07
## [15979,] -3.208382e+11 -2.577694e+11 -3.553941e+15 -4.472339e+09
## [15980,] -2.529134e+11 -2.019313e+11 -2.692129e+15 -2.559946e+09
## [15981,] -5.363191e+09 -4.440886e+09 -4.489331e+13 -1.306380e+08
## [15982,] -1.471286e+05 -3.164773e+05 -2.229724e+11 -1.938358e+07
## [15983,] -2.955196e+06 -3.781989e+06 -9.544011e+10 -2.079358e+07
## [15984,] -1.580207e+08 -1.427636e+08 -5.934842e+11 -3.196821e+07
## [15985,] -3.293403e+11 -2.869422e+11 -3.553941e+15 -3.101553e+09
## [15986,] -2.504709e+11 -2.092867e+11 -2.692971e+15 -2.559869e+09
## [15987,] -4.913260e+09 -4.302586e+09 -4.490734e+13 -1.441467e+08
## [15988,] -1.209735e+05 -4.079004e+05 -2.231118e+11 -1.946279e+07
## [15989,] -3.183982e+06 -3.787935e+06 -9.549979e+10 -2.098244e+07
## [15990,] -1.553627e+08 -1.399545e+08 -5.938554e+11 -3.191786e+07
## [15991,] -3.282697e+11 -2.577679e+11 -3.556164e+15 -3.018894e+09

```



```

## [15992,] -2.175296e+11 -2.321437e+11 -2.693812e+15 -2.296089e+09
## [15993,] -4.782198e+09 -4.441090e+09 -4.492138e+13 -1.484695e+08
## [15994,] -1.426149e+05 -4.079004e+05 -2.231118e+11 -1.933796e+07
## [15995,] -3.415646e+06 -5.020323e+06 -9.549979e+10 -2.109945e+07
## [15996,] -1.523939e+08 -1.399545e+08 -5.938554e+11 -3.220243e+07
## [15997,] -3.379509e+11 -2.869398e+11 -3.557275e+15 -2.957674e+09
## [15998,] -2.198048e+11 -2.243921e+11 -2.694655e+15 -2.968859e+09
## [15999,] -4.942972e+09 -4.059275e+09 -4.494947e+13 -1.444533e+08
## [16000,] -6.370053e+04 -5.109084e+05 -2.232513e+11 -1.904424e+07
## [16001,] -3.385097e+06 -3.793886e+06 -9.555950e+10 -2.049148e+07
## [16002,] -1.533194e+08 -1.371733e+08 -5.942267e+11 -3.271069e+07
## [16003,] -3.240082e+11 -2.970089e+11 -3.560611e+15 -3.975275e+09
## [16004,] -2.537253e+11 -2.019272e+11 -2.697181e+15 -2.303576e+09
## [16005,] -4.840702e+09 -4.166868e+09 -4.497756e+13 -1.475252e+08
## [16006,] -1.939199e+05 -1.179312e+05 -2.233908e+11 -1.908364e+07
## [16007,] -3.573798e+06 -4.816298e+06 -9.561923e+10 -2.069235e+07
## [16008,] -1.429098e+08 -1.372450e+08 -5.949696e+11 -3.236331e+07
## [16009,] -3.250683e+11 -2.673137e+11 -3.562836e+15 -3.344201e+09
## [16010,] -2.553608e+11 -2.321393e+11 -2.698867e+15 -2.617102e+09
## [16011,] -4.987654e+09 -3.518816e+09 -4.500566e+13 -1.532096e+08
## [16012,] -9.057491e+04 -1.766371e+05 -2.236002e+11 -1.950342e+07
## [16013,] -3.185564e+06 -4.826366e+06 -9.570885e+10 -2.100898e+07
## [16014,] -1.429280e+08 -1.372629e+08 -5.951554e+11 -3.293271e+07
## [16015,] -3.082858e+11 -2.770370e+11 -3.563948e+15 -3.835212e+09
## [16016,] -2.259267e+11 -2.561797e+11 -2.700552e+15 -2.287737e+09
## [16017,] -5.047397e+09 -4.303689e+09 -4.506189e+13 -1.448521e+08
## [16018,] -4.255929e+04 -4.177194e+05 -2.238097e+11 -1.915634e+07
## [16019,] -3.356309e+06 -4.213917e+06 -9.582841e+10 -2.103250e+07
## [16020,] -1.467644e+08 -1.373524e+08 -5.960848e+11 -3.245639e+07
## [16021,] -3.153153e+11 -2.917010e+11 -3.210441e+13 -1.598725e+09
## [16022,] -2.348524e+11 -2.364275e+11 -2.431926e+13 -1.218182e+09
## [16023,] -4.055356e+09 -3.741737e+09 -4.055422e+11 -2.570302e+07
## [16024,] -1.668542e+07 -1.377805e+07 -2.014213e+09 -1.923773e+04
## [16025,] -5.927833e+06 -5.903969e+06 -8.621551e+08 -6.236687e+04
## [16026,] -5.626266e+07 -6.028133e+07 -5.361220e+09 -9.894491e+05
## [16027,] -3.174121e+11 -3.121830e+11 -3.210441e+13 -1.591281e+09
## [16028,] -2.427803e+11 -2.286048e+11 -2.431926e+13 -1.195638e+09
## [16029,] -4.465126e+09 -3.247082e+09 -4.055422e+11 -2.486102e+07
## [16030,] -1.761186e+07 -1.269297e+07 -2.014213e+09 -2.028593e+04
## [16031,] -6.767855e+06 -5.436792e+06 -8.621551e+08 -6.384564e+04
## [16032,] -6.158906e+07 -5.483570e+07 -5.361220e+09 -9.634356e+05
## [16033,] -3.333600e+11 -2.917010e+11 -3.210441e+13 -1.569052e+09
## [16034,] -2.598573e+11 -2.209138e+11 -2.431926e+13 -1.178868e+09
## [16035,] -4.230502e+09 -3.870878e+09 -4.055422e+11 -2.465272e+07
## [16036,] -1.792624e+07 -1.216712e+07 -2.014213e+09 -2.049890e+04
## [16037,] -6.540081e+06 -6.144777e+06 -8.621551e+08 -6.434241e+04
## [16038,] -6.463087e+07 -5.662227e+07 -5.361220e+09 -9.424095e+05

```

```

## [16039,] -3.431163e+11 -3.018551e+11 -3.210441e+13 -1.569052e+09
## [16040,] -2.665155e+11 -2.209138e+11 -2.431926e+13 -1.156692e+09
## [16041,] -4.479124e+09 -3.614787e+09 -4.055422e+11 -2.454889e+07
## [16042,] -1.748689e+07 -1.490762e+07 -2.014213e+09 -2.007406e+04
## [16043,] -6.365619e+06 -6.390398e+06 -8.621551e+08 -6.310409e+04
## [16044,] -5.972517e+07 -5.307776e+07 -5.361220e+09 -9.752169e+05
## [16045,] -3.312110e+11 -3.121830e+11 -3.210441e+13 -1.576444e+09
## [16046,] -2.435804e+11 -2.443817e+11 -2.431926e+13 -1.184445e+09
## [16047,] -4.479124e+09 -3.247082e+09 -4.055422e+11 -2.465272e+07
## [16048,] -1.742457e+07 -1.548910e+07 -2.014213e+09 -2.049890e+04
## [16049,] -6.415225e+06 -6.390398e+06 -8.621551e+08 -6.359797e+04
## [16050,] -6.310080e+07 -5.483570e+07 -5.361220e+09 -9.540620e+05
## [16051,] -3.357774e+11 -2.577586e+11 -3.569514e+15 -3.131577e+09
## [16052,] -2.578207e+11 -2.400164e+11 -2.704769e+15 -2.157368e+09
## [16053,] -4.554731e+09 -4.442414e+09 -4.510409e+13 -1.369560e+08
## [16054,] -9.796847e+04 -4.206879e+05 -2.240193e+11 -1.920909e+07
## [16055,] -3.434256e+06 -4.424159e+06 -9.588822e+10 -2.101053e+07
## [16056,] -1.442400e+08 -1.430925e+08 -5.968288e+11 -3.250487e+07
## [16057,] -3.314673e+11 -2.869275e+11 -3.573970e+15 -3.100022e+09
## [16058,] -2.496466e+11 -2.243813e+11 -2.707301e+15 -2.583232e+09
## [16059,] -4.944584e+09 -4.304391e+09 -4.516038e+13 -1.360491e+08
## [16060,] -1.248525e+05 -4.246622e+05 -2.242988e+11 -1.959738e+07
## [16061,] -3.993995e+06 -3.838669e+06 -9.600789e+10 -2.100707e+07
## [16062,] -1.550900e+08 -1.459882e+08 -5.970149e+11 -3.207836e+07
## [16063,] -3.368540e+11 -2.969981e+11 -3.575084e+15 -2.926018e+09
## [16064,] -2.496459e+11 -2.321312e+11 -2.708145e+15 -2.187329e+09
## [16065,] -4.827529e+09 -4.304391e+09 -4.516038e+13 -1.350742e+08
## [16066,] -7.771090e+04 -5.274254e+05 -2.242988e+11 -1.954459e+07
## [16067,] -3.373129e+06 -4.232761e+06 -9.600789e+10 -2.089031e+07
## [16068,] -1.530107e+08 -1.431108e+08 -5.970149e+11 -3.258185e+07
## [16069,] -3.368540e+11 -2.869267e+11 -3.575084e+15 -3.364820e+09
## [16070,] -2.352683e+11 -2.092741e+11 -2.708145e+15 -2.326036e+09
## [16071,] -4.798485e+09 -4.442822e+09 -4.516038e+13 -1.355612e+08
## [16072,] -5.905211e+04 -6.437631e+05 -2.244387e+11 -1.957790e+07
## [16073,] -3.324857e+06 -4.443468e+06 -9.606776e+10 -2.108861e+07
## [16074,] -1.524570e+08 -1.305519e+08 -5.973872e+11 -3.270871e+07
## [16075,] -3.031218e+11 -2.869242e+11 -3.578428e+15 -3.584269e+09
## [16076,] -2.520813e+11 -2.019162e+11 -2.710678e+15 -2.582922e+09
## [16077,] -4.784312e+09 -4.168446e+09 -4.520262e+13 -1.397904e+08
## [16078,] -1.428921e+05 -5.307604e+05 -2.245086e+11 -1.934775e+07
## [16079,] -3.226611e+06 -4.662592e+06 -9.615759e+10 -2.093423e+07
## [16080,] -1.566795e+08 -1.403526e+08 -5.979458e+11 -3.334020e+07
## [16081,] -3.411890e+11 -2.483728e+11 -3.582889e+15 -3.342611e+09
## [16082,] -2.545270e+11 -2.019127e+11 -2.714902e+15 -2.224854e+09
## [16083,] -4.828379e+09 -4.305193e+09 -4.527307e+13 -1.340020e+08
## [16084,] -5.766403e+04 -5.363419e+05 -2.248585e+11 -1.926990e+07
## [16085,] -2.649185e+06 -3.675164e+06 -9.627743e+10 -2.088143e+07

```

```

## [16086,] -1.522936e+08 -1.404250e+08 -5.986910e+11 -3.223779e+07
## [16087,] -3.124225e+11 -2.770209e+11 -3.586237e+15 -3.235451e+09
## [16088,] -2.528911e+11 -2.019114e+11 -2.716593e+15 -2.278597e+09
## [16089,] -4.843467e+09 -4.444146e+09 -4.534357e+13 -1.495402e+08
## [16090,] -1.014622e+05 -1.319712e+05 -2.252087e+11 -1.965235e+07
## [16091,] -3.467131e+06 -5.127037e+06 -9.642733e+10 -2.092085e+07
## [16092,] -1.527024e+08 -1.377108e+08 -5.998097e+11 -3.317990e+07
## [16093,] -3.357597e+11 -2.869144e+11 -3.591820e+15 -3.695618e+09
## [16094,] -2.392073e+11 -2.019072e+11 -2.721668e+15 -2.262699e+09
## [16095,] -4.458724e+09 -4.728253e+09 -4.542825e+13 -1.368774e+08
## [16096,] -8.169717e+04 -4.437953e+05 -2.256293e+11 -1.935689e+07
## [16097,] -3.610700e+06 -4.708906e+06 -9.657736e+10 -2.098277e+07
## [16098,] -1.557504e+08 -1.349877e+08 -6.005561e+11 -3.266569e+07
## [16099,] -3.379198e+11 -2.869111e+11 -3.596289e+15 -3.373954e+09
## [16100,] -2.512544e+11 -2.321165e+11 -2.725055e+15 -3.209210e+09
## [16101,] -4.571453e+09 -4.306496e+09 -4.545649e+13 -1.359352e+08
## [16102,] -9.640581e+04 -2.696863e+05 -2.258397e+11 -1.943621e+07
## [16103,] -3.545138e+06 -4.101114e+06 -9.666743e+10 -2.093189e+07
## [16104,] -1.446808e+08 -1.406787e+08 -6.013030e+11 -3.241387e+07
## [16105,] -3.250387e+11 -2.672868e+11 -3.600762e+15 -3.025781e+09
## [16106,] -2.472025e+11 -2.019024e+11 -2.727596e+15 -2.223773e+09
## [16107,] -4.859111e+09 -4.036334e+09 -4.548474e+13 -1.352395e+08
## [16108,] -1.375813e+05 -5.532618e+05 -2.259098e+11 -1.937066e+07
## [16109,] -3.332497e+06 -4.107307e+06 -9.672750e+10 -2.128854e+07
## [16110,] -1.508080e+08 -1.378723e+08 -6.014897e+11 -3.286011e+07
## [16111,] -3.488377e+11 -2.869070e+11 -3.601880e+15 -3.373510e+09
## [16112,] -2.553337e+11 -2.167444e+11 -2.728443e+15 -2.515772e+09
## [16113,] -4.642909e+09 -4.306898e+09 -4.551300e+13 -1.401882e+08
## [16114,] -7.589823e+04 -4.499250e+05 -2.260502e+11 -1.908321e+07
## [16115,] -3.407347e+06 -4.728825e+06 -9.675754e+10 -2.120514e+07
## [16116,] -1.499463e+08 -1.407149e+08 -6.016765e+11 -3.217283e+07
## [16117,] -3.282329e+11 -2.869062e+11 -3.602999e+15 -3.035875e+09
## [16118,] -2.455896e+11 -1.946764e+11 -2.730138e+15 -2.748613e+09
## [16119,] -4.903306e+09 -4.036625e+09 -4.552714e+13 -1.490157e+08
## [16120,] -1.938930e+05 -3.563483e+05 -2.261204e+11 -1.929900e+07
## [16121,] -3.467586e+06 -4.318081e+06 -9.681764e+10 -2.105232e+07
## [16122,] -1.499838e+08 -1.379261e+08 -6.020503e+11 -3.339617e+07
## [16123,] -2.779892e+11 -3.389971e+11 -3.605237e+15 -3.947963e+09
## [16124,] -2.463935e+11 -2.092552e+11 -2.730986e+15 -2.982975e+09
## [16125,] -4.714815e+09 -4.170913e+09 -4.555541e+13 -1.317003e+08
## [16126,] -1.642971e+05 -5.961489e+03 -2.263311e+11 -1.985384e+07
## [16127,] -3.848617e+06 -4.324435e+06 -9.687775e+10 -2.109788e+07
## [16128,] -1.580595e+08 -1.408056e+08 -6.026110e+11 -3.237940e+07
## [16129,] -3.165867e+11 -2.869021e+11 -3.608595e+15 -3.066341e+09
## [16130,] -2.635918e+11 -2.243581e+11 -2.734378e+15 -2.124866e+09
## [16131,] -4.744026e+09 -4.307600e+09 -4.561198e+13 -1.443102e+08
## [16132,] -1.322378e+05 -2.053355e+05 -2.266121e+11 -1.953016e+07

```

```

## [16133,] -3.268362e+06 -4.755450e+06 -9.699804e+10 -2.131580e+07
## [16134,] -1.536352e+08 -1.408600e+08 -6.031721e+11 -3.229660e+07
## [16135,] -3.292947e+11 -2.868997e+11 -3.611955e+15 -3.514906e+09
## [16136,] -2.471949e+11 -2.167380e+11 -2.736074e+15 -2.184971e+09
## [16137,] -4.948131e+09 -4.307700e+09 -4.562613e+13 -1.499142e+08
## [16138,] -8.792695e+04 -4.581632e+05 -2.266121e+11 -1.952357e+07
## [16139,] -3.110670e+06 -4.337156e+06 -9.699804e+10 -2.134752e+07
## [16140,] -1.524698e+08 -1.408781e+08 -6.033592e+11 -3.294778e+07
## [16141,] -3.134438e+11 -2.969690e+11 -3.614195e+15 -3.014529e+09
## [16142,] -2.504303e+11 -2.167366e+11 -2.737772e+15 -2.638447e+09
## [16143,] -4.948346e+09 -4.729935e+09 -4.565443e+13 -1.473993e+08
## [16144,] -1.279604e+05 -2.067229e+05 -2.267527e+11 -1.951071e+07
## [16145,] -3.417453e+06 -4.550414e+06 -9.705822e+10 -2.106790e+07
## [16146,] -1.466352e+08 -1.437514e+08 -6.035463e+11 -3.262763e+07
## [16147,] -3.357420e+11 -2.868980e+11 -3.614195e+15 -3.318627e+09
## [16148,] -2.297651e+11 -2.561441e+11 -2.739470e+15 -2.402166e+09
## [16149,] -5.007638e+09 -4.308101e+09 -4.568275e+13 -1.391679e+08
## [16150,] -1.878098e+04 -3.076670e+05 -2.270340e+11 -1.955751e+07
## [16151,] -3.144238e+06 -4.356274e+06 -9.717862e+10 -2.098346e+07
## [16152,] -1.549572e+08 -1.325907e+08 -6.044822e+11 -3.312429e+07
## [16153,] -3.176260e+11 -2.969631e+11 -3.622043e+15 -3.536225e+09
## [16154,] -2.447742e+11 -1.946657e+11 -2.743716e+15 -2.291770e+09
## [16155,] -4.601980e+09 -4.447101e+09 -4.575357e+13 -1.404960e+08
## [16156,] -9.663371e+04 -4.675205e+05 -2.272450e+11 -1.980283e+07
## [16157,] -3.528812e+06 -5.002533e+06 -9.726897e+10 -2.109900e+07
## [16158,] -1.508520e+08 -1.438797e+08 -6.048568e+11 -3.354264e+07
## [16159,] -2.868923e+11 -3.072077e+11 -3.622043e+15 -4.354699e+09
## [16160,] -2.488039e+11 -2.167316e+11 -2.743716e+15 -2.955206e+09
## [16161,] -4.817450e+09 -3.906253e+09 -4.575357e+13 -1.424879e+08
## [16162,] -1.165915e+05 -2.866104e+05 -2.273154e+11 -1.958455e+07
## [16163,] -3.852095e+06 -4.166366e+06 -9.729909e+10 -2.113759e+07
## [16164,] -1.535280e+08 -1.299014e+08 -6.050441e+11 -3.308182e+07
## [16165,] -3.282171e+11 -2.769944e+11 -3.623165e+15 -3.096279e+09
## [16166,] -2.313179e+11 -2.092433e+11 -2.745416e+15 -2.369945e+09
## [16167,] -4.587997e+09 -4.447305e+09 -4.578191e+13 -1.402841e+08
## [16168,] -5.036587e+04 -2.144369e+05 -2.275266e+11 -1.996977e+07
## [16169,] -3.746289e+06 -4.378631e+06 -9.738950e+10 -2.133958e+07
## [16170,] -1.533073e+08 -1.354853e+08 -6.057938e+11 -3.336536e+07
## [16171,] -3.250169e+11 -2.868874e+11 -3.628777e+15 -3.681234e+09
## [16172,] -2.536783e+11 -2.243458e+11 -2.748817e+15 -2.393399e+09
## [16173,] -5.113177e+09 -4.447814e+09 -4.585281e+13 -1.340004e+08
## [16174,] -9.077739e+04 -5.832121e+05 -2.277379e+11 -1.991032e+07
## [16175,] -3.475388e+06 -5.248868e+06 -9.747994e+10 -2.139252e+07
## [16176,] -1.527719e+08 -1.327667e+08 -6.063563e+11 -3.213163e+07
## [16177,] -3.113465e+11 -2.672647e+11 -3.632146e+15 -3.189640e+09
## [16178,] -2.553121e+11 -2.018825e+11 -2.752220e+15 -2.191201e+09
## [16179,] -4.964912e+09 -4.173283e+09 -4.589537e+13 -1.342960e+08

```

```

## [16180,] -7.494134e+04 -5.867187e+05 -2.279493e+11 -1.971826e+07
## [16181,] -4.275251e+06 -3.802226e+06 -9.757043e+10 -2.136382e+07
## [16182,] -1.539953e+08 -1.469500e+08 -6.067315e+11 -3.255735e+07
## [16183,] -3.186688e+11 -2.769871e+11 -3.633269e+15 -3.557517e+09
## [16184,] -2.375962e+11 -1.946589e+11 -2.752220e+15 -2.473121e+09
## [16185,] -4.964912e+09 -4.588825e+09 -4.589537e+13 -1.347816e+08
## [16186,] -8.814460e+04 -4.790858e+05 -2.280198e+11 -1.967209e+07
## [16187,] -3.634902e+06 -4.887192e+06 -9.760061e+10 -2.124407e+07
## [16188,] -1.507833e+08 -1.499029e+08 -6.071067e+11 -3.269784e+07
## [16189,] -3.324929e+11 -2.672623e+11 -3.635516e+15 -3.613139e+09
## [16190,] -2.431625e+11 -2.092363e+11 -2.753922e+15 -2.400893e+09
## [16191,] -4.862414e+09 -4.589033e+09 -4.592376e+13 -1.367685e+08
## [16192,] -6.062215e+04 -7.103922e+05 -2.281608e+11 -1.985809e+07
## [16193,] -3.830349e+06 -4.407460e+06 -9.766097e+10 -2.135327e+07
## [16194,] -1.534587e+08 -1.384292e+08 -6.072944e+11 -3.281617e+07
## [16195,] -3.123840e+11 -2.672615e+11 -3.636640e+15 -3.316866e+09
## [16196,] -2.487940e+11 -2.167224e+11 -2.754774e+15 -2.353360e+09
## [16197,] -4.906410e+09 -4.039442e+09 -4.593796e+13 -1.454893e+08
## [16198,] -1.287708e+05 -7.116809e+05 -2.282314e+11 -1.958666e+07
## [16199,] -3.479891e+06 -4.622418e+06 -9.772134e+10 -2.121347e+07
## [16200,] -1.576950e+08 -1.413138e+08 -6.078576e+11 -3.418631e+07
## [16201,] -3.250065e+11 -2.868776e+11 -3.642262e+15 -3.579056e+09
## [16202,] -2.594203e+11 -2.092314e+11 -2.759885e+15 -2.244032e+09
## [16203,] -4.921727e+09 -4.040024e+09 -4.602319e+13 -1.606184e+08
## [16204,] -1.599651e+05 -4.875856e+05 -2.285841e+11 -1.958088e+07
## [16205,] -3.698816e+06 -4.852589e+06 -9.787237e+10 -2.128940e+07
## [16206,] -1.454170e+08 -1.414047e+08 -6.087969e+11 -3.284508e+07
## [16207,] -3.357172e+11 -2.483302e+11 -3.645638e+15 -3.012180e+09
## [16208,] -2.455616e+11 -2.167167e+11 -2.761589e+15 -2.259283e+09
## [16209,] -4.776179e+09 -4.310710e+09 -4.605161e+13 -1.361955e+08
## [16210,] -5.287954e+04 -3.032074e+05 -2.287253e+11 -2.003260e+07
## [16211,] -3.515389e+06 -4.855956e+06 -9.790259e+10 -2.150524e+07
## [16212,] -1.477350e+08 -1.442649e+08 -6.087969e+11 -3.303739e+07
## [16213,] -3.292684e+11 -2.969456e+11 -3.645638e+15 -3.073874e+09
## [16214,] -2.569449e+11 -2.018743e+11 -2.762442e+15 -2.160077e+09
## [16215,] -4.922049e+09 -4.174467e+09 -4.606583e+13 -1.406464e+08
## [16216,] -7.588139e+04 -4.907923e+05 -2.287959e+11 -1.958796e+07
## [16217,] -3.463262e+06 -4.232132e+06 -9.793281e+10 -2.123563e+07
## [16218,] -1.545584e+08 -1.414592e+08 -6.093608e+11 -3.358876e+07
## [16219,] -3.250004e+11 -2.769751e+11 -3.650140e+15 -3.094238e+09
## [16220,] -2.495939e+11 -2.092265e+11 -2.765853e+15 -2.652542e+09
## [16221,] -4.878516e+09 -4.311211e+09 -4.612272e+13 -1.382467e+08
## [16222,] -1.772285e+05 -4.961602e+05 -2.291492e+11 -1.972103e+07
## [16223,] -3.894685e+06 -4.665232e+06 -9.811425e+10 -2.146842e+07
## [16224,] -1.528539e+08 -1.358947e+08 -6.101131e+11 -3.290642e+07
## [16225,] -3.367919e+11 -2.769727e+11 -3.653519e+15 -3.042359e+09
## [16226,] -2.367920e+11 -2.167110e+11 -2.768413e+15 -2.266419e+09

```

```

## [16227,] -4.576621e+09 -4.175159e+09 -4.616541e+13 -1.485778e+08
## [16228,] -9.238682e+04 -2.332317e+05 -2.293612e+11 -2.008084e+07
## [16229,] -3.504395e+06 -4.671836e+06 -9.817477e+10 -2.157819e+07
## [16230,] -1.543749e+08 -1.415683e+08 -6.104895e+11 -3.251327e+07
## [16231,] -3.165506e+11 -2.769710e+11 -3.655773e+15 -3.522427e+09
## [16232,] -2.375783e+11 -2.243255e+11 -2.772683e+15 -2.618600e+09
## [16233,] -4.792032e+09 -4.175652e+09 -4.623660e+13 -1.453715e+08
## [16234,] -1.399724e+05 -4.034229e+05 -2.296441e+11 -1.986152e+07
## [16235,] -3.503193e+06 -4.075775e+06 -9.835644e+10 -2.142054e+07
## [16236,] -1.553825e+08 -1.360373e+08 -6.116191e+11 -3.372292e+07
## [16237,] -2.969332e+11 -3.281865e+11 -3.662538e+15 -4.108636e+09
## [16238,] -2.297351e+11 -1.875497e+11 -2.774391e+15 -2.676877e+09
## [16239,] -4.535059e+09 -4.591621e+09 -4.627934e+13 -1.572705e+08
## [16240,] -2.623403e+05 -4.275752e+05 -2.299980e+11 -1.993553e+07
## [16241,] -3.554410e+06 -4.292079e+06 -9.850795e+10 -2.167005e+07
## [16242,] -1.551795e+08 -1.446323e+08 -6.125613e+11 -3.282823e+07
## [16243,] -3.346204e+11 -2.969290e+11 -3.668180e+15 -2.969733e+09
## [16244,] -2.577532e+11 -2.167025e+11 -2.778665e+15 -2.158728e+09
## [16245,] -4.983017e+09 -4.312717e+09 -4.633636e+13 -1.355758e+08
## [16246,] -4.640020e+04 -5.113455e+05 -2.301396e+11 -2.020315e+07
## [16247,] -3.933993e+06 -4.497754e+06 -9.850795e+10 -2.162440e+07
## [16248,] -1.542864e+08 -1.446323e+08 -6.125613e+11 -3.282823e+07
## [16249,] -3.260499e+11 -2.769622e+11 -3.668180e+15 -2.990083e+09
## [16250,] -2.431406e+11 -1.946380e+11 -2.778665e+15 -2.265546e+09
## [16251,] -4.997912e+09 -4.451383e+09 -4.635063e+13 -1.447623e+08
## [16252,] -1.561496e+05 -5.124389e+05 -2.302104e+11 -1.996267e+07
## [16253,] -3.597296e+06 -4.714877e+06 -9.856859e+10 -2.166144e+07
## [16254,] -1.576121e+08 -1.333837e+08 -6.129384e+11 -3.284575e+07
## [16255,] -3.196925e+11 -2.672370e+11 -3.671567e+15 -3.543314e+09
## [16256,] -2.447409e+11 -1.946360e+11 -2.781231e+15 -2.752313e+09
## [16257,] -5.749695e+09 -4.042550e+09 -4.639342e+13 -1.713775e+08
## [16258,] -1.520939e+05 -4.141711e+05 -2.304230e+11 -1.987662e+07
## [16259,] -3.772662e+06 -4.937119e+06 -9.862925e+10 -2.152519e+07
## [16260,] -1.534905e+08 -1.390232e+08 -6.135042e+11 -3.295441e+07
## [16261,] -3.400289e+11 -2.769582e+11 -3.673826e+15 -3.113219e+09
## [16262,] -2.391535e+11 -2.018578e+11 -2.782942e+15 -2.438237e+09
## [16263,] -4.507833e+09 -4.592553e+09 -4.640769e+13 -1.517177e+08
## [16264,] -1.302667e+05 -5.168243e+05 -2.304939e+11 -2.016376e+07
## [16265,] -3.775631e+06 -4.513975e+06 -9.865958e+10 -2.158695e+07
## [16266,] -1.499718e+08 -1.418776e+08 -6.136929e+11 -3.307320e+07
## [16267,] -3.239195e+11 -3.175855e+11 -3.674956e+15 -3.498800e+09
## [16268,] -2.439367e+11 -2.243161e+11 -2.783798e+15 -2.718134e+09
## [16269,] -4.954153e+09 -4.176936e+09 -4.642196e+13 -1.458638e+08
## [16270,] -9.578048e+04 -5.179236e+05 -2.305648e+11 -1.993018e+07
## [16271,] -3.790494e+06 -5.404058e+06 -9.881133e+10 -2.140403e+07
## [16272,] -1.595744e+08 -1.477105e+08 -6.144479e+11 -3.279239e+07
## [16273,] -3.565237e+11 -2.868505e+11 -3.679477e+15 -2.808620e+09

```

```

## [16274,] -2.536437e+11 -2.092091e+11 -2.787223e+15 -2.658934e+09
## [16275,] -5.013696e+09 -4.177331e+09 -4.647907e+13 -1.367311e+08
## [16276,] -1.556909e+05 -6.356956e+05 -2.308484e+11 -1.985766e+07
## [16277,] -3.570505e+06 -4.536732e+06 -9.887207e+10 -2.131386e+07
## [16278,] -1.497910e+08 -1.391493e+08 -6.148255e+11 -3.437727e+07
## [16279,] -3.509787e+11 -3.175804e+11 -3.681738e+15 -3.848373e+09
## [16280,] -2.536414e+11 -1.946292e+11 -2.789793e+15 -2.485930e+09
## [16281,] -4.607580e+09 -3.911413e+09 -4.652192e+13 -1.394910e+08
## [16282,] -1.757646e+05 -5.256511e+05 -2.310612e+11 -2.005805e+07
## [16283,] -3.837771e+06 -4.131501e+06 -9.890244e+10 -2.125302e+07
## [16284,] -1.569225e+08 -1.335780e+08 -6.150144e+11 -3.697332e+07
## [16285,] -3.346080e+11 -2.672283e+11 -3.684001e+15 -3.598001e+09
## [16286,] -2.431301e+11 -2.018516e+11 -2.790650e+15 -2.097867e+09
## [16287,] -5.073921e+09 -4.314423e+09 -4.657909e+13 -1.358785e+08
## [16288,] -6.668140e+04 -2.543552e+05 -2.313452e+11 -2.031337e+07
## [16289,] -4.532111e+06 -4.143936e+06 -9.902398e+10 -2.168138e+07
## [16290,] -1.522378e+08 -1.392395e+08 -6.157702e+11 -3.312861e+07
## [16291,] -3.186265e+11 -3.281664e+11 -3.688527e+15 -2.978398e+09
## [16292,] -2.235397e+11 -2.479504e+11 -2.794078e+15 -2.318598e+09
## [16293,] -4.622319e+09 -4.178122e+09 -4.659339e+13 -1.463385e+08
## [16294,] -9.731901e+04 -2.558990e+05 -2.314872e+11 -2.031370e+07
## [16295,] -3.741026e+06 -4.988187e+06 -9.908478e+10 -2.158151e+07
## [16296,] -1.552431e+08 -1.364654e+08 -6.161482e+11 -3.364410e+07
## [16297,] -3.207317e+11 -2.868415e+11 -3.691924e+15 -3.687354e+09
## [16298,] -2.471402e+11 -2.243046e+11 -2.797509e+15 -2.172263e+09
## [16299,] -5.119299e+09 -4.882467e+09 -4.665061e+13 -1.775468e+08
## [16300,] -1.189199e+05 -4.330691e+05 -2.317714e+11 -2.033454e+07
## [16301,] -4.082936e+06 -4.572610e+06 -9.920643e+10 -2.177443e+07
## [16302,] -1.577146e+08 -1.365369e+08 -6.169047e+11 -3.297494e+07
## [16303,] -2.868399e+11 -3.071535e+11 -3.694189e+15 -3.237709e+09
## [16304,] -2.685529e+11 -2.018448e+11 -2.799226e+15 -2.759144e+09
## [16305,] -5.015428e+09 -4.453932e+09 -4.670785e+13 -1.387378e+08
## [16306,] -9.600764e+04 -5.401541e+05 -2.319847e+11 -2.016052e+07
## [16307,] -4.016261e+06 -4.377991e+06 -9.932815e+10 -2.162922e+07
## [16308,] -1.562918e+08 -1.480264e+08 -6.176616e+11 -3.352078e+07
## [16309,] -3.367564e+11 -2.769405e+11 -3.698722e+15 -3.279923e+09
## [16310,] -2.407257e+11 -2.243002e+11 -2.802660e+15 -2.404575e+09
## [16311,] -4.709362e+09 -4.179307e+09 -4.676514e+13 -1.402935e+08
## [16312,] -2.800377e+05 -3.467436e+05 -2.322692e+11 -2.025506e+07
## [16313,] -3.566868e+06 -3.986180e+06 -9.941950e+10 -2.187942e+07
## [16314,] -1.584509e+08 -1.451842e+08 -6.182296e+11 -3.306392e+07
## [16315,] -3.465593e+11 -2.672157e+11 -3.702123e+15 -2.957090e+09
## [16316,] -2.383422e+11 -2.166811e+11 -2.804378e+15 -2.792852e+09
## [16317,] -4.956843e+09 -4.045174e+09 -4.677946e+13 -1.408079e+08
## [16318,] -2.957588e+04 -5.457847e+05 -2.323404e+11 -2.022838e+07
## [16319,] -3.588316e+06 -4.598791e+06 -9.944995e+10 -2.168050e+07
## [16320,] -1.457984e+08 -1.510465e+08 -6.186085e+11 -3.395440e+07

```

```

## [16321,] -3.207213e+11 -2.662506e+11 -3.705526e+15 -3.205103e+09
## [16322,] -2.503684e+11 -2.166790e+11 -2.806955e+15 -2.309691e+09
## [16323,] -4.609655e+09 -4.454646e+09 -4.680812e+13 -1.440922e+08
## [16324,] -1.139557e+05 -7.911390e+05 -2.324827e+11 -2.022871e+07
## [16325,] -3.897883e+06 -3.995339e+06 -9.951088e+10 -2.177707e+07
## [16326,] -1.546157e+08 -1.452394e+08 -6.187979e+11 -3.386574e+07
## [16327,] -3.009781e+11 -2.969015e+11 -3.705526e+15 -3.354544e+09
## [16328,] -2.821658e+11 -2.091930e+11 -2.806955e+15 -3.434483e+09
## [16329,] -4.942331e+09 -4.179604e+09 -4.680812e+13 -1.405959e+08
## [16330,] -7.355883e+04 -5.491771e+05 -2.325539e+11 -2.037673e+07
## [16331,] -3.862240e+06 -4.608628e+06 -9.954135e+10 -2.184836e+07
## [16332,] -1.546347e+08 -1.481566e+08 -6.189874e+11 -3.315418e+07
## [16333,] -2.999555e+11 -3.281523e+11 -3.706661e+15 -3.069301e+09
## [16334,] -2.258352e+11 -2.320451e+11 -2.807815e+15 -2.309617e+09
## [16335,] -4.883748e+09 -4.045466e+09 -4.682246e+13 -1.393756e+08
## [16336,] -9.517604e+04 -3.503526e+05 -2.325539e+11 -2.037673e+07
## [16337,] -3.597007e+06 -4.196993e+06 -9.954135e+10 -2.188966e+07
## [16338,] -1.540591e+08 -1.367512e+08 -6.191769e+11 -3.343920e+07
## [16339,] -3.092129e+11 -2.868301e+11 -3.707796e+15 -3.311323e+09
## [16340,] -2.463245e+11 -2.018372e+11 -2.808674e+15 -2.476174e+09
## [16341,] -4.796477e+09 -4.316230e+09 -4.683679e+13 -1.441289e+08
## [16342,] -1.258698e+05 -4.462421e+05 -2.326963e+11 -1.913088e+07
## [16343,] -3.906940e+06 -4.406818e+06 -9.960231e+10 -2.191314e+07
## [16344,] -1.520055e+08 -1.312286e+08 -6.193664e+11 -3.357273e+07
## [16345,] -3.260168e+11 -2.868276e+11 -3.711201e+15 -3.562347e+09
## [16346,] -2.495519e+11 -2.091881e+11 -2.812975e+15 -2.216572e+09
## [16347,] -5.031781e+09 -4.046049e+09 -4.690850e+13 -1.375131e+08
## [16348,] -1.027514e+05 -5.559934e+05 -2.329813e+11 -2.034407e+07
## [16349,] -4.155579e+06 -4.841822e+06 -9.972428e+10 -2.179953e+07
## [16350,] -1.577595e+08 -1.453868e+08 -6.203146e+11 -3.307802e+07
## [16351,] -3.431163e+11 -3.018551e+11 -3.210441e+13 -1.569052e+09
## [16352,] -2.648431e+11 -2.209138e+11 -2.431926e+13 -1.167754e+09
## [16353,] -4.409350e+09 -3.870878e+09 -4.055422e+11 -2.454889e+07
## [16354,] -1.773728e+07 -1.548910e+07 -2.014213e+09 -2.158047e+04
## [16355,] -6.819001e+06 -5.903969e+06 -8.621551e+08 -6.509118e+04
## [16356,] -6.329106e+07 -5.483570e+07 -5.361220e+09 -9.540620e+05
## [16357,] -3.387628e+11 -3.018551e+11 -3.210441e+13 -1.554320e+09
## [16358,] -2.648431e+11 -2.286048e+11 -2.431926e+13 -1.167754e+09
## [16359,] -4.563576e+09 -3.614787e+09 -4.055422e+11 -2.413578e+07
## [16360,] -1.674640e+07 -1.668542e+07 -2.014213e+09 -2.028593e+04
## [16361,] -6.489994e+06 -5.436792e+06 -8.621551e+08 -6.187780e+04
## [16362,] -5.862057e+07 -5.662227e+07 -5.361220e+09 -9.966038e+05
## [16363,] -3.387628e+11 -2.528215e+11 -3.210441e+13 -1.666506e+09
## [16364,] -2.387999e+11 -2.209138e+11 -2.431926e+13 -1.281264e+09
## [16365,] -4.230502e+09 -4.135732e+09 -4.055422e+11 -2.602238e+07
## [16366,] -1.754932e+07 -1.269297e+07 -2.014213e+09 -1.841920e+04
## [16367,] -6.144777e+06 -5.903969e+06 -8.621551e+08 -6.018121e+04

```



```

## [16368,] -6.196528e+07 -5.843748e+07 -5.361220e+09 -9.846936e+05
## [16369,] -3.280006e+11 -3.121830e+11 -3.210441e+13 -1.651322e+09
## [16370,] -2.582060e+11 -1.986302e+11 -2.431926e+13 -1.240937e+09
## [16371,] -4.055356e+09 -4.002210e+09 -4.055422e+11 -2.580925e+07
## [16372,] -1.686870e+07 -1.377805e+07 -2.014213e+09 -1.781698e+04
## [16373,] -6.844646e+06 -5.210424e+06 -8.621551e+08 -6.212209e+04
## [16374,] -6.310080e+07 -6.028133e+07 -5.361220e+09 -9.775818e+05
## [16375,] -3.420253e+11 -2.622808e+11 -3.210441e+13 -1.651322e+09
## [16376,] -2.500280e+11 -2.133543e+11 -2.431926e+13 -1.129269e+09
## [16377,] -3.831905e+09 -4.002210e+09 -4.055422e+11 -2.475676e+07
## [16378,] -1.542445e+07 -1.667918e+07 -2.020845e+09 -1.645545e+04
## [16379,] -6.092457e+06 -6.386535e+06 -8.649934e+08 -6.448126e+04
## [16380,] -5.753788e+07 -6.029319e+07 -5.378870e+09 -9.578963e+05
## [16381,] -3.345832e+11 -2.605040e+11 -3.715744e+15 -3.332193e+09
## [16382,] -2.367518e+11 -2.320392e+11 -2.814696e+15 -2.723727e+09
## [16383,] -5.061739e+09 -4.046244e+09 -4.693720e+13 -1.365687e+08
## [16384,] -1.291439e+05 -6.752854e+05 -2.331238e+11 -2.014307e+07
## [16385,] -3.679384e+06 -5.070442e+06 -9.981580e+10 -2.191270e+07
## [16386,] -1.551037e+08 -1.425519e+08 -6.206940e+11 -3.377368e+07
## [16387,] -3.292131e+11 -2.968932e+11 -3.716881e+15 -3.662716e+09
## [16388,] -2.503607e+11 -2.242894e+11 -2.815556e+15 -2.475566e+09
## [16389,] -5.166746e+09 -4.455768e+09 -4.696591e+13 -1.356276e+08
## [16390,] -3.505697e+05 -8.061624e+05 -2.332664e+11 -2.031783e+07
## [16391,] -3.873000e+06 -5.297298e+06 -9.984632e+10 -2.166793e+07
## [16392,] -1.566168e+08 -1.369121e+08 -6.208838e+11 -3.393575e+07
## [16393,] -3.238856e+11 -2.576554e+11 -3.719154e+15 -3.787669e+09
## [16394,] -2.375396e+11 -2.320370e+11 -2.817278e+15 -3.163264e+09
## [16395,] -4.885030e+09 -4.046632e+09 -4.699462e+13 -1.388512e+08
## [16396,] -2.466756e+05 -3.612917e+05 -2.334090e+11 -2.010358e+07
## [16397,] -3.631873e+06 -5.080771e+06 -9.990737e+10 -2.179653e+07
## [16398,] -1.557767e+08 -1.454974e+08 -6.214533e+11 -3.348991e+07
## [16399,] -3.270741e+11 -2.968899e+11 -3.721427e+15 -3.926390e+09
## [16400,] -2.367481e+11 -2.320355e+11 -2.819000e+15 -2.656019e+09
## [16401,] -4.899778e+09 -4.317435e+09 -4.700899e+13 -1.579863e+08
## [16402,] -2.335566e+05 -4.585771e+05 -2.335517e+11 -2.019765e+07
## [16403,] -4.024658e+06 -4.872135e+06 -9.999898e+10 -2.191888e+07
## [16404,] -1.516605e+08 -1.426614e+08 -6.218331e+11 -3.409198e+07
## [16405,] -3.334988e+11 -2.576515e+11 -3.724839e+15 -2.113781e+09
## [16406,] -2.415058e+11 -2.166669e+11 -2.821585e+15 -2.548206e+09
## [16407,] -4.754980e+09 -4.181580e+09 -4.709520e+13 -1.544382e+08
## [16408,] -9.958228e+04 -5.709063e+05 -2.339085e+11 -2.055533e+07
## [16409,] -2.709925e+06 -3.128756e+06 -1.001212e+11 -2.180525e+07
## [16410,] -1.421631e+08 -1.456080e+08 -6.225930e+11 -3.355686e+07
## [16411,] -2.979014e+11 -3.175450e+11 -3.728252e+15 -3.129949e+09
## [16412,] -2.610170e+11 -2.166648e+11 -2.824171e+15 -2.842657e+09
## [16413,] -5.062935e+09 -4.318038e+09 -4.709520e+13 -1.350570e+08
## [16414,] -2.315226e+05 -2.104921e+05 -2.340514e+11 -1.981186e+07

```

```

## [16415,] -3.761450e+06 -4.687705e+06 -1.002741e+11 -2.192815e+07
## [16416,] -1.512408e+08 -1.316140e+08 -6.235436e+11 -3.421432e+07
## [16417,] -3.259993e+11 -2.671936e+11 -3.733945e+15 -3.056954e+09
## [16418,] -2.312458e+11 -1.945982e+11 -2.829345e+15 -2.580371e+09
## [16419,] -4.945125e+09 -4.318640e+09 -4.718150e+13 -1.453257e+08
## [16420,] -1.442587e+05 -5.778557e+05 -2.343371e+11 -2.052929e+07
## [16421,] -3.821740e+06 -4.905927e+06 -1.003046e+11 -2.198129e+07
## [16422,] -1.506902e+08 -1.515729e+08 -6.239241e+11 -3.417622e+07
## [16423,] -3.476304e+11 -2.576437e+11 -3.736223e+15 -3.341371e+09
## [16424,] -2.446978e+11 -2.091741e+11 -2.830208e+15 -2.588541e+09
## [16425,] -4.915835e+09 -4.047994e+09 -4.719589e+13 -1.522378e+08
## [16426,] -1.288585e+05 -1.123632e+06 -2.344801e+11 -2.053638e+07
## [16427,] -3.792398e+06 -4.916087e+06 -1.003964e+11 -2.201199e+07
## [16428,] -1.527915e+08 -1.344449e+08 -6.243046e+11 -3.363658e+07
## [16429,] -3.081543e+11 -2.968774e+11 -3.738502e+15 -3.427946e+09
## [16430,] -2.471091e+11 -2.091720e+11 -2.832798e+15 -2.253258e+09
## [16431,] -4.886846e+09 -3.916193e+09 -4.723907e+13 -1.411400e+08
## [16432,] -2.522016e+05 -4.742322e+05 -2.346231e+11 -2.011307e+07
## [16433,] -4.332193e+06 -4.291446e+06 -1.004577e+11 -2.209085e+07
## [16434,] -1.552054e+08 -1.344803e+08 -6.246853e+11 -3.377939e+07
## [16435,] -3.302650e+11 -2.769107e+11 -3.740781e+15 -3.015366e+09
## [16436,] -2.511571e+11 -2.091713e+11 -2.833661e+15 -2.338692e+09
## [16437,] -4.960394e+09 -4.886953e+09 -4.725347e+13 -1.337957e+08
## [16438,] -2.175621e+05 -3.789560e+05 -2.347661e+11 -2.051001e+07
## [16439,] -3.687421e+06 -4.710896e+06 -1.004883e+11 -2.193690e+07
## [16440,] -1.796741e+08 -1.344980e+08 -6.248757e+11 -3.535010e+07
## [16441,] -3.102239e+11 -2.868047e+11 -3.743062e+15 -3.808667e+09
## [16442,] -2.438915e+11 -2.018159e+11 -2.835389e+15 -2.338544e+09
## [16443,] -5.109247e+09 -4.598977e+09 -4.729668e+13 -1.434603e+08
## [16444,] -1.667094e+05 -2.189901e+05 -2.349092e+11 -2.027460e+07
## [16445,] -3.712172e+06 -5.153370e+06 -1.005495e+11 -2.189150e+07
## [16446,] -1.502343e+08 -1.458663e+08 -6.252565e+11 -3.422478e+07
## [16447,] -3.324083e+11 -2.671865e+11 -3.744202e+15 -3.438420e+09
## [16448,] -2.312385e+11 -2.479116e+11 -2.837981e+15 -2.206858e+09
## [16449,] -4.872970e+09 -3.786951e+09 -4.733991e+13 -1.385436e+08
## [16450,] -1.393556e+05 -5.907055e+05 -2.351239e+11 -2.037596e+07
## [16451,] -4.069484e+06 -4.310462e+06 -1.006414e+11 -2.192674e+07
## [16452,] -1.553197e+08 -1.430450e+08 -6.258280e+11 -3.404183e+07
## [16453,] -3.040217e+11 -3.388841e+11 -3.748765e+15 -3.340399e+09
## [16454,] -2.281248e+11 -2.166498e+11 -2.842303e+15 -2.919303e+09
## [16455,] -4.571352e+09 -4.320147e+09 -4.739758e+13 -1.512121e+08
## [16456,] -1.530968e+05 -3.874704e+05 -2.354104e+11 -2.038336e+07
## [16457,] -3.490447e+06 -4.529574e+06 -1.007640e+11 -2.195537e+07
## [16458,] -1.501470e+08 -1.403417e+08 -6.273533e+11 -3.361184e+07
## [16459,] -3.133360e+11 -2.968640e+11 -3.756758e+15 -3.558699e+09
## [16460,] -2.258032e+11 -2.242640e+11 -2.845764e+15 -2.884018e+09
## [16461,] -4.873931e+09 -4.049841e+09 -4.746971e+13 -1.469604e+08

```

```

## [16462,] -1.180992e+05 -7.238516e+05 -2.358403e+11 -2.020963e+07
## [16463,] -3.750550e+06 -5.198570e+06 -1.009481e+11 -2.223368e+07
## [16464,] -1.475564e+08 -1.490136e+08 -6.277349e+11 -3.407515e+07
## [16465,] -3.356278e+11 -2.867924e+11 -3.760186e+15 -3.492023e+09
## [16466,] -2.312297e+11 -2.242619e+11 -2.848360e+15 -2.720617e+09
## [16467,] -4.962224e+09 -3.787985e+09 -4.749859e+13 -1.495464e+08
## [16468,] -9.896594e+04 -3.060754e+05 -2.359120e+11 -2.074980e+07
## [16469,] -4.024351e+06 -4.345435e+06 -1.009788e+11 -2.217153e+07
## [16470,] -1.588297e+08 -1.403960e+08 -6.279257e+11 -3.397239e+07
## [16471,] -3.249159e+11 -2.482532e+11 -3.760186e+15 -3.003715e+09
## [16472,] -2.438794e+11 -2.091587e+11 -2.849226e+15 -2.603360e+09
## [16473,] -4.918193e+09 -4.050133e+09 -4.751302e+13 -1.547289e+08
## [16474,] -9.527036e+04 -6.060739e+05 -2.360555e+11 -2.074334e+07
## [16475,] -4.169548e+06 -4.987504e+06 -1.010401e+11 -2.212127e+07
## [16476,] -1.523200e+08 -1.520248e+08 -6.284984e+11 -3.444714e+07
## [16477,] -3.249133e+11 -2.867900e+11 -3.763615e+15 -3.738276e+09
## [16478,] -2.527681e+11 -2.018015e+11 -2.853557e+15 -2.480294e+09
## [16479,] -4.787487e+09 -4.050619e+09 -4.758525e+13 -1.423243e+08
## [16480,] -1.492229e+05 -3.999360e+05 -2.363425e+11 -2.045291e+07
## [16481,] -3.905853e+06 -5.449628e+06 -1.011630e+11 -2.218699e+07
## [16482,] -1.544516e+08 -1.405047e+08 -6.290714e+11 -3.380286e+07
## [16483,] -3.443170e+11 -2.768922e+11 -3.767046e+15 -3.095851e+09
## [16484,] -2.446767e+11 -2.242568e+11 -2.854424e+15 -2.190283e+09
## [16485,] -4.904166e+09 -4.321553e+09 -4.759970e+13 -1.371462e+08
## [16486,] -2.564250e+05 -6.120373e+05 -2.364142e+11 -2.061530e+07
## [16487,] -4.048915e+06 -5.008003e+06 -1.012244e+11 -2.199384e+07
## [16488,] -1.577791e+08 -1.462727e+08 -6.294535e+11 -3.447795e+07
## [16489,] -3.270374e+11 -2.482472e+11 -3.769335e+15 -3.436449e+09
## [16490,] -2.281139e+11 -2.166392e+11 -2.855291e+15 -2.694655e+09
## [16491,] -4.831250e+09 -4.185138e+09 -4.761415e+13 -1.527851e+08
## [16492,] -1.396296e+05 -6.144309e+05 -2.365578e+11 -2.073092e+07
## [16493,] -4.353659e+06 -4.581765e+06 -1.012552e+11 -2.221322e+07
## [16494,] -1.580991e+08 -1.377360e+08 -6.296446e+11 -3.395491e+07
## [16495,] -3.345390e+11 -2.671667e+11 -3.772768e+15 -2.982400e+09
## [16496,] -2.296633e+11 -2.166363e+11 -2.858759e+15 -2.463706e+09
## [16497,] -4.335828e+09 -5.037528e+09 -4.767199e+13 -1.883568e+08
## [16498,] -1.592812e+05 -8.762313e+05 -2.368451e+11 -2.065695e+07
## [16499,] -4.224087e+06 -4.807582e+06 -1.013782e+11 -2.220041e+07
## [16500,] -1.552184e+08 -1.552184e+08 -6.307919e+11 -3.444241e+07
## [16501,] -3.432160e+11 -2.768850e+11 -3.777349e+15 -3.064053e+09
## [16502,] -2.829762e+11 -1.874822e+11 -2.862229e+15 -2.839072e+09
## [16503,] -5.008398e+09 -3.661818e+09 -4.774434e+13 -1.542523e+08
## [16504,] -1.557874e+05 -6.240518e+05 -2.371326e+11 -2.082064e+07
## [16505,] -3.008610e+06 -4.607972e+06 -1.015012e+11 -2.169129e+07
## [16506,] -1.631066e+08 -1.435572e+08 -6.311745e+11 -3.605183e+07
## [16507,] -3.259644e+11 -2.482403e+11 -3.779640e+15 -3.568001e+09
## [16508,] -2.527597e+11 -2.091475e+11 -2.863097e+15 -2.585587e+09

```

```

## [16509,] -5.082743e+09 -4.461279e+09 -4.774434e+13 -1.378163e+08
## [16510,] -1.331285e+05 -1.027605e+06 -2.371326e+11 -2.075943e+07
## [16511,] -4.277147e+06 -3.804014e+06 -1.015012e+11 -2.186987e+07
## [16512,] -1.531760e+08 -1.435572e+08 -6.311745e+11 -3.391460e+07
## [16513,] -3.070891e+11 -3.388592e+11 -3.780786e+15 -3.043199e+09
## [16514,] -2.446669e+11 -2.091455e+11 -2.865702e+15 -2.181768e+09
## [16515,] -4.993919e+09 -4.461585e+09 -4.778777e+13 -1.356669e+08
## [16516,] -1.293857e+05 -3.232189e+05 -2.373483e+11 -2.090290e+07
## [16517,] -4.409385e+06 -4.409385e+06 -1.015935e+11 -2.235278e+07
## [16518,] -1.538258e+08 -1.436122e+08 -6.317487e+11 -3.373249e+07
## [16519,] -3.366908e+11 -2.768810e+11 -3.783079e+15 -2.920892e+09
## [16520,] -2.462744e+11 -2.242474e+11 -2.865702e+15 -2.181768e+09
## [16521,] -4.905557e+09 -4.461585e+09 -4.778777e+13 -1.363994e+08
## [16522,] -2.168214e+05 -4.155492e+05 -2.374922e+11 -2.046231e+07
## [16523,] -3.838130e+06 -4.624390e+06 -1.016551e+11 -2.224213e+07
## [16524,] -1.559488e+08 -1.407947e+08 -6.321316e+11 -3.460370e+07
## [16525,] -3.280911e+11 -2.968424e+11 -3.786519e+15 -3.736407e+09
## [16526,] -2.382862e+11 -2.091427e+11 -2.869177e+15 -2.390869e+09
## [16527,] -5.009155e+09 -4.186720e+09 -4.784571e+13 -1.401635e+08
## [16528,] -3.098749e+05 -5.194645e+05 -2.376361e+11 -2.053693e+07
## [16529,] -3.960408e+06 -5.062874e+06 -1.017167e+11 -2.215021e+07
## [16530,] -1.550916e+08 -1.380051e+08 -6.325147e+11 -3.400484e+07
## [16531,] -3.464900e+11 -2.867712e+11 -3.789960e+15 -2.920396e+09
## [16532,] -2.511241e+11 -2.242430e+11 -2.870915e+15 -2.158668e+09
## [16533,] -4.950284e+09 -4.603123e+09 -4.787470e+13 -1.387165e+08
## [16534,] -6.711224e+05 -2.485311e+05 -2.377801e+11 -2.067946e+07
## [16535,] -4.265019e+06 -4.428661e+06 -1.017783e+11 -2.238223e+07
## [16536,] -1.569233e+08 -1.437221e+08 -6.328979e+11 -3.385535e+07
## [16537,] -3.377679e+11 -2.968399e+11 -3.789960e+15 -2.940577e+09
## [16538,] -2.470749e+11 -2.319906e+11 -2.871784e+15 -2.576569e+09
## [16539,] -4.462299e+09 -4.323563e+09 -4.788919e+13 -1.521098e+08
## [16540,] -1.278729e+05 -8.963737e+05 -2.378521e+11 -2.093819e+07
## [16541,] -3.930538e+06 -5.524807e+06 -1.018092e+11 -2.283737e+07
## [16542,] -1.507281e+08 -1.409035e+08 -6.332811e+11 -3.469994e+07
## [16543,] -3.312975e+11 -2.867695e+11 -3.792256e+15 -3.456540e+09
## [16544,] -2.454639e+11 -2.017864e+11 -2.872653e+15 -2.257624e+09
## [16545,] -4.994783e+09 -4.323663e+09 -4.790369e+13 -1.380137e+08
## [16546,] -1.343804e+05 -6.386233e+05 -2.379961e+11 -2.046347e+07
## [16547,] -4.735740e+06 -4.441535e+06 -1.019016e+11 -2.232300e+07
## [16548,] -1.534220e+08 -1.381129e+08 -6.336645e+11 -3.394669e+07
## [16549,] -3.019352e+11 -3.174942e+11 -3.795700e+15 -3.712909e+09
## [16550,] -2.486865e+11 -2.091371e+11 -2.876132e+15 -2.211323e+09
## [16551,] -4.490822e+09 -4.324065e+09 -4.796170e+13 -1.410531e+08
## [16552,] -2.456747e+05 -7.673955e+05 -2.382122e+11 -2.095951e+07
## [16553,] -4.639454e+06 -4.874834e+06 -1.019941e+11 -2.238642e+07
## [16554,] -1.561588e+08 -1.298561e+08 -6.342399e+11 -3.397340e+07
## [16555,] -3.280823e+11 -2.671493e+11 -3.797997e+15 -3.000951e+09

```

```

## [16556,] -2.143620e+11 -2.560204e+11 -2.877002e+15 -2.311538e+09
## [16557,] -4.995431e+09 -4.187709e+09 -4.799072e+13 -1.391073e+08
## [16558,] -3.441925e+05 -3.354973e+05 -2.383563e+11 -2.045081e+07
## [16559,] -4.523266e+06 -4.884962e+06 -1.020867e+11 -2.231533e+07
## [16560,] -1.559362e+08 -1.382386e+08 -6.350074e+11 -3.475279e+07
## [16561,] -3.238221e+11 -2.575988e+11 -3.802593e+15 -3.093215e+09
## [16562,] -2.390691e+11 -2.091336e+11 -2.880484e+15 -2.421727e+09
## [16563,] -4.951467e+09 -3.791466e+09 -4.803427e+13 -1.489586e+08
## [16564,] -1.687121e+05 -4.314614e+05 -2.386447e+11 -2.096052e+07
## [16565,] -3.828376e+06 -4.891720e+06 -1.021484e+11 -2.250630e+07
## [16566,] -1.580545e+08 -1.468277e+08 -6.351993e+11 -3.386459e+07
## [16567,] -3.345152e+11 -2.968299e+11 -3.803742e+15 -3.010752e+09
## [16568,] -2.462608e+11 -2.091329e+11 -2.881354e+15 -2.233836e+09
## [16569,] -5.144915e+09 -4.188105e+09 -4.804879e+13 -1.374561e+08
## [16570,] -2.428348e+05 -6.496623e+05 -2.386447e+11 -2.092638e+07
## [16571,] -4.425960e+06 -4.677123e+06 -1.021484e+11 -2.241330e+07
## [16572,] -1.577537e+08 -1.439420e+08 -6.351993e+11 -3.392032e+07
## [16573,] -3.345152e+11 -2.968299e+11 -3.803742e+15 -3.041514e+09
## [16574,] -2.430510e+11 -2.166178e+11 -2.881354e+15 -2.249197e+09
## [16575,] -4.762043e+09 -4.604471e+09 -4.806331e+13 -1.372287e+08
## [16576,] -2.081707e+05 -7.767956e+05 -2.387169e+11 -2.070199e+07
## [16577,] -4.025823e+06 -5.567998e+06 -1.021793e+11 -2.246702e+07
## [16578,] -1.532959e+08 -1.439604e+08 -6.353913e+11 -3.440485e+07
## [16579,] -3.312879e+11 -2.390236e+11 -3.804892e+15 -3.166037e+09
## [16580,] -2.343311e+11 -2.319810e+11 -2.883096e+15 -2.592053e+09
## [16581,] -4.893044e+09 -4.324869e+09 -4.807783e+13 -1.485039e+08
## [16582,] -2.164515e+05 -1.065123e+06 -2.388611e+11 -2.081786e+07
## [16583,] -4.501061e+06 -5.124961e+06 -1.022720e+11 -2.247015e+07
## [16584,] -1.569298e+08 -1.440154e+08 -6.359674e+11 -3.390017e+07
## [16585,] -3.366704e+11 -2.867572e+11 -3.809492e+15 -3.207783e+09
## [16586,] -2.568342e+11 -2.091294e+11 -2.885710e+15 -2.326428e+09
## [16587,] -4.952328e+09 -4.325372e+09 -4.815048e+13 -1.516749e+08
## [16588,] -2.062507e+05 -6.595542e+05 -2.392220e+11 -2.107127e+07
## [16589,] -4.126656e+06 -5.363633e+06 -1.023955e+11 -2.248983e+07
## [16590,] -1.555106e+08 -1.469759e+08 -6.367359e+11 -3.494701e+07
## [16591,] -3.206400e+11 -2.867548e+11 -3.812944e+15 -3.454923e+09
## [16592,] -2.535529e+11 -1.945517e+11 -2.889197e+15 -2.302718e+09
## [16593,] -4.923231e+09 -4.464444e+09 -4.819410e+13 -1.386194e+08
## [16594,] -2.891359e+05 -5.462364e+05 -2.393665e+11 -2.097586e+07
## [16595,] -4.192923e+06 -4.093072e+06 -1.024574e+11 -2.224906e+07
## [16596,] -1.558473e+08 -1.328618e+08 -6.371204e+11 -3.444343e+07
## [16597,] -3.270024e+11 -2.768585e+11 -3.815246e+15 -3.061262e+09
## [16598,] -2.486736e+11 -2.017720e+11 -2.890941e+15 -2.517559e+09
## [16599,] -4.591314e+09 -4.189193e+09 -4.820864e+13 -1.684304e+08
## [16600,] -1.297818e+05 -3.498100e+05 -2.395109e+11 -2.052098e+07
## [16601,] -4.079417e+06 -4.716869e+06 -1.025192e+11 -2.259805e+07
## [16602,] -1.549903e+08 -1.384723e+08 -6.375049e+11 -3.430700e+07

```

```

## [16603,] -3.564115e+11 -2.671343e+11 -3.819852e+15 -4.523259e+09
## [16604,] -2.311915e+11 -2.017699e+11 -2.893558e+15 -2.317947e+09
## [16605,] -5.252105e+09 -4.464852e+09 -4.825229e+13 -1.350182e+08
## [16606,] -2.610581e+05 -7.944048e+05 -2.396555e+11 -2.094921e+07
## [16607,] -4.068867e+06 -5.163089e+06 -1.026120e+11 -2.224808e+07
## [16608,] -1.550855e+08 -1.413938e+08 -6.384668e+11 -3.483035e+07
## [16609,] -3.345001e+11 -3.070578e+11 -3.823309e+15 -4.035413e+09
## [16610,] -2.478599e+11 -2.017672e+11 -2.897049e+15 -3.210276e+09
## [16611,] -4.749399e+09 -4.606234e+09 -4.831051e+13 -1.488020e+08
## [16612,] -1.879103e+05 -9.417895e+05 -2.400893e+11 -2.109383e+07
## [16613,] -4.107245e+06 -5.409744e+06 -1.027977e+11 -2.243519e+07
## [16614,] -1.575557e+08 -1.358306e+08 -6.392369e+11 -3.459845e+07
## [16615,] -2.947849e+11 -3.174701e+11 -3.827920e+15 -4.202493e+09
## [16616,] -2.510981e+11 -2.242184e+11 -2.900543e+15 -2.957724e+09
## [16617,] -4.635108e+09 -4.326880e+09 -4.836877e+13 -1.519573e+08
## [16618,] -2.092040e+05 -4.538288e+05 -2.402340e+11 -2.112158e+07
## [16619,] -4.434774e+06 -4.750119e+06 -1.028287e+11 -2.257742e+07
## [16620,] -1.573129e+08 -1.415210e+08 -6.398147e+11 -3.409234e+07
## [16621,] -3.206252e+11 -2.482053e+11 -3.832534e+15 -3.248408e+09
## [16622,] -2.535398e+11 -2.091147e+11 -2.904039e+15 -2.411723e+09
## [16623,] -5.028315e+09 -4.466078e+09 -4.842706e+13 -1.416345e+08
## [16624,] -1.728043e+05 -6.820841e+05 -2.405235e+11 -2.103323e+07
## [16625,] -3.987523e+06 -5.662154e+06 -1.029836e+11 -2.265576e+07
## [16626,] -1.564902e+08 -1.502661e+08 -6.405856e+11 -3.518470e+07
## [16627,] -3.312623e+11 -2.575747e+11 -3.838306e+15 -3.028719e+09
## [16628,] -2.454336e+11 -2.017589e+11 -2.907536e+15 -2.224012e+09
## [16629,] -4.954802e+09 -3.924423e+09 -4.848539e+13 -1.419566e+08
## [16630,] -3.149660e+05 -9.581745e+05 -2.408857e+11 -2.112310e+07
## [16631,] -4.829858e+06 -4.367126e+06 -1.031697e+11 -2.258737e+07
## [16632,] -1.553901e+08 -1.533088e+08 -6.415498e+11 -3.448118e+07
## [16633,] -3.280482e+11 -2.671185e+11 -3.842926e+15 -3.226414e+09
## [16634,] -2.543512e+11 -1.909736e+11 -2.911036e+15 -2.467208e+09
## [16635,] -4.955232e+09 -4.466895e+09 -4.854375e+13 -1.388049e+08
## [16636,] -1.907297e+05 -4.662674e+05 -2.411031e+11 -2.137802e+07
## [16637,] -4.353021e+06 -5.232774e+06 -1.032317e+11 -2.255062e+07
## [16638,] -1.738461e+08 -1.445845e+08 -6.419357e+11 -3.650966e+07
## [16639,] -3.091118e+11 -2.867327e+11 -3.844081e+15 -3.343842e+09
## [16640,] -2.343067e+11 -2.319567e+11 -2.911912e+15 -2.791411e+09
## [16641,] -4.593799e+09 -5.193912e+09 -4.855835e+13 -1.498870e+08
## [16642,] -1.012287e+05 -9.641677e+05 -2.411756e+11 -2.115807e+07
## [16643,] -4.332574e+06 -4.170734e+06 -1.032317e+11 -2.263923e+07
## [16644,] -1.557268e+08 -1.388863e+08 -6.419357e+11 -3.480908e+07
## [16645,] -3.280473e+11 -2.671177e+11 -3.844081e+15 -3.268817e+09
## [16646,] -2.319567e+11 -2.091084e+11 -2.911912e+15 -2.459081e+09
## [16647,] -4.867428e+09 -4.191666e+09 -4.857295e+13 -1.496495e+08
## [16648,] -1.490340e+05 -3.718397e+05 -2.412481e+11 -2.091196e+07
## [16649,] -4.220319e+06 -5.021008e+06 -1.033249e+11 -2.257706e+07

```

```

## [16650,] -1.543130e+08 -1.446580e+08 -6.427078e+11 -3.508574e+07
## [16651,] -3.409783e+11 -2.768335e+11 -3.851018e+15 -2.916021e+09
## [16652,] -2.559848e+11 -2.017514e+11 -2.917166e+15 -2.238544e+09
## [16653,] -4.926556e+09 -4.192161e+09 -4.864598e+13 -1.406634e+08
## [16654,] -6.921486e+04 -5.818124e+05 -2.416108e+11 -2.068830e+07
## [16655,] -4.372173e+06 -5.713180e+06 -1.034180e+11 -2.257553e+07
## [16656,] -1.505098e+08 -1.505098e+08 -6.430941e+11 -3.506132e+07
## [16657,] -3.301798e+11 -2.671122e+11 -3.852175e+15 -3.089561e+09
## [16658,] -2.366633e+11 -2.319516e+11 -2.918042e+15 -2.756669e+09
## [16659,] -4.926771e+09 -4.192359e+09 -4.867520e+13 -1.505499e+08
## [16660,] -1.531925e+05 -4.757068e+05 -2.417560e+11 -2.100190e+07
## [16661,] -4.076022e+06 -5.720489e+06 -1.034802e+11 -2.262738e+07
## [16662,] -1.555998e+08 -1.390484e+08 -6.436737e+11 -3.439725e+07
## [16663,] -3.216651e+11 -2.867253e+11 -3.854489e+15 -4.080279e+09
## [16664,] -2.478401e+11 -2.091021e+11 -2.919795e+15 -2.991283e+09
## [16665,] -4.912196e+09 -4.467916e+09 -4.868982e+13 -1.495430e+08
## [16666,] -1.056521e+05 -4.767614e+05 -2.418285e+11 -2.129703e+07
##
##          y          z
## [1,] -1.357507e+09 -5.016888e+08
## [2,] -9.548015e+08 -3.418411e+08
## [3,] -2.033740e+07 -7.116162e+06
## [4,] -3.635205e+03 -3.495148e+03
## [5,] -1.818567e+03 -1.466487e+04
## [6,] -5.338110e+05 -3.063866e+05
## [7,] -1.356944e+09 -5.181800e+08
## [8,] -1.094394e+09 -4.106749e+08
## [9,] -1.775624e+07 -8.200492e+06
## [10,] -1.920848e+03 -6.410297e+03
## [11,] -2.413504e+03 -1.565892e+04
## [12,] -5.278029e+05 -3.071213e+05
## [13,] -1.262192e+09 -4.602822e+08
## [14,] -1.238006e+09 -4.717529e+08
## [15,] -1.754378e+07 -6.966973e+06
## [16,] -4.363087e+03 -4.069569e+03
## [17,] -2.815088e+03 -1.808066e+04
## [18,] -6.108590e+05 -3.496473e+05
## [19,] -1.555107e+09 -6.244450e+08
## [20,] -1.181214e+09 -4.540709e+08
## [21,] -2.274114e+07 -9.638596e+06
## [22,] -5.515100e+02 -7.064164e+03
## [23,] -5.701135e+03 -2.296088e+04
## [24,] -6.397694e+05 -3.401981e+05
## [25,] -1.713174e+09 -5.697279e+08
## [26,] -1.040544e+09 -3.716690e+08
## [27,] -1.931631e+07 -8.159431e+06
## [28,] -2.299094e+03 -5.432178e+03
## [29,] -6.095040e+03 -2.404833e+04

```

```
## [30,] -5.628907e+05 -3.162813e+05
## [31,] -1.387733e+09 -4.907969e+08
## [32,] -1.064480e+09 -3.733844e+08
## [33,] -2.028793e+07 -8.065908e+06
## [34,] -2.431340e+01 -1.643820e+04
## [35,] -1.275489e+04 -3.515488e+04
## [36,] -6.326870e+05 -3.490349e+05
## [37,] -1.265559e+09 -5.116615e+08
## [38,] -1.200920e+09 -4.840010e+08
## [39,] -2.173399e+07 -8.675867e+06
## [40,] -8.120405e+02 -1.012855e+04
## [41,] -7.606829e+03 -2.994759e+04
## [42,] -7.266237e+05 -4.073306e+05
## [43,] -1.380741e+09 -5.768243e+08
## [44,] -1.161836e+09 -3.859992e+08
## [45,] -2.383165e+07 -1.015193e+07
## [46,] -1.003572e+02 -1.217357e+04
## [47,] -8.306592e+03 -3.063056e+04
## [48,] -6.923562e+05 -4.119258e+05
## [49,] -1.387619e+09 -5.458767e+08
## [50,] -1.234782e+09 -4.454719e+08
## [51,] -2.049077e+07 -8.254024e+06
## [52,] -2.044587e+02 -1.606730e+04
## [53,] -7.914213e+03 -3.072638e+04
## [54,] -5.993987e+05 -3.565363e+05
## [55,] -1.285420e+09 -4.503059e+08
## [56,] -1.212031e+09 -4.420222e+08
## [57,] -2.394890e+07 -9.248948e+06
## [58,] -9.964240e+01 -1.218166e+04
## [59,] -9.520437e+03 -3.116779e+04
## [60,] -6.770624e+05 -4.001487e+05
## [61,] -1.794102e+09 -6.496230e+08
## [62,] -1.170680e+09 -4.475487e+08
## [63,] -2.443613e+07 -1.047990e+07
## [64,] -9.780997e+03 -4.925808e+04
## [65,] -3.399558e+04 -7.650910e+04
## [66,] -8.603558e+05 -5.348074e+05
## [67,] -1.662330e+09 -6.260475e+08
## [68,] -1.187339e+09 -4.718628e+08
## [69,] -2.444368e+07 -1.041718e+07
## [70,] -1.489186e+04 -5.789031e+04
## [71,] -5.123385e+04 -9.143703e+04
## [72,] -8.729183e+05 -5.571563e+05
## [73,] -1.528288e+09 -6.029077e+08
## [74,] -1.159501e+09 -4.509225e+08
## [75,] -2.383413e+07 -1.069418e+07
## [76,] -1.180020e+04 -5.647245e+04
```



```

##      [77,] -4.658275e+04 -9.012382e+04
##      [78,] -8.418944e+05 -5.324273e+05
##      [79,] -1.392972e+09 -5.362088e+08
##      [80,] -1.072796e+09 -4.105296e+08
##      [81,] -2.163887e+07 -9.562112e+06
##      [82,] -1.347577e+04 -5.506356e+04
##      [83,] -5.025207e+04 -8.924236e+04
##      [84,] -9.646510e+05 -5.879391e+05
##      [85,] -1.535584e+09 -5.022344e+08
##      [86,] -9.843640e+08 -3.783165e+08
##      [87,] -2.086689e+07 -8.863339e+06
##      [88,] -1.563331e+04 -5.825859e+04
##      [89,] -5.069290e+04 -9.160254e+04
##      [90,] -8.863861e+05 -5.625285e+05
##      [91,] -2.621797e+09 -9.712917e+08
##      [92,] -2.424617e+09 -6.994171e+08
##      [93,] -6.466059e+07 -3.329257e+07
##      [94,] -2.825480e+06 -3.395745e+06
##      [95,] -3.317031e+06 -3.708569e+06
##      [96,] -7.920154e+06 -6.313779e+06
##      [97,] -2.659955e+09 -8.749545e+08
##      [98,] -2.130416e+09 -9.552060e+08
##      [99,] -6.656281e+07 -3.404795e+07
##     [100,] -2.778104e+06 -3.371120e+06
##     [101,] -3.337716e+06 -3.724756e+06
##     [102,] -7.964930e+06 -6.438502e+06
##     [103,] -2.747100e+09 -9.828011e+08
##     [104,] -2.012221e+09 -7.296493e+08
##     [105,] -6.810873e+07 -3.603030e+07
##     [106,] -2.810518e+06 -3.379341e+06
##     [107,] -3.326970e+06 -3.717186e+06
##     [108,] -7.868223e+06 -6.460617e+06
##     [109,] -3.006900e+09 -9.886053e+08
##     [110,] -1.758696e+09 -6.282265e+08
##     [111,] -7.038587e+07 -3.541389e+07
##     [112,] -2.803083e+06 -3.384894e+06
##     [113,] -3.274488e+06 -3.686147e+06
##     [114,] -7.879227e+06 -6.452338e+06
##     [115,] -2.640527e+09 -9.885573e+08
##     [116,] -1.983080e+09 -7.427720e+08
##     [117,] -6.934883e+07 -3.554768e+07
##     [118,] -2.825665e+06 -3.398697e+06
##     [119,] -3.341509e+06 -3.761041e+06
##     [120,] -8.048070e+06 -6.470589e+06
##     [121,] -2.592853e+09 -9.652537e+08
##     [122,] -2.041298e+09 -7.427720e+08
##     [123,] -6.371557e+07 -3.297508e+07

```

```

## [124,] -2.883628e+06 -3.398697e+06
## [125,] -3.373870e+06 -3.728763e+06
## [126,] -7.725472e+06 -6.373550e+06
## [127,] -2.865342e+09 -1.047983e+09
## [128,] -1.862098e+09 -6.160109e+08
## [129,] -7.200124e+07 -3.874579e+07
## [130,] -2.770834e+06 -3.300490e+06
## [131,] -3.326384e+06 -3.735506e+06
## [132,] -7.793988e+06 -6.466189e+06
## [133,] -2.621249e+09 -9.478643e+08
## [134,] -1.911292e+09 -7.033899e+08
## [135,] -6.869130e+07 -3.470641e+07
## [136,] -2.886349e+06 -3.465219e+06
## [137,] -3.348099e+06 -3.775655e+06
## [138,] -7.831707e+06 -6.427533e+06
## [139,] -2.805626e+09 -9.942820e+08
## [140,] -1.847926e+09 -6.609816e+08
## [141,] -6.612600e+07 -3.349302e+07
## [142,] -2.823405e+06 -3.432047e+06
## [143,] -3.362685e+06 -3.770157e+06
## [144,] -7.934362e+06 -6.417083e+06
## [145,] -2.659324e+09 -9.534702e+08
## [146,] -1.911158e+09 -6.904607e+08
## [147,] -6.378878e+07 -3.363199e+07
## [148,] -2.813512e+06 -3.432183e+06
## [149,] -3.363688e+06 -3.780752e+06
## [150,] -7.864665e+06 -6.420955e+06
## [151,] -2.573439e+09 -9.362345e+08
## [152,] -2.062861e+09 -7.205418e+08
## [153,] -6.381320e+07 -3.364972e+07
## [154,] -2.846255e+06 -3.426794e+06
## [155,] -3.354904e+06 -3.754310e+06
## [156,] -7.920317e+06 -6.501727e+06
## [157,] -2.697675e+09 -9.361410e+08
## [158,] -2.033423e+09 -7.118177e+08
## [159,] -6.617572e+07 -3.401499e+07
## [160,] -2.813635e+06 -3.432319e+06
## [161,] -3.344130e+06 -3.784789e+06
## [162,] -7.924619e+06 -6.438650e+06
## [163,] -2.716993e+09 -9.764409e+08
## [164,] -1.996941e+09 -7.161118e+08
## [165,] -6.911493e+07 -3.562973e+07
## [166,] -2.818764e+06 -3.437984e+06
## [167,] -3.321051e+06 -3.756430e+06
## [168,] -7.668276e+06 -6.333648e+06
## [169,] -2.297288e+09 -8.201178e+08
## [170,] -2.077415e+09 -6.733158e+08

```

```

## [171,] -6.861915e+07 -3.465514e+07
## [172,] -2.848957e+06 -3.485230e+06
## [173,] -3.172757e+06 -3.675322e+06
## [174,] -7.676742e+06 -6.353402e+06
## [175,] -2.639585e+09 -9.762976e+08
## [176,] -2.077276e+09 -8.193143e+08
## [177,] -6.778005e+07 -3.430434e+07
## [178,] -2.879436e+06 -3.429964e+06
## [179,] -3.395182e+06 -3.785449e+06
## [180,] -7.805102e+06 -6.482405e+06
## [181,] -2.208528e+09 -7.882306e+08
## [182,] -1.644007e+09 -5.798261e+08
## [183,] -6.625033e+07 -3.406849e+07
## [184,] -2.846626e+06 -3.452099e+06
## [185,] -3.366318e+06 -3.806476e+06
## [186,] -7.898990e+06 -6.451973e+06
## [187,] -2.629782e+09 -9.703393e+08
## [188,] -1.946110e+09 -7.029036e+08
## [189,] -6.524433e+07 -3.419972e+07
## [190,] -2.894705e+06 -3.438324e+06
## [191,] -3.358325e+06 -3.822876e+06
## [192,] -7.842848e+06 -6.474112e+06
## [193,] -2.544456e+09 -9.131440e+08
## [194,] -1.982060e+09 -6.731175e+08
## [195,] -6.507536e+07 -3.334817e+07
## [196,] -2.897243e+06 -3.452167e+06
## [197,] -3.397998e+06 -3.807544e+06
## [198,] -7.876396e+06 -6.461938e+06
## [199,] -2.601184e+09 -9.415245e+08
## [200,] -1.953274e+09 -7.158664e+08
## [201,] -6.541353e+07 -3.262682e+07
## [202,] -2.884562e+06 -3.466038e+06
## [203,] -3.387155e+06 -3.807544e+06
## [204,] -7.789321e+06 -6.516808e+06
## [205,] -2.864197e+09 -1.289058e+09
## [206,] -2.018338e+09 -7.465736e+08
## [207,] -6.223634e+07 -3.359038e+07
## [208,] -3.004921e+06 -3.552727e+06
## [209,] -3.374735e+06 -3.800110e+06
## [210,] -7.938831e+06 -6.518502e+06
## [211,] -2.553635e+09 -9.760111e+08
## [212,] -2.113990e+09 -7.420225e+08
## [213,] -6.578975e+07 -3.398205e+07
## [214,] -2.846873e+06 -3.446831e+06
## [215,] -3.397407e+06 -3.814579e+06
## [216,] -8.329765e+06 -6.742053e+06
## [217,] -2.774796e+09 -1.011215e+09

```

```

## [218,] -2.158911e+09 -7.508455e+08
## [219,] -6.649558e+07 -3.363468e+07
## [220,] -2.976800e+06 -3.595302e+06
## [221,] -3.365140e+06 -3.793749e+06
## [222,] -7.931521e+06 -6.360091e+06
## [223,] -2.450922e+09 -9.355799e+08
## [224,] -1.967302e+09 -7.463649e+08
## [225,] -6.632499e+07 -3.351339e+07
## [226,] -2.895017e+06 -3.455280e+06
## [227,] -3.415725e+06 -3.807138e+06
## [228,] -8.223997e+06 -6.457029e+06
## [229,] -2.745338e+09 -9.875965e+08
## [230,] -1.591377e+09 -5.717836e+08
## [231,] -6.600930e+07 -3.475417e+07
## [232,] -2.842089e+06 -3.413951e+06
## [233,] -3.424413e+06 -3.812478e+06
## [234,] -7.540102e+06 -6.301036e+06
## [235,] -2.459779e+09 -8.792075e+08
## [236,] -1.995780e+09 -6.811232e+08
## [237,] -7.250394e+07 -3.628762e+07
## [238,] -2.865014e+06 -3.461237e+06
## [239,] -3.429058e+06 -3.821214e+06
## [240,] -8.058956e+06 -6.516957e+06
## [241,] -2.553018e+09 -9.582408e+08
## [242,] -2.327417e+09 -9.339001e+08
## [243,] -7.465861e+07 -3.898398e+07
## [244,] -2.892916e+06 -3.436375e+06
## [245,] -3.401059e+06 -3.801213e+06
## [246,] -8.076893e+06 -6.551452e+06
## [247,] -2.754552e+09 -9.931258e+08
## [248,] -2.518971e+09 -9.638366e+08
## [249,] -7.092151e+07 -3.591947e+07
## [250,] -2.897992e+06 -3.489111e+06
## [251,] -3.501306e+06 -3.893588e+06
## [252,] -8.110937e+06 -6.588258e+06
## [253,] -2.331909e+09 -8.626149e+08
## [254,] -1.818636e+09 -6.353064e+08
## [255,] -6.864831e+07 -3.492283e+07
## [256,] -2.767457e+06 -3.310360e+06
## [257,] -3.452928e+06 -3.859892e+06
## [258,] -8.081237e+06 -6.512541e+06
## [259,] -2.943481e+09 -1.083142e+09
## [260,] -1.973961e+09 -6.726022e+08
## [261,] -6.540491e+07 -3.394912e+07
## [262,] -2.814927e+06 -3.400658e+06
## [263,] -3.419386e+06 -3.830182e+06
## [264,] -8.035563e+06 -6.489823e+06

```

```
## [265,] -2.647754e+09 -9.522908e+08
## [266,] -1.995507e+09 -6.980032e+08
## [267,] -6.475409e+07 -3.396693e+07
## [268,] -2.905802e+06 -3.506054e+06
## [269,] -3.407708e+06 -3.846632e+06
## [270,] -7.913910e+06 -6.544811e+06
## [271,] -2.953353e+09 -1.016567e+09
## [272,] -1.937884e+09 -7.195576e+08
## [273,] -6.493497e+07 -3.495897e+07
## [274,] -2.867850e+06 -3.478249e+06
## [275,] -3.428673e+06 -3.832324e+06
## [276,] -8.044229e+06 -6.657195e+06
## [277,] -2.715081e+09 -9.464063e+08
## [278,] -2.061057e+09 -7.502593e+08
## [279,] -7.011959e+07 -3.635209e+07
## [280,] -2.921266e+06 -3.520239e+06
## [281,] -3.447075e+06 -3.849852e+06
## [282,] -7.940295e+06 -6.587223e+06
## [283,] -3.024519e+09 -9.694826e+08
## [284,] -1.909288e+09 -7.238338e+08
## [285,] -8.084279e+07 -3.775365e+07
## [286,] -2.913686e+06 -3.484020e+06
## [287,] -3.394658e+06 -3.832767e+06
## [288,] -8.221105e+06 -6.638163e+06
## [289,] -2.609137e+09 -9.693874e+08
## [290,] -1.980699e+09 -6.978013e+08
## [291,] -6.549146e+07 -3.388951e+07
## [292,] -3.021666e+06 -3.573752e+06
## [293,] -3.550054e+06 -3.927466e+06
## [294,] -7.982684e+06 -6.564375e+06
## [295,] -2.705218e+09 -9.751996e+08
## [296,] -2.031563e+09 -7.237516e+08
## [297,] -6.909722e+07 -3.292164e+07
## [298,] -2.852962e+06 -3.472961e+06
## [299,] -3.387431e+06 -3.743018e+06
## [300,] -8.030088e+06 -6.669030e+06
## [301,] -2.802955e+09 -9.985740e+08
## [302,] -2.358013e+09 -7.368214e+08
## [303,] -7.122683e+07 -3.664194e+07
## [304,] -2.896078e+06 -3.487011e+06
## [305,] -3.503388e+06 -3.901595e+06
## [306,] -8.241125e+06 -6.724247e+06
## [307,] -2.561516e+09 -9.290485e+08
## [308,] -2.342209e+09 -8.228244e+08
## [309,] -7.230375e+07 -3.690509e+07
## [310,] -2.845594e+06 -3.462056e+06
## [311,] -3.401301e+06 -3.826378e+06
```

```
## [312,] -7.948342e+06 -6.600699e+06
## [313,] -2.842406e+09 -1.028144e+09
## [314,] -1.769821e+09 -6.430847e+08
## [315,] -6.740578e+07 -3.318870e+07
## [316,] -2.763228e+06 -3.426138e+06
## [317,] -3.451349e+06 -3.854369e+06
## [318,] -7.966155e+06 -6.604626e+06
## [319,] -2.852270e+09 -9.808378e+08
## [320,] -1.923090e+09 -7.019315e+08
## [321,] -6.862683e+07 -3.247780e+07
## [322,] -2.965146e+06 -3.506673e+06
## [323,] -3.473257e+06 -3.864006e+06
## [324,] -8.452971e+06 -6.859208e+06
## [325,] -3.243102e+09 -1.221720e+09
## [326,] -2.342061e+09 -7.859304e+08
## [327,] -5.830816e+07 -3.060558e+07
## [328,] -2.967778e+06 -3.509535e+06
## [329,] -3.465139e+06 -3.859297e+06
## [330,] -7.941028e+06 -6.587889e+06
## [331,] -2.685388e+09 -1.022030e+09
## [332,] -1.951518e+09 -6.932808e+08
## [333,] -6.899947e+07 -3.430976e+07
## [334,] -2.975555e+06 -3.501226e+06
## [335,] -3.473468e+06 -3.870017e+06
## [336,] -8.049302e+06 -6.483876e+06
## [337,] -2.551860e+09 -9.517721e+08
## [338,] -2.075256e+09 -7.410653e+08
## [339,] -6.692868e+07 -3.333587e+07
## [340,] -2.883649e+06 -3.498435e+06
## [341,] -3.478956e+06 -3.864229e+06
## [342,] -8.281819e+06 -6.773462e+06
## [343,] -2.561207e+09 -9.865402e+08
## [344,] -1.930010e+09 -7.454466e+08
## [345,] -7.023481e+07 -3.618280e+07
## [346,] -2.942263e+06 -3.523658e+06
## [347,] -3.458047e+06 -3.874955e+06
## [348,] -7.979101e+06 -6.597959e+06
## [349,] -2.972731e+09 -1.058047e+09
## [350,] -1.944291e+09 -6.762597e+08
## [351,] -6.694119e+07 -3.468759e+07
## [352,] -2.924381e+06 -3.523658e+06
## [353,] -3.445288e+06 -3.796173e+06
## [354,] -8.037608e+06 -6.620346e+06
## [355,] -2.665946e+09 -9.748179e+08
## [356,] -2.023707e+09 -7.234227e+08
## [357,] -6.125670e+07 -2.971114e+07
## [358,] -2.952569e+06 -3.520928e+06
```

```

## [359,] -3.473679e+06 -3.870240e+06
## [360,] -8.017265e+06 -6.583450e+06
## [361,] -2.782689e+09 -1.094688e+09
## [362,] -2.119626e+09 -7.721753e+08
## [363,] -6.921160e+07 -3.445940e+07
## [364,] -2.944948e+06 -3.537810e+06
## [365,] -3.475719e+06 -3.885920e+06
## [366,] -8.127947e+06 -6.585152e+06
## [367,] -3.085320e+09 -1.131901e+09
## [368,] -2.097137e+09 -7.766049e+08
## [369,] -6.596717e+07 -3.398745e+07
## [370,] -2.861208e+06 -3.393560e+06
## [371,] -3.474909e+06 -3.867678e+06
## [372,] -7.814694e+06 -6.454613e+06
## [373,] -2.598768e+09 -9.922109e+08
## [374,] -2.008863e+09 -7.630586e+08
## [375,] -7.188733e+07 -3.510369e+07
## [376,] -2.937463e+06 -3.546439e+06
## [377,] -3.311461e+06 -3.740535e+06
## [378,] -8.005024e+06 -6.584634e+06
## [379,] -2.733342e+09 -9.172573e+08
## [380,] -2.052659e+09 -7.319693e+08
## [381,] -6.430246e+07 -3.388331e+07
## [382,] -2.906928e+06 -3.504498e+06
## [383,] -3.479800e+06 -3.878632e+06
## [384,] -8.179573e+06 -6.767911e+06
## [385,] -2.961994e+09 -1.240806e+09
## [386,] -2.209844e+09 -1.008632e+09
## [387,] -6.483163e+07 -3.414530e+07
## [388,] -2.932541e+06 -3.577613e+06
## [389,] -3.524892e+06 -3.908753e+06
## [390,] -8.006900e+06 -6.586336e+06
## [391,] -1.602027e+09 -6.260093e+08
## [392,] -1.209752e+09 -4.753602e+08
## [393,] -2.476275e+07 -1.069418e+07
## [394,] -9.641273e+03 -5.027263e+04
## [395,] -4.387065e+04 -8.291073e+04
## [396,] -9.067811e+05 -5.571563e+05
## [397,] -1.564940e+09 -5.757591e+08
## [398,] -1.232429e+09 -4.406467e+08
## [399,] -2.363018e+07 -1.042211e+07
## [400,] -1.100412e+04 -4.894383e+04
## [401,] -4.722017e+04 -8.461443e+04
## [402,] -8.617739e+05 -5.518100e+05
## [403,] -1.521010e+09 -6.074933e+08
## [404,] -1.209752e+09 -4.896141e+08
## [405,] -2.955815e+07 -1.232658e+07

```

```
## [406,] -1.023957e+04 -5.095198e+04
## [407,] -4.648912e+04 -8.707436e+04
## [408,] -8.923414e+05 -5.547269e+05
## [409,] -1.723558e+09 -6.400400e+08
## [410,] -1.342960e+09 -4.788705e+08
## [411,] -2.657312e+07 -1.111394e+07
## [412,] -7.444082e+03 -4.634754e+04
## [413,] -4.522855e+04 -8.563281e+04
## [414,] -8.833212e+05 -5.476198e+05
## [415,] -1.786022e+09 -6.447644e+08
## [416,] -1.610775e+09 -5.336038e+08
## [417,] -2.551272e+07 -1.056764e+07
## [418,] -7.066219e+03 -4.603487e+04
## [419,] -4.576378e+04 -8.665728e+04
## [420,] -8.425031e+05 -5.276830e+05
## [421,] -2.617494e+09 -9.513478e+08
## [422,] -1.950911e+09 -6.717305e+08
## [423,] -6.618702e+07 -3.451324e+07
## [424,] -2.726827e+06 -3.513017e+06
## [425,] -3.458889e+06 -3.916516e+06
## [426,] -7.618933e+06 -6.397308e+06
## [427,] -3.189208e+09 -1.088126e+09
## [428,] -2.126608e+09 -8.176091e+08
## [429,] -7.193917e+07 -3.883059e+07
## [430,] -2.948012e+06 -3.532752e+06
## [431,] -3.471885e+06 -3.891537e+06
## [432,] -8.110693e+06 -6.643440e+06
## [433,] -2.205728e+09 -7.813391e+08
## [434,] -2.171591e+09 -6.842840e+08
## [435,] -6.776633e+07 -3.478667e+07
## [436,] -2.950637e+06 -3.575000e+06
## [437,] -3.491213e+06 -3.913939e+06
## [438,] -8.087799e+06 -6.628881e+06
## [439,] -2.665157e+09 -9.454662e+08
## [440,] -2.194331e+09 -8.885820e+08
## [441,] -8.074122e+07 -3.603225e+07
## [442,] -2.844007e+06 -3.499259e+06
## [443,] -3.461942e+06 -3.923651e+06
## [444,] -8.683728e+06 -6.635045e+06
## [445,] -3.413917e+09 -1.195059e+09
## [446,] -2.126397e+09 -7.493805e+08
## [447,] -6.320571e+07 -3.165931e+07
## [448,] -2.984103e+06 -3.552543e+06
## [449,] -3.472095e+06 -3.893696e+06
## [450,] -8.325276e+06 -6.825268e+06
## [451,] -2.890997e+09 -1.081835e+09
## [452,] -1.964930e+09 -7.012838e+08
```



```

## [453,] -6.917731e+07 -3.418997e+07
## [454,] -2.999646e+06 -3.566683e+06
## [455,] -3.517138e+06 -3.918046e+06
## [456,] -7.913669e+06 -6.538471e+06
## [457,] -2.723048e+09 -9.056794e+08
## [458,] -1.943415e+09 -7.055866e+08
## [459,] -6.624920e+07 -3.406768e+07
## [460,] -2.976441e+06 -3.569500e+06
## [461,] -3.423921e+06 -3.850368e+06
## [462,] -7.927140e+06 -6.612114e+06
## [463,] -2.531908e+09 -9.396028e+08
## [464,] -1.964862e+09 -6.506373e+08
## [465,] -6.423267e+07 -3.432143e+07
## [466,] -2.811584e+06 -3.460509e+06
## [467,] -3.415860e+06 -3.882311e+06
## [468,] -8.244521e+06 -6.727315e+06
## [469,] -2.513185e+09 -9.510650e+08
## [470,] -2.037433e+09 -6.884141e+08
## [471,] -6.490549e+07 -3.383265e+07
## [472,] -3.002294e+06 -3.566752e+06
## [473,] -3.434018e+06 -3.814943e+06
## [474,] -8.030417e+06 -6.687885e+06
## [475,] -2.664842e+09 -9.741500e+08
## [476,] -2.008178e+09 -6.672559e+08
## [477,] -7.025150e+07 -3.797935e+07
## [478,] -2.994672e+06 -3.566891e+06
## [479,] -3.504692e+06 -3.918494e+06
## [480,] -8.073045e+06 -6.652511e+06
## [481,] -2.153089e+09 -7.758820e+08
## [482,] -1.986291e+09 -7.097397e+08
## [483,] -6.595852e+07 -3.546130e+07
## [484,] -2.956142e+06 -3.586707e+06
## [485,] -3.523084e+06 -3.924323e+06
## [486,] -8.134362e+06 -6.689600e+06
## [487,] -2.597755e+09 -9.974635e+08
## [488,] -1.950236e+09 -6.797678e+08
## [489,] -6.768210e+07 -3.399014e+07
## [490,] -2.981907e+06 -3.586776e+06
## [491,] -3.522270e+06 -3.923463e+06
## [492,] -8.056995e+06 -6.594850e+06
## [493,] -2.320486e+09 -8.393937e+08
## [494,] -2.081329e+09 -7.183692e+08
## [495,] -6.733811e+07 -3.484980e+07
## [496,] -3.005133e+06 -3.572666e+06
## [497,] -3.516748e+06 -3.935132e+06
## [498,] -8.090998e+06 -6.619457e+06
## [499,] -2.616713e+09 -9.167020e+08

```

```

## [500,] -2.186238e+09 -8.500028e+08
## [501,] -6.819972e+07 -3.411229e+07
## [502,] -3.002548e+06 -3.589602e+06
## [503,] -3.529639e+06 -3.927351e+06
## [504,] -8.104619e+06 -6.607148e+06
## [505,] -2.559815e+09 -9.223543e+08
## [506,] -1.865209e+09 -6.925165e+08
## [507,] -6.478615e+07 -3.399014e+07
## [508,] -3.002548e+06 -3.603746e+06
## [509,] -3.518588e+06 -3.940974e+06
## [510,] -8.063790e+06 -6.644110e+06
## [511,] -2.791077e+09 -1.039000e+09
## [512,] -2.262679e+09 -8.642068e+08
## [513,] -6.530495e+07 -3.436621e+07
## [514,] -3.028514e+06 -3.623664e+06
## [515,] -3.473747e+06 -3.852959e+06
## [516,] -8.081732e+06 -6.617232e+06
## [517,] -2.588030e+09 -9.279309e+08
## [518,] -2.059045e+09 -7.446123e+08
## [519,] -6.684876e+07 -3.536402e+07
## [520,] -2.933294e+06 -3.530639e+06
## [521,] -3.467455e+06 -3.912035e+06
## [522,] -8.042842e+06 -6.668288e+06
## [523,] -2.940579e+09 -1.009078e+09
## [524,] -2.015043e+09 -7.226008e+08
## [525,] -7.032838e+07 -3.688286e+07
## [526,] -2.720229e+06 -3.425007e+06
## [527,] -3.441119e+06 -3.887926e+06
## [528,] -8.060761e+06 -6.696986e+06
## [529,] -2.771175e+09 -8.609549e+08
## [530,] -2.216398e+09 -8.170411e+08
## [531,] -6.433069e+07 -3.390380e+07
## [532,] -3.039097e+06 -3.592706e+06
## [533,] -3.526378e+06 -3.966786e+06
## [534,] -8.327939e+06 -6.884078e+06
## [535,] -2.830362e+09 -9.972222e+08
## [536,] -2.451453e+09 -8.593097e+08
## [537,] -6.603301e+07 -3.440206e+07
## [538,] -3.010625e+06 -3.567376e+06
## [539,] -3.499819e+06 -3.913341e+06
## [540,] -8.105933e+06 -6.663821e+06
## [541,] -2.597288e+09 -9.506408e+08
## [542,] -1.993050e+09 -6.837644e+08
## [543,] -7.683021e+07 -3.910436e+07
## [544,] -3.015931e+06 -3.595743e+06
## [545,] -3.511053e+06 -3.911624e+06
## [546,] -7.871061e+06 -6.554777e+06

```

```
## [547,] -2.635268e+09 -9.563021e+08
## [548,] -2.029359e+09 -7.399840e+08
## [549,] -7.143726e+07 -3.553415e+07
## [550,] -3.018585e+06 -3.598641e+06
## [551,] -3.510239e+06 -3.939924e+06
## [552,] -8.596346e+06 -6.912706e+06
## [553,] -2.222190e+09 -7.600047e+08
## [554,] -1.594986e+09 -5.662003e+08
## [555,] -7.109673e+07 -3.642221e+07
## [556,] -2.908179e+06 -3.547889e+06
## [557,] -3.496572e+06 -3.944906e+06
## [558,] -8.136995e+06 -6.710574e+06
## [559,] -2.760970e+09 -9.794024e+08
## [560,] -1.985610e+09 -7.180006e+08
## [561,] -6.970448e+07 -3.592780e+07
## [562,] -3.010943e+06 -3.598781e+06
## [563,] -3.462818e+06 -3.897418e+06
## [564,] -8.066412e+06 -6.695942e+06
## [565,] -2.702437e+09 -1.032558e+09
## [566,] -2.140254e+09 -7.801077e+08
## [567,] -6.541615e+07 -3.444689e+07
## [568,] -2.944025e+06 -3.514392e+06
## [569,] -3.507800e+06 -3.941234e+06
## [570,] -7.861357e+06 -6.515342e+06
## [571,] -2.692676e+09 -8.993450e+08
## [572,] -1.985474e+09 -6.920742e+08
## [573,] -6.241622e+07 -3.239867e+07
## [574,] -2.931305e+06 -3.545288e+06
## [575,] -3.544649e+06 -3.974417e+06
## [576,] -8.225408e+06 -6.784652e+06
## [577,] -2.760729e+09 -1.044473e+09
## [578,] -1.594741e+09 -5.281143e+08
## [579,] -5.836193e+07 -3.041322e+07
## [580,] -2.964662e+06 -3.579139e+06
## [581,] -3.475821e+06 -3.897642e+06
## [582,] -8.314881e+06 -6.954010e+06
## [583,] -2.839636e+09 -1.002730e+09
## [584,] -2.021645e+09 -7.221901e+08
## [585,] -6.293759e+07 -3.277460e+07
## [586,] -3.018904e+06 -3.624502e+06
## [587,] -3.554104e+06 -3.960962e+06
## [588,] -8.181802e+06 -6.701614e+06
## [589,] -2.829630e+09 -9.675801e+08
## [590,] -2.208048e+09 -7.619192e+08
## [591,] -6.529634e+07 -3.435997e+07
## [592,] -3.047608e+06 -3.621802e+06
## [593,] -3.567277e+06 -3.978781e+06
```

```

## [594,] -8.208630e+06 -6.688707e+06
## [595,] -2.829387e+09 -9.907673e+08
## [596,] -2.006877e+09 -8.072717e+08
## [597,] -6.944450e+07 -3.364542e+07
## [598,] -3.055488e+06 -3.627552e+06
## [599,] -3.581296e+06 -3.989666e+06
## [600,] -8.085669e+06 -6.732104e+06
## [601,] -2.682617e+09 -8.991159e+08
## [602,] -1.794765e+09 -6.876124e+08
## [603,] -6.549033e+07 -3.352411e+07
## [604,] -3.026875e+06 -3.653165e+06
## [605,] -3.592446e+06 -3.981830e+06
## [606,] -8.261090e+06 -6.711247e+06
## [607,] -2.605860e+09 -9.386193e+08
## [608,] -1.956257e+09 -7.003937e+08
## [609,] -6.584197e+07 -3.487960e+07
## [610,] -3.013978e+06 -3.658939e+06
## [611,] -3.552681e+06 -4.004491e+06
## [612,] -8.144564e+06 -6.680283e+06
## [613,] -2.605860e+09 -9.673900e+08
## [614,] -2.028671e+09 -7.263917e+08
## [615,] -6.652315e+07 -3.450971e+07
## [616,] -3.032132e+06 -3.638994e+06
## [617,] -3.556381e+06 -3.990759e+06
## [618,] -8.213009e+06 -6.674098e+06
## [619,] -2.899135e+09 -9.790198e+08
## [620,] -1.885160e+09 -7.090070e+08
## [621,] -6.912147e+07 -3.513635e+07
## [622,] -2.988201e+06 -3.639064e+06
## [623,] -3.555562e+06 -3.989892e+06
## [624,] -8.217389e+06 -6.684233e+06
## [625,] -3.092877e+09 -1.142773e+09
## [626,] -2.192542e+09 -7.843032e+08
## [627,] -6.756404e+07 -3.342069e+07
## [628,] -3.003756e+06 -3.633445e+06
## [629,] -3.593697e+06 -3.981190e+06
## [630,] -8.146457e+06 -6.787582e+06
## [631,] -3.010418e+09 -1.068359e+09
## [632,] -2.177303e+09 -7.888103e+08
## [633,] -7.391339e+07 -3.601946e+07
## [634,] -3.176798e+06 -3.739406e+06
## [635,] -3.420986e+06 -3.924620e+06
## [636,] -8.366513e+06 -7.058343e+06
## [637,] -2.692042e+09 -9.557351e+08
## [638,] -1.992163e+09 -6.874922e+08
## [639,] -6.740463e+07 -3.477411e+07
## [640,] -2.983173e+06 -3.588166e+06

```

```

## [641,] -3.576156e+06 -4.023505e+06
## [642,] -8.182545e+06 -6.683712e+06
## [643,] -2.567628e+09 -9.556406e+08
## [644,] -2.028396e+09 -6.621277e+08
## [645,] -7.003274e+07 -3.705012e+07
## [646,] -3.029790e+06 -3.642120e+06
## [647,] -3.556807e+06 -3.989251e+06
## [648,] -8.209952e+06 -6.751945e+06
## [649,] -2.634170e+09 -9.556406e+08
## [650,] -2.124494e+09 -7.661078e+08
## [651,] -6.760173e+07 -3.430000e+07
## [652,] -2.988455e+06 -3.676430e+06
## [653,] -3.589370e+06 -4.004075e+06
## [654,] -8.680333e+06 -7.013371e+06
## [655,] -3.292623e+09 -1.245600e+09
## [656,] -2.109495e+09 -7.750724e+08
## [657,] -6.591640e+07 -3.407309e+07
## [658,] -3.019541e+06 -3.676500e+06
## [659,] -3.566279e+06 -3.965994e+06
## [660,] -9.105948e+06 -7.163994e+06
## [661,] -2.799073e+09 -1.013986e+09
## [662,] -2.042828e+09 -6.872919e+08
## [663,] -6.867633e+07 -3.506666e+07
## [664,] -2.916817e+06 -3.490230e+06
## [665,] -3.502747e+06 -3.916437e+06
## [666,] -8.333268e+06 -6.732778e+06
## [667,] -2.653102e+09 -9.440100e+08
## [668,] -2.042828e+09 -6.578421e+08
## [669,] -6.781170e+07 -3.606534e+07
## [670,] -3.032579e+06 -3.636639e+06
## [671,] -3.556202e+06 -3.986650e+06
## [672,] -8.455575e+06 -6.880374e+06
## [673,] -2.740136e+09 -9.382448e+08
## [674,] -2.072194e+09 -7.348315e+08
## [675,] -6.595363e+07 -3.471378e+07
## [676,] -3.174597e+06 -3.742788e+06
## [677,] -3.593518e+06 -3.979044e+06
## [678,] -8.270625e+06 -6.894676e+06
## [679,] -2.624142e+09 -9.961125e+08
## [680,] -1.991549e+09 -6.913909e+08
## [681,] -6.786205e+07 -3.399554e+07
## [682,] -3.027641e+06 -3.645457e+06
## [683,] -3.424650e+06 -3.882010e+06
## [684,] -8.265650e+06 -6.877576e+06
## [685,] -2.473437e+09 -8.985203e+08
## [686,] -2.214599e+09 -7.975179e+08
## [687,] -7.119087e+07 -3.750819e+07

```

```

## [688,] -3.045900e+06 -3.659781e+06
## [689,] -3.659343e+06 -4.075979e+06
## [690,] -8.339013e+06 -6.831450e+06
## [691,] -2.749501e+09 -9.783983e+08
## [692,] -2.005919e+09 -7.302338e+08
## [693,] -7.280236e+07 -3.881067e+07
## [694,] -3.079965e+06 -3.665631e+06
## [695,] -3.619208e+06 -4.015900e+06
## [696,] -8.295106e+06 -6.873040e+06
## [697,] -2.918086e+09 -1.001811e+09
## [698,] -1.912505e+09 -7.171000e+08
## [699,] -7.104012e+07 -3.663465e+07
## [700,] -3.017523e+06 -3.640044e+06
## [701,] -3.614651e+06 -4.028804e+06
## [702,] -8.931637e+06 -7.072984e+06
## [703,] -2.652472e+09 -9.841415e+08
## [704,] -2.183952e+09 -8.628146e+08
## [705,] -7.158334e+07 -3.974816e+07
## [706,] -2.981358e+06 -3.566429e+06
## [707,] -3.557055e+06 -3.946515e+06
## [708,] -8.285725e+06 -6.714835e+06
## [709,] -2.538524e+09 -9.208696e+08
## [710,] -1.976756e+09 -7.213689e+08
## [711,] -7.682493e+07 -4.095458e+07
## [712,] -3.074860e+06 -3.660062e+06
## [713,] -3.426082e+06 -4.018093e+06
## [714,] -8.955092e+06 -6.866238e+06
## [715,] -2.788413e+09 -1.244953e+09
## [716,] -2.497593e+09 -9.061444e+08
## [717,] -6.286009e+07 -3.200420e+07
## [718,] -3.007295e+06 -3.637338e+06
## [719,] -3.489128e+06 -3.964302e+06
## [720,] -8.432952e+06 -7.176967e+06
## [721,] -1.413805e+09 -5.361381e+08
## [722,] -1.088696e+09 -4.104677e+08
## [723,] -2.734182e+07 -1.147078e+07
## [724,] -5.983211e+03 -5.129751e+04
## [725,] -4.226535e+04 -8.209777e+04
## [726,] -9.211431e+05 -5.829530e+05
## [727,] -1.692680e+09 -6.686075e+08
## [728,] -1.336966e+09 -4.647420e+08
## [729,] -2.636559e+07 -1.118895e+07
## [730,] -9.795508e+03 -4.699992e+04
## [731,] -4.380346e+04 -8.595331e+04
## [732,] -9.020372e+05 -5.570058e+05
## [733,] -1.646917e+09 -6.258946e+08
## [734,] -1.243684e+09 -4.682130e+08

```

```
## [735,] -2.478557e+07 -1.070918e+07
## [736,] -9.799138e+03 -4.963052e+04
## [737,] -4.504414e+04 -8.595331e+04
## [738,] -8.997656e+05 -5.587934e+05
## [739,] -1.624302e+09 -6.073803e+08
## [740,] -1.301555e+09 -4.542764e+08
## [741,] -2.530938e+07 -1.091567e+07
## [742,] -9.506131e+03 -4.831029e+04
## [743,] -4.380346e+04 -8.480659e+04
## [744,] -9.065890e+05 -5.750106e+05
## [745,] -1.631823e+09 -6.399627e+08
## [746,] -1.237969e+09 -4.682130e+08
## [747,] -2.541480e+07 -1.091567e+07
## [748,] -9.947310e+03 -4.831029e+04
## [749,] -4.400904e+04 -8.281835e+04
## [750,] -9.295198e+05 -5.659724e+05
## [751,] -2.857739e+09 -1.258141e+09
## [752,] -2.056826e+09 -7.213278e+08
## [753,] -6.984877e+07 -3.553056e+07
## [754,] -3.088081e+06 -3.717498e+06
## [755,] -3.563855e+06 -3.982995e+06
## [756,] -8.209540e+06 -6.813902e+06
## [757,] -3.029562e+09 -1.116838e+09
## [758,] -1.962221e+09 -7.169363e+08
## [759,] -6.658926e+07 -3.443439e+07
## [760,] -3.002251e+06 -3.640324e+06
## [761,] -3.561184e+06 -4.005659e+06
## [762,] -8.207062e+06 -6.767990e+06
## [763,] -2.594874e+09 -9.320306e+08
## [764,] -1.926386e+09 -6.953408e+08
## [765,] -6.455524e+07 -3.517534e+07
## [766,] -2.968747e+06 -3.583628e+06
## [767,] -3.602034e+06 -4.015483e+06
## [768,] -8.282654e+06 -6.824142e+06
## [769,] -2.613899e+09 -9.037947e+08
## [770,] -1.855838e+09 -7.125581e+08
## [771,] -7.163507e+07 -3.912927e+07
## [772,] -3.056771e+06 -3.743497e+06
## [773,] -3.621721e+06 -4.050078e+06
## [774,] -8.190879e+06 -6.809387e+06
## [775,] -2.768521e+09 -9.780637e+08
## [776,] -1.998181e+09 -7.038826e+08
## [777,] -6.763067e+07 -3.358876e+07
## [778,] -3.023027e+06 -3.737799e+06
## [779,] -3.551114e+06 -4.024449e+06
## [780,] -8.243283e+06 -6.782176e+06
## [781,] -2.988411e+09 -1.148047e+09
```

```

## [782,] -1.759154e+09 -6.244400e+08
## [783,] -6.474813e+07 -3.469850e+07
## [784,] -3.231444e+06 -3.789958e+06
## [785,] -3.620069e+06 -4.046357e+06
## [786,] -8.076737e+06 -6.705349e+06
## [787,] -2.417376e+09 -8.593861e+08
## [788,] -2.168316e+09 -8.248051e+08
## [789,] -6.408836e+07 -3.216606e+07
## [790,] -3.028343e+06 -3.649077e+06
## [791,] -3.659378e+06 -4.072055e+06
## [792,] -8.245188e+06 -6.827608e+06
## [793,] -2.807648e+09 -1.043091e+09
## [794,] -2.100789e+09 -7.697989e+08
## [795,] -7.010058e+07 -3.671795e+07
## [796,] -3.127848e+06 -3.692012e+06
## [797,] -3.630451e+06 -4.061287e+06
## [798,] -8.224584e+06 -6.696915e+06
## [799,] -2.877211e+09 -1.007283e+09
## [800,] -1.990731e+09 -6.655595e+08
## [801,] -8.813173e+07 -4.347188e+07
## [802,] -2.997339e+06 -3.516456e+06
## [803,] -3.649170e+06 -4.043511e+06
## [804,] -8.505875e+06 -7.045941e+06
## [805,] -2.661371e+09 -9.374959e+08
## [806,] -2.138063e+09 -7.878662e+08
## [807,] -7.187712e+07 -3.749231e+07
## [808,] -3.093712e+06 -3.703556e+06
## [809,] -3.622151e+06 -4.070304e+06
## [810,] -8.222104e+06 -6.819097e+06
## [811,] -2.594485e+09 -9.432119e+08
## [812,] -1.976213e+09 -7.037204e+08
## [813,] -6.768096e+07 -3.423385e+07
## [814,] -2.981928e+06 -3.643520e+06
## [815,] -3.545995e+06 -4.020967e+06
## [816,] -8.222104e+06 -6.800361e+06
## [817,] -2.690298e+09 -8.923936e+08
## [818,] -2.056341e+09 -6.866109e+08
## [819,] -6.716531e+07 -3.435644e+07
## [820,] -3.093712e+06 -3.706427e+06
## [821,] -3.580365e+06 -4.037821e+06
## [822,] -8.500830e+06 -6.946411e+06
## [823,] -2.699816e+09 -9.546015e+08
## [824,] -1.664807e+09 -5.922056e+08
## [825,] -6.002657e+07 -3.150055e+07
## [826,] -3.114931e+06 -3.703768e+06
## [827,] -3.649602e+06 -4.065698e+06
## [828,] -8.666578e+06 -7.051759e+06

```



```
## [829,] -2.584688e+09 -9.660595e+08
## [830,] -1.876269e+09 -6.949782e+08
## [831,] -6.842211e+07 -3.426963e+07
## [832,] -3.044322e+06 -3.672329e+06
## [833,] -3.520601e+06 -4.023389e+06
## [834,] -8.426172e+06 -6.948159e+06
## [835,] -2.132578e+09 -7.533219e+08
## [836,] -2.160342e+09 -7.922545e+08
## [837,] -7.104403e+07 -3.714602e+07
## [838,] -3.007995e+06 -3.678048e+06
## [839,] -3.613251e+06 -4.049014e+06
## [840,] -8.377612e+06 -7.189951e+06
## [841,] -2.641781e+09 -9.718141e+08
## [842,] -1.841231e+09 -6.241345e+08
## [843,] -7.000213e+07 -3.576504e+07
## [844,] -3.120328e+06 -3.692435e+06
## [845,] -3.513453e+06 -3.978477e+06
## [846,] -8.358761e+06 -6.836804e+06
## [847,] -2.380260e+09 -8.535732e+08
## [848,] -2.019310e+09 -7.164453e+08
## [849,] -6.775641e+07 -3.453311e+07
## [850,] -3.277851e+06 -3.825601e+06
## [851,] -3.595876e+06 -4.036532e+06
## [852,] -8.136341e+06 -6.784580e+06
## [853,] -2.787283e+09 -1.042696e+09
## [854,] -2.033848e+09 -7.294906e+08
## [855,] -6.811408e+07 -3.478858e+07
## [856,] -3.023728e+06 -3.695443e+06
## [857,] -3.646286e+06 -4.076053e+06
## [858,] -8.790699e+06 -7.125382e+06
## [859,] -2.718743e+09 -9.543182e+08
## [860,] -1.954095e+09 -7.426536e+08
## [861,] -7.233644e+07 -3.834096e+07
## [862,] -3.088983e+06 -3.704121e+06
## [863,] -3.617412e+06 -4.047495e+06
## [864,] -8.220368e+06 -6.836276e+06
## [865,] -2.806838e+09 -9.716235e+08
## [866,] -2.545243e+09 -9.102966e+08
## [867,] -6.848533e+07 -3.334042e+07
## [868,] -3.123222e+06 -3.735837e+06
## [869,] -3.665262e+06 -4.094129e+06
## [870,] -8.309814e+06 -6.842535e+06
## [871,] -2.641467e+09 -9.143898e+08
## [872,] -2.026400e+09 -6.777770e+08
## [873,] -7.075585e+07 -3.370401e+07
## [874,] -3.110056e+06 -3.712809e+06
## [875,] -3.616586e+06 -4.021004e+06
```

```

## [876,] -8.390303e+06 -6.909299e+06
## [877,] -2.728311e+09 -1.030545e+09
## [878,] -2.026331e+09 -7.469977e+08
## [879,] -7.928718e+07 -4.032926e+07
## [880,] -3.036902e+06 -3.598804e+06
## [881,] -3.613896e+06 -4.006375e+06
## [882,] -8.578521e+06 -7.022999e+06
## [883,] -2.846397e+09 -1.122257e+09
## [884,] -2.114914e+09 -8.619619e+08
## [885,] -7.112134e+07 -3.993144e+07
## [886,] -2.998037e+06 -3.655619e+06
## [887,] -3.650466e+06 -4.064632e+06
## [888,] -8.311726e+06 -6.838011e+06
## [889,] -2.660504e+09 -8.752695e+08
## [890,] -1.918201e+09 -6.692769e+08
## [891,] -6.542738e+07 -3.420974e+07
## [892,] -3.128626e+06 -3.741747e+06
## [893,] -3.671116e+06 -4.092373e+06
## [894,] -8.249744e+06 -6.863067e+06
## [895,] -2.508896e+09 -9.541766e+08
## [896,] -2.144721e+09 -9.597605e+08
## [897,] -7.009166e+07 -3.633199e+07
## [898,] -2.995582e+06 -3.573521e+06
## [899,] -3.614111e+06 -4.000712e+06
## [900,] -8.566449e+06 -7.326051e+06
## [901,] -2.641153e+09 -9.714330e+08
## [902,] -2.144651e+09 -7.468724e+08
## [903,] -6.768476e+07 -3.522343e+07
## [904,] -3.144671e+06 -3.733309e+06
## [905,] -3.657355e+06 -4.083789e+06
## [906,] -8.269799e+06 -6.868809e+06
## [907,] -2.747498e+09 -8.917546e+08
## [908,] -2.077426e+09 -7.691206e+08
## [909,] -6.995486e+07 -3.648596e+07
## [910,] -3.050233e+06 -3.727618e+06
## [911,] -3.669670e+06 -4.100774e+06
## [912,] -8.440241e+06 -6.979891e+06
## [913,] -2.747338e+09 -9.712901e+08
## [914,] -1.819689e+09 -6.196695e+08
## [915,] -6.668037e+07 -3.376614e+07
## [916,] -3.158041e+06 -3.739217e+06
## [917,] -3.612675e+06 -4.068170e+06
## [918,] -8.535336e+06 -7.028273e+06
## [919,] -3.408205e+09 -1.185254e+09
## [920,] -1.989572e+09 -6.156375e+08
## [921,] -6.719416e+07 -3.511741e+07
## [922,] -2.962431e+06 -3.690415e+06

```

```
## [923,] -3.683055e+06 -4.085123e+06
## [924,] -8.321872e+06 -6.897405e+06
## [925,] -2.717946e+09 -9.252792e+08
## [926,] -2.528208e+09 -9.246219e+08
## [927,] -6.586565e+07 -3.489683e+07
## [928,] -3.275948e+06 -3.843989e+06
## [929,] -3.670103e+06 -4.121126e+06
## [930,] -8.752868e+06 -6.932892e+06
## [931,] -2.806028e+09 -9.195715e+08
## [932,] -2.018348e+09 -7.158727e+08
## [933,] -7.195881e+07 -3.806617e+07
## [934,] -3.092379e+06 -3.659173e+06
## [935,] -3.595517e+06 -4.008602e+06
## [936,] -8.541150e+06 -7.078049e+06
## [937,] -3.161999e+09 -1.204266e+09
## [938,] -2.106618e+09 -7.464966e+08
## [939,] -7.449263e+07 -3.418563e+07
## [940,] -3.113528e+06 -3.636522e+06
## [941,] -3.687474e+06 -4.123577e+06
## [942,] -8.330110e+06 -6.917488e+06
## [943,] -2.678740e+09 -9.767259e+08
## [944,] -1.931565e+09 -7.070551e+08
## [945,] -7.131479e+07 -3.657833e+07
## [946,] -3.171962e+06 -3.771724e+06
## [947,] -3.724632e+06 -4.128904e+06
## [948,] -8.384877e+06 -6.923254e+06
## [949,] -3.026870e+09 -1.152866e+09
## [950,] -1.952879e+09 -7.199740e+08
## [951,] -5.725033e+07 -3.053056e+07
## [952,] -3.336080e+06 -3.885546e+06
## [953,] -3.684974e+06 -4.128904e+06
## [954,] -8.489151e+06 -6.999027e+06
## [955,] -2.835159e+09 -9.650147e+08
## [956,] -2.158709e+09 -7.776340e+08
## [957,] -6.975823e+07 -3.659682e+07
## [958,] -3.116485e+06 -3.745769e+06
## [959,] -3.695449e+06 -4.102148e+06
## [960,] -8.271873e+06 -6.864428e+06
## [961,] -2.678423e+09 -9.361862e+08
## [962,] -1.988754e+09 -6.940116e+08
## [963,] -6.786090e+07 -3.497813e+07
## [964,] -3.169436e+06 -3.768970e+06
## [965,] -3.702162e+06 -4.143102e+06
## [966,] -8.379868e+06 -6.943906e+06
## [967,] -3.026618e+09 -1.096457e+09
## [968,] -2.593032e+09 -1.062066e+09
## [969,] -6.702647e+07 -3.524432e+07
```

```

## [970,] -3.098273e+06 -3.725800e+06
## [971,] -3.719390e+06 -4.151325e+06
## [972,] -8.458179e+06 -6.996205e+06
## [973,] -2.668627e+09 -8.965972e+08
## [974,] -2.098618e+09 -7.684850e+08
## [975,] -7.280118e+07 -3.586842e+07
## [976,] -3.127221e+06 -3.720044e+06
## [977,] -3.660962e+06 -4.129364e+06
## [978,] -8.574386e+06 -7.050996e+06
## [979,] -2.884591e+09 -1.053578e+09
## [980,] -2.098548e+09 -7.372842e+08
## [981,] -6.825672e+07 -3.464369e+07
## [982,] -3.177669e+06 -3.798269e+06
## [983,] -3.725287e+06 -4.151555e+06
## [984,] -8.513365e+06 -6.932514e+06
## [985,] -2.795032e+09 -9.762961e+08
## [986,] -2.196132e+09 -6.895436e+08
## [987,] -5.924905e+07 -3.105455e+07
## [988,] -3.127415e+06 -3.766431e+06
## [989,] -3.707427e+06 -4.148672e+06
## [990,] -8.513365e+06 -7.014674e+06
## [991,] -2.765546e+09 -9.821289e+08
## [992,] -2.430137e+09 -9.239250e+08
## [993,] -8.034927e+07 -4.055279e+07
## [994,] -3.249998e+06 -3.862637e+06
## [995,] -3.712261e+06 -4.151786e+06
## [996,] -8.137989e+06 -6.779852e+06
## [997,] -2.629936e+09 -9.646350e+08
## [998,] -2.076103e+09 -6.767826e+08
## [999,] -6.810911e+07 -3.552973e+07
## [1000,] -2.963567e+06 -3.663080e+06
## [1001,] -3.724668e+06 -4.148903e+06
## [1002,] -8.466484e+06 -7.041812e+06
## [1003,] -3.373950e+09 -1.077717e+09
## [1004,] -2.105706e+09 -7.459539e+08
## [1005,] -6.951090e+07 -3.654417e+07
## [1006,] -3.161931e+06 -3.769469e+06
## [1007,] -3.715206e+06 -4.140913e+06
## [1008,] -8.494362e+06 -7.035462e+06
## [1009,] -2.736057e+09 -1.017393e+09
## [1010,] -2.017250e+09 -6.682889e+08
## [1011,] -6.728568e+07 -3.505953e+07
## [1012,] -3.220684e+06 -3.807353e+06
## [1013,] -3.708917e+06 -4.140259e+06
## [1014,] -8.542669e+06 -7.092173e+06
## [1015,] -2.784783e+09 -1.047190e+09
## [1016,] -1.995313e+09 -7.238402e+08

```

```

## [1017,] -6.748260e+07 -3.532602e+07
## [1018,] -3.186109e+06 -3.807496e+06
## [1019,] -3.725104e+06 -4.165368e+06
## [1020,] -8.331609e+06 -7.026288e+06
## [1021,] -2.687207e+09 -9.073804e+08
## [1022,] -1.966295e+09 -7.369108e+08
## [1023,] -6.870434e+07 -3.608564e+07
## [1024,] -3.202170e+06 -3.810479e+06
## [1025,] -3.756525e+06 -4.182522e+06
## [1026,] -8.446946e+06 -6.973344e+06
## [1027,] -2.824024e+09 -1.059139e+09
## [1028,] -2.083013e+09 -7.680191e+08
## [1029,] -7.063903e+07 -3.374489e+07
## [1030,] -3.266616e+06 -3.860210e+06
## [1031,] -3.741546e+06 -4.206867e+06
## [1032,] -8.379452e+06 -7.006735e+06
## [1033,] -2.515864e+09 -9.527137e+08
## [1034,] -1.944638e+09 -6.977268e+08
## [1035,] -7.511909e+07 -3.775763e+07
## [1036,] -3.353521e+06 -3.913214e+06
## [1037,] -3.684827e+06 -4.114806e+06
## [1038,] -8.722357e+06 -7.243093e+06
## [1039,] -3.025525e+09 -1.145718e+09
## [1040,] -2.009490e+09 -7.280054e+08
## [1041,] -7.137034e+07 -3.699911e+07
## [1042,] -3.207707e+06 -3.807783e+06
## [1043,] -3.821901e+06 -4.225231e+06
## [1044,] -8.257120e+06 -6.901195e+06
## [1045,] -2.359285e+09 -8.573265e+08
## [1046,] -1.951664e+09 -7.192360e+08
## [1047,] -6.754539e+07 -3.537145e+07
## [1048,] -3.215793e+06 -3.831175e+06
## [1049,] -3.709570e+06 -4.176966e+06
## [1050,] -8.450802e+06 -7.021168e+06
## [1051,] -1.654491e+09 -6.541872e+08
## [1052,] -1.421189e+09 -5.260298e+08
## [1053,] -2.595297e+07 -1.071418e+07
## [1054,] -1.602704e+04 -5.865468e+04
## [1055,] -5.275240e+04 -9.048662e+04
## [1056,] -8.431120e+05 -5.264270e+05
## [1057,] -1.371953e+09 -5.147058e+08
## [1058,] -1.209540e+09 -4.439300e+08
## [1059,] -2.510686e+07 -1.010639e+07
## [1060,] -1.117661e+04 -4.897630e+04
## [1061,] -4.599815e+04 -8.640194e+04
## [1062,] -9.148994e+05 -5.457012e+05
## [1063,] -1.579480e+09 -6.165647e+08

```

```
## [1064,] -1.215189e+09 -4.611856e+08
## [1065,] -2.542251e+07 -1.030701e+07
## [1066,] -1.055489e+04 -5.165255e+04
## [1067,] -4.495208e+04 -8.726929e+04
## [1068,] -9.034893e+05 -5.492428e+05
## [1069,] -1.654428e+09 -5.891068e+08
## [1070,] -1.220851e+09 -4.507927e+08
## [1071,] -2.448148e+07 -1.010639e+07
## [1072,] -1.101951e+04 -4.963869e+04
## [1073,] -4.620881e+04 -8.669057e+04
## [1074,] -8.989453e+05 -5.617287e+05
## [1075,] -1.594330e+09 -5.936397e+08
## [1076,] -1.175923e+09 -4.716968e+08
## [1077,] -2.437802e+07 -1.057758e+07
## [1078,] -1.149415e+04 -5.064061e+04
## [1079,] -4.705626e+04 -8.640194e+04
## [1080,] -8.966776e+05 -5.545767e+05
## [1081,] -2.833613e+09 -1.083342e+09
## [1082,] -2.038548e+09 -7.191950e+08
## [1083,] -6.705528e+07 -3.452331e+07
## [1084,] -3.234675e+06 -3.857640e+06
## [1085,] -3.755281e+06 -4.199285e+06
## [1086,] -8.466653e+06 -7.003912e+06
## [1087,] -3.014945e+09 -1.107971e+09
## [1088,] -1.908698e+09 -7.018163e+08
## [1089,] -8.474120e+07 -3.976948e+07
## [1090,] -3.315790e+06 -3.913649e+06
## [1091,] -3.763110e+06 -4.213603e+06
## [1092,] -8.629527e+06 -7.031028e+06
## [1093,] -2.609681e+09 -1.016711e+09
## [1094,] -1.958499e+09 -6.224557e+08
## [1095,] -6.812554e+07 -3.642053e+07
## [1096,] -3.173464e+06 -3.814036e+06
## [1097,] -3.686529e+06 -4.100694e+06
## [1098,] -8.832045e+06 -7.395053e+06
## [1099,] -3.004468e+09 -1.335602e+09
## [1100,] -1.965618e+09 -6.761467e+08
## [1101,] -6.865752e+07 -3.517727e+07
## [1102,] -3.232257e+06 -3.866723e+06
## [1103,] -3.770946e+06 -4.219879e+06
## [1104,] -8.526328e+06 -7.020099e+06
## [1105,] -2.638248e+09 -9.408666e+08
## [1106,] -2.023580e+09 -6.719347e+08
## [1107,] -7.650135e+07 -3.913129e+07
## [1108,] -3.170873e+06 -3.790839e+06
## [1109,] -3.727252e+06 -4.167639e+06
## [1110,] -8.593819e+06 -7.145182e+06
```

```

## [1111,] -2.686257e+09 -9.522892e+08
## [1112,] -2.202379e+09 -7.901910e+08
## [1113,] -7.025305e+07 -3.733821e+07
## [1114,] -3.165694e+06 -3.808427e+06
## [1115,] -3.792154e+06 -4.214067e+06
## [1116,] -8.560715e+06 -7.032252e+06
## [1117,] -3.148781e+09 -1.145097e+09
## [1118,] -1.965347e+09 -7.275518e+08
## [1119,] -6.664180e+07 -3.508942e+07
## [1120,] -3.245944e+06 -3.867011e+06
## [1121,] -3.770543e+06 -4.239631e+06
## [1122,] -8.724488e+06 -7.129544e+06
## [1123,] -2.647437e+09 -9.578608e+08
## [1124,] -2.001404e+09 -7.101125e+08
## [1125,] -7.064292e+07 -3.775109e+07
## [1126,] -3.224612e+06 -3.873024e+06
## [1127,] -3.756377e+06 -4.196423e+06
## [1128,] -8.518164e+06 -7.076212e+06
## [1129,] -2.477540e+09 -9.635910e+08
## [1130,] -1.979621e+09 -7.187443e+08
## [1131,] -6.838687e+07 -3.585566e+07
## [1132,] -3.240769e+06 -3.887788e+06
## [1133,] -3.780295e+06 -4.231786e+06
## [1134,] -8.578611e+06 -6.997733e+06
## [1135,] -2.561669e+09 -9.577662e+08
## [1136,] -2.015740e+09 -6.885407e+08
## [1137,] -6.910645e+07 -3.438522e+07
## [1138,] -3.243521e+06 -3.884919e+06
## [1139,] -3.794726e+06 -4.251099e+06
## [1140,] -8.429526e+06 -6.982791e+06
## [1141,] -2.862395e+09 -1.132311e+09
## [1142,] -1.893750e+09 -7.186214e+08
## [1143,] -6.653334e+07 -3.563277e+07
## [1144,] -3.251651e+06 -3.902652e+06
## [1145,] -3.915233e+06 -4.307030e+06
## [1146,] -8.636730e+06 -7.088413e+06
## [1147,] -2.618352e+09 -9.808362e+08
## [1148,] -1.950584e+09 -7.273045e+08
## [1149,] -6.705908e+07 -3.477247e+07
## [1150,] -3.240967e+06 -3.858649e+06
## [1151,] -3.787305e+06 -4.233145e+06
## [1152,] -8.754153e+06 -7.233398e+06
## [1153,] -2.627899e+09 -9.634012e+08
## [1154,] -2.186606e+09 -7.360813e+08
## [1155,] -7.212232e+07 -3.652205e+07
## [1156,] -3.192813e+06 -3.896833e+06
## [1157,] -3.707533e+06 -4.210968e+06

```

```

## [1158,] -8.540480e+06 -7.051995e+06
## [1159,] -2.912145e+09 -9.345970e+08
## [1160,] -1.858417e+09 -7.228537e+08
## [1161,] -5.703328e+07 -3.118502e+07
## [1162,] -3.257231e+06 -3.885209e+06
## [1163,] -3.683231e+06 -4.159013e+06
## [1164,] -9.288017e+06 -7.455712e+06
## [1165,] -2.743574e+09 -1.064117e+09
## [1166,] -2.156153e+09 -7.626009e+08
## [1167,] -7.145174e+07 -3.680331e+07
## [1168,] -3.246605e+06 -3.850152e+06
## [1169,] -3.755352e+06 -4.241689e+06
## [1170,] -8.936040e+06 -7.211235e+06
## [1171,] -2.646651e+09 -9.344568e+08
## [1172,] -1.943088e+09 -6.671436e+08
## [1173,] -6.990645e+07 -3.557170e+07
## [1174,] -3.187877e+06 -3.853223e+06
## [1175,] -3.833934e+06 -4.266206e+06
## [1176,] -8.618944e+06 -7.053220e+06
## [1177,] -2.598765e+09 -9.286743e+08
## [1178,] -1.964466e+09 -6.628812e+08
## [1179,] -6.766229e+07 -3.545606e+07
## [1180,] -3.279135e+06 -3.894396e+06
## [1181,] -3.833084e+06 -4.257208e+06
## [1182,] -8.532309e+06 -7.101855e+06
## [1183,] -3.085233e+09 -1.009902e+09
## [1184,] -2.186106e+09 -8.833507e+08
## [1185,] -6.731835e+07 -3.520721e+07
## [1186,] -3.276501e+06 -3.918052e+06
## [1187,] -3.837998e+06 -4.254288e+06
## [1188,] -8.564767e+06 -7.093175e+06
## [1189,] -2.513795e+09 -9.285812e+08
## [1190,] -1.942819e+09 -6.880996e+08
## [1191,] -6.563657e+07 -3.559905e+07
## [1192,] -3.292854e+06 -3.909345e+06
## [1193,] -3.888360e+06 -4.321568e+06
## [1194,] -8.665057e+06 -7.082197e+06
## [1195,] -2.752785e+09 -1.003842e+09
## [1196,] -2.208706e+09 -6.711426e+08
## [1197,] -7.423584e+07 -3.854857e+07
## [1198,] -3.290214e+06 -3.903521e+06
## [1199,] -3.767647e+06 -4.240600e+06
## [1200,] -9.174478e+06 -7.622528e+06
## [1201,] -2.742854e+09 -1.009659e+09
## [1202,] -1.928275e+09 -6.836907e+08
## [1203,] -7.444268e+07 -3.689608e+07
## [1204,] -3.263347e+06 -3.921369e+06

```



```
## [1205,] -3.852983e+06 -4.278178e+06
## [1206,] -8.760810e+06 -7.233011e+06
## [1207,] -2.831254e+09 -9.340364e+08
## [1208,] -2.088119e+09 -7.050247e+08
## [1209,] -7.829729e+07 -3.767231e+07
## [1210,] -3.306735e+06 -3.915608e+06
## [1211,] -3.868628e+06 -4.288565e+06
## [1212,] -8.822111e+06 -7.198543e+06
## [1213,] -2.636207e+09 -9.800705e+08
## [1214,] -2.029095e+09 -6.920804e+08
## [1215,] -7.304400e+07 -3.769107e+07
## [1216,] -3.247398e+06 -3.921586e+06
## [1217,] -3.806274e+06 -4.269401e+06
## [1218,] -8.621654e+06 -7.164158e+06
## [1219,] -2.626645e+09 -9.626424e+08
## [1220,] -2.087979e+09 -7.222786e+08
## [1221,] -7.197452e+07 -3.603892e+07
## [1222,] -3.236655e+06 -3.877404e+06
## [1223,] -3.821603e+06 -4.255222e+06
## [1224,] -8.548995e+06 -7.136246e+06
## [1225,] -3.874764e+09 -1.402989e+09
## [1226,] -1.892553e+09 -6.920402e+08
## [1227,] -6.641629e+07 -3.542243e+07
## [1228,] -3.215288e+06 -3.963122e+06
## [1229,] -3.697112e+06 -4.240172e+06
## [1230,] -8.654282e+06 -7.161842e+06
## [1231,] -2.569562e+09 -9.282087e+08
## [1232,] -2.200514e+09 -7.178432e+08
## [1233,] -7.041073e+07 -3.783849e+07
## [1234,] -3.255665e+06 -3.883498e+06
## [1235,] -3.871003e+06 -4.309377e+06
## [1236,] -8.968826e+06 -7.513696e+06
## [1237,] -2.674391e+09 -9.338029e+08
## [1238,] -2.021587e+09 -7.221554e+08
## [1239,] -7.615703e+07 -4.386482e+07
## [1240,] -3.304356e+06 -3.933702e+06
## [1241,] -3.868219e+06 -4.300334e+06
## [1242,] -8.700489e+06 -7.165393e+06
## [1243,] -2.860515e+09 -1.027065e+09
## [1244,] -1.753710e+09 -5.892712e+08
## [1245,] -7.169740e+07 -3.672553e+07
## [1246,] -3.277431e+06 -3.907266e+06
## [1247,] -3.829943e+06 -4.245807e+06
## [1248,] -8.582837e+06 -7.179989e+06
## [1249,] -2.616554e+09 -9.681015e+08
## [1250,] -1.970578e+09 -7.132990e+08
## [1251,] -6.803613e+07 -3.585205e+07
```

```
## [1252,] -3.272099e+06 -3.919141e+06
## [1253,] -3.840622e+06 -4.285439e+06
## [1254,] -8.777718e+06 -7.235494e+06
## [1255,] -2.751662e+09 -9.972689e+08
## [1256,] -2.418312e+09 -7.797302e+08
## [1257,] -6.874120e+07 -3.536154e+07
## [1258,] -3.331794e+06 -3.966603e+06
## [1259,] -3.868664e+06 -4.327295e+06
## [1260,] -8.692837e+06 -7.196920e+06
## [1261,] -2.741893e+09 -9.622631e+08
## [1262,] -2.013957e+09 -7.046189e+08
## [1263,] -7.350703e+07 -3.815308e+07
## [1264,] -3.199720e+06 -3.875045e+06
## [1265,] -3.865881e+06 -4.312119e+06
## [1266,] -8.612852e+06 -7.156134e+06
## [1267,] -2.981064e+09 -1.118420e+09
## [1268,] -2.050455e+09 -8.681338e+08
## [1269,] -7.696991e+07 -3.868153e+07
## [1270,] -3.215814e+06 -3.869247e+06
## [1271,] -3.804396e+06 -4.210849e+06
## [1272,] -8.638427e+06 -7.198699e+06
## [1273,] -2.771092e+09 -9.912949e+08
## [1274,] -2.094699e+09 -7.571598e+08
## [1275,] -6.824677e+07 -3.587951e+07
## [1276,] -3.128215e+06 -3.884004e+06
## [1277,] -3.848760e+06 -4.292003e+06
## [1278,] -8.642920e+06 -7.183544e+06
## [1279,] -2.568787e+09 -9.448538e+08
## [1280,] -1.646320e+09 -5.812000e+08
## [1281,] -6.723820e+07 -3.564742e+07
## [1282,] -3.277829e+06 -3.913601e+06
## [1283,] -3.880697e+06 -4.327766e+06
## [1284,] -8.689692e+06 -7.181225e+06
## [1285,] -2.568632e+09 -9.447599e+08
## [1286,] -1.912983e+09 -7.173928e+08
## [1287,] -6.707918e+07 -3.491051e+07
## [1288,] -3.351215e+06 -3.981837e+06
## [1289,] -3.887577e+06 -4.332988e+06
## [1290,] -8.701256e+06 -7.185321e+06
## [1291,] -2.616085e+09 -9.447599e+08
## [1292,] -1.920086e+09 -7.001169e+08
## [1293,] -6.845774e+07 -3.578165e+07
## [1294,] -3.321246e+06 -3.949163e+06
## [1295,] -3.901130e+06 -4.347296e+06
## [1296,] -8.897469e+06 -7.202259e+06
## [1297,] -2.683168e+09 -1.014714e+09
## [1298,] -1.948559e+09 -7.525345e+08
```

```

## [1299,] -7.022627e+07 -3.468159e+07
## [1300,] -3.334986e+06 -3.964144e+06
## [1301,] -3.891670e+06 -4.343441e+06
## [1302,] -8.703212e+06 -7.180685e+06
## [1303,] -2.712133e+09 -9.910543e+08
## [1304,] -2.116682e+09 -7.976540e+08
## [1305,] -7.145957e+07 -3.680893e+07
## [1306,] -3.272696e+06 -3.905043e+06
## [1307,] -3.915155e+06 -4.345722e+06
## [1308,] -8.747588e+06 -7.214568e+06
## [1309,] -2.663656e+09 -9.734330e+08
## [1310,] -2.330685e+09 -8.821702e+08
## [1311,] -7.634386e+07 -3.980716e+07
## [1312,] -3.343297e+06 -3.991064e+06
## [1313,] -3.870630e+06 -4.368250e+06
## [1314,] -8.655810e+06 -7.150428e+06
## [1315,] -2.606247e+09 -9.734330e+08
## [1316,] -1.955524e+09 -7.128909e+08
## [1317,] -6.888065e+07 -3.596195e+07
## [1318,] -3.302645e+06 -3.943674e+06
## [1319,] -3.890181e+06 -4.382853e+06
## [1320,] -9.042206e+06 -7.449654e+06
## [1321,] -2.328365e+09 -7.803982e+08
## [1322,] -1.998602e+09 -6.659205e+08
## [1323,] -7.099407e+07 -3.736538e+07
## [1324,] -3.281062e+06 -3.934866e+06
## [1325,] -3.945641e+06 -4.326666e+06
## [1326,] -8.687908e+06 -7.205278e+06
## [1327,] -2.577467e+09 -9.558753e+08
## [1328,] -1.912449e+09 -7.127277e+08
## [1329,] -6.873237e+07 -3.535520e+07
## [1330,] -3.351752e+06 -3.964582e+06
## [1331,] -3.907840e+06 -4.358475e+06
## [1332,] -8.568399e+06 -7.134785e+06
## [1333,] -2.780026e+09 -8.879707e+08
## [1334,] -2.005793e+09 -7.257804e+08
## [1335,] -6.909259e+07 -3.662008e+07
## [1336,] -3.335455e+06 -3.988451e+06
## [1337,] -3.922513e+06 -4.361666e+06
## [1338,] -8.713594e+06 -7.241546e+06
## [1339,] -2.615381e+09 -9.790182e+08
## [1340,] -1.793675e+09 -6.492018e+08
## [1341,] -6.979034e+07 -3.573873e+07
## [1342,] -3.313697e+06 -3.979519e+06
## [1343,] -3.932235e+06 -4.359617e+06
## [1344,] -8.756034e+06 -7.260880e+06
## [1345,] -3.113727e+09 -1.092968e+09

```

```

## [1346,] -1.786746e+09 -6.533030e+08
## [1347,] -6.875771e+07 -3.587313e+07
## [1348,] -3.373769e+06 -3.994484e+06
## [1349,] -3.880956e+06 -4.325998e+06
## [1350,] -8.701427e+06 -7.243331e+06
## [1351,] -3.207869e+09 -1.050158e+09
## [1352,] -1.933523e+09 -7.169017e+08
## [1353,] -6.740121e+07 -3.589144e+07
## [1354,] -3.354753e+06 -4.033480e+06
## [1355,] -3.968649e+06 -4.371247e+06
## [1356,] -8.579291e+06 -7.260337e+06
## [1357,] -2.740533e+09 -9.847154e+08
## [1358,] -2.145936e+09 -8.866312e+08
## [1359,] -7.301273e+07 -4.001665e+07
## [1360,] -3.322049e+06 -3.893913e+06
## [1361,] -3.873451e+06 -4.324193e+06
## [1362,] -9.012231e+06 -7.573173e+06
## [1363,] -4.072183e+09 -1.725483e+09
## [1364,] -2.513694e+09 -9.060595e+08
## [1365,] -7.408987e+07 -4.068148e+07
## [1366,] -3.382196e+06 -4.012611e+06
## [1367,] -3.934629e+06 -4.378548e+06
## [1368,] -8.731649e+06 -7.219372e+06
## [1369,] -2.643743e+09 -9.327291e+08
## [1370,] -1.954916e+09 -6.953068e+08
## [1371,] -6.931759e+07 -3.527622e+07
## [1372,] -3.382263e+06 -4.009697e+06
## [1373,] -3.889138e+06 -4.328510e+06
## [1374,] -8.714957e+06 -7.229912e+06
## [1375,] -2.799232e+09 -9.846194e+08
## [1376,] -2.168399e+09 -7.609136e+08
## [1377,] -6.795555e+07 -3.504609e+07
## [1378,] -3.379588e+06 -4.018736e+06
## [1379,] -3.878614e+06 -4.333732e+06
## [1380,] -8.861383e+06 -7.324421e+06
## [1381,] -1.639300e+09 -6.027576e+08
## [1382,] -1.220851e+09 -4.507927e+08
## [1383,] -2.500208e+07 -1.050961e+07
## [1384,] -1.133873e+04 -5.234113e+04
## [1385,] -4.527667e+04 -8.627441e+04
## [1386,] -9.117855e+05 -5.610806e+05
## [1387,] -1.639238e+09 -5.981526e+08
## [1388,] -1.020073e+09 -3.876918e+08
## [1389,] -2.128637e+07 -9.074288e+06
## [1390,] -1.584341e+04 -5.794327e+04
## [1391,] -5.265276e+04 -9.302989e+04
## [1392,] -8.226655e+05 -5.223345e+05

```

```

## [1393,] -1.669564e+09 -6.258181e+08
## [1394,] -1.272346e+09 -4.611527e+08
## [1395,] -2.138306e+07 -9.074288e+06
## [1396,] -1.565624e+04 -6.011749e+04
## [1397,] -5.287813e+04 -9.362935e+04
## [1398,] -8.248377e+05 -5.206063e+05
## [1399,] -1.378809e+09 -5.062484e+08
## [1400,] -1.249304e+09 -4.751936e+08
## [1401,] -2.585421e+07 -1.085669e+07
## [1402,] -1.528979e+04 -5.759360e+04
## [1403,] -5.188065e+04 -9.319683e+04
## [1404,] -8.349508e+05 -5.251725e+05
## [1405,] -1.498924e+09 -5.359965e+08
## [1406,] -1.260744e+09 -4.681138e+08
## [1407,] -2.770334e+07 -1.149149e+07
## [1408,] -5.003268e+03 -4.354860e+04
## [1409,] -4.385081e+04 -8.833708e+04
## [1410,] -9.169968e+05 -5.669708e+05
## [1411,] -2.808941e+09 -9.554973e+08
## [1412,] -2.424716e+09 -7.970499e+08
## [1413,] -8.077326e+07 -4.426755e+07
## [1414,] -3.355021e+06 -4.045767e+06
## [1415,] -3.800861e+06 -4.288014e+06
## [1416,] -9.009029e+06 -7.439113e+06
## [1417,] -2.948867e+09 -1.037816e+09
## [1418,] -1.579997e+09 -5.345420e+08
## [1419,] -7.078312e+07 -3.582100e+07
## [1420,] -3.426568e+06 -4.012979e+06
## [1421,] -3.930326e+06 -4.363754e+06
## [1422,] -8.860782e+06 -7.317400e+06
## [1423,] -3.345963e+09 -1.148666e+09
## [1424,] -2.213604e+09 -8.911492e+08
## [1425,] -7.258124e+07 -3.864927e+07
## [1426,] -3.317148e+06 -4.019104e+06
## [1427,] -3.963688e+06 -4.407139e+06
## [1428,] -8.998647e+06 -7.468871e+06
## [1429,] -2.779059e+09 -1.043681e+09
## [1430,] -2.244096e+09 -8.432880e+08
## [1431,] -7.064565e+07 -3.698531e+07
## [1432,] -3.341710e+06 -4.016188e+06
## [1433,] -3.951113e+06 -4.412408e+06
## [1434,] -9.003232e+06 -7.310382e+06
## [1435,] -2.681585e+09 -8.929401e+08
## [1436,] -2.167829e+09 -7.922181e+08
## [1437,] -6.196955e+07 -3.279236e+07
## [1438,] -3.325437e+06 -3.935957e+06
## [1439,] -3.938559e+06 -4.290749e+06

```

```

## [1440,] -8.800716e+06 -7.217746e+06
## [1441,] -2.604765e+09 -9.436798e+08
## [1442,] -1.904360e+09 -6.991871e+08
## [1443,] -7.226398e+07 -3.880808e+07
## [1444,] -3.341844e+06 -3.977568e+06
## [1445,] -3.918252e+06 -4.375625e+06
## [1446,] -8.990864e+06 -7.396549e+06
## [1447,] -2.759201e+09 -9.725273e+08
## [1448,] -2.092811e+09 -7.649726e+08
## [1449,] -7.050831e+07 -3.600139e+07
## [1450,] -3.303845e+06 -3.944985e+06
## [1451,] -3.967181e+06 -4.423195e+06
## [1452,] -8.964168e+06 -7.391845e+06
## [1453,] -2.729746e+09 -9.666280e+08
## [1454,] -1.638135e+09 -5.802424e+08
## [1455,] -6.844011e+07 -3.614548e+07
## [1456,] -3.388562e+06 -4.046505e+06
## [1457,] -3.919559e+06 -4.391387e+06
## [1458,] -8.875810e+06 -7.350510e+06
## [1459,] -2.700448e+09 -9.038391e+08
## [1460,] -1.939654e+09 -6.947427e+08
## [1461,] -7.593329e+07 -3.898629e+07
## [1462,] -3.407945e+06 -4.058663e+06
## [1463,] -3.991986e+06 -4.439042e+06
## [1464,] -8.764058e+06 -7.165319e+06
## [1465,] -2.594793e+09 -9.433981e+08
## [1466,] -2.336677e+09 -8.010742e+08
## [1467,] -7.741301e+07 -3.965216e+07
## [1468,] -3.290702e+06 -4.025823e+06
## [1469,] -3.986333e+06 -4.433081e+06
## [1470,] -8.965550e+06 -7.569843e+06
## [1471,] -2.709905e+09 -9.093134e+08
## [1472,] -1.918077e+09 -6.734074e+08
## [1473,] -6.762724e+07 -3.618224e+07
## [1474,] -3.421998e+06 -4.037950e+06
## [1475,] -3.931895e+06 -4.375664e+06
## [1476,] -9.241945e+06 -7.604631e+06
## [1477,] -2.575528e+09 -9.604625e+08
## [1478,] -2.047895e+09 -7.379133e+08
## [1479,] -7.221596e+07 -3.799476e+07
## [1480,] -3.408351e+06 -4.038098e+06
## [1481,] -3.953550e+06 -4.412922e+06
## [1482,] -9.034147e+06 -7.429287e+06
## [1483,] -2.927252e+09 -1.061128e+09
## [1484,] -1.931978e+09 -6.774251e+08
## [1485,] -7.047370e+07 -3.635432e+07
## [1486,] -3.397480e+06 -4.050244e+06

```

```

## [1487,] -4.038110e+06 -4.493911e+06
## [1488,] -9.253257e+06 -7.654570e+06
## [1489,] -2.767955e+09 -1.001180e+09
## [1490,] -2.003808e+09 -7.202264e+08
## [1491,] -7.335265e+07 -3.778410e+07
## [1492,] -3.392119e+06 -4.044390e+06
## [1493,] -4.014712e+06 -4.446438e+06
## [1494,] -8.611587e+06 -7.103859e+06
## [1495,] -2.807078e+09 -9.717649e+08
## [1496,] -1.974729e+09 -6.646591e+08
## [1497,] -6.775298e+07 -3.614826e+07
## [1498,] -3.422541e+06 -4.065563e+06
## [1499,] -3.899784e+06 -4.382770e+06
## [1500,] -8.794560e+06 -7.308902e+06
## [1501,] -3.069551e+09 -1.079071e+09
## [1502,] -1.967390e+09 -7.464196e+08
## [1503,] -6.793799e+07 -3.628343e+07
## [1504,] -3.466903e+06 -4.092750e+06
## [1505,] -3.998358e+06 -4.460255e+06
## [1506,] -8.887069e+06 -7.341289e+06
## [1507,] -3.100611e+09 -1.270580e+09
## [1508,] -2.061980e+09 -6.771467e+08
## [1509,] -7.251103e+07 -3.553994e+07
## [1510,] -3.430960e+06 -4.047685e+06
## [1511,] -3.809471e+06 -4.321600e+06
## [1512,] -8.977470e+06 -7.443049e+06
## [1513,] -2.806835e+09 -1.018660e+09
## [1514,] -2.017947e+09 -7.069801e+08
## [1515,] -6.987470e+07 -3.567397e+07
## [1516,] -3.398021e+06 -3.985058e+06
## [1517,] -3.968344e+06 -4.412049e+06
## [1518,] -8.993806e+06 -7.418761e+06
## [1519,] -2.708712e+09 -9.772975e+08
## [1520,] -2.003261e+09 -6.982983e+08
## [1521,] -6.904063e+07 -3.658225e+07
## [1522,] -3.450600e+06 -4.102179e+06
## [1523,] -4.039246e+06 -4.486793e+06
## [1524,] -9.212429e+06 -7.756785e+06
## [1525,] -3.069128e+09 -9.714314e+08
## [1526,] -1.988628e+09 -6.643439e+08
## [1527,] -6.905333e+07 -3.646498e+07
## [1528,] -3.308091e+06 -3.997197e+06
## [1529,] -3.969660e+06 -4.438205e+06
## [1530,] -8.871604e+06 -7.372652e+06
## [1531,] -2.574442e+09 -9.029204e+08
## [1532,] -1.959795e+09 -7.373322e+08
## [1533,] -6.992581e+07 -3.596111e+07

```

```
## [1534,] -3.495143e+06 -4.144658e+06
## [1535,] -4.009948e+06 -4.460055e+06
## [1536,] -9.120241e+06 -7.606064e+06
## [1537,] -3.162512e+09 -1.090948e+09
## [1538,] -2.265174e+09 -8.279819e+08
## [1539,] -7.712967e+07 -3.971284e+07
## [1540,] -3.467449e+06 -4.117522e+06
## [1541,] -4.072191e+06 -4.506918e+06
## [1542,] -8.724497e+06 -7.380954e+06
## [1543,] -2.443586e+09 -9.367458e+08
## [1544,] -1.743347e+09 -6.271663e+08
## [1545,] -7.154886e+07 -3.624020e+07
## [1546,] -3.398427e+06 -4.060289e+06
## [1547,] -4.008210e+06 -4.487272e+06
## [1548,] -8.871003e+06 -7.385107e+06
## [1549,] -2.966399e+09 -1.121897e+09
## [1550,] -1.881390e+09 -7.284242e+08
## [1551,] -6.943987e+07 -3.624020e+07
## [1552,] -3.417702e+06 -4.093418e+06
## [1553,] -4.021972e+06 -4.512247e+06
## [1554,] -9.011543e+06 -7.447928e+06
## [1555,] -3.120550e+09 -1.256785e+09
## [1556,] -1.881324e+09 -6.352413e+08
## [1557,] -7.281975e+07 -3.804474e+07
## [1558,] -3.415081e+06 -4.072468e+06
## [1559,] -4.059673e+06 -4.506237e+06
## [1560,] -8.723901e+06 -7.289661e+06
## [1561,] -2.845660e+09 -9.827980e+08
## [1562,] -1.995528e+09 -7.239699e+08
## [1563,] -7.846252e+07 -3.921564e+07
## [1564,] -3.445537e+06 -4.114793e+06
## [1565,] -4.136255e+06 -4.563816e+06
## [1566,] -9.049496e+06 -7.521766e+06
## [1567,] -2.737254e+09 -9.308630e+08
## [1568,] -1.988220e+09 -7.108928e+08
## [1569,] -7.573245e+07 -4.029074e+07
## [1570,] -3.382218e+06 -4.042571e+06
## [1571,] -4.057924e+06 -4.510644e+06
## [1572,] -8.803799e+06 -7.408241e+06
## [1573,] -2.218299e+09 -7.628696e+08
## [1574,] -2.002577e+09 -6.850962e+08
## [1575,] -7.020337e+07 -3.553359e+07
## [1576,] -3.532040e+06 -4.139184e+06
## [1577,] -4.055074e+06 -4.513890e+06
## [1578,] -8.936652e+06 -7.405887e+06
## [1579,] -2.640443e+09 -9.479082e+08
## [1580,] -1.973642e+09 -6.978945e+08
```



```
## [1581,] -6.950356e+07 -3.590892e+07
## [1582,] -3.448443e+06 -4.114942e+06
## [1583,] -3.994057e+06 -4.445362e+06
## [1584,] -8.941221e+06 -7.364513e+06
## [1585,] -2.378990e+09 -8.365608e+08
## [1586,] -1.973574e+09 -6.850562e+08
## [1587,] -7.251497e+07 -3.834125e+07
## [1588,] -3.518175e+06 -4.124173e+06
## [1589,] -4.081028e+06 -4.520386e+06
## [1590,] -8.874353e+06 -7.446827e+06
## [1591,] -2.717465e+09 -9.593261e+08
## [1592,] -2.165268e+09 -7.815730e+08
## [1593,] -7.469622e+07 -3.861991e+07
## [1594,] -3.426523e+06 -4.115165e+06
## [1595,] -4.055530e+06 -4.501871e+06
## [1596,] -9.033890e+06 -7.442106e+06
## [1597,] -3.235445e+09 -1.217022e+09
## [1598,] -2.575539e+09 -1.045629e+09
## [1599,] -8.673777e+07 -4.484593e+07
## [1600,] -3.295339e+06 -3.909103e+06
## [1601,] -4.130961e+06 -4.558255e+06
## [1602,] -8.926312e+06 -7.422532e+06
## [1603,] -2.630560e+09 -9.362782e+08
## [1604,] -1.923245e+09 -7.063301e+08
## [1605,] -6.885797e+07 -3.569500e+07
## [1606,] -3.476471e+06 -4.112214e+06
## [1607,] -4.055530e+06 -4.510202e+06
## [1608,] -9.005139e+06 -7.468245e+06
## [1609,] -3.494910e+09 -1.011893e+09
## [1610,] -2.120070e+09 -7.367928e+08
## [1611,] -7.310298e+07 -3.837911e+07
## [1612,] -3.498824e+06 -4.148666e+06
## [1613,] -4.068497e+06 -4.530140e+06
## [1614,] -9.038484e+06 -7.426697e+06
## [1615,] -2.746374e+09 -1.059784e+09
## [1616,] -2.068033e+09 -7.279705e+08
## [1617,] -6.958003e+07 -3.634148e+07
## [1618,] -3.490527e+06 -4.154819e+06
## [1619,] -4.037993e+06 -4.497949e+06
## [1620,] -9.194848e+06 -7.509356e+06
## [1621,] -2.925020e+09 -1.078067e+09
## [1622,] -2.053235e+09 -7.633673e+08
## [1623,] -6.924396e+07 -3.609871e+07
## [1624,] -3.485025e+06 -4.157935e+06
## [1625,] -3.966463e+06 -4.455511e+06
## [1626,] -9.134268e+06 -7.638705e+06
## [1627,] -2.914782e+09 -1.084095e+09
```

```

## [1628,] -2.445188e+09 -7.768310e+08
## [1629,] -7.260610e+07 -3.750479e+07
## [1630,] -3.432387e+06 -4.121591e+06
## [1631,] -4.094723e+06 -4.538978e+06
## [1632,] -8.956317e+06 -7.443365e+06
## [1633,] -2.582588e+09 -9.532311e+08
## [1634,] -2.210369e+09 -8.508188e+08
## [1635,] -7.155277e+07 -3.738604e+07
## [1636,] -3.382893e+06 -4.043308e+06
## [1637,] -4.019625e+06 -4.474409e+06
## [1638,] -8.968057e+06 -7.388870e+06
## [1639,] -2.582510e+09 -9.246269e+08
## [1640,] -2.700044e+09 -9.331207e+08
## [1641,] -6.910799e+07 -3.562475e+07
## [1642,] -3.717310e+06 -4.289977e+06
## [1643,] -3.928787e+06 -4.438282e+06
## [1644,] -8.872550e+06 -7.451707e+06
## [1645,] -3.450342e+09 -1.203681e+09
## [1646,] -1.866286e+09 -6.931726e+08
## [1647,] -6.756327e+07 -3.626139e+07
## [1648,] -3.518794e+06 -4.170410e+06
## [1649,] -4.096937e+06 -4.566435e+06
## [1650,] -9.371257e+06 -7.768596e+06
## [1651,] -2.687680e+09 -9.997302e+08
## [1652,] -1.880329e+09 -6.931726e+08
## [1653,] -7.792482e+07 -4.001870e+07
## [1654,] -3.465901e+06 -4.149189e+06
## [1655,] -4.083276e+06 -4.558294e+06
## [1656,] -9.053055e+06 -7.485671e+06
## [1657,] -2.488196e+09 -8.962297e+08
## [1658,] -2.232805e+09 -7.946786e+08
## [1659,] -7.633738e+07 -4.033249e+07
## [1660,] -3.435763e+06 -4.095051e+06
## [1661,] -4.107561e+06 -4.548308e+06
## [1662,] -9.209544e+06 -7.667742e+06
## [1663,] -2.954427e+09 -1.164878e+09
## [1664,] -1.972488e+09 -6.759541e+08
## [1665,] -7.397829e+07 -4.153782e+07
## [1666,] -3.555677e+06 -4.180003e+06
## [1667,] -4.135447e+06 -4.548308e+06
## [1668,] -9.028865e+06 -7.509515e+06
## [1669,] -2.696876e+09 -9.243016e+08
## [1670,] -2.096879e+09 -6.886672e+08
## [1671,] -6.920967e+07 -3.324021e+07
## [1672,] -3.550193e+06 -4.198471e+06
## [1673,] -4.191734e+06 -4.619974e+06
## [1674,] -8.987757e+06 -7.498220e+06

```

```

## [1675,] -2.974475e+09 -1.053030e+09
## [1676,] -2.286497e+09 -9.828573e+08
## [1677,] -7.747903e+07 -4.292793e+07
## [1678,] -3.367192e+06 -4.068152e+06
## [1679,] -4.073178e+06 -4.585364e+06
## [1680,] -9.148305e+06 -7.428113e+06
## [1681,] -2.863455e+09 -1.040820e+09
## [1682,] -2.022835e+09 -7.142036e+08
## [1683,] -6.963489e+07 -3.987001e+07
## [1684,] -3.536568e+06 -4.235679e+06
## [1685,] -4.025375e+06 -4.484631e+06
## [1686,] -9.407484e+06 -7.814959e+06
## [1687,] -2.216428e+09 -7.877130e+08
## [1688,] -1.928889e+09 -7.140810e+08
## [1689,] -7.018552e+07 -3.652597e+07
## [1690,] -3.547866e+06 -4.189832e+06
## [1691,] -4.252019e+06 -4.674763e+06
## [1692,] -8.848176e+06 -7.514416e+06
## [1693,] -2.450387e+09 -9.352496e+08
## [1694,] -1.844335e+09 -7.140810e+08
## [1695,] -7.572721e+07 -4.149157e+07
## [1696,] -3.469635e+06 -4.116877e+06
## [1697,] -4.049260e+06 -4.536966e+06
## [1698,] -9.431556e+06 -7.670299e+06
## [1699,] -2.609679e+09 -9.238371e+08
## [1700,] -1.921637e+09 -7.314447e+08
## [1701,] -7.144430e+07 -3.553911e+07
## [1702,] -3.576156e+06 -4.214444e+06
## [1703,] -4.121759e+06 -4.575832e+06
## [1704,] -9.021850e+06 -7.496563e+06
## [1705,] -2.833122e+09 -1.052584e+09
## [1706,] -2.007857e+09 -7.270224e+08
## [1707,] -7.039946e+07 -3.706167e+07
## [1708,] -3.669916e+06 -4.279069e+06
## [1709,] -4.110925e+06 -4.583302e+06
## [1710,] -8.966419e+06 -7.537752e+06
## [1711,] -1.609067e+09 -6.351019e+08
## [1712,] -1.254936e+09 -4.506954e+08
## [1713,] -2.848811e+07 -1.251181e+07
## [1714,] -1.041346e+04 -5.100166e+04
## [1715,] -4.550979e+04 -8.804571e+04
## [1716,] -9.400580e+05 -5.633724e+05
## [1717,] -1.669439e+09 -6.026450e+08
## [1718,] -1.272237e+09 -4.506954e+08
## [1719,] -2.523488e+07 -1.107476e+07
## [1720,] -1.056620e+04 -4.999615e+04
## [1721,] -4.405650e+04 -8.717451e+04

```

```

## [1722,] -9.261869e+05 -5.579963e+05
## [1723,] -1.646669e+09 -6.164509e+08
## [1724,] -1.237754e+09 -4.680807e+08
## [1725,] -2.481602e+07 -1.079787e+07
## [1726,] -9.666494e+03 -5.100166e+04
## [1727,] -4.635083e+04 -8.688507e+04
## [1728,] -9.101343e+05 -5.760170e+05
## [1729,] -1.646669e+09 -6.164509e+08
## [1730,] -1.249196e+09 -4.645773e+08
## [1731,] -2.576339e+07 -1.072919e+07
## [1732,] -9.088941e+03 -5.269976e+04
## [1733,] -4.488406e+04 -8.688507e+04
## [1734,] -9.124189e+05 -5.633724e+05
## [1735,] -1.616553e+09 -6.398080e+08
## [1736,] -1.237754e+09 -4.751270e+08
## [1737,] -2.544563e+07 -1.079787e+07
## [1738,] -9.961945e+03 -5.133906e+04
## [1739,] -4.488406e+04 -8.688507e+04
## [1740,] -9.331096e+05 -5.633724e+05
## [1741,] -2.628523e+09 -9.580012e+08
## [1742,] -2.058928e+09 -7.225725e+08
## [1743,] -6.920081e+07 -3.606756e+07
## [1744,] -3.570725e+06 -4.217732e+06
## [1745,] -4.172170e+06 -4.631051e+06
## [1746,] -8.946916e+06 -7.592237e+06
## [1747,] -2.763776e+09 -9.986674e+08
## [1748,] -2.308874e+09 -8.309377e+08
## [1749,] -7.063942e+07 -3.685362e+07
## [1750,] -3.604837e+06 -4.236359e+06
## [1751,] -4.164388e+06 -4.620743e+06
## [1752,] -9.337042e+06 -7.585089e+06
## [1753,] -2.580569e+09 -9.577647e+08
## [1754,] -2.014653e+09 -6.794216e+08
## [1755,] -7.315011e+07 -3.828363e+07
## [1756,] -3.461988e+06 -4.160104e+06
## [1757,] -4.133757e+06 -4.630603e+06
## [1758,] -9.229683e+06 -7.679486e+06
## [1759,] -2.618349e+09 -9.518632e+08
## [1760,] -1.978272e+09 -6.878252e+08
## [1761,] -7.157354e+07 -3.778609e+07
## [1762,] -3.616453e+06 -4.245876e+06
## [1763,] -4.168856e+06 -4.648689e+06
## [1764,] -9.795324e+06 -7.917668e+06
## [1765,] -2.763374e+09 -9.691939e+08
## [1766,] -2.102773e+09 -6.920464e+08
## [1767,] -6.860726e+07 -3.551455e+07
## [1768,] -3.546024e+06 -4.224540e+06

```

```

## [1769,] -4.205225e+06 -4.608825e+06
## [1770,] -9.426422e+06 -7.698836e+06
## [1771,] -2.993170e+09 -1.125840e+09
## [1772,] -2.300572e+09 -8.447157e+08
## [1773,] -7.267912e+07 -3.924349e+07
## [1774,] -3.594004e+06 -4.252252e+06
## [1775,] -4.164195e+06 -4.660698e+06
## [1776,] -9.110496e+06 -7.583978e+06
## [1777,] -2.782764e+09 -8.839676e+08
## [1778,] -1.892431e+09 -7.134686e+08
## [1779,] -7.610934e+07 -4.016678e+07
## [1780,] -3.582702e+06 -4.261485e+06
## [1781,] -4.196291e+06 -4.633202e+06
## [1782,] -9.187509e+06 -7.607978e+06
## [1783,] -2.458410e+09 -8.894726e+08
## [1784,] -2.177611e+09 -7.889953e+08
## [1785,] -6.813854e+07 -3.309858e+07
## [1786,] -3.594143e+06 -4.218636e+06
## [1787,] -4.160422e+06 -4.635558e+06
## [1788,] -9.221189e+06 -7.625406e+06
## [1789,] -2.861820e+09 -1.027847e+09
## [1790,] -2.080235e+09 -7.618479e+08
## [1791,] -8.153882e+07 -4.262020e+07
## [1792,] -3.622547e+06 -4.298743e+06
## [1793,] -4.210836e+06 -4.656950e+06
## [1794,] -9.281441e+06 -7.660321e+06
## [1795,] -2.617802e+09 -8.782532e+08
## [1796,] -2.300206e+09 -9.664700e+08
## [1797,] -6.886950e+07 -3.671093e+07
## [1798,] -3.602841e+06 -4.298895e+06
## [1799,] -4.218002e+06 -4.658131e+06
## [1800,] -9.184275e+06 -7.591842e+06
## [1801,] -2.851612e+09 -1.045705e+09
## [1802,] -2.132142e+09 -7.350929e+08
## [1803,] -7.256586e+07 -3.722001e+07
## [1804,] -3.602841e+06 -4.228058e+06
## [1805,] -4.181809e+06 -4.632755e+06
## [1806,] -9.242391e+06 -7.664552e+06
## [1807,] -2.792202e+09 -1.027700e+09
## [1808,] -1.906172e+09 -7.002849e+08
## [1809,] -8.176941e+07 -4.156350e+07
## [1810,] -3.443336e+06 -4.148766e+06
## [1811,] -4.150883e+06 -4.558209e+06
## [1812,] -9.393165e+06 -8.024069e+06
## [1813,] -2.841504e+09 -9.862010e+08
## [1814,] -1.920230e+09 -6.332014e+08
## [1815,] -6.496892e+07 -3.400040e+07

```

```

## [1816,] -3.583258e+06 -4.255934e+06
## [1817,] -4.193199e+06 -4.648972e+06
## [1818,] -9.443960e+06 -7.774629e+06
## [1819,] -3.199737e+09 -1.088123e+09
## [1820,] -1.746549e+09 -5.969557e+08
## [1821,] -7.387198e+07 -3.674798e+07
## [1822,] -3.507497e+06 -4.225294e+06
## [1823,] -4.214437e+06 -4.629018e+06
## [1824,] -9.375234e+06 -7.852490e+06
## [1825,] -2.762330e+09 -9.977982e+08
## [1826,] -2.323165e+09 -8.348259e+08
## [1827,] -6.964262e+07 -3.663969e+07
## [1828,] -3.600428e+06 -4.250009e+06
## [1829,] -4.218699e+06 -4.677943e+06
## [1830,] -9.672707e+06 -7.941786e+06
## [1831,] -2.911070e+09 -1.131435e+09
## [1832,] -2.006145e+09 -7.259926e+08
## [1833,] -7.019328e+07 -3.615299e+07
## [1834,] -3.668815e+06 -4.293320e+06
## [1835,] -4.152689e+06 -4.610525e+06
## [1836,] -9.192318e+06 -7.638790e+06
## [1837,] -3.273620e+09 -1.045310e+09
## [1838,] -1.835475e+09 -6.914033e+08
## [1839,] -6.985573e+07 -3.466740e+07
## [1840,] -3.640370e+06 -4.305768e+06
## [1841,] -4.191885e+06 -4.609593e+06
## [1842,] -9.066772e+06 -7.623178e+06
## [1843,] -2.531903e+09 -9.282071e+08
## [1844,] -2.385844e+09 -8.206475e+08
## [1845,] -6.864907e+07 -3.629738e+07
## [1846,] -3.674672e+06 -4.312036e+06
## [1847,] -4.221179e+06 -4.714579e+06
## [1848,] -9.126519e+06 -7.671340e+06
## [1849,] -2.693702e+09 -9.740991e+08
## [1850,] -1.962580e+09 -6.870639e+08
## [1851,] -6.988128e+07 -3.643283e+07
## [1852,] -3.606439e+06 -4.278108e+06
## [1853,] -4.247659e+06 -4.689294e+06
## [1854,] -9.181830e+06 -7.635842e+06
## [1855,] -2.503614e+09 -8.887435e+08
## [1856,] -2.245048e+09 -7.837173e+08
## [1857,] -7.309269e+07 -3.772605e+07
## [1858,] -3.663454e+06 -4.318462e+06
## [1859,] -4.244743e+06 -4.698982e+06
## [1860,] -9.361379e+06 -7.779616e+06
## [1861,] -2.830682e+09 -1.021098e+09
## [1862,] -1.933803e+09 -7.301640e+08

```

```

## [1863,] -7.563294e+07 -4.061740e+07
## [1864,] -3.623664e+06 -4.278336e+06
## [1865,] -4.271296e+06 -4.703482e+06
## [1866,] -9.152235e+06 -7.668386e+06
## [1867,] -3.032164e+09 -1.020903e+09
## [1868,] -2.108534e+09 -7.744900e+08
## [1869,] -7.278734e+07 -3.840953e+07
## [1870,] -3.505597e+06 -4.275479e+06
## [1871,] -4.242293e+06 -4.692154e+06
## [1872,] -9.399442e+06 -7.794261e+06
## [1873,] -2.559346e+09 -9.448523e+08
## [1874,] -1.904904e+09 -7.081247e+08
## [1875,] -7.589496e+07 -3.664250e+07
## [1876,] -3.683959e+06 -4.346939e+06
## [1877,] -4.240506e+06 -4.711546e+06
## [1878,] -9.204387e+06 -7.689561e+06
## [1879,] -2.392347e+09 -8.828320e+08
## [1880,] -2.546115e+09 -8.913387e+08
## [1881,] -6.964649e+07 -3.476646e+07
## [1882,] -3.638364e+06 -4.315972e+06
## [1883,] -4.255789e+06 -4.649052e+06
## [1884,] -9.354852e+06 -7.746998e+06
## [1885,] -2.930061e+09 -1.136992e+09
## [1886,] -1.969028e+09 -6.994359e+08
## [1887,] -6.949738e+07 -3.704222e+07
## [1888,] -3.695560e+06 -4.359541e+06
## [1889,] -4.291401e+06 -4.737384e+06
## [1890,] -9.228198e+06 -7.711325e+06
## [1891,] -2.770767e+09 -9.911009e+08
## [1892,] -2.034351e+09 -7.474285e+08
## [1893,] -7.196194e+07 -3.884732e+07
## [1894,] -3.627202e+06 -4.334814e+06
## [1895,] -4.261201e+06 -4.705650e+06
## [1896,] -9.273891e+06 -7.753099e+06
## [1897,] -2.465536e+09 -9.851454e+08
## [1898,] -1.918824e+09 -6.571097e+08
## [1899,] -7.041112e+07 -3.783877e+07
## [1900,] -3.704379e+06 -4.350432e+06
## [1901,] -4.238057e+06 -4.698326e+06
## [1902,] -9.305090e+06 -7.721658e+06
## [1903,] -3.010916e+09 -1.181152e+09
## [1904,] -2.152830e+09 -8.014270e+08
## [1905,] -8.156099e+07 -4.222716e+07
## [1906,] -3.509077e+06 -4.242375e+06
## [1907,] -4.234251e+06 -4.647668e+06
## [1908,] -9.730639e+06 -7.906560e+06
## [1909,] -3.218865e+09 -1.232903e+09

```

```

## [1910,] -2.115287e+09 -7.472196e+08
## [1911,] -7.061256e+07 -3.696137e+07
## [1912,] -3.704521e+06 -4.363039e+06
## [1913,] -4.271801e+06 -4.723184e+06
## [1914,] -9.307113e+06 -7.763460e+06
## [1915,] -2.819556e+09 -1.020366e+09
## [1916,] -1.925669e+09 -7.034898e+08
## [1917,] -7.187515e+07 -3.917563e+07
## [1918,] -3.596369e+06 -4.257902e+06
## [1919,] -4.362637e+06 -4.792863e+06
## [1920,] -9.036324e+06 -7.601858e+06
## [1921,] -2.731100e+09 -8.440892e+08
## [1922,] -2.236212e+09 -8.668805e+08
## [1923,] -7.134373e+07 -3.534364e+07
## [1924,] -3.610526e+06 -4.304195e+06
## [1925,] -4.250652e+06 -4.730773e+06
## [1926,] -9.480506e+06 -7.787743e+06
## [1927,] -2.770204e+09 -9.849056e+08
## [1928,] -2.344833e+09 -8.431174e+08
## [1929,] -6.977409e+07 -3.762854e+07
## [1930,] -3.520469e+06 -4.285723e+06
## [1931,] -4.305679e+06 -4.765226e+06
## [1932,] -9.291901e+06 -7.709645e+06
## [1933,] -2.711494e+09 -1.038159e+09
## [1934,] -1.611923e+09 -5.646853e+08
## [1935,] -6.531430e+07 -3.486565e+07
## [1936,] -3.613500e+06 -4.304347e+06
## [1937,] -4.297539e+06 -4.752384e+06
## [1938,] -9.504671e+06 -7.970987e+06
## [1939,] -2.869016e+09 -1.099086e+09
## [1940,] -2.266859e+09 -7.920527e+08
## [1941,] -7.899013e+07 -3.919476e+07
## [1942,] -3.636219e+06 -4.261132e+06
## [1943,] -4.256956e+06 -4.677817e+06
## [1944,] -9.489920e+06 -7.917023e+06
## [1945,] -2.849083e+09 -1.032162e+09
## [1946,] -2.137448e+09 -7.514933e+08
## [1947,] -7.769319e+07 -4.145429e+07
## [1948,] -3.573914e+06 -4.224263e+06
## [1949,] -4.309752e+06 -4.756663e+06
## [1950,] -9.274682e+06 -7.820608e+06
## [1951,] -3.010329e+09 -1.002340e+09
## [1952,] -2.048252e+09 -7.293383e+08
## [1953,] -6.791432e+07 -3.728163e+07
## [1954,] -3.765553e+06 -4.391663e+06
## [1955,] -4.223968e+06 -4.704748e+06
## [1956,] -9.145957e+06 -7.742345e+06

```



```

## [1957,] -2.740450e+09 -1.002291e+09
## [1958,] -1.989866e+09 -7.205609e+08
## [1959,] -7.997774e+07 -4.354091e+07
## [1960,] -3.568553e+06 -4.246053e+06
## [1961,] -4.274765e+06 -4.764772e+06
## [1962,] -9.410409e+06 -7.797563e+06
## [1963,] -2.662786e+09 -9.383353e+08
## [1964,] -2.033387e+09 -6.988701e+08
## [1965,] -7.232147e+07 -3.691774e+07
## [1966,] -3.716650e+06 -4.382444e+06
## [1967,] -4.297108e+06 -4.777631e+06
## [1968,] -9.337135e+06 -7.770854e+06
## [1969,] -2.557954e+09 -9.497426e+08
## [1970,] -1.710727e+09 -5.996904e+08
## [1971,] -7.703737e+07 -3.991066e+07
## [1972,] -3.708098e+06 -4.438907e+06
## [1973,] -4.311592e+06 -4.790755e+06
## [1974,] -9.678631e+06 -7.953901e+06
## [1975,] -3.688646e+09 -1.285216e+09
## [1976,] -2.047906e+09 -7.645988e+08
## [1977,] -8.058149e+07 -4.343310e+07
## [1978,] -3.745674e+06 -4.426500e+06
## [1979,] -4.339257e+06 -4.800548e+06
## [1980,] -9.270819e+06 -7.763622e+06
## [1981,] -2.798825e+09 -1.049760e+09
## [1982,] -1.931989e+09 -6.901581e+08
## [1983,] -6.972690e+07 -3.670083e+07
## [1984,] -3.745745e+06 -4.398378e+06
## [1985,] -4.342677e+06 -4.795546e+06
## [1986,] -9.262920e+06 -7.803121e+06
## [1987,] -2.848185e+09 -1.037617e+09
## [1988,] -2.320441e+09 -8.615272e+08
## [1989,] -7.564099e+07 -4.022404e+07
## [1990,] -3.774883e+06 -4.407999e+06
## [1991,] -4.356095e+06 -4.798894e+06
## [1992,] -9.406519e+06 -7.881123e+06
## [1993,] -3.081496e+09 -1.135858e+09
## [1994,] -2.351658e+09 -8.237656e+08
## [1995,] -7.566758e+07 -3.801760e+07
## [1996,] -3.915342e+06 -4.524709e+06
## [1997,] -4.443680e+06 -4.875624e+06
## [1998,] -1.014172e+07 -8.388072e+06
## [1999,] -3.185578e+09 -1.086006e+09
## [2000,] -1.945872e+09 -6.984662e+08
## [2001,] -7.660751e+07 -4.106371e+07
## [2002,] -3.631721e+06 -4.330437e+06
## [2003,] -4.335209e+06 -4.809191e+06

```

```

## [2004,] -9.518368e+06 -7.909319e+06
## [2005,] -2.633067e+09 -9.665314e+08
## [2006,] -2.061852e+09 -6.983450e+08
## [2007,] -7.719842e+07 -4.069152e+07
## [2008,] -3.749272e+06 -4.433551e+06
## [2009,] -4.263107e+06 -4.752464e+06
## [2010,] -9.601817e+06 -7.951625e+06
## [2011,] -2.519387e+09 -8.870131e+08
## [2012,] -1.959941e+09 -7.025983e+08
## [2013,] -7.268189e+07 -3.833293e+07
## [2014,] -3.732104e+06 -4.380473e+06
## [2015,] -4.389869e+06 -4.823559e+06
## [2016,] -9.860415e+06 -7.834890e+06
## [2017,] -2.897401e+09 -1.135446e+09
## [2018,] -2.249986e+09 -8.421858e+08
## [2019,] -6.814121e+07 -3.681202e+07
## [2020,] -3.723535e+06 -4.405560e+06
## [2021,] -4.313236e+06 -4.813991e+06
## [2022,] -9.745309e+06 -7.953496e+06
## [2023,] -2.897319e+09 -1.085704e+09
## [2024,] -2.234550e+09 -7.911498e+08
## [2025,] -1.027937e+08 -4.695362e+07
## [2026,] -3.309737e+06 -4.216653e+06
## [2027,] -4.270550e+06 -4.792488e+06
## [2028,] -9.515077e+06 -8.095867e+06
## [2029,] -2.837432e+09 -9.262061e+08
## [2030,] -1.909853e+09 -6.769540e+08
## [2031,] -7.540997e+07 -4.085446e+07
## [2032,] -3.778423e+06 -4.427503e+06
## [2033,] -4.270550e+06 -4.788193e+06
## [2034,] -9.566824e+06 -8.041482e+06
## [2035,] -2.594635e+09 -9.375864e+08
## [2036,] -2.113390e+09 -7.594454e+08
## [2037,] -7.327057e+07 -3.915273e+07
## [2038,] -3.819267e+06 -4.446509e+06
## [2039,] -4.389197e+06 -4.846585e+06
## [2040,] -9.384689e+06 -7.780826e+06
## [2041,] -1.631576e+09 -6.398080e+08
## [2042,] -1.254936e+09 -4.645773e+08
## [2043,] -2.565725e+07 -1.066073e+07
## [2044,] -9.231660e+03 -5.133906e+04
## [2045,] -4.571933e+04 -8.862893e+04
## [2046,] -9.124189e+05 -5.705807e+05
## [2047,] -1.654242e+09 -6.351019e+08
## [2048,] -1.249196e+09 -4.645773e+08
## [2049,] -2.555133e+07 -1.072919e+07
## [2050,] -1.072004e+04 -5.133906e+04

```

```

## [2051,] -4.550979e+04 -8.601963e+04
## [2052,] -9.192900e+05 -5.687743e+05
## [2053,] -1.631576e+09 -6.118316e+08
## [2054,] -1.220690e+09 -4.680807e+08
## [2055,] -2.523488e+07 -1.086676e+07
## [2056,] -1.072004e+04 -5.100166e+04
## [2057,] -4.488406e+04 -8.862893e+04
## [2058,] -9.192900e+05 -5.723899e+05
## [2059,] -1.677064e+09 -6.026450e+08
## [2060,] -1.278030e+09 -4.541461e+08
## [2061,] -2.555133e+07 -1.038910e+07
## [2062,] -9.961945e+03 -4.966320e+04
## [2063,] -4.446932e+04 -8.892125e+04
## [2064,] -9.101343e+05 -5.669708e+05
## [2065,] -1.631576e+09 -6.118316e+08
## [2066,] -1.243468e+09 -4.715973e+08
## [2067,] -2.534015e+07 -1.052448e+07
## [2068,] -9.666494e+03 -5.066538e+04
## [2069,] -4.488406e+04 -8.746443e+04
## [2070,] -9.101343e+05 -5.669708e+05
## [2071,] -2.632596e+09 -9.954342e+08
## [2072,] -2.211458e+09 -8.140432e+08
## [2073,] -7.616551e+07 -4.114209e+07
## [2074,] -3.729436e+06 -4.437078e+06
## [2075,] -4.335915e+06 -4.812087e+06
## [2076,] -9.529225e+06 -7.899024e+06
## [2077,] -2.603905e+09 -9.661988e+08
## [2078,] -2.076194e+09 -7.023958e+08
## [2079,] -6.853784e+07 -3.634259e+07
## [2080,] -3.833999e+06 -4.475017e+06
## [2081,] -4.338194e+06 -4.812335e+06
## [2082,] -9.866664e+06 -8.165426e+06
## [2083,] -2.797370e+09 -9.718586e+08
## [2084,] -2.374276e+09 -9.336883e+08
## [2085,] -7.422187e+07 -3.958511e+07
## [2086,] -3.758652e+06 -4.525879e+06
## [2087,] -4.284559e+06 -4.792280e+06
## [2088,] -9.555502e+06 -7.916215e+06
## [2089,] -2.689896e+09 -8.977386e+08
## [2090,] -1.923590e+09 -7.065395e+08
## [2091,] -7.120063e+07 -3.700418e+07
## [2092,] -3.810956e+06 -4.487958e+06
## [2093,] -4.367324e+06 -4.836537e+06
## [2094,] -9.641799e+06 -7.960980e+06
## [2095,] -3.090322e+09 -1.048720e+09
## [2096,] -2.389889e+09 -7.953316e+08
## [2097,] -7.336217e+07 -3.817796e+07

```

```

## [2098,] -3.767475e+06 -4.443906e+06
## [2099,] -4.341849e+06 -4.796825e+06
## [2100,] -9.833272e+06 -8.080533e+06
## [2101,] -2.916595e+09 -1.122356e+09
## [2102,] -1.959129e+09 -6.556218e+08
## [2103,] -7.682168e+07 -4.162472e+07
## [2104,] -3.698381e+06 -4.450274e+06
## [2105,] -4.370755e+06 -4.831517e+06
## [2106,] -9.708169e+06 -8.089224e+06
## [2107,] -2.997600e+09 -1.122305e+09
## [2108,] -1.987889e+09 -6.935008e+08
## [2109,] -7.575139e+07 -4.232261e+07
## [2110,] -3.576272e+06 -4.328631e+06
## [2111,] -4.325979e+06 -4.833923e+06
## [2112,] -9.569055e+06 -8.023177e+06
## [2113,] -3.247359e+09 -1.477547e+09
## [2114,] -2.210668e+09 -7.951592e+08
## [2115,] -7.872158e+07 -4.072373e+07
## [2116,] -3.823043e+06 -4.491585e+06
## [2117,] -4.413262e+06 -4.887043e+06
## [2118,] -9.894854e+06 -8.177379e+06
## [2119,] -3.110655e+09 -1.270361e+09
## [2120,] -2.112547e+09 -8.415206e+08
## [2121,] -7.236834e+07 -3.810532e+07
## [2122,] -3.715966e+06 -4.387948e+06
## [2123,] -4.392912e+06 -4.856974e+06
## [2124,] -9.553631e+06 -7.894326e+06
## [2125,] -3.069040e+09 -1.122049e+09
## [2126,] -2.180047e+09 -8.367325e+08
## [2127,] -7.782265e+07 -4.087696e+07
## [2128,] -3.733309e+06 -4.422462e+06
## [2129,] -4.418774e+06 -4.903700e+06
## [2130,] -9.462407e+06 -7.905348e+06
## [2131,] -2.747412e+09 -9.254156e+08
## [2132,] -2.517857e+09 -7.632894e+08
## [2133,] -7.711259e+07 -4.183893e+07
## [2134,] -3.861339e+06 -4.514052e+06
## [2135,] -4.428178e+06 -4.898395e+06
## [2136,] -9.481843e+06 -7.882745e+06
## [2137,] -2.612253e+09 -9.367443e+08
## [2138,] -2.187486e+09 -7.543094e+08
## [2139,] -7.224232e+07 -3.866194e+07
## [2140,] -3.829237e+06 -4.504628e+06
## [2141,] -4.364641e+06 -4.855310e+06
## [2142,] -9.683928e+06 -8.012809e+06
## [2143,] -3.310789e+09 -1.054219e+09
## [2144,] -2.225445e+09 -7.721526e+08

```

```
## [2145,] -6.115234e+07 -3.303546e+07
## [2146,] -3.673313e+06 -4.407100e+06
## [2147,] -4.529242e+06 -4.954303e+06
## [2148,] -9.510721e+06 -7.902349e+06
## [2149,] -2.253698e+09 -7.994188e+08
## [2150,] -2.624405e+09 -9.933523e+08
## [2151,] -7.033691e+07 -3.688905e+07
## [2152,] -3.855767e+06 -4.520705e+06
## [2153,] -4.443120e+06 -4.901067e+06
## [2154,] -9.471191e+06 -7.940330e+06
## [2155,] -2.621476e+09 -9.537486e+08
## [2156,] -1.972634e+09 -6.845025e+08
## [2157,] -7.053825e+07 -3.690761e+07
## [2158,] -3.852983e+06 -4.492363e+06
## [2159,] -4.439223e+06 -4.903490e+06
## [2160,] -9.830109e+06 -8.241739e+06
## [2161,] -2.717542e+09 -9.536071e+08
## [2162,] -2.089468e+09 -7.058085e+08
## [2163,] -7.214238e+07 -3.794140e+07
## [2164,] -3.829668e+06 -4.517768e+06
## [2165,] -4.449803e+06 -4.927669e+06
## [2166,] -9.497388e+06 -7.870041e+06
## [2167,] -2.845250e+09 -1.047879e+09
## [2168,] -1.993969e+09 -7.013835e+08
## [2169,] -7.614692e+07 -3.966499e+07
## [2170,] -3.821131e+06 -4.533868e+06
## [2171,] -4.368780e+06 -4.846706e+06
## [2172,] -9.531008e+06 -7.941062e+06
## [2173,] -2.688073e+09 -9.135089e+08
## [2174,] -1.972159e+09 -7.229486e+08
## [2175,] -7.327850e+07 -3.968424e+07
## [2176,] -3.797983e+06 -4.505484e+06
## [2177,] -4.497093e+06 -4.942465e+06
## [2178,] -9.706465e+06 -8.279365e+06
## [2179,] -2.864761e+09 -9.706679e+08
## [2180,] -2.066862e+09 -7.012621e+08
## [2181,] -8.138876e+07 -4.278513e+07
## [2182,] -3.882823e+06 -4.540457e+06
## [2183,] -4.391605e+06 -4.812456e+06
## [2184,] -9.796147e+06 -8.355288e+06
## [2185,] -3.203453e+09 -1.203891e+09
## [2186,] -2.460133e+09 -8.740185e+08
## [2187,] -7.620027e+07 -3.891605e+07
## [2188,] -3.865280e+06 -4.550075e+06
## [2189,] -4.460874e+06 -4.945863e+06
## [2190,] -9.496145e+06 -7.963179e+06
## [2191,] -3.119523e+09 -1.152655e+09
```

```

## [2192,] -2.051999e+09 -7.671007e+08
## [2193,] -7.206845e+07 -3.750223e+07
## [2194,] -3.894806e+06 -4.540691e+06
## [2195,] -4.382712e+06 -4.902570e+06
## [2196,] -9.780540e+06 -8.210066e+06
## [2197,] -2.884503e+09 -1.096301e+09
## [2198,] -2.372192e+09 -7.760711e+08
## [2199,] -7.101904e+07 -3.776844e+07
## [2200,] -4.028399e+06 -4.655836e+06
## [2201,] -4.453982e+06 -4.947332e+06
## [2202,] -9.525045e+06 -7.942363e+06
## [2203,] -2.649162e+09 -9.132780e+08
## [2204,] -1.986254e+09 -7.271112e+08
## [2205,] -8.297614e+07 -4.338489e+07
## [2206,] -3.663010e+06 -4.439706e+06
## [2207,] -4.385003e+06 -4.904993e+06
## [2208,] -1.008918e+07 -5.764436e+06
## [2209,] -2.591756e+09 -9.301622e+08
## [2210,] -2.285851e+09 -9.125327e+08
## [2211,] -8.568127e+07 -4.162084e+07
## [2212,] -3.688818e+06 -4.430359e+06
## [2213,] -4.412903e+06 -4.817506e+06
## [2214,] -9.435996e+06 -7.955289e+06
## [2215,] -2.995341e+09 -1.041262e+09
## [2216,] -2.110791e+09 -7.668467e+08
## [2217,] -9.363663e+07 -4.327728e+07
## [2218,] -3.918827e+06 -4.569813e+06
## [2219,] -4.470124e+06 -4.999382e+06
## [2220,] -9.741893e+06 -8.167819e+06
## [2221,] -3.056694e+09 -1.083691e+09
## [2222,] -2.216359e+09 -8.450780e+08
## [2223,] -7.091994e+07 -3.692900e+07
## [2224,] -3.892297e+06 -4.582576e+06
## [2225,] -4.482579e+06 -4.981847e+06
## [2226,] -9.563440e+06 -7.984187e+06
## [2227,] -2.814365e+09 -1.164929e+09
## [2228,] -2.163218e+09 -8.928978e+08
## [2229,] -7.539549e+07 -4.260145e+07
## [2230,] -3.854135e+06 -4.440015e+06
## [2231,] -4.490892e+06 -4.966529e+06
## [2232,] -9.615318e+06 -7.990951e+06
## [2233,] -2.591522e+09 -9.243466e+08
## [2234,] -2.088420e+09 -7.312858e+08
## [2235,] -6.987896e+07 -3.796308e+07
## [2236,] -3.889427e+06 -4.582654e+06
## [2237,] -4.386623e+06 -4.911053e+06
## [2238,] -9.664648e+06 -8.103914e+06

```

```
## [2239,] -2.914037e+09 -1.023149e+09
## [2240,] -2.066168e+09 -7.400449e+08
## [2241,] -6.987896e+07 -3.835100e+07
## [2242,] -3.694832e+06 -4.411850e+06
## [2243,] -4.411317e+06 -4.854684e+06
## [2244,] -9.644400e+06 -8.085373e+06
## [2245,] -2.591289e+09 -9.016794e+08
## [2246,] -2.014732e+09 -6.378366e+08
## [2247,] -8.269247e+07 -4.387034e+07
## [2248,] -3.813534e+06 -4.509741e+06
## [2249,] -4.392117e+06 -4.869120e+06
## [2250,] -9.918636e+06 -8.364294e+06
## [2251,] -3.276591e+09 -1.209676e+09
## [2252,] -2.387200e+09 -8.590618e+08
## [2253,] -8.101567e+07 -3.943345e+07
## [2254,] -3.886775e+06 -4.570205e+06
## [2255,] -4.498772e+06 -4.972627e+06
## [2256,] -9.621489e+06 -8.023671e+06
## [2257,] -2.725513e+09 -9.873996e+08
## [2258,] -2.021746e+09 -7.222502e+08
## [2259,] -7.513835e+07 -4.012247e+07
## [2260,] -3.816734e+06 -4.491067e+06
## [2261,] -4.456570e+06 -4.969724e+06
## [2262,] -9.579052e+06 -8.025550e+06
## [2263,] -3.025183e+09 -1.107967e+09
## [2264,] -2.021609e+09 -6.499539e+08
## [2265,] -6.963141e+07 -3.714009e+07
## [2266,] -3.954997e+06 -4.592868e+06
## [2267,] -4.432901e+06 -4.912056e+06
## [2268,] -9.304307e+06 -7.861229e+06
## [2269,] -2.676915e+09 -9.582361e+08
## [2270,] -2.065612e+09 -7.309139e+08
## [2271,] -7.068340e+07 -3.688539e+07
## [2272,] -3.922434e+06 -4.605663e+06
## [2273,] -4.381407e+06 -4.953459e+06
## [2274,] -9.747475e+06 -8.138756e+06
## [2275,] -1.376784e+09 -1.064812e+09
## [2276,] -1.808503e+09 -6.457080e+08
## [2277,] -8.610189e+07 -4.300534e+07
## [2278,] -3.902072e+06 -4.583597e+06
## [2279,] -4.478943e+06 -4.999928e+06
## [2280,] -9.801294e+06 -8.160570e+06
## [2281,] -2.803352e+09 -1.016562e+09
## [2282,] -1.948917e+09 -6.917311e+08
## [2283,] -7.927851e+07 -4.193394e+07
## [2284,] -3.858145e+06 -4.628571e+06
## [2285,] -4.479182e+06 -4.956398e+06
```

```

## [2286,] -9.933899e+06 -8.267839e+06
## [2287,] -2.973556e+09 -1.082936e+09
## [2288,] -2.378534e+09 -7.797008e+08
## [2289,] -8.002579e+07 -4.085653e+07
## [2290,] -3.814322e+06 -4.555058e+06
## [2291,] -4.439815e+06 -4.987026e+06
## [2292,] -9.806079e+06 -8.164937e+06
## [2293,] -2.862798e+09 -1.202619e+09
## [2294,] -1.794472e+09 -6.455527e+08
## [2295,] -6.989561e+07 -3.771780e+07
## [2296,] -3.958474e+06 -4.615823e+06
## [2297,] -4.540769e+06 -5.045386e+06
## [2298,] -9.666263e+06 -8.132671e+06
## [2299,] -2.983562e+09 -1.095138e+09
## [2300,] -2.230434e+09 -8.349210e+08
## [2301,] -7.856182e+07 -4.168301e+07
## [2302,] -3.946685e+06 -4.641574e+06
## [2303,] -4.545193e+06 -4.997270e+06
## [2304,] -9.678459e+06 -8.157523e+06
## [2305,] -2.685855e+09 -1.052335e+09
## [2306,] -2.146878e+09 -7.481872e+08
## [2307,] -7.240617e+07 -3.774596e+07
## [2308,] -3.917254e+06 -4.628887e+06
## [2309,] -4.452705e+06 -4.922012e+06
## [2310,] -9.598786e+06 -8.084391e+06
## [2311,] -3.117134e+09 -1.101163e+09
## [2312,] -2.109247e+09 -7.043476e+08
## [2313,] -7.585663e+07 -3.648931e+07
## [2314,] -3.759600e+06 -4.609810e+06
## [2315,] -4.394251e+06 -5.856533e+06
## [2316,] -9.727321e+06 -8.120341e+06
## [2317,] -2.675888e+09 -9.576212e+08
## [2318,] -1.912804e+09 -6.957223e+08
## [2319,] -7.496102e+07 -3.894090e+07
## [2320,] -3.849864e+06 -4.571538e+06
## [2321,] -4.579207e+06 -5.046148e+06
## [2322,] -9.600841e+06 -8.093084e+06
## [2323,] -3.013765e+09 -1.215209e+09
## [2324,] -2.393862e+09 -9.113789e+08
## [2325,] -8.741409e+07 -4.505116e+07
## [2326,] -3.642097e+06 -4.426088e+06
## [2327,] -4.483375e+06 -4.984876e+06
## [2328,] -9.864226e+06 -8.176889e+06
## [2329,] -2.812419e+09 -9.983277e+08
## [2330,] -2.101522e+09 -7.171599e+08
## [2331,] -7.978817e+07 -4.203297e+07
## [2332,] -3.815039e+06 -4.543114e+06

```



```

## [2333,] -4.555456e+06 -5.038818e+06
## [2334,] -9.749097e+06 -8.153901e+06
## [2335,] -2.656401e+09 -9.632558e+08
## [2336,] -1.962591e+09 -7.171599e+08
## [2337,] -8.299850e+07 -4.749241e+07
## [2338,] -3.965069e+06 -4.645421e+06
## [2339,] -4.576421e+06 -5.043223e+06
## [2340,] -9.738926e+06 -8.151431e+06
## [2341,] -2.871879e+09 -1.045901e+09
## [2342,] -2.199246e+09 -7.747093e+08
## [2343,] -7.393010e+07 -3.910985e+07
## [2344,] -3.950305e+06 -4.642286e+06
## [2345,] -4.512747e+06 -5.013648e+06
## [2346,] -9.903932e+06 -8.165103e+06
## [2347,] -3.403828e+09 -1.214942e+09
## [2348,] -2.538486e+09 -8.820027e+08
## [2349,] -8.245512e+07 -4.369751e+07
## [2350,] -3.994973e+06 -4.629518e+06
## [2351,] -4.603990e+06 -5.067744e+06
## [2352,] -9.773601e+06 -8.293064e+06
## [2353,] -2.901843e+09 -1.201983e+09
## [2354,] -1.891178e+09 -7.083750e+08
## [2355,] -8.304027e+07 -4.219857e+07
## [2356,] -3.909055e+06 -4.623181e+06
## [2357,] -4.538034e+06 -4.935122e+06
## [2358,] -1.013053e+07 -8.315666e+06
## [2359,] -2.579713e+09 -9.572429e+08
## [2360,] -2.005608e+09 -6.699676e+08
## [2361,] -7.836696e+07 -4.167613e+07
## [2362,] -4.043038e+06 -4.678022e+06
## [2363,] -4.532007e+06 -5.022947e+06
## [2364,] -1.002901e+07 -8.347709e+06
## [2365,] -2.495210e+09 -9.630187e+08
## [2366,] -2.229495e+09 -9.406270e+08
## [2367,] -9.127434e+07 -5.519124e+07
## [2368,] -3.841736e+06 -4.578625e+06
## [2369,] -4.526907e+06 -5.006594e+06
## [2370,] -9.837710e+06 -8.228091e+06
## [2371,] -1.677064e+09 -6.257416e+08
## [2372,] -1.232053e+09 -4.715973e+08
## [2373,] -2.544563e+07 -1.079787e+07
## [2374,] -9.813663e+03 -5.066538e+04
## [2375,] -4.509216e+04 -8.746443e+04
## [2376,] -9.169968e+05 -5.796555e+05
## [2377,] -1.631576e+09 -6.164509e+08
## [2378,] -1.226365e+09 -4.751270e+08
## [2379,] -2.481602e+07 -1.072919e+07

```

```
## [2380,] -9.520437e+03 -5.201718e+04
## [2381,] -4.426267e+04 -8.746443e+04
## [2382,] -9.377390e+05 -5.633724e+05
## [2383,] -1.624056e+09 -6.304131e+08
## [2384,] -1.237754e+09 -4.680807e+08
## [2385,] -2.534015e+07 -1.079787e+07
## [2386,] -6.113421e+03 -4.231249e+04
## [2387,] -4.550979e+04 -8.804571e+04
## [2388,] -9.169968e+05 -5.597854e+05
## [2389,] -1.661832e+09 -6.164509e+08
## [2390,] -1.243468e+09 -4.610871e+08
## [2391,] -2.534015e+07 -1.072919e+07
## [2392,] -9.375492e+03 -5.033021e+04
## [2393,] -4.405650e+04 -8.717451e+04
## [2394,] -9.169968e+05 -5.742020e+05
## [2395,] -1.654242e+09 -6.351019e+08
## [2396,] -1.260690e+09 -4.715973e+08
## [2397,] -2.544563e+07 -1.052448e+07
## [2398,] -9.961945e+03 -5.100166e+04
## [2399,] -5.079480e+04 -9.293203e+04
## [2400,] -9.115929e+05 -5.663197e+05
## [2401,] -2.627188e+09 -9.172527e+08
## [2402,] -2.056720e+09 -6.910881e+08
## [2403,] -6.957539e+07 -3.825555e+07
## [2404,] -3.953708e+06 -4.665285e+06
## [2405,] -4.634241e+06 -5.097265e+06
## [2406,] -9.757383e+06 -8.188850e+06
## [2407,] -2.607881e+09 -9.570538e+08
## [2408,] -2.019891e+09 -6.909676e+08
## [2409,] -7.135820e+07 -3.775820e+07
## [2410,] -4.007421e+06 -4.675114e+06
## [2411,] -4.589062e+06 -5.041061e+06
## [2412,] -1.097938e+07 -8.658634e+06
## [2413,] -2.684509e+09 -9.627815e+08
## [2414,] -2.400832e+09 -8.388184e+08
## [2415,] -7.787945e+07 -4.078433e+07
## [2416,] -3.989599e+06 -4.697796e+06
## [2417,] -4.607067e+06 -5.086450e+06
## [2418,] -9.729571e+06 -8.142872e+06
## [2419,] -2.931382e+09 -1.163104e+09
## [2420,] -2.191001e+09 -8.768291e+08
## [2421,] -7.917793e+07 -4.186080e+07
## [2422,] -3.865521e+06 -4.594990e+06
## [2423,] -4.526465e+06 -5.019310e+06
## [2424,] -9.570757e+06 -8.031517e+06
## [2425,] -3.126182e+09 -1.118979e+09
## [2426,] -2.400757e+09 -8.062067e+08
```

```
## [2427,] -7.442229e+07 -3.933667e+07
## [2428,] -4.019594e+06 -4.672127e+06
## [2429,] -4.609416e+06 -5.086705e+06
## [2430,] -9.781267e+06 -8.203875e+06
## [2431,] -2.636202e+09 -9.568647e+08
## [2432,] -1.925948e+09 -7.166280e+08
## [2433,] -8.684649e+07 -4.506453e+07
## [2434,] -3.886221e+06 -4.636808e+06
## [2435,] -4.595855e+06 -5.081302e+06
## [2436,] -9.706560e+06 -8.121822e+06
## [2437,] -2.617017e+09 -9.683837e+08
## [2438,] -2.056166e+09 -7.384659e+08
## [2439,] -7.161272e+07 -3.730142e+07
## [2440,] -4.007862e+06 -4.717612e+06
## [2441,] -4.640376e+06 -5.117006e+06
## [2442,] -9.895950e+06 -8.246961e+06
## [2443,] -2.722880e+09 -9.281590e+08
## [2444,] -2.392366e+09 -7.383413e+08
## [2445,] -8.002041e+07 -4.302143e+07
## [2446,] -3.954437e+06 -4.614667e+06
## [2447,] -4.434883e+06 -5.067572e+06
## [2448,] -1.010724e+07 -8.391339e+06
## [2449,] -2.920638e+09 -9.223497e+08
## [2450,] -2.070557e+09 -7.294685e+08
## [2451,] -8.117540e+07 -4.073850e+07
## [2452,] -3.954583e+06 -4.640495e+06
## [2453,] -4.638750e+06 -5.117518e+06
## [2454,] -9.907655e+06 -8.175325e+06
## [2455,] -2.626170e+09 -9.508246e+08
## [2456,] -1.968496e+09 -7.077244e+08
## [2457,] -8.251484e+07 -4.374099e+07
## [2458,] -4.035150e+06 -4.721251e+06
## [2459,] -4.557870e+06 -5.070036e+06
## [2460,] -1.005615e+07 -8.414074e+06
## [2461,] -3.104606e+09 -1.293169e+09
## [2462,] -2.004514e+09 -6.693349e+08
## [2463,] -7.293637e+07 -3.710200e+07
## [2464,] -4.062236e+06 -4.731059e+06
## [2465,] -4.649566e+06 -5.124435e+06
## [2466,] -9.767114e+06 -8.197765e+06
## [2467,] -2.850222e+09 -1.009025e+09
## [2468,] -1.946759e+09 -6.989976e+08
## [2469,] -7.420631e+07 -3.800932e+07
## [2470,] -4.053295e+06 -4.734384e+06
## [2471,] -4.648630e+06 -5.132339e+06
## [2472,] -9.982493e+06 -8.325981e+06
## [2473,] -2.751577e+09 -9.854797e+08
```

```

## [2474,] -2.107422e+09 -8.149659e+08
## [2475,] -8.140547e+07 -4.307157e+07
## [2476,] -3.975593e+06 -4.711692e+06
## [2477,] -4.539278e+06 -5.015209e+06
## [2478,] -9.964645e+06 -8.302784e+06
## [2479,] -2.616314e+09 -9.621652e+08
## [2480,] -2.423761e+09 -7.469336e+08
## [2481,] -7.136212e+07 -3.661223e+07
## [2482,] -4.005463e+06 -4.676224e+06
## [2483,] -4.590759e+06 -5.062688e+06
## [2484,] -9.440165e+06 -7.992912e+06
## [2485,] -2.889920e+09 -1.062868e+09
## [2486,] -2.004240e+09 -7.248465e+08
## [2487,] -7.103465e+07 -3.790860e+07
## [2488,] -3.975813e+06 -4.692524e+06
## [2489,] -4.626809e+06 -5.096112e+06
## [2490,] -1.005761e+07 -8.450163e+06
## [2491,] -2.920060e+09 -1.118264e+09
## [2492,] -1.744452e+09 -6.076683e+08
## [2493,] -7.883708e+07 -4.188358e+07
## [2494,] -3.919577e+06 -4.644262e+06
## [2495,] -4.578638e+06 -5.076452e+06
## [2496,] -9.402816e+06 -7.965301e+06
## [2497,] -2.800278e+09 -9.793977e+08
## [2498,] -2.235572e+09 -9.296765e+08
## [2499,] -7.591795e+07 -4.029309e+07
## [2500,] -4.053739e+06 -4.738109e+06
## [2501,] -4.672662e+06 -5.157589e+06
## [2502,] -9.770630e+06 -8.221560e+06
## [2503,] -2.859692e+09 -1.050600e+09
## [2504,] -1.917763e+09 -6.690186e+08
## [2505,] -8.629494e+07 -3.977298e+07
## [2506,] -4.068842e+06 -4.741436e+06
## [2507,] -4.678088e+06 -5.165520e+06
## [2508,] -1.035237e+07 -8.495823e+06
## [2509,] -2.521379e+09 -9.275073e+08
## [2510,] -1.939136e+09 -6.901644e+08
## [2511,] -8.340276e+07 -4.397070e+07
## [2512,] -4.065908e+06 -4.751265e+06
## [2513,] -4.670786e+06 -5.144485e+06
## [2514,] -1.005149e+07 -8.423697e+06
## [2515,] -2.990492e+09 -1.143026e+09
## [2516,] -1.953316e+09 -6.605738e+08
## [2517,] -7.128858e+07 -3.706759e+07
## [2518,] -4.056964e+06 -4.741596e+06
## [2519,] -4.610669e+06 -5.123494e+06
## [2520,] -9.927725e+06 -8.275970e+06

```

```
## [2521,] -2.740928e+09 -9.103706e+08
## [2522,] -2.463102e+09 -9.393150e+08
## [2523,] -8.499547e+07 -4.373394e+07
## [2524,] -4.132644e+06 -4.764599e+06
## [2525,] -4.726572e+06 -5.176203e+06
## [2526,] -1.029234e+07 -8.546073e+06
## [2527,] -3.187042e+09 -1.245918e+09
## [2528,] -1.938733e+09 -6.562541e+08
## [2529,] -8.892783e+07 -4.472878e+07
## [2530,] -4.069286e+06 -4.784234e+06
## [2531,] -4.691564e+06 -5.184147e+06
## [2532,] -9.886702e+06 -8.176810e+06
## [2533,] -3.000359e+09 -1.130251e+09
## [2534,] -2.099071e+09 -8.709038e+08
## [2535,] -7.564663e+07 -4.333975e+07
## [2536,] -3.994411e+06 -4.648188e+06
## [2537,] -4.657623e+06 -5.095174e+06
## [2538,] -1.002262e+07 -8.508603e+06
## [2539,] -3.145003e+09 -1.038207e+09
## [2540,] -1.981830e+09 -6.814272e+08
## [2541,] -7.349074e+07 -3.879047e+07
## [2542,] -4.051327e+06 -4.754996e+06
## [2543,] -4.690624e+06 -5.160846e+06
## [2544,] -9.592717e+06 -8.072021e+06
## [2545,] -2.615298e+09 -9.102323e+08
## [2546,] -1.960154e+09 -6.856287e+08
## [2547,] -7.153005e+07 -3.635292e+07
## [2548,] -4.024425e+06 -4.712887e+06
## [2549,] -4.640942e+06 -5.139821e+06
## [2550,] -1.034550e+07 -8.580500e+06
## [2551,] -2.779699e+09 -9.730485e+08
## [2552,] -1.888852e+09 -6.813075e+08
## [2553,] -7.191048e+07 -3.675107e+07
## [2554,] -3.955969e+06 -4.700023e+06
## [2555,] -4.623115e+06 -5.107745e+06
## [2556,] -1.000410e+07 -8.345714e+06
## [2557,] -3.061594e+09 -1.117548e+09
## [2558,] -2.032433e+09 -6.940303e+08
## [2559,] -7.624717e+07 -3.934247e+07
## [2560,] -4.021654e+06 -4.739067e+06
## [2561,] -4.735847e+06 -5.206037e+06
## [2562,] -9.820538e+06 -8.281115e+06
## [2563,] -2.908759e+09 -1.002241e+09
## [2564,] -2.143551e+09 -7.957694e+08
## [2565,] -7.736126e+07 -4.311474e+07
## [2566,] -4.000742e+06 -4.716364e+06
## [2567,] -4.669887e+06 -5.127978e+06
```

```
## [2568,] -1.009239e+07 -8.551891e+06
## [2569,] -3.020310e+09 -1.136217e+09
## [2570,] -1.952640e+09 -6.727457e+08
## [2571,] -7.106431e+07 -3.844771e+07
## [2572,] -4.042693e+06 -4.794509e+06
## [2573,] -4.673191e+06 -5.173755e+06
## [2574,] -9.725348e+06 -8.125359e+06
## [2575,] -2.614829e+09 -9.612647e+08
## [2576,] -1.959748e+09 -6.981897e+08
## [2577,] -7.143059e+07 -3.819800e+07
## [2578,] -4.057777e+06 -4.781534e+06
## [2579,] -4.679800e+06 -5.185177e+06
## [2580,] -1.005103e+07 -8.360882e+06
## [2581,] -2.529594e+09 -9.553997e+08
## [2582,] -2.527091e+09 -7.504946e+08
## [2583,] -8.040365e+07 -4.180060e+07
## [2584,] -3.865040e+06 -4.755716e+06
## [2585,] -4.652492e+06 -5.134175e+06
## [2586,] -1.059133e+07 -8.641931e+06
## [2587,] -3.487412e+09 -1.271721e+09
## [2588,] -1.995481e+09 -6.725079e+08
## [2589,] -7.381467e+07 -3.683450e+07
## [2590,] -4.121492e+06 -4.801525e+06
## [2591,] -4.739912e+06 -5.214779e+06
## [2592,] -1.042561e+07 -8.618298e+06
## [2593,] -3.009572e+09 -1.104714e+09
## [2594,] -1.839229e+09 -6.310940e+08
## [2595,] -7.345541e+07 -3.760071e+07
## [2596,] -4.085308e+06 -4.785277e+06
## [2597,] -4.863658e+06 -5.299268e+06
## [2598,] -9.888971e+06 -8.254336e+06
## [2599,] -2.999271e+09 -1.080021e+09
## [2600,] -2.039132e+09 -7.282720e+08
## [2601,] -9.272242e+07 -4.543462e+07
## [2602,] -4.124670e+06 -4.795151e+06
## [2603,] -4.746569e+06 -5.215037e+06
## [2604,] -9.878727e+06 -8.355297e+06
## [2605,] -2.642952e+09 -9.667199e+08
## [2606,] -1.923534e+09 -6.979071e+08
## [2607,] -7.916309e+07 -4.185001e+07
## [2608,] -3.971694e+06 -4.746362e+06
## [2609,] -4.720009e+06 -5.225254e+06
## [2610,] -9.951363e+06 -8.352797e+06
## [2611,] -3.654112e+09 -1.271503e+09
## [2612,] -1.916224e+09 -7.107017e+08
## [2613,] -7.226988e+07 -3.790489e+07
## [2614,] -4.321130e+06 -4.960182e+06
```

```

## [2615,] -4.747062e+06 -5.240231e+06
## [2616,] -1.011476e+07 -8.432908e+06
## [2617,] -3.206392e+09 -1.212174e+09
## [2618,] -2.210607e+09 -8.368278e+08
## [2619,] -7.071572e+07 -3.754734e+07
## [2620,] -4.034806e+06 -4.769618e+06
## [2621,] -4.744225e+06 -5.239496e+06
## [2622,] -9.972751e+06 -8.386249e+06
## [2623,] -2.604214e+09 -9.490818e+08
## [2624,] -2.149935e+09 -7.105388e+08
## [2625,] -8.074245e+07 -3.898108e+07
## [2626,] -4.067831e+06 -4.711162e+06
## [2627,] -4.754916e+06 -5.248483e+06
## [2628,] -9.480167e+06 -8.090876e+06
## [2629,] -3.090999e+09 -1.019144e+09
## [2630,] -1.824622e+09 -6.347526e+08
## [2631,] -7.146034e+07 -3.886955e+07
## [2632,] -4.158808e+06 -4.848362e+06
## [2633,] -4.807850e+06 -5.279262e+06
## [2634,] -9.851558e+06 -8.364886e+06
## [2635,] -2.632594e+09 -9.374913e+08
## [2636,] -1.951425e+09 -6.889604e+08
## [2637,] -7.271742e+07 -3.771325e+07
## [2638,] -4.146649e+06 -4.854933e+06
## [2639,] -4.679635e+06 -5.180536e+06
## [2640,] -1.021543e+07 -8.608906e+06
## [2641,] -2.907111e+09 -9.661973e+08
## [2642,] -2.509581e+09 -8.987211e+08
## [2643,] -7.634466e+07 -3.967578e+07
## [2644,] -4.137691e+06 -4.819009e+06
## [2645,] -4.716032e+06 -5.243513e+06
## [2646,] -1.033262e+07 -8.596812e+06
## [2647,] -2.490937e+09 -9.203550e+08
## [2648,] -2.142066e+09 -7.812017e+08
## [2649,] -6.615461e+07 -3.548033e+07
## [2650,] -3.999519e+06 -4.737736e+06
## [2651,] -4.794496e+06 -5.274277e+06
## [2652,] -1.056404e+07 -8.730059e+06
## [2653,] -2.660969e+09 -8.921608e+08
## [2654,] -1.979857e+09 -6.887598e+08
## [2655,] -7.278260e+07 -3.648483e+07
## [2656,] -3.931204e+06 -4.728001e+06
## [2657,] -4.820311e+06 -5.276530e+06
## [2658,] -1.011008e+07 -8.421692e+06
## [2659,] -2.709184e+09 -9.032848e+08
## [2660,] -2.074743e+09 -7.674883e+08
## [2661,] -7.226082e+07 -3.880576e+07

```

```

## [2662,] -4.205012e+06 -4.894939e+06
## [2663,] -4.793545e+06 -5.275533e+06
## [2664,] -9.993524e+06 -8.405299e+06
## [2665,] -2.748051e+09 -9.371638e+08
## [2666,] -2.317803e+09 -8.599200e+08
## [2667,] -7.809416e+07 -4.053893e+07
## [2668,] -4.056693e+06 -4.777097e+06
## [2669,] -4.799289e+06 -5.290582e+06
## [2670,] -1.006109e+07 -8.460312e+06
## [2671,] -3.079796e+09 -1.116067e+09
## [2672,] -1.844814e+09 -6.885994e+08
## [2673,] -7.391059e+07 -3.792656e+07
## [2674,] -4.202179e+06 -4.878695e+06
## [2675,] -4.783305e+06 -5.330280e+06
## [2676,] -1.000529e+07 -8.360634e+06
## [2677,] -2.603200e+09 -9.199841e+08
## [2678,] -1.965107e+09 -6.970998e+08
## [2679,] -7.646489e+07 -4.176707e+07
## [2680,] -4.156589e+06 -4.859109e+06
## [2681,] -4.772829e+06 -5.301133e+06
## [2682,] -1.022538e+07 -8.499021e+06
## [2683,] -2.718337e+09 -9.198450e+08
## [2684,] -2.156328e+09 -8.220626e+08
## [2685,] -7.597001e+07 -3.914345e+07
## [2686,] -4.132520e+06 -4.856064e+06
## [2687,] -4.831128e+06 -5.321744e+06
## [2688,] -9.958644e+06 -8.456623e+06
## [2689,] -2.936015e+09 -1.153328e+09
## [2690,] -2.037200e+09 -6.968174e+08
## [2691,] -7.784593e+07 -4.089383e+07
## [2692,] -4.114570e+06 -4.803857e+06
## [2693,] -4.761664e+06 -5.264573e+06
## [2694,] -1.028328e+07 -8.685304e+06
## [2695,] -2.875727e+09 -1.115659e+09
## [2696,] -2.163584e+09 -8.218874e+08
## [2697,] -7.914414e+07 -4.333884e+07
## [2698,] -4.078343e+06 -4.830046e+06
## [2699,] -4.631959e+06 -5.269076e+06
## [2700,] -1.019903e+07 -8.706477e+06
## [2701,] -1.646607e+09 -6.257034e+08
## [2702,] -1.231999e+09 -4.645444e+08
## [2703,] -2.534784e+07 -1.039402e+07
## [2704,] -1.026556e+04 -5.270818e+04
## [2705,] -4.604667e+04 -8.762631e+04
## [2706,] -9.070285e+05 -5.663197e+05
## [2707,] -1.631514e+09 -6.026075e+08
## [2708,] -1.390545e+09 -5.258896e+08

```



```

## [2709,] -2.431243e+07 -1.013069e+07
## [2710,] -7.861024e+03 -4.868723e+04
## [2711,] -4.658670e+04 -8.924784e+04
## [2712,] -8.501430e+05 -5.337328e+05
## [2713,] -1.684518e+09 -6.117182e+08
## [2714,] -1.260527e+09 -4.714977e+08
## [2715,] -2.599971e+07 -1.088188e+07
## [2716,] -9.242233e+03 -5.204228e+04
## [2717,] -4.798570e+04 -9.029365e+04
## [2718,] -8.985628e+05 -5.650185e+05
## [2719,] -1.608883e+09 -6.163371e+08
## [2720,] -1.072296e+09 -4.234688e+08
## [2721,] -2.220043e+07 -9.609429e+06
## [2722,] -1.404356e+04 -6.126500e+04
## [2723,] -5.215600e+04 -9.477007e+04
## [2724,] -8.537627e+05 -5.383562e+05
## [2725,] -1.406347e+09 -5.532535e+08
## [2726,] -1.366282e+09 -5.110096e+08
## [2727,] -2.676013e+07 -1.130528e+07
## [2728,] -9.389700e+03 -4.969590e+04
## [2729,] -4.639954e+04 -8.986892e+04
## [2730,] -9.205623e+05 -5.715831e+05
## [2731,] -2.845818e+09 -1.115659e+09
## [2732,] -2.148518e+09 -8.079935e+08
## [2733,] -8.026543e+07 -4.170095e+07
## [2734,] -4.236560e+06 -4.919043e+06
## [2735,] -4.851054e+06 -5.322266e+06
## [2736,] -1.000611e+07 -8.444637e+06
## [2737,] -2.612094e+09 -9.366492e+08
## [2738,] -1.935907e+09 -6.967771e+08
## [2739,] -6.195824e+07 -3.399365e+07
## [2740,] -4.202931e+06 -4.879505e+06
## [2741,] -4.886901e+06 -5.364355e+06
## [2742,] -9.852556e+06 -8.317420e+06
## [2743,] -2.370200e+09 -8.206373e+08
## [2744,] -1.837198e+09 -6.504276e+08
## [2745,] -7.260807e+07 -3.866885e+07
## [2746,] -4.108670e+06 -4.738854e+06
## [2747,] -4.784542e+06 -5.297657e+06
## [2748,] -1.018311e+07 -8.509281e+06
## [2749,] -2.717779e+09 -1.018120e+09
## [2750,] -2.066387e+09 -7.096021e+08
## [2751,] -7.351576e+07 -3.880865e+07
## [2752,] -4.163422e+06 -4.866497e+06
## [2753,] -4.768583e+06 -5.260590e+06
## [2754,] -1.043390e+07 -8.604763e+06
## [2755,] -3.017035e+09 -1.103039e+09

```

```
## [2756,] -2.015017e+09 -6.923806e+08
## [2757,] -7.479071e+07 -4.133570e+07
## [2758,] -4.142144e+06 -4.797642e+06
## [2759,] -4.790033e+06 -5.260590e+06
## [2760,] -1.042617e+07 -8.703329e+06
## [2761,] -2.707991e+09 -9.138308e+08
## [2762,] -2.170781e+09 -8.309954e+08
## [2763,] -7.318338e+07 -3.817825e+07
## [2764,] -4.139184e+06 -4.889638e+06
## [2765,] -4.797675e+06 -5.293401e+06
## [2766,] -1.034625e+07 -8.658472e+06
## [2767,] -3.078694e+09 -1.078365e+09
## [2768,] -2.277893e+09 -8.170245e+08
## [2769,] -7.498508e+07 -3.908900e+07
## [2770,] -4.224665e+06 -4.926068e+06
## [2771,] -4.876562e+06 -5.330844e+06
## [2772,] -1.003514e+07 -8.450420e+06
## [2773,] -2.602109e+09 -9.193352e+08
## [2774,] -1.935504e+09 -6.837492e+08
## [2775,] -7.537458e+07 -3.950182e+07
## [2776,] -4.106018e+06 -4.853586e+06
## [2777,] -4.825902e+06 -5.343442e+06
## [2778,] -1.030715e+07 -8.608655e+06
## [2779,] -2.621082e+09 -9.650575e+08
## [2780,] -2.043976e+09 -7.050841e+08
## [2781,] -7.394085e+07 -3.937995e+07
## [2782,] -4.139482e+06 -4.837331e+06
## [2783,] -4.753144e+06 -5.275877e+06
## [2784,] -1.012843e+07 -8.501124e+06
## [2785,] -3.057621e+09 -1.096553e+09
## [2786,] -2.300815e+09 -8.261057e+08
## [2787,] -7.487003e+07 -4.005884e+07
## [2788,] -4.191384e+06 -4.929787e+06
## [2789,] -4.807019e+06 -5.321307e+06
## [2790,] -1.013054e+07 -8.489107e+06
## [2791,] -3.161389e+09 -1.096452e+09
## [2792,] -2.051041e+09 -7.442212e+08
## [2793,] -7.800783e+07 -4.359776e+07
## [2794,] -4.194588e+06 -4.926638e+06
## [2795,] -4.719471e+06 -5.294442e+06
## [2796,] -1.027514e+07 -8.481547e+06
## [2797,] -2.755905e+09 -9.647727e+08
## [2798,] -1.857262e+09 -6.834296e+08
## [2799,] -7.639282e+07 -3.905368e+07
## [2800,] -4.256060e+06 -4.966611e+06
## [2801,] -4.753883e+06 -5.251894e+06
## [2802,] -1.065167e+07 -8.809732e+06
```

```

## [2803,] -3.182040e+09 -1.035402e+09
## [2804,] -1.977953e+09 -6.749338e+08
## [2805,] -8.029696e+07 -4.322428e+07
## [2806,] -4.243911e+06 -4.946849e+06
## [2807,] -4.705053e+06 -5.265653e+06
## [2808,] -1.008846e+07 -8.562272e+06
## [2809,] -2.944631e+09 -1.102328e+09
## [2810,] -2.253780e+09 -8.164567e+08
## [2811,] -7.318734e+07 -3.831056e+07
## [2812,] -4.281017e+06 -4.986903e+06
## [2813,] -4.916182e+06 -5.385919e+06
## [2814,] -1.047707e+07 -8.813669e+06
## [2815,] -2.610689e+09 -8.963182e+08
## [2816,] -2.230661e+09 -7.797501e+08
## [2817,] -8.071374e+07 -4.590972e+07
## [2818,] -4.094828e+06 -4.815198e+06
## [2819,] -4.775794e+06 -5.277176e+06
## [2820,] -1.050032e+07 -8.891999e+06
## [2821,] -3.087856e+09 -1.255806e+09
## [2822,] -2.347002e+09 -8.491395e+08
## [2823,] -7.500232e+07 -4.068797e+07
## [2824,] -4.228788e+06 -4.927208e+06
## [2825,] -4.708614e+06 -5.276179e+06
## [2826,] -1.024319e+07 -8.627363e+06
## [2827,] -3.015608e+09 -1.164927e+09
## [2828,] -2.268992e+09 -8.396665e+08
## [2829,] -7.980347e+07 -4.286241e+07
## [2830,] -4.161651e+06 -4.907444e+06
## [2831,] -4.793211e+06 -5.338469e+06
## [2832,] -1.005744e+07 -8.540686e+06
## [2833,] -2.745568e+09 -9.994854e+08
## [2834,] -2.132022e+09 -7.482773e+08
## [2835,] -7.519697e+07 -4.016531e+07
## [2836,] -4.228863e+06 -4.943858e+06
## [2837,] -4.852589e+06 -5.417097e+06
## [2838,] -1.009267e+07 -8.538158e+06
## [2839,] -3.223630e+09 -1.114485e+09
## [2840,] -2.434028e+09 -7.660494e+08
## [2841,] -7.289485e+07 -3.681791e+07
## [2842,] -4.241368e+06 -5.003982e+06
## [2843,] -4.885314e+06 -5.380883e+06
## [2844,] -1.033958e+07 -8.603158e+06
## [2845,] -2.208088e+09 -7.827438e+08
## [2846,] -1.963008e+09 -6.958495e+08
## [2847,] -7.271623e+07 -3.913969e+07
## [2848,] -4.219892e+06 -4.950738e+06
## [2849,] -4.802302e+06 -5.343526e+06

```

```

## [2850,] -1.089823e+07 -8.862274e+06
## [2851,] -2.515857e+09 -8.904727e+08
## [2852,] -2.028094e+09 -6.661361e+08
## [2853,] -7.747169e+07 -3.995836e+07
## [2854,] -4.247741e+06 -5.004228e+06
## [2855,] -4.886773e+06 -5.371040e+06
## [2856,] -1.025445e+07 -8.708181e+06
## [2857,] -3.066413e+09 -1.095642e+09
## [2858,] -2.191870e+09 -8.021761e+08
## [2859,] -7.438434e+07 -3.852556e+07
## [2860,] -4.266282e+06 -5.000974e+06
## [2861,] -4.918399e+06 -5.417887e+06
## [2862,] -1.013431e+07 -8.527462e+06
## [2863,] -3.118155e+09 -1.183671e+09
## [2864,] -1.984290e+09 -6.999335e+08
## [2865,] -7.403685e+07 -3.827560e+07
## [2866,] -4.306503e+06 -4.997721e+06
## [2867,] -4.800648e+06 -5.310081e+06
## [2868,] -1.060157e+07 -8.672311e+06
## [2869,] -2.534206e+09 -9.352933e+08
## [2870,] -2.214572e+09 -7.215175e+08
## [2871,] -8.352164e+07 -4.308980e+07
## [2872,] -4.153200e+06 -4.941276e+06
## [2873,] -4.803997e+06 -5.324918e+06
## [2874,] -1.029984e+07 -8.892172e+06
## [2875,] -3.076574e+09 -1.126606e+09
## [2876,] -2.049795e+09 -7.434709e+08
## [2877,] -8.371306e+07 -4.447485e+07
## [2878,] -3.952031e+06 -4.789932e+06
## [2879,] -4.943831e+06 -5.444578e+06
## [2880,] -1.066118e+07 -8.676812e+06
## [2881,] -2.609674e+09 -9.125377e+08
## [2882,] -2.772527e+09 -9.407749e+08
## [2883,] -7.735475e+07 -4.421641e+07
## [2884,] -4.226701e+06 -4.948154e+06
## [2885,] -4.841123e+06 -5.314125e+06
## [2886,] -1.020935e+07 -8.624401e+06
## [2887,] -2.618970e+09 -9.522374e+08
## [2888,] -2.298983e+09 -8.437525e+08
## [2889,] -7.722446e+07 -4.165072e+07
## [2890,] -4.248421e+06 -4.902055e+06
## [2891,] -4.869477e+06 -5.400683e+06
## [2892,] -1.046046e+07 -8.812644e+06
## [2893,] -2.862796e+09 -1.132563e+09
## [2894,] -2.161026e+09 -8.770171e+08
## [2895,] -7.926119e+07 -4.384028e+07
## [2896,] -4.211608e+06 -4.915274e+06

```

```

## [2897,] -4.882477e+06 -5.375631e+06
## [2898,] -1.046046e+07 -8.898107e+06
## [2899,] -3.275626e+09 -1.046443e+09
## [2900,] -2.401144e+09 -7.790248e+08
## [2901,] -7.414209e+07 -4.045346e+07
## [2902,] -4.236208e+06 -4.968409e+06
## [2903,] -4.964241e+06 -5.445369e+06
## [2904,] -1.023443e+07 -8.612296e+06
## [2905,] -2.609283e+09 -9.406744e+08
## [2906,] -2.138389e+09 -7.212302e+08
## [2907,] -7.450302e+07 -4.032043e+07
## [2908,] -4.494928e+06 -5.156423e+06
## [2909,] -4.947984e+06 -5.464980e+06
## [2910,] -1.056349e+07 -8.729553e+06
## [2911,] -3.096607e+09 -1.095136e+09
## [2912,] -1.961992e+09 -7.124611e+08
## [2913,] -7.452940e+07 -4.033984e+07
## [2914,] -4.264034e+06 -4.856172e+06
## [2915,] -4.916514e+06 -5.450214e+06
## [2916,] -1.083464e+07 -8.826260e+06
## [2917,] -3.096437e+09 -1.144937e+09
## [2918,] -2.160742e+09 -8.529806e+08
## [2919,] -8.120461e+07 -4.265164e+07
## [2920,] -4.326011e+06 -5.028764e+06
## [2921,] -4.986630e+06 -5.466524e+06
## [2922,] -1.017750e+07 -8.616189e+06
## [2923,] -2.942724e+09 -1.157534e+09
## [2924,] -2.587001e+09 -8.247006e+08
## [2925,] -7.474986e+07 -3.931198e+07
## [2926,] -4.138910e+06 -4.909150e+06
## [2927,] -4.894073e+06 -5.428870e+06
## [2928,] -1.073181e+07 -8.975601e+06
## [2929,] -3.106477e+09 -1.088674e+09
## [2930,] -2.137894e+09 -8.339566e+08
## [2931,] -7.918369e+07 -4.052153e+07
## [2932,] -4.338659e+06 -5.069231e+06
## [2933,] -4.974966e+06 -5.474953e+06
## [2934,] -1.064010e+07 -8.820522e+06
## [2935,] -3.116875e+09 -1.321340e+09
## [2936,] -2.115379e+09 -7.122163e+08
## [2937,] -7.442788e+07 -4.066464e+07
## [2938,] -4.332523e+06 -5.045832e+06
## [2939,] -4.920656e+06 -5.417972e+06
## [2940,] -1.048669e+07 -8.829602e+06
## [2941,] -2.932124e+09 -1.088523e+09
## [2942,] -2.274831e+09 -5.456920e+08
## [2943,] -7.481594e+07 -4.108567e+07

```

```

## [2944,] -4.197143e+06 -4.926095e+06
## [2945,] -4.930581e+06 -5.471906e+06
## [2946,] -1.083550e+07 -8.998509e+06
## [2947,] -3.137466e+09 -1.176323e+09
## [2948,] -2.070707e+09 -6.992059e+08
## [2949,] -8.073579e+07 -4.507914e+07
## [2950,] -4.357626e+06 -5.079641e+06
## [2951,] -5.012745e+06 -5.498465e+06
## [2952,] -1.041147e+07 -8.591409e+06
## [2953,] -3.085309e+09 -1.106949e+09
## [2954,] -1.997404e+09 -6.778414e+08
## [2955,] -7.813754e+07 -4.259480e+07
## [2956,] -4.335934e+06 -5.076363e+06
## [2957,] -4.952643e+06 -5.449243e+06
## [2958,] -1.074835e+07 -8.976380e+06
## [2959,] -2.782436e+09 -1.021779e+09
## [2960,] -1.990092e+09 -6.159265e+08
## [2961,] -8.631086e+07 -4.538126e+07
## [2962,] -4.218787e+06 -4.999443e+06
## [2963,] -4.845273e+06 -5.382018e+06
## [2964,] -1.043400e+07 -8.767081e+06
## [2965,] -2.782356e+09 -9.980364e+08
## [2966,] -2.455978e+09 -8.524897e+08
## [2967,] -8.459758e+07 -4.512020e+07
## [2968,] -4.228134e+06 -4.976288e+06
## [2969,] -4.984733e+06 -5.459951e+06
## [2970,] -1.057858e+07 -8.686755e+06
## [2971,] -2.589108e+09 -9.229052e+08
## [2972,] -2.274393e+09 -8.335595e+08
## [2973,] -8.519027e+07 -4.401247e+07
## [2974,] -4.455073e+06 -5.150900e+06
## [2975,] -4.909570e+06 -5.440613e+06
## [2976,] -1.027441e+07 -8.656017e+06
## [2977,] -2.617562e+09 -9.342186e+08
## [2978,] -1.946702e+09 -6.904115e+08
## [2979,] -7.363254e+07 -3.889351e+07
## [2980,] -4.136697e+06 -4.969717e+06
## [2981,] -4.975006e+06 -5.493377e+06
## [2982,] -1.041296e+07 -9.126980e+06
## [2983,] -3.210371e+09 -1.201663e+09
## [2984,] -1.861688e+09 -6.818723e+08
## [2985,] -7.636489e+07 -4.035249e+07
## [2986,] -4.364316e+06 -5.107068e+06
## [2987,] -4.911995e+06 -5.450035e+06
## [2988,] -1.037652e+07 -8.686160e+06
## [2989,] -2.598368e+09 -9.227659e+08
## [2990,] -1.996994e+09 -7.118085e+08

```

```

## [2991,] -8.197892e+07 -3.957782e+07
## [2992,] -4.210052e+06 -4.900377e+06
## [2993,] -4.942737e+06 -5.466345e+06
## [2994,] -1.068153e+07 -8.865368e+06
## [2995,] -3.012588e+09 -1.144058e+09
## [2996,] -2.167080e+09 -8.240424e+08
## [2997,] -7.936058e+07 -4.322336e+07
## [2998,] -4.286989e+06 -5.006690e+06
## [2999,] -4.892694e+06 -5.475525e+06
## [3000,] -1.063465e+07 -8.958248e+06
## [3001,] -2.617249e+09 -9.001641e+08
## [3002,] -2.099642e+09 -7.204095e+08
## [3003,] -7.750675e+07 -4.104946e+07
## [3004,] -4.392713e+06 -5.104030e+06
## [3005,] -5.029402e+06 -5.525130e+06
## [3006,] -1.039129e+07 -8.692620e+06
## [3007,] -2.569709e+09 -9.396903e+08
## [3008,] -1.982316e+09 -7.645697e+08
## [3009,] -8.087317e+07 -4.532262e+07
## [3010,] -4.256237e+06 -4.930302e+06
## [3011,] -4.909109e+06 -5.419552e+06
## [3012,] -1.070218e+07 -9.027423e+06
## [3013,] -2.931048e+09 -1.009411e+09
## [3014,] -2.055068e+09 -7.246471e+08
## [3015,] -7.607944e+07 -4.041076e+07
## [3016,] -4.557015e+06 -5.233138e+06
## [3017,] -5.028682e+06 -5.538221e+06
## [3018,] -1.056105e+07 -8.940737e+06
## [3019,] -2.597901e+09 -9.224874e+08
## [3020,] -1.960503e+09 -6.815930e+08
## [3021,] -7.500112e+07 -3.896980e+07
## [3022,] -4.271940e+06 -5.027147e+06
## [3023,] -4.933554e+06 -5.484225e+06
## [3024,] -1.044965e+07 -8.689475e+06
## [3025,] -2.840766e+09 -1.033141e+09
## [3026,] -1.882150e+09 -6.605014e+08
## [3027,] -7.648514e+07 -3.964515e+07
## [3028,] -4.421280e+06 -5.128061e+06
## [3029,] -5.053168e+06 -5.554663e+06
## [3030,] -1.078213e+07 -9.043199e+06
## [3031,] -1.638867e+09 -6.209352e+08
## [3032,] -1.248980e+09 -4.574793e+08
## [3033,] -2.181481e+07 -9.744416e+06
## [3034,] -1.494561e+04 -6.053789e+04
## [3035,] -4.027611e+04 -8.126181e+04
## [3036,] -9.091169e+05 -5.697752e+05
## [3037,] -1.586470e+09 -6.209352e+08

```

```

## [3038,] -1.164458e+09 -4.574793e+08
## [3039,] -2.381401e+07 -1.054432e+07
## [3040,] -1.217087e+04 -5.692367e+04
## [3041,] -4.853695e+04 -8.898871e+04
## [3042,] -8.977430e+05 -5.625720e+05
## [3043,] -1.593903e+09 -6.070790e+08
## [3044,] -1.209168e+09 -4.368962e+08
## [3045,] -2.361758e+07 -9.489501e+06
## [3046,] -1.513299e+04 -5.693242e+04
## [3047,] -5.218183e+04 -9.330043e+04
## [3048,] -8.856266e+05 -5.476628e+05
## [3049,] -1.462708e+09 -5.664120e+08
## [3050,] -1.142367e+09 -4.134504e+08
## [3051,] -2.331337e+07 -9.554094e+06
## [3052,] -8.137581e+03 -4.740365e+04
## [3053,] -5.106726e+04 -9.360036e+04
## [3054,] -8.766404e+05 -5.494353e+05
## [3055,] -1.715132e+09 -6.490778e+08
## [3056,] -1.348295e+09 -4.609230e+08
## [3057,] -2.742179e+07 -1.068570e+07
## [3058,] -9.393253e+03 -4.904125e+04
## [3059,] -4.117848e+04 -8.653496e+04
## [3060,] -9.591651e+05 -5.745518e+05
## [3061,] -2.559805e+09 -9.566267e+08
## [3062,] -1.996379e+09 -6.985191e+08
## [3063,] -6.830837e+07 -3.680780e+07
## [3064,] -4.358928e+06 -5.118099e+06
## [3065,] -5.053422e+06 -5.538754e+06
## [3066,] -1.037178e+07 -8.731260e+06
## [3067,] -2.771406e+09 -1.015099e+09
## [3068,] -2.069456e+09 -7.376005e+08
## [3069,] -7.379000e+07 -3.874693e+07
## [3070,] -4.387078e+06 -5.091221e+06
## [3071,] -5.094436e+06 -5.551594e+06
## [3072,] -1.050042e+07 -8.820867e+06
## [3073,] -2.741965e+09 -1.057046e+09
## [3074,] -2.312288e+09 -7.244003e+08
## [3075,] -8.154927e+07 -4.498280e+07
## [3076,] -4.083233e+06 -4.887989e+06
## [3077,] -4.973364e+06 -5.484755e+06
## [3078,] -1.041529e+07 -8.757011e+06
## [3079,] -2.475479e+09 -9.565322e+08
## [3080,] -2.242609e+09 -7.822766e+08
## [3081,] -9.328561e+07 -4.885332e+07
## [3082,] -4.532046e+06 -5.223409e+06
## [3083,] -4.880930e+06 -5.490634e+06
## [3084,] -1.077579e+07 -9.044587e+06

```



```
## [3085,] -2.790824e+09 -1.014953e+09
## [3086,] -1.996106e+09 -7.112786e+08
## [3087,] -7.802419e+07 -4.115724e+07
## [3088,] -4.409205e+06 -5.128559e+06
## [3089,] -5.030923e+06 -5.512895e+06
## [3090,] -1.034246e+07 -8.760937e+06
## [3091,] -3.021651e+09 -1.087313e+09
## [3092,] -2.068969e+09 -7.373100e+08
## [3093,] -8.144308e+07 -4.378878e+07
## [3094,] -4.322172e+06 -5.051409e+06
## [3095,] -5.017981e+06 -5.568589e+06
## [3096,] -1.070171e+07 -8.976728e+06
## [3097,] -2.770762e+09 -9.910977e+08
## [3098,] -1.945354e+09 -6.811142e+08
## [3099,] -8.705636e+07 -4.493467e+07
## [3100,] -4.609206e+06 -5.292487e+06
## [3101,] -5.087835e+06 -5.584050e+06
## [3102,] -1.042106e+07 -8.755220e+06
## [3103,] -2.770601e+09 -9.793004e+08
## [3104,] -2.567968e+09 -9.042876e+08
## [3105,] -7.794730e+07 -4.123571e+07
## [3106,] -4.453705e+06 -5.159589e+06
## [3107,] -5.041720e+06 -5.551904e+06
## [3108,] -1.043093e+07 -8.750102e+06
## [3109,] -2.577692e+09 -9.617844e+08
## [3110,] -1.952246e+09 -7.152440e+08
## [3111,] -6.454667e+07 -3.492118e+07
## [3112,] -4.381676e+06 -5.082039e+06
## [3113,] -5.008728e+06 -5.512672e+06
## [3114,] -1.080524e+07 -9.014002e+06
## [3115,] -2.889425e+09 -1.124197e+09
## [3116,] -2.120595e+09 -8.799684e+08
## [3117,] -7.705281e+07 -4.261082e+07
## [3118,] -4.341257e+06 -5.095581e+06
## [3119,] -5.053971e+06 -5.569390e+06
## [3120,] -1.041761e+07 -8.780408e+06
## [3121,] -2.634630e+09 -9.160019e+08
## [3122,] -1.973674e+09 -6.766483e+08
## [3123,] -7.615015e+07 -4.099666e+07
## [3124,] -4.273305e+06 -5.065488e+06
## [3125,] -5.041000e+06 -5.551148e+06
## [3126,] -1.058543e+07 -8.856015e+06
## [3127,] -2.799709e+09 -1.142869e+09
## [3128,] -2.311259e+09 -7.591637e+08
## [3129,] -7.362738e+07 -3.941367e+07
## [3130,] -4.322782e+06 -5.119343e+06
## [3131,] -4.988269e+06 -5.558085e+06
```

```

## [3132,] -1.045842e+07 -8.853441e+06
## [3133,] -2.859035e+09 -1.002433e+09
## [3134,] -1.966270e+09 -7.063896e+08
## [3135,] -7.275810e+07 -4.009285e+07
## [3136,] -4.354003e+06 -5.136398e+06
## [3137,] -5.017050e+06 -5.553726e+06
## [3138,] -1.131615e+07 -9.341656e+06
## [3139,] -3.051455e+09 -1.092862e+09
## [3140,] -1.951773e+09 -7.063084e+08
## [3141,] -7.296287e+07 -3.905860e+07
## [3142,] -4.466925e+06 -5.207801e+06
## [3143,] -5.125569e+06 -5.625904e+06
## [3144,] -1.042124e+07 -8.869064e+06
## [3145,] -2.520532e+09 -9.729515e+08
## [3146,] -1.951638e+09 -6.763700e+08
## [3147,] -7.679286e+07 -3.999906e+07
## [3148,] -4.476543e+06 -5.204565e+06
## [3149,] -5.066024e+06 -5.540394e+06
## [3150,] -1.069341e+07 -9.055345e+06
## [3151,] -3.040914e+09 -1.129993e+09
## [3152,] -2.142430e+09 -9.135630e+08
## [3153,] -6.825288e+07 -3.638727e+07
## [3154,] -4.498740e+06 -5.204649e+06
## [3155,] -5.005603e+06 -5.571749e+06
## [3156,] -1.093959e+07 -8.935309e+06
## [3157,] -3.207427e+09 -1.013979e+09
## [3158,] -2.075241e+09 -7.322495e+08
## [3159,] -7.700322e+07 -4.081687e+07
## [3160,] -4.483013e+06 -5.211541e+06
## [3161,] -4.968607e+06 -5.585920e+06
## [3162,] -1.098427e+07 -8.939878e+06
## [3163,] -2.614748e+09 -9.325378e+08
## [3164,] -2.287262e+09 -8.319718e+08
## [3165,] -7.055808e+07 -3.730453e+07
## [3166,] -4.549736e+06 -5.290322e+06
## [3167,] -5.106364e+06 -5.624382e+06
## [3168,] -1.057287e+07 -8.894415e+06
## [3169,] -3.186090e+09 -1.199704e+09
## [3170,] -1.749007e+09 -6.063563e+08
## [3171,] -8.437580e+07 -4.356566e+07
## [3172,] -4.267974e+06 -5.123632e+06
## [3173,] -5.155514e+06 -5.633962e+06
## [3174,] -1.070775e+07 -9.010974e+06
## [3175,] -2.979053e+09 -1.061820e+09
## [3176,] -2.149521e+09 -7.586584e+08
## [3177,] -8.077574e+07 -4.343767e+07
## [3178,] -4.527804e+06 -5.218856e+06

```

```

## [3179,] -5.064834e+06 -5.573841e+06
## [3180,] -1.081198e+07 -9.077746e+06
## [3181,] -3.123018e+09 -1.129582e+09
## [3182,] -2.232911e+09 -8.600614e+08
## [3183,] -8.023970e+07 -4.345782e+07
## [3184,] -4.483479e+06 -5.212043e+06
## [3185,] -4.977147e+06 -5.608909e+06
## [3186,] -1.051716e+07 -8.900350e+06
## [3187,] -2.642871e+09 -9.208635e+08
## [3188,] -1.972520e+09 -7.015175e+08
## [3189,] -7.564703e+07 -3.930443e+07
## [3190,] -4.430102e+06 -5.144326e+06
## [3191,] -5.084982e+06 -5.571792e+06
## [3192,] -1.066514e+07 -8.921783e+06
## [3193,] -2.808204e+09 -9.724272e+08
## [3194,] -1.958068e+09 -7.100970e+08
## [3195,] -6.683020e+07 -3.610121e+07
## [3196,] -4.528117e+06 -5.239657e+06
## [3197,] -5.027873e+06 -5.572059e+06
## [3198,] -1.080847e+07 -9.139534e+06
## [3199,] -2.642714e+09 -9.321178e+08
## [3200,] -2.263317e+09 -8.550867e+08
## [3201,] -7.280116e+07 -3.920200e+07
## [3202,] -4.446045e+06 -5.205653e+06
## [3203,] -5.135269e+06 -5.643056e+06
## [3204,] -1.104801e+07 -9.054912e+06
## [3205,] -2.141822e+09 -7.536939e+08
## [3206,] -2.001173e+09 -7.013556e+08
## [3207,] -7.335106e+07 -3.947417e+07
## [3208,] -4.411593e+06 -5.144659e+06
## [3209,] -5.094346e+06 -5.604798e+06
## [3210,] -1.063540e+07 -8.809142e+06
## [3211,] -2.827669e+09 -1.037220e+09
## [3212,] -1.858524e+09 -6.631417e+08
## [3213,] -7.194976e+07 -3.909971e+07
## [3214,] -4.405483e+06 -5.188902e+06
## [3215,] -5.065852e+06 -5.554079e+06
## [3216,] -1.109003e+07 -9.114620e+06
## [3217,] -3.164050e+09 -1.225026e+09
## [3218,] -2.133727e+09 -8.313548e+08
## [3219,] -7.214040e+07 -3.989866e+07
## [3220,] -4.506393e+06 -5.229922e+06
## [3221,] -5.103719e+06 -5.614629e+06
## [3222,] -1.100473e+07 -9.008552e+06
## [3223,] -2.699964e+09 -1.001321e+09
## [3224,] -2.325042e+09 -8.359507e+08
## [3225,] -7.004823e+07 -3.731669e+07

```

```
## [3226,] -4.484411e+06 -5.267680e+06
## [3227,] -5.184085e+06 -5.701249e+06
## [3228,] -1.056678e+07 -8.924540e+06
## [3229,] -2.622958e+09 -9.203998e+08
## [3230,] -1.589047e+09 -5.549944e+08
## [3231,] -8.710779e+07 -4.667192e+07
## [3232,] -4.303079e+06 -5.104637e+06
## [3233,] -5.163012e+06 -5.714276e+06
## [3234,] -1.059510e+07 -8.936259e+06
## [3235,] -3.008395e+09 -1.122660e+09
## [3236,] -2.044471e+09 -7.053745e+08
## [3237,] -8.287660e+07 -4.073495e+07
## [3238,] -4.409000e+06 -5.199518e+06
## [3239,] -5.105210e+06 -5.583688e+06
## [3240,] -1.073579e+07 -9.036701e+06
## [3241,] -2.575288e+09 -9.259705e+08
## [3242,] -2.451663e+09 -9.471753e+08
## [3243,] -7.345581e+07 -3.915707e+07
## [3244,] -4.567069e+06 -5.281552e+06
## [3245,] -5.208945e+06 -5.696834e+06
## [3246,] -1.081653e+07 -9.045892e+06
## [3247,] -3.163535e+09 -1.154001e+09
## [3248,] -2.860992e+09 -1.039131e+09
## [3249,] -7.766706e+07 -4.089798e+07
## [3250,] -4.415497e+06 -5.227015e+06
## [3251,] -5.183611e+06 -5.689045e+06
## [3252,] -1.070096e+07 -9.033495e+06
## [3253,] -2.807070e+09 -1.018801e+09
## [3254,] -2.216381e+09 -8.356856e+08
## [3255,] -7.823500e+07 -4.198584e+07
## [3256,] -4.478484e+06 -5.176070e+06
## [3257,] -5.228384e+06 -5.707783e+06
## [3258,] -1.059163e+07 -9.019114e+06
## [3259,] -3.121481e+09 -1.060824e+09
## [3260,] -1.942726e+09 -6.585782e+08
## [3261,] -7.992390e+07 -4.475262e+07
## [3262,] -4.557902e+06 -5.326632e+06
## [3263,] -5.088256e+06 -5.616998e+06
## [3264,] -1.095514e+07 -9.165444e+06
## [3265,] -2.728380e+09 -9.542648e+08
## [3266,] -1.942591e+09 -6.752576e+08
## [3267,] -7.407391e+07 -3.960871e+07
## [3268,] -4.545252e+06 -5.306081e+06
## [3269,] -5.085064e+06 -5.639245e+06
## [3270,] -1.118318e+07 -9.184572e+06
## [3271,] -3.100517e+09 -1.224437e+09
## [3272,] -2.515887e+09 -7.984579e+08
```

```

## [3273,] -8.431413e+07 -4.547615e+07
## [3274,] -4.440917e+06 -5.247832e+06
## [3275,] -5.093918e+06 -5.632257e+06
## [3276,] -9.992172e+06 -8.669773e+06
## [3277,] -3.333062e+09 -1.109847e+09
## [3278,] -1.892794e+09 -6.836755e+08
## [3279,] -7.828908e+07 -4.202546e+07
## [3280,] -4.500996e+06 -5.278798e+06
## [3281,] -5.174207e+06 -5.704942e+06
## [3282,] -1.094369e+07 -9.140495e+06
## [3283,] -2.737886e+09 -9.772928e+08
## [3284,] -1.781418e+09 -6.295652e+08
## [3285,] -7.905887e+07 -4.096642e+07
## [3286,] -4.419172e+06 -5.231013e+06
## [3287,] -5.146475e+06 -5.666475e+06
## [3288,] -1.087256e+07 -9.234801e+06
## [3289,] -2.966807e+09 -1.115912e+09
## [3290,] -2.155204e+09 -7.531056e+08
## [3291,] -7.181508e+07 -3.939361e+07
## [3292,] -4.561557e+06 -5.296201e+06
## [3293,] -5.120056e+06 -5.662074e+06
## [3294,] -1.080383e+07 -9.142500e+06
## [3295,] -2.718254e+09 -1.018411e+09
## [3296,] -1.956580e+09 -7.222219e+08
## [3297,] -7.325431e+07 -3.927192e+07
## [3298,] -4.291775e+06 -5.129418e+06
## [3299,] -5.229678e+06 -5.732601e+06
## [3300,] -1.096106e+07 -9.192614e+06
## [3301,] -3.007138e+09 -1.115657e+09
## [3302,] -2.253936e+09 -8.211933e+08
## [3303,] -7.673808e+07 -4.142835e+07
## [3304,] -4.635439e+06 -5.365417e+06
## [3305,] -5.225450e+06 -5.721132e+06
## [3306,] -1.076888e+07 -9.117583e+06
## [3307,] -2.679125e+09 -9.309050e+08
## [3308,] -1.977828e+09 -7.089979e+08
## [3309,] -7.492854e+07 -3.931023e+07
## [3310,] -4.546034e+06 -5.265772e+06
## [3311,] -5.244661e+06 -5.769478e+06
## [3312,] -1.105568e+07 -9.061858e+06
## [3313,] -3.017117e+09 -1.054117e+09
## [3314,] -1.927578e+09 -6.790418e+08
## [3315,] -7.403844e+07 -3.958278e+07
## [3316,] -4.432341e+06 -5.293275e+06
## [3317,] -5.195602e+06 -5.718018e+06
## [3318,] -1.094961e+07 -9.189380e+06
## [3319,] -2.717697e+09 -9.594634e+08

```

```
## [3320,] -1.906203e+09 -6.960170e+08
## [3321,] -7.845143e+07 -4.173774e+07
## [3322,] -4.800990e+06 -5.466424e+06
## [3323,] -5.205799e+06 -5.740464e+06
## [3324,] -1.073116e+07 -8.960672e+06
## [3325,] -2.707829e+09 -9.593687e+08
## [3326,] -1.891863e+09 -6.916229e+08
## [3327,] -7.319288e+07 -4.094982e+07
## [3328,] -4.552788e+06 -5.225198e+06
## [3329,] -5.017509e+06 -5.626122e+06
## [3330,] -1.067070e+07 -9.012882e+06
## [3331,] -3.109541e+09 -1.084342e+09
## [3332,] -2.245661e+09 -8.208430e+08
## [3333,] -7.464579e+07 -3.923652e+07
## [3334,] -4.619948e+06 -5.359103e+06
## [3335,] -5.176008e+06 -5.734994e+06
## [3336,] -1.123009e+07 -9.358414e+06
## [3337,] -2.905049e+09 -9.477154e+08
## [3338,] -2.276446e+09 -8.207992e+08
## [3339,] -8.474545e+07 -4.177724e+07
## [3340,] -4.639283e+06 -5.390310e+06
## [3341,] -5.188421e+06 -5.722214e+06
## [3342,] -1.087208e+07 -9.212559e+06
## [3343,] -1.970594e+09 -7.270053e+08
## [3344,] -1.498259e+09 -5.351295e+08
## [3345,] -8.846070e+07 -4.622940e+07
## [3346,] -4.610492e+06 -5.355820e+06
## [3347,] -5.317853e+06 -5.841489e+06
## [3348,] -1.101172e+07 -9.304596e+06
## [3349,] -2.935101e+09 -1.127579e+09
## [3350,] -2.362239e+09 -7.524767e+08
## [3351,] -8.285721e+07 -4.234008e+07
## [3352,] -4.549997e+06 -5.311208e+06
## [3353,] -5.277464e+06 -5.837021e+06
## [3354,] -1.062817e+07 -9.031244e+06
## [3355,] -2.668696e+09 -8.744498e+08
## [3356,] -2.057227e+09 -7.702983e+08
## [3357,] -7.398984e+07 -3.941571e+07
## [3358,] -4.508885e+06 -5.259938e+06
## [3359,] -5.203603e+06 -5.728760e+06
## [3360,] -1.047484e+07 -8.918515e+06
## [3361,] -1.588786e+09 -5.857386e+08
## [3362,] -1.251890e+09 -4.488703e+08
## [3363,] -2.436796e+07 -9.253596e+06
## [3364,] -7.225013e+01 -1.235496e+04
## [3365,] -9.627476e+03 -3.312272e+04
## [3366,] -6.387796e+05 -3.737675e+05
```

```

## [3367,] -1.408355e+09 -5.501329e+08
## [3368,] -1.080167e+09 -4.284208e+08
## [3369,] -2.245143e+07 -9.068153e+06
## [3370,] -8.503399e+01 -1.252128e+04
## [3371,] -9.627476e+03 -3.188464e+04
## [3372,] -7.155565e+05 -4.066501e+05
## [3373,] -1.603558e+09 -5.992757e+08
## [3374,] -1.200655e+09 -4.661547e+08
## [3375,] -2.108430e+07 -8.755713e+06
## [3376,] -2.065359e+02 -1.646642e+04
## [3377,] -8.924514e+03 -3.304378e+04
## [3378,] -6.967299e+05 -4.045750e+05
## [3379,] -1.603497e+09 -6.316044e+08
## [3380,] -1.234567e+09 -4.556731e+08
## [3381,] -2.356314e+07 -9.910941e+06
## [3382,] -2.495743e+02 -1.303110e+04
## [3383,] -9.299017e+03 -3.251093e+04
## [3384,] -6.927403e+05 -4.076252e+05
## [3385,] -1.596042e+09 -6.316044e+08
## [3386,] -1.217526e+09 -4.556731e+08
## [3387,] -2.346164e+07 -9.649094e+06
## [3388,] -2.051499e+02 -1.252539e+04
## [3389,] -9.584948e+03 -3.145822e+04
## [3390,] -6.907498e+05 -4.076252e+05
## [3391,] -1.692051e+09 -6.538354e+08
## [3392,] -1.169896e+09 -4.068483e+08
## [3393,] -2.321978e+07 -9.174450e+06
## [3394,] -7.611627e+03 -5.105137e+04
## [3395,] -5.030690e+04 -9.588267e+04
## [3396,] -9.257987e+05 -5.793483e+05
## [3397,] -1.638743e+09 -6.162232e+08
## [3398,] -1.186602e+09 -4.608902e+08
## [3399,] -2.465341e+07 -1.062236e+07
## [3400,] -1.335825e+04 -5.587843e+04
## [3401,] -5.096922e+04 -9.286868e+04
## [3402,] -8.870654e+05 -5.434884e+05
## [3403,] -1.520235e+09 -5.357489e+08
## [3404,] -1.414562e+09 -5.674281e+08
## [3405,] -2.454958e+07 -1.082802e+07
## [3406,] -1.105419e+04 -5.138893e+04
## [3407,] -4.600209e+04 -8.756479e+04
## [3408,] -9.373483e+05 -5.829973e+05
## [3409,] -1.638681e+09 -5.797252e+08
## [3410,] -1.186550e+09 -4.470316e+08
## [3411,] -2.854524e+07 -1.181908e+07
## [3412,] -7.103253e+03 -4.741962e+04
## [3413,] -4.060616e+04 -8.599185e+04

```

```

## [3414,] -1.000088e+06 -6.063214e+05
## [3415,] -1.646235e+09 -6.023825e+08
## [3416,] -1.360123e+09 -5.072455e+08
## [3417,] -2.476506e+07 -1.022184e+07
## [3418,] -9.400362e+03 -4.839901e+04
## [3419,] -4.342113e+04 -8.830892e+04
## [3420,] -9.739345e+05 -5.915045e+05
## [3421,] -2.765696e+09 -1.171662e+09
## [3422,] -2.184150e+09 -8.205803e+08
## [3423,] -8.734049e+07 -4.556176e+07
## [3424,] -4.639836e+06 -5.404768e+06
## [3425,] -5.316373e+06 -5.823353e+06
## [3426,] -1.074987e+07 -9.028039e+06
## [3427,] -2.804884e+09 -1.005628e+09
## [3428,] -2.138753e+09 -8.391863e+08
## [3429,] -7.420949e+07 -3.878989e+07
## [3430,] -4.607762e+06 -5.366691e+06
## [3431,] -5.249975e+06 -5.810474e+06
## [3432,] -1.111098e+07 -9.177061e+06
## [3433,] -2.934605e+09 -1.102377e+09
## [3434,] -1.955228e+09 -6.784844e+08
## [3435,] -8.013312e+07 -4.421056e+07
## [3436,] -4.518781e+06 -5.304927e+06
## [3437,] -5.243492e+06 -5.763540e+06
## [3438,] -1.101765e+07 -9.215361e+06
## [3439,] -2.914279e+09 -1.065457e+09
## [3440,] -2.168656e+09 -7.972924e+08
## [3441,] -7.957195e+07 -4.324163e+07
## [3442,] -4.569656e+06 -5.253519e+06
## [3443,] -5.270487e+06 -5.744712e+06
## [3444,] -1.080421e+07 -9.142852e+06
## [3445,] -2.954668e+09 -1.133436e+09
## [3446,] -2.183793e+09 -7.745524e+08
## [3447,] -7.642925e+07 -4.746975e+07
## [3448,] -4.455666e+06 -5.260443e+06
## [3449,] -5.213334e+06 -5.764854e+06
## [3450,] -1.106249e+07 -9.314715e+06
## [3451,] -2.985059e+09 -1.114636e+09
## [3452,] -2.712747e+09 -8.963474e+08
## [3453,] -7.534845e+07 -4.040899e+07
## [3454,] -4.682095e+06 -5.422548e+06
## [3455,] -5.300070e+06 -5.827587e+06
## [3456,] -1.086153e+07 -9.079837e+06
## [3457,] -2.794617e+09 -1.011304e+09
## [3458,] -2.221648e+09 -7.699166e+08
## [3459,] -7.775606e+07 -4.109665e+07
## [3460,] -4.569969e+06 -5.301830e+06

```



```
## [3461,] -5.223808e+06 -5.782944e+06
## [3462,] -1.084007e+07 -9.074624e+06
## [3463,] -2.677464e+09 -9.356190e+08
## [3464,] -2.424838e+09 -9.059500e+08
## [3465,] -8.001419e+07 -4.233315e+07
## [3466,] -4.478044e+06 -5.357009e+06
## [3467,] -5.252006e+06 -5.800789e+06
## [3468,] -1.140382e+07 -9.406640e+06
## [3469,] -3.330240e+09 -1.203251e+09
## [3470,] -2.145626e+09 -6.908997e+08
## [3471,] -7.487042e+07 -3.992675e+07
## [3472,] -4.614877e+06 -5.364001e+06
## [3473,] -5.306370e+06 -5.838934e+06
## [3474,] -1.119688e+07 -9.342721e+06
## [3475,] -3.394915e+09 -1.151977e+09
## [3476,] -2.497041e+09 -7.924169e+08
## [3477,] -8.421465e+07 -4.470059e+07
## [3478,] -4.493995e+06 -5.305518e+06
## [3479,] -5.157263e+06 -5.752854e+06
## [3480,] -1.082583e+07 -9.148259e+06
## [3481,] -2.323051e+09 -8.355401e+08
## [3482,] -2.167945e+09 -7.561769e+08
## [3483,] -8.141299e+07 -4.024019e+07
## [3484,] -4.608865e+06 -5.336823e+06
## [3485,] -5.248287e+06 -5.799243e+06
## [3486,] -1.114532e+07 -9.346777e+06
## [3487,] -3.055928e+09 -1.089378e+09
## [3488,] -2.244068e+09 -8.106156e+08
## [3489,] -8.122422e+07 -4.335225e+07
## [3490,] -4.567330e+06 -5.336823e+06
## [3491,] -5.252784e+06 -5.846595e+06
## [3492,] -1.098609e+07 -9.193754e+06
## [3493,] -3.180744e+09 -1.177160e+09
## [3494,] -2.392390e+09 -8.621761e+08
## [3495,] -8.544180e+07 -4.461177e+07
## [3496,] -4.715223e+06 -5.454710e+06
## [3497,] -5.367088e+06 -5.883562e+06
## [3498,] -1.129183e+07 -9.268484e+06
## [3499,] -2.913207e+09 -1.126502e+09
## [3500,] -2.236245e+09 -7.830528e+08
## [3501,] -8.238784e+07 -4.420347e+07
## [3502,] -4.689506e+06 -5.444435e+06
## [3503,] -5.276811e+06 -5.805561e+06
## [3504,] -1.105693e+07 -9.346160e+06
## [3505,] -2.843126e+09 -9.696651e+08
## [3506,] -2.041155e+09 -7.207441e+08
## [3507,] -7.716708e+07 -4.066877e+07
```

```

## [3508,] -4.683127e+06 -5.434084e+06
## [3509,] -5.323246e+06 -5.844770e+06
## [3510,] -1.087180e+07 -9.226833e+06
## [3511,] -3.404982e+09 -1.349085e+09
## [3512,] -1.827058e+09 -6.239732e+08
## [3513,] -8.053991e+07 -4.298984e+07
## [3514,] -4.583675e+06 -5.351040e+06
## [3515,] -5.330301e+06 -5.849788e+06
## [3516,] -1.081094e+07 -9.134572e+06
## [3517,] -2.628437e+09 -9.123515e+08
## [3518,] -1.946780e+09 -6.777282e+08
## [3519,] -7.868583e+07 -4.218022e+07
## [3520,] -4.587026e+06 -5.351209e+06
## [3521,] -5.386075e+06 -5.882006e+06
## [3522,] -1.083172e+07 -9.175404e+06
## [3523,] -3.190747e+09 -1.183248e+09
## [3524,] -1.882757e+09 -6.946469e+08
## [3525,] -7.468020e+07 -3.965594e+07
## [3526,] -4.574414e+06 -5.385940e+06
## [3527,] -5.277591e+06 -5.832414e+06
## [3528,] -1.115129e+07 -9.315685e+06
## [3529,] -2.912629e+09 -1.196001e+09
## [3530,] -2.383864e+09 -9.397043e+08
## [3531,] -8.115954e+07 -4.221000e+07
## [3532,] -4.632097e+06 -5.361821e+06
## [3533,] -5.281102e+06 -5.878848e+06
## [3534,] -1.104476e+07 -9.305743e+06
## [3535,] -2.676040e+09 -9.290874e+08
## [3536,] -2.018676e+09 -6.775293e+08
## [3537,] -7.526365e+07 -3.955306e+07
## [3538,] -4.781106e+06 -5.487053e+06
## [3539,] -5.382309e+06 -5.925742e+06
## [3540,] -1.090139e+07 -9.181432e+06
## [3541,] -3.106559e+09 -1.221712e+09
## [3542,] -2.391493e+09 -8.568821e+08
## [3543,] -9.033743e+07 -4.730047e+07
## [3544,] -4.732468e+06 -5.462794e+06
## [3545,] -5.375744e+06 -5.911695e+06
## [3546,] -1.100656e+07 -9.285259e+06
## [3547,] -2.972800e+09 -9.983246e+08
## [3548,] -2.289247e+09 -7.961277e+08
## [3549,] -7.698737e+07 -4.120746e+07
## [3550,] -4.482987e+06 -5.317606e+06
## [3551,] -5.423886e+06 -5.907200e+06
## [3552,] -1.136899e+07 -9.618389e+06
## [3553,] -3.613674e+09 -1.417728e+09
## [3554,] -2.375279e+09 -8.853857e+08

```

```

## [3555,] -7.499350e+07 -4.148649e+07
## [3556,] -4.755530e+06 -5.487569e+06
## [3557,] -5.330865e+06 -5.864628e+06
## [3558,] -1.103480e+07 -9.325810e+06
## [3559,] -2.646562e+09 -9.401105e+08
## [3560,] -1.953067e+09 -6.899359e+08
## [3561,] -8.981395e+07 -4.465570e+07
## [3562,] -4.623260e+06 -5.404200e+06
## [3563,] -5.329863e+06 -5.875462e+06
## [3564,] -1.128776e+07 -9.337789e+06
## [3565,] -2.812009e+09 -1.163413e+09
## [3566,] -2.479027e+09 -9.342238e+08
## [3567,] -7.722486e+07 -4.057726e+07
## [3568,] -4.742767e+06 -5.526330e+06
## [3569,] -5.433557e+06 -5.950753e+06
## [3570,] -1.100522e+07 -9.262166e+06
## [3571,] -2.733409e+09 -8.617100e+08
## [3572,] -2.025284e+09 -6.314899e+08
## [3573,] -8.475824e+07 -4.356382e+07
## [3574,] -4.645816e+06 -5.380040e+06
## [3575,] -5.446275e+06 -5.935344e+06
## [3576,] -1.100235e+07 -9.259534e+06
## [3577,] -2.589106e+09 -9.285750e+08
## [3578,] -2.054524e+09 -7.686450e+08
## [3579,] -8.039742e+07 -4.152588e+07
## [3580,] -4.674876e+06 -5.404371e+06
## [3581,] -5.311018e+06 -5.846181e+06
## [3582,] -1.092025e+07 -9.242344e+06
## [3583,] -2.646248e+09 -9.228572e+08
## [3584,] -1.730056e+09 -5.794924e+08
## [3585,] -7.911612e+07 -4.208703e+07
## [3586,] -4.678260e+06 -5.467138e+06
## [3587,] -5.343986e+06 -5.895052e+06
## [3588,] -1.155918e+07 -9.415136e+06
## [3589,] -2.972050e+09 -1.221124e+09
## [3590,] -2.249948e+09 -8.516044e+08
## [3591,] -8.289768e+07 -4.332816e+07
## [3592,] -4.646132e+06 -5.418506e+06
## [3593,] -5.318064e+06 -5.903530e+06
## [3594,] -1.100168e+07 -9.288072e+06
## [3595,] -3.199729e+09 -9.978417e+08
## [3596,] -2.249948e+09 -8.049188e+08
## [3597,] -9.372627e+07 -4.472722e+07
## [3598,] -4.736672e+06 -5.505742e+06
## [3599,] -5.365948e+06 -5.889510e+06
## [3600,] -1.089301e+07 -9.210026e+06
## [3601,] -2.607720e+09 -9.340302e+08

```

```
## [3602,] -2.303991e+09 -8.233474e+08
## [3603,] -8.178573e+07 -4.544024e+07
## [3604,] -4.681725e+06 -5.411734e+06
## [3605,] -5.309278e+06 -5.830133e+06
## [3606,] -1.131791e+07 -9.638164e+06
## [3607,] -3.348692e+09 -1.069550e+09
## [3608,] -1.952391e+09 -6.938012e+08
## [3609,] -8.410121e+07 -4.186529e+07
## [3610,] -4.582367e+06 -5.418847e+06
## [3611,] -5.400357e+06 -5.894548e+06
## [3612,] -1.127478e+07 -9.487472e+06
## [3613,] -2.920963e+09 -1.021289e+09
## [3614,] -1.952324e+09 -7.638157e+08
## [3615,] -8.878594e+07 -4.703711e+07
## [3616,] -4.772769e+06 -5.495591e+06
## [3617,] -5.438175e+06 -5.967564e+06
## [3618,] -1.105089e+07 -9.318680e+06
## [3619,] -2.560034e+09 -8.999792e+08
## [3620,] -2.046555e+09 -7.327109e+08
## [3621,] -7.977120e+07 -4.215646e+07
## [3622,] -4.737071e+06 -5.488686e+06
## [3623,] -5.432588e+06 -5.942562e+06
## [3624,] -1.100034e+07 -9.294138e+06
## [3625,] -2.920880e+09 -1.063363e+09
## [3626,] -1.995502e+09 -6.894543e+08
## [3627,] -8.167938e+07 -4.204047e+07
## [3628,] -4.708057e+06 -5.464423e+06
## [3629,] -5.446582e+06 -5.971574e+06
## [3630,] -1.095496e+07 -9.266995e+06
## [3631,] -2.578776e+09 -9.167406e+08
## [3632,] -1.937812e+09 -6.766544e+08
## [3633,] -7.464859e+07 -3.989691e+07
## [3634,] -4.802383e+06 -5.558971e+06
## [3635,] -5.462623e+06 -6.000381e+06
## [3636,] -1.096288e+07 -9.281572e+06
## [3637,] -2.830674e+09 -9.394077e+08
## [3638,] -2.009680e+09 -6.935195e+08
## [3639,] -8.459800e+07 -4.317344e+07
## [3640,] -4.796169e+06 -5.552286e+06
## [3641,] -5.481513e+06 -6.003338e+06
## [3642,] -1.129174e+07 -9.282978e+06
## [3643,] -2.930301e+09 -1.130864e+09
## [3644,] -2.241246e+09 -8.228213e+08
## [3645,] -8.271141e+07 -4.458022e+07
## [3646,] -4.711772e+06 -5.478894e+06
## [3647,] -5.426784e+06 -5.917382e+06
## [3648,] -1.127275e+07 -9.537275e+06
```

```

## [3649,] -3.042344e+09 -1.069050e+09
## [3650,] -2.381551e+09 -7.500053e+08
## [3651,] -8.464018e+07 -4.292883e+07
## [3652,] -4.799677e+06 -5.580699e+06
## [3653,] -5.427047e+06 -5.979876e+06
## [3654,] -1.153360e+07 -9.650523e+06
## [3655,] -2.625617e+09 -9.390330e+08
## [3656,] -2.264056e+09 -7.677554e+08
## [3657,] -7.733641e+07 -4.254826e+07
## [3658,] -4.816352e+06 -5.584570e+06
## [3659,] -5.645598e+06 -6.114197e+06
## [3660,] -1.113012e+07 -9.376778e+06
## [3661,] -2.980552e+09 -1.068800e+09
## [3662,] -2.112158e+09 -7.721723e+08
## [3663,] -7.662858e+07 -4.229549e+07
## [3664,] -4.796811e+06 -5.577609e+06
## [3665,] -5.434434e+06 -5.922982e+06
## [3666,] -1.154624e+07 -9.788963e+06
## [3667,] -3.633540e+09 -1.402123e+09
## [3668,] -2.542065e+09 -8.841129e+08
## [3669,] -7.572841e+07 -3.936310e+07
## [3670,] -4.622103e+06 -5.441155e+06
## [3671,] -5.365027e+06 -5.976968e+06
## [3672,] -1.114032e+07 -9.452246e+06
## [3673,] -3.103664e+09 -1.080872e+09
## [3674,] -2.263765e+09 -8.039652e+08
## [3675,] -8.512445e+07 -4.354976e+07
## [3676,] -4.689770e+06 -5.514553e+06
## [3677,] -5.430124e+06 -5.963921e+06
## [3678,] -1.102589e+07 -9.361509e+06
## [3679,] -2.949852e+09 -1.117954e+09
## [3680,] -2.104498e+09 -7.320078e+08
## [3681,] -6.488010e+07 -3.578995e+07
## [3682,] -4.806858e+06 -5.581392e+06
## [3683,] -5.671809e+06 -6.134181e+06
## [3684,] -1.104687e+07 -9.314985e+06
## [3685,] -2.889340e+09 -1.014464e+09
## [3686,] -2.209911e+09 -8.038786e+08
## [3687,] -8.266004e+07 -4.440291e+07
## [3688,] -4.722287e+06 -5.504221e+06
## [3689,] -5.453275e+06 -5.988183e+06
## [3690,] -1.136443e+07 -9.495824e+06
## [3691,] -2.969968e+09 -1.074652e+09
## [3692,] -2.388803e+09 -7.540771e+08
## [3693,] -7.558621e+07 -3.912954e+07
## [3694,] -4.745004e+06 -5.532253e+06
## [3695,] -5.485399e+06 -6.036298e+06

```

```

## [3696,] -1.097759e+07 -9.360892e+06
## [3697,] -2.663251e+09 -8.934821e+08
## [3698,] -2.574502e+09 -8.984147e+08
## [3699,] -8.154968e+07 -4.526434e+07
## [3700,] -4.758170e+06 -5.493900e+06
## [3701,] -5.431926e+06 -5.968206e+06
## [3702,] -1.133956e+07 -9.665579e+06
## [3703,] -2.653561e+09 -9.500206e+08
## [3704,] -2.349099e+09 -8.742203e+08
## [3705,] -8.519497e+07 -4.612366e+07
## [3706,] -4.683709e+06 -5.507980e+06
## [3707,] -5.399959e+06 -5.963413e+06
## [3708,] -1.107516e+07 -9.304428e+06
## [3709,] -2.740682e+09 -9.442840e+08
## [3710,] -2.517126e+09 -8.129737e+08
## [3711,] -7.455099e+07 -3.995777e+07
## [3712,] -4.674109e+06 -5.462651e+06
## [3713,] -5.420761e+06 -5.987674e+06
## [3714,] -1.136598e+07 -9.623044e+06
## [3715,] -3.123784e+09 -9.905188e+08
## [3716,] -1.986627e+09 -6.927550e+08
## [3717,] -7.879308e+07 -4.239494e+07
## [3718,] -4.742235e+06 -5.553841e+06
## [3719,] -5.467824e+06 -5.984212e+06
## [3720,] -1.111944e+07 -9.418325e+06
## [3721,] -1.564094e+09 -6.069660e+08
## [3722,] -1.354146e+09 -5.331450e+08
## [3723,] -2.743780e+07 -1.111039e+07
## [3724,] -8.830943e+03 -4.839901e+04
## [3725,] -4.383097e+04 -8.685714e+04
## [3726,] -9.668618e+05 -5.988900e+05
## [3727,] -1.571474e+09 -6.115670e+08
## [3728,] -1.366112e+09 -5.145796e+08
## [3729,] -2.424694e+07 -1.062734e+07
## [3730,] -8.010186e+03 -5.207576e+04
## [3731,] -4.321693e+04 -8.801760e+04
## [3732,] -9.786640e+05 -5.878289e+05
## [3733,] -1.785182e+09 -6.729602e+08
## [3734,] -1.109551e+09 -3.938035e+08
## [3735,] -2.711780e+07 -1.139640e+07
## [3736,] -8.282659e+03 -4.972861e+04
## [3737,] -4.967410e+04 -9.260434e+04
## [3738,] -8.854367e+05 -5.635674e+05
## [3739,] -1.684142e+09 -6.300678e+08
## [3740,] -1.451234e+09 -5.750736e+08
## [3741,] -2.415900e+07 -1.077429e+07
## [3742,] -1.302831e+04 -5.661199e+04

```

```

## [3743,] -4.957742e+04 -9.277090e+04
## [3744,] -9.187099e+05 -5.683180e+05
## [3745,] -1.616000e+09 -5.886618e+08
## [3746,] -1.142160e+09 -4.266245e+08
## [3747,] -2.498912e+07 -1.036597e+07
## [3748,] -1.252265e+04 -5.485147e+04
## [3749,] -5.907142e+04 -1.005656e+05
## [3750,] -9.951061e+05 -5.931912e+05
## [3751,] -2.653247e+09 -9.613563e+08
## [3752,] -2.074277e+09 -7.229266e+08
## [3753,] -7.440990e+07 -4.011924e+07
## [3754,] -4.677572e+06 -5.599720e+06
## [3755,] -5.383528e+06 -5.991691e+06
## [3756,] -1.163312e+07 -9.704255e+06
## [3757,] -2.989651e+09 -1.086505e+09
## [3758,] -2.404088e+09 -8.787971e+08
## [3759,] -7.588809e+07 -4.147576e+07
## [3760,] -4.788059e+06 -5.557617e+06
## [3761,] -5.467074e+06 -6.007451e+06
## [3762,] -1.108687e+07 -9.403022e+06
## [3763,] -3.113034e+09 -1.098727e+09
## [3764,] -2.516589e+09 -8.835222e+08
## [3765,] -8.166013e+07 -4.464456e+07
## [3766,] -4.775093e+06 -5.533115e+06
## [3767,] -5.475239e+06 -6.025639e+06
## [3768,] -1.233964e+07 -1.005234e+07
## [3769,] -3.356653e+09 -1.238752e+09
## [3770,] -2.508304e+09 -8.738136e+08
## [3771,] -8.112116e+07 -4.410715e+07
## [3772,] -4.876832e+06 -5.660321e+06
## [3773,] -5.553841e+06 -6.100812e+06
## [3774,] -1.128631e+07 -9.586764e+06
## [3775,] -2.739882e+09 -1.043675e+09
## [3776,] -2.427559e+09 -8.978651e+08
## [3777,] -7.540835e+07 -4.045287e+07
## [3778,] -4.759130e+06 -5.480955e+06
## [3779,] -5.423089e+06 -5.999729e+06
## [3780,] -1.168895e+07 -9.807649e+06
## [3781,] -3.154430e+09 -1.186719e+09
## [3782,] -1.950096e+09 -7.052996e+08
## [3783,] -8.554371e+07 -4.738363e+07
## [3784,] -4.704052e+06 -5.568690e+06
## [3785,] -5.564652e+06 -6.104867e+06
## [3786,] -1.121629e+07 -9.507470e+06
## [3787,] -3.206905e+09 -1.212490e+09
## [3788,] -2.073720e+09 -7.668664e+08
## [3789,] -7.578565e+07 -4.099696e+07

```

```
## [3790,] -4.913458e+06 -5.664220e+06
## [3791,] -5.473737e+06 -6.038521e+06
## [3792,] -1.117336e+07 -9.445867e+06
## [3793,] -2.604755e+09 -8.817380e+08
## [3794,] -1.942736e+09 -6.965879e+08
## [3795,] -7.454179e+07 -3.981884e+07
## [3796,] -4.759370e+06 -5.597058e+06
## [3797,] -5.576497e+06 -6.109996e+06
## [3798,] -1.117046e+07 -9.391797e+06
## [3799,] -2.729815e+09 -8.816927e+08
## [3800,] -2.347988e+09 -8.928277e+08
## [3801,] -8.754792e+07 -4.613718e+07
## [3802,] -4.723722e+06 -5.544337e+06
## [3803,] -5.696594e+06 -6.184330e+06
## [3804,] -1.108774e+07 -9.455263e+06
## [3805,] -2.927985e+09 -1.104508e+09
## [3806,] -1.942669e+09 -7.008358e+08
## [3807,] -7.988871e+07 -4.599511e+07
## [3808,] -4.814930e+06 -5.554879e+06
## [3809,] -5.350743e+06 -5.973875e+06
## [3810,] -1.163332e+07 -9.824091e+06
## [3811,] -2.758949e+09 -8.871451e+08
## [3812,] -1.956861e+09 -6.879302e+08
## [3813,] -8.390808e+07 -4.392065e+07
## [3814,] -5.077217e+06 -5.803955e+06
## [3815,] -5.716922e+06 -6.205510e+06
## [3816,] -1.081778e+07 -9.227891e+06
## [3817,] -2.632981e+09 -9.093995e+08
## [3818,] -2.095523e+09 -7.223515e+08
## [3819,] -8.295208e+07 -4.447731e+07
## [3820,] -4.675537e+06 -5.492123e+06
## [3821,] -5.607462e+06 -6.137543e+06
## [3822,] -1.163784e+07 -9.530423e+06
## [3823,] -2.519226e+09 -9.148906e+08
## [3824,] -2.058347e+09 -7.309744e+08
## [3825,] -7.866570e+07 -4.312233e+07
## [3826,] -4.920724e+06 -5.693355e+06
## [3827,] -5.620381e+06 -6.148626e+06
## [3828,] -1.115024e+07 -9.461383e+06
## [3829,] -2.642318e+09 -9.092613e+08
## [3830,] -1.871358e+09 -6.750255e+08
## [3831,] -8.667092e+07 -4.536004e+07
## [3832,] -4.727523e+06 -5.626020e+06
## [3833,] -5.529011e+06 -6.067533e+06
## [3834,] -1.133995e+07 -9.554651e+06
## [3835,] -2.988230e+09 -1.173335e+09
## [3836,] -2.507309e+09 -8.259436e+08
```



```

## [3837,] -8.224666e+07 -4.778840e+07
## [3838,] -4.828676e+06 -5.647355e+06
## [3839,] -5.544150e+06 -6.114892e+06
## [3840,] -1.135316e+07 -9.737791e+06
## [3841,] -2.957657e+09 -1.116523e+09
## [3842,] -2.117510e+09 -8.399460e+08
## [3843,] -8.150285e+07 -4.466808e+07
## [3844,] -4.934131e+06 -5.665093e+06
## [3845,] -5.514423e+06 -6.095777e+06
## [3846,] -1.125079e+07 -9.480196e+06
## [3847,] -2.947363e+09 -1.048963e+09
## [3848,] -2.072746e+09 -6.790878e+08
## [3849,] -7.489447e+07 -4.007672e+07
## [3850,] -4.868412e+06 -5.718822e+06
## [3851,] -5.521603e+06 -6.030825e+06
## [3852,] -1.152470e+07 -9.687019e+06
## [3853,] -2.594083e+09 -8.977341e+08
## [3854,] -1.956118e+09 -6.832422e+08
## [3855,] -7.618126e+07 -4.048498e+07
## [3856,] -4.954439e+06 -5.733187e+06
## [3857,] -5.636451e+06 -6.165433e+06
## [3858,] -1.122605e+07 -9.501693e+06
## [3859,] -2.603585e+09 -9.258759e+08
## [3860,] -2.013941e+09 -6.705795e+08
## [3861,] -7.599867e+07 -4.048498e+07
## [3862,] -4.941167e+06 -5.726046e+06
## [3863,] -5.622483e+06 -6.175182e+06
## [3864,] -1.158979e+07 -9.642378e+06
## [3865,] -2.967387e+09 -1.097663e+09
## [3866,] -2.307892e+09 -7.888072e+08
## [3867,] -8.157185e+07 -4.360632e+07
## [3868,] -4.981117e+06 -5.733274e+06
## [3869,] -5.509328e+06 -6.112232e+06
## [3870,] -1.192028e+07 -9.951575e+06
## [3871,] -2.622485e+09 -9.144746e+08
## [3872,] -2.323285e+09 -8.024060e+08
## [3873,] -8.313313e+07 -4.460991e+07
## [3874,] -4.895101e+06 -5.676447e+06
## [3875,] -5.578901e+06 -6.148952e+06
## [3876,] -1.152108e+07 -9.773277e+06
## [3877,] -2.846465e+09 -1.048616e+09
## [3878,] -2.245673e+09 -8.823869e+08
## [3879,] -8.800176e+07 -4.632423e+07
## [3880,] -4.888746e+06 -5.644770e+06
## [3881,] -5.595402e+06 -6.124926e+06
## [3882,] -1.145033e+07 -9.745442e+06
## [3883,] -2.936506e+09 -1.091193e+09

```

```

## [3884,] -2.323064e+09 -9.114465e+08
## [3885,] -8.279356e+07 -4.380533e+07
## [3886,] -4.836121e+06 -5.644770e+06
## [3887,] -5.580460e+06 -6.109293e+06
## [3888,] -1.171618e+07 -9.855118e+06
## [3889,] -2.622016e+09 -9.714251e+08
## [3890,] -1.991545e+09 -7.042447e+08
## [3891,] -7.666750e+07 -4.097353e+07
## [3892,] -4.938667e+06 -5.766256e+06
## [3893,] -5.601875e+06 -6.134128e+06
## [3894,] -1.154928e+07 -9.791766e+06
## [3895,] -2.747324e+09 -9.539328e+08
## [3896,] -2.013187e+09 -7.434422e+08
## [3897,] -8.401035e+07 -4.413360e+07
## [3898,] -4.866092e+06 -5.648750e+06
## [3899,] -5.585631e+06 -6.160888e+06
## [3900,] -1.167161e+07 -9.799256e+06
## [3901,] -2.612245e+09 -9.253645e+08
## [3902,] -2.206894e+09 -7.974717e+08
## [3903,] -8.520779e+07 -4.333334e+07
## [3904,] -4.988842e+06 -5.770191e+06
## [3905,] -5.594152e+06 -6.157656e+06
## [3906,] -1.127373e+07 -9.582572e+06
## [3907,] -2.555088e+09 -9.422657e+08
## [3908,] -1.998381e+09 -6.911470e+08
## [3909,] -7.621199e+07 -4.010868e+07
## [3910,] -4.992338e+06 -5.731021e+06
## [3911,] -5.814689e+06 -6.309817e+06
## [3912,] -1.147776e+07 -9.696088e+06
## [3913,] -2.630942e+09 -9.885478e+08
## [3914,] -1.940649e+09 -6.699069e+08
## [3915,] -7.787903e+07 -4.105183e+07
## [3916,] -4.999088e+06 -5.784796e+06
## [3917,] -5.710017e+06 -6.225216e+06
## [3918,] -1.151540e+07 -9.656174e+06
## [3919,] -3.278245e+09 -1.184877e+09
## [3920,] -2.424925e+09 -8.769406e+08
## [3921,] -6.720211e+07 -3.726381e+07
## [3922,] -4.906225e+06 -5.670652e+06
## [3923,] -5.670499e+06 -6.242646e+06
## [3924,] -1.146897e+07 -9.695459e+06
## [3925,] -2.698056e+09 -9.535552e+08
## [3926,] -2.034532e+09 -6.909863e+08
## [3927,] -1.035633e+08 -5.652239e+07
## [3928,] -5.006006e+06 -5.774303e+06
## [3929,] -5.615861e+06 -6.170679e+06
## [3930,] -1.162054e+07 -9.819848e+06

```

```

## [3931,] -3.288663e+09 -1.171922e+09
## [3932,] -2.432694e+09 -8.624524e+08
## [3933,] -8.725091e+07 -4.706347e+07
## [3934,] -5.130331e+06 -5.864346e+06
## [3935,] -5.743430e+06 -6.255192e+06
## [3936,] -1.161464e+07 -9.829428e+06
## [3937,] -3.109368e+09 -1.029703e+09
## [3938,] -2.259767e+09 -8.154225e+08
## [3939,] -8.168650e+07 -4.341386e+07
## [3940,] -4.972852e+06 -5.667450e+06
## [3941,] -5.566382e+06 -6.150400e+06
## [3942,] -1.128777e+07 -9.580698e+06
## [3943,] -2.775666e+09 -1.023633e+09
## [3944,] -1.933038e+09 -6.907854e+08
## [3945,] -7.613600e+07 -4.018615e+07
## [3946,] -5.046464e+06 -5.817748e+06
## [3947,] -5.714481e+06 -6.256844e+06
## [3948,] -1.140578e+07 -9.696897e+06
## [3949,] -3.026520e+09 -1.071849e+09
## [3950,] -2.130351e+09 -7.877345e+08
## [3951,] -7.579774e+07 -4.060470e+07
## [3952,] -5.076831e+06 -5.832325e+06
## [3953,] -5.731181e+06 -6.274318e+06
## [3954,] -1.132733e+07 -9.602309e+06
## [3955,] -2.620607e+09 -8.965439e+08
## [3956,] -3.042511e+09 -1.227936e+09
## [3957,] -9.697901e+07 -5.048947e+07
## [3958,] -4.976588e+06 -5.757012e+06
## [3959,] -5.649535e+06 -6.196201e+06
## [3960,] -1.168678e+07 -9.686125e+06
## [3961,] -3.150482e+09 -1.197162e+09
## [3962,] -2.305763e+09 -8.478623e+08
## [3963,] -7.952734e+07 -4.362253e+07
## [3964,] -4.844540e+06 -5.678720e+06
## [3965,] -5.681196e+06 -6.224461e+06
## [3966,] -1.159401e+07 -9.780492e+06
## [3967,] -3.363206e+09 -1.190722e+09
## [3968,] -2.848499e+09 -9.599466e+08
## [3969,] -8.601509e+07 -4.335652e+07
## [3970,] -4.946931e+06 -5.703716e+06
## [3971,] -5.687179e+06 -6.181837e+06
## [3972,] -1.108054e+07 -9.331280e+06
## [3973,] -2.648919e+09 -9.301110e+08
## [3974,] -2.243645e+09 -8.430118e+08
## [3975,] -9.602590e+07 -4.921327e+07
## [3976,] -4.937146e+06 -5.732426e+06
## [3977,] -5.746097e+06 -6.280085e+06

```

```

## [3978,] -1.132306e+07 -9.702465e+06
## [3979,] -3.171098e+09 -1.017239e+09
## [3980,] -2.423796e+09 -8.858930e+08
## [3981,] -8.431880e+07 -4.834675e+07
## [3982,] -4.927289e+06 -5.657762e+06
## [3983,] -5.615412e+06 -6.216601e+06
## [3984,] -1.195694e+07 -1.001535e+07
## [3985,] -2.903975e+09 -1.127013e+09
## [3986,] -2.182447e+09 -8.288518e+08
## [3987,] -8.705981e+07 -4.620893e+07
## [3988,] -5.013915e+06 -5.793562e+06
## [3989,] -5.718449e+06 -6.268363e+06
## [3990,] -1.153273e+07 -9.784010e+06
## [3991,] -2.804234e+09 -9.993373e+08
## [3992,] -2.669016e+09 -8.380867e+08
## [3993,] -7.614004e+07 -4.085534e+07
## [3994,] -5.094643e+06 -5.865856e+06
## [3995,] -5.777528e+06 -6.315407e+06
## [3996,] -1.138106e+07 -9.681550e+06
## [3997,] -3.004957e+09 -1.089578e+09
## [3998,] -1.982269e+09 -7.334621e+08
## [3999,] -7.542444e+07 -4.046465e+07
## [4000,] -5.057758e+06 -5.844290e+06
## [4001,] -5.914066e+06 -6.398421e+06
## [4002,] -1.179062e+07 -9.930942e+06
## [4003,] -2.754777e+09 -9.240167e+08
## [4004,] -1.939100e+09 -6.606314e+08
## [4005,] -8.289937e+07 -4.527992e+07
## [4006,] -4.911399e+06 -5.786914e+06
## [4007,] -5.666453e+06 -6.253113e+06
## [4008,] -1.180409e+07 -9.898075e+06
## [4009,] -3.066323e+09 -1.077157e+09
## [4010,] -2.212365e+09 -8.192305e+08
## [4011,] -8.347213e+07 -4.485833e+07
## [4012,] -4.961108e+06 -5.768987e+06
## [4013,] -5.692173e+06 -6.243303e+06
## [4014,] -1.155870e+07 -9.815423e+06
## [4015,] -3.319048e+09 -1.145502e+09
## [4016,] -2.447136e+09 -8.662785e+08
## [4017,] -8.310400e+07 -4.500889e+07
## [4018,] -4.974488e+06 -5.761912e+06
## [4019,] -5.655050e+06 -6.214201e+06
## [4020,] -1.178171e+07 -9.937849e+06
## [4021,] -3.117978e+09 -1.089326e+09
## [4022,] -2.304736e+09 -8.006753e+08
## [4023,] -7.676931e+07 -4.104797e+07
## [4024,] -4.905033e+06 -5.844733e+06

```

```

## [4025,] -5.795137e+06 -6.338757e+06
## [4026,] -1.148715e+07 -9.674913e+06
## [4027,] -2.686243e+09 -8.734544e+08
## [4028,] -2.727290e+09 -9.194141e+08
## [4029,] -7.846948e+07 -4.161575e+07
## [4030,] -5.115610e+06 -5.895594e+06
## [4031,] -5.724766e+06 -6.272519e+06
## [4032,] -1.151893e+07 -9.719001e+06
## [4033,] -3.211837e+09 -1.046390e+09
## [4034,] -2.319824e+09 -8.611513e+08
## [4035,] -8.924035e+07 -4.608026e+07
## [4036,] -5.062021e+06 -5.856089e+06
## [4037,] -5.812228e+06 -6.356631e+06
## [4038,] -1.188437e+07 -1.010049e+07
## [4039,] -3.169635e+09 -1.151353e+09
## [4040,] -2.312016e+09 -8.899531e+08
## [4041,] -9.753209e+07 -5.044177e+07
## [4042,] -4.941928e+06 -5.762616e+06
## [4043,] -5.772085e+06 -6.309717e+06
## [4044,] -1.210818e+07 -1.006250e+07
## [4045,] -3.350546e+09 -1.221977e+09
## [4046,] -2.304149e+09 -7.957463e+08
## [4047,] -7.485760e+07 -4.125088e+07
## [4048,] -4.975306e+06 -5.709207e+06
## [4049,] -5.638773e+06 -6.268172e+06
## [4050,] -1.195276e+07 -1.020938e+07
## [4051,] -1.426992e+09 -4.974861e+08
## [4052,] -1.330204e+09 -4.890394e+08
## [4053,] -2.746182e+07 -1.147753e+07
## [4054,] -9.266926e+03 -5.244187e+04
## [4055,] -4.500393e+04 -8.908995e+04
## [4056,] -9.666634e+05 -6.005872e+05
## [4057,] -1.824582e+09 -6.776850e+08
## [4058,] -1.371946e+09 -4.998616e+08
## [4059,] -2.801304e+07 -1.161980e+07
## [4060,] -1.203103e+04 -5.347157e+04
## [4061,] -4.991827e+04 -8.967660e+04
## [4062,] -9.409532e+05 -6.005872e+05
## [4063,] -1.608454e+09 -6.022699e+08
## [4064,] -1.197594e+09 -4.712654e+08
## [4065,] -2.510152e+07 -1.071069e+07
## [4066,] -1.236040e+04 -5.626636e+04
## [4067,] -5.079893e+04 -9.174505e+04
## [4068,] -9.178809e+05 -5.749017e+05
## [4069,] -1.615938e+09 -6.207068e+08
## [4070,] -1.208849e+09 -4.712654e+08
## [4071,] -2.520651e+07 -1.071069e+07

```

```

## [4072,] -1.154532e+04 -5.520997e+04
## [4073,] -5.057804e+04 -9.144812e+04
## [4074,] -9.178809e+05 -5.730885e+05
## [4075,] -1.608454e+09 -6.160715e+08
## [4076,] -1.214496e+09 -4.503710e+08
## [4077,] -2.520651e+07 -1.057411e+07
## [4078,] -1.303249e+04 -5.451127e+04
## [4079,] -4.904531e+04 -9.293762e+04
## [4080,] -9.155895e+05 -5.858410e+05
## [4081,] -3.158892e+09 -1.058286e+09
## [4082,] -2.076307e+09 -7.067678e+08
## [4083,] -7.873636e+07 -4.235334e+07
## [4084,] -5.105991e+06 -5.878033e+06
## [4085,] -5.697440e+06 -6.253725e+06
## [4086,] -1.161523e+07 -9.837480e+06
## [4087,] -2.983136e+09 -1.208714e+09
## [4088,] -2.280481e+09 -7.548812e+08
## [4089,] -8.444941e+07 -4.375691e+07
## [4090,] -5.022323e+06 -5.816982e+06
## [4091,] -5.756410e+06 -6.347594e+06
## [4092,] -1.157154e+07 -9.857296e+06
## [4093,] -3.264262e+09 -1.228180e+09
## [4094,] -2.438061e+09 -8.896796e+08
## [4095,] -8.541397e+07 -4.473156e+07
## [4096,] -5.039133e+06 -5.849493e+06
## [4097,] -5.750662e+06 -6.353918e+06
## [4098,] -1.176479e+07 -9.937397e+06
## [4099,] -2.666088e+09 -9.402964e+08
## [4100,] -1.909494e+09 -6.809671e+08
## [4101,] -8.894616e+07 -4.544461e+07
## [4102,] -5.184224e+06 -5.976528e+06
## [4103,] -5.879745e+06 -6.432206e+06
## [4104,] -1.152500e+07 -9.754452e+06
## [4105,] -3.436702e+09 -1.064109e+09
## [4106,] -2.120546e+09 -8.324704e+08
## [4107,] -7.918987e+07 -4.241303e+07
## [4108,] -5.143633e+06 -5.922045e+06
## [4109,] -5.664205e+06 -6.267935e+06
## [4110,] -1.189053e+07 -9.999941e+06
## [4111,] -2.921951e+09 -1.113207e+09
## [4112,] -2.135373e+09 -8.464833e+08
## [4113,] -8.278261e+07 -4.632643e+07
## [4114,] -5.089732e+06 -5.820934e+06
## [4115,] -5.837272e+06 -6.370432e+06
## [4116,] -1.168216e+07 -9.906607e+06
## [4117,] -2.792353e+09 -9.863867e+08
## [4118,] -2.024332e+09 -7.369494e+08

```

```

## [4119,] -8.490497e+07 -4.548583e+07
## [4120,] -5.036115e+06 -5.846241e+06
## [4121,] -5.786553e+06 -6.322376e+06
## [4122,] -1.186509e+07 -1.006753e+07
## [4123,] -2.665694e+09 -8.837799e+08
## [4124,] -1.951929e+09 -6.892599e+08
## [4125,] -8.549874e+07 -5.042335e+07
## [4126,] -5.259630e+06 -6.009841e+06
## [4127,] -5.770315e+06 -6.293090e+06
## [4128,] -1.210236e+07 -9.958770e+06
## [4129,] -4.329106e+09 -1.553971e+09
## [4130,] -2.650155e+09 -9.533216e+08
## [4131,] -7.834236e+07 -3.952452e+07
## [4132,] -5.154286e+06 -5.940744e+06
## [4133,] -5.879515e+06 -6.414559e+06
## [4134,] -1.221013e+07 -1.020892e+07
## [4135,] -3.435985e+09 -1.234184e+09
## [4136,] -2.090210e+09 -7.544613e+08
## [4137,] -8.789449e+07 -4.553738e+07
## [4138,] -5.076776e+06 -5.900909e+06
## [4139,] -5.854698e+06 -6.398560e+06
## [4140,] -1.169714e+07 -9.943034e+06
## [4141,] -3.435985e+09 -1.287127e+09
## [4142,] -1.944431e+09 -6.848072e+08
## [4143,] -8.460396e+07 -4.568907e+07
## [4144,] -5.043306e+06 -5.861208e+06
## [4145,] -5.768502e+06 -6.261700e+06
## [4146,] -1.201555e+07 -9.955404e+06
## [4147,] -3.338264e+09 -1.234131e+09
## [4148,] -2.397274e+09 -9.085882e+08
## [4149,] -9.029430e+07 -4.784668e+07
## [4150,] -5.006608e+06 -5.908336e+06
## [4151,] -5.783965e+06 -6.366622e+06
## [4152,] -1.181430e+07 -1.020339e+07
## [4153,] -2.665141e+09 -9.226700e+08
## [4154,] -2.509694e+09 -9.183485e+08
## [4155,] -8.216100e+07 -4.515566e+07
## [4156,] -5.202222e+06 -5.984900e+06
## [4157,] -5.817321e+06 -6.381770e+06
## [4158,] -1.204805e+07 -1.005317e+07
## [4159,] -2.674615e+09 -9.626346e+08
## [4160,] -2.632929e+09 -9.084500e+08
## [4161,] -7.825179e+07 -4.065252e+07
## [4162,] -5.185393e+06 -6.003338e+06
## [4163,] -5.801040e+06 -6.359768e+06
## [4164,] -1.169280e+07 -9.878765e+06
## [4165,] -3.115334e+09 -1.075502e+09

```

```
## [4166,] -1.943892e+09 -6.760247e+08
## [4167,] -7.700118e+07 -4.121757e+07
## [4168,] -5.070800e+06 -5.919843e+06
## [4169,] -5.753103e+06 -6.339180e+06
## [4170,] -1.213288e+07 -1.018406e+07
## [4171,] -2.569239e+09 -9.223451e+08
## [4172,] -2.248074e+09 -8.223021e+08
## [4173,] -8.493740e+07 -4.579243e+07
## [4174,] -5.199406e+06 -5.978231e+06
## [4175,] -5.767504e+06 -6.341936e+06
## [4176,] -1.207690e+07 -1.003398e+07
## [4177,] -2.960897e+09 -1.057043e+09
## [4178,] -2.194480e+09 -7.718817e+08
## [4179,] -8.132525e+07 -4.453663e+07
## [4180,] -5.148597e+06 -5.912854e+06
## [4181,] -5.842103e+06 -6.440053e+06
## [4182,] -1.169142e+07 -9.862460e+06
## [4183,] -2.920382e+09 -9.796799e+08
## [4184,] -2.255628e+09 -8.222145e+08
## [4185,] -8.554542e+07 -4.553019e+07
## [4186,] -5.098037e+06 -5.931093e+06
## [4187,] -5.797403e+06 -6.398081e+06
## [4188,] -1.174285e+07 -1.002303e+07
## [4189,] -2.860011e+09 -1.032745e+09
## [4190,] -2.066836e+09 -7.316421e+08
## [4191,] -7.600957e+07 -3.969765e+07
## [4192,] -5.088353e+06 -5.913390e+06
## [4193,] -5.771990e+06 -6.411068e+06
## [4194,] -1.217248e+07 -1.018213e+07
## [4195,] -2.654346e+09 -9.504901e+08
## [4196,] -2.270628e+09 -8.453721e+08
## [4197,] -7.898476e+07 -4.363476e+07
## [4198,] -5.064910e+06 -5.873647e+06
## [4199,] -5.811085e+06 -6.385153e+06
## [4200,] -1.205286e+07 -1.024055e+07
## [4201,] -3.240474e+09 -1.168576e+09
## [4202,] -2.396002e+09 -8.595823e+08
## [4203,] -8.935019e+07 -4.615921e+07
## [4204,] -5.193359e+06 -6.015567e+06
## [4205,] -5.800583e+06 -6.374144e+06
## [4206,] -1.162989e+07 -9.903615e+06
## [4207,] -2.751088e+09 -1.008729e+09
## [4208,] -2.286042e+09 -9.572968e+08
## [4209,] -7.826941e+07 -4.093263e+07
## [4210,] -5.299437e+06 -6.037717e+06
## [4211,] -5.852960e+06 -6.456438e+06
## [4212,] -1.176836e+07 -9.910513e+06
```



```

## [4213,] -2.919556e+09 -1.032401e+09
## [4214,] -1.928673e+09 -6.587080e+08
## [4215,] -8.356862e+07 -4.620075e+07
## [4216,] -5.163144e+06 -5.975751e+06
## [4217,] -5.815316e+06 -6.434307e+06
## [4218,] -1.169981e+07 -9.945492e+06
## [4219,] -3.010737e+09 -1.099232e+09
## [4220,] -2.254757e+09 -8.124141e+08
## [4221,] -8.668687e+07 -4.794508e+07
## [4222,] -5.082204e+06 -5.910387e+06
## [4223,] -5.982395e+06 -6.504470e+06
## [4224,] -1.205677e+07 -1.022118e+07
## [4225,] -2.899201e+09 -1.026273e+09
## [4226,] -1.707228e+09 -5.936601e+08
## [4227,] -8.284666e+07 -4.594769e+07
## [4228,] -4.925471e+06 -5.820167e+06
## [4229,] -5.973076e+06 -6.524793e+06
## [4230,] -1.261383e+07 -1.040778e+07
## [4231,] -3.239604e+09 -1.014219e+09
## [4232,] -2.622732e+09 -9.568712e+08
## [4233,] -9.148594e+07 -5.003899e+07
## [4234,] -5.150095e+06 -5.961712e+06
## [4235,] -5.913553e+06 -6.452602e+06
## [4236,] -1.209464e+07 -1.021012e+07
## [4237,] -3.610273e+09 -1.285483e+09
## [4238,] -2.499433e+09 -8.029323e+08
## [4239,] -8.560625e+07 -4.902924e+07
## [4240,] -5.146877e+06 -5.969177e+06
## [4241,] -5.988026e+06 -6.557994e+06
## [4242,] -1.182084e+07 -1.003435e+07
## [4243,] -2.828802e+09 -1.019969e+09
## [4244,] -2.316218e+09 -7.397797e+08
## [4245,] -8.218325e+07 -4.419269e+07
## [4246,] -5.103063e+06 -5.972912e+06
## [4247,] -5.970170e+06 -6.506731e+06
## [4248,] -1.207429e+07 -1.019143e+07
## [4249,] -3.113116e+09 -1.002140e+09
## [4250,] -2.132549e+09 -7.265600e+08
## [4251,] -8.257711e+07 -4.213992e+07
## [4252,] -5.324516e+06 -6.108643e+06
## [4253,] -5.910662e+06 -6.482016e+06
## [4254,] -1.207129e+07 -1.021925e+07
## [4255,] -3.509725e+09 -1.129835e+09
## [4256,] -2.292708e+09 -7.352908e+08
## [4257,] -7.662898e+07 -4.121370e+07
## [4258,] -5.177712e+06 -6.002380e+06
## [4259,] -5.945438e+06 -6.485907e+06

```

```

## [4260,] -1.203505e+07 -1.020119e+07
## [4261,] -3.040572e+09 -1.199753e+09
## [4262,] -2.238509e+09 -7.843924e+08
## [4263,] -7.941587e+07 -4.271517e+07
## [4264,] -5.160839e+06 -6.046403e+06
## [4265,] -5.906167e+06 -6.507308e+06
## [4266,] -1.185011e+07 -1.007650e+07
## [4267,] -3.165076e+09 -1.238750e+09
## [4268,] -2.072826e+09 -7.396134e+08
## [4269,] -8.961041e+07 -4.807215e+07
## [4270,] -5.259658e+06 -6.079548e+06
## [4271,] -6.022518e+06 -6.571433e+06
## [4272,] -1.190188e+07 -9.889557e+06
## [4273,] -2.700912e+09 -1.001898e+09
## [4274,] -2.139694e+09 -9.765727e+08
## [4275,] -8.476719e+07 -4.454281e+07
## [4276,] -5.086808e+06 -5.984481e+06
## [4277,] -5.996338e+06 -6.561665e+06
## [4278,] -1.202305e+07 -1.024369e+07
## [4279,] -2.778885e+09 -1.013684e+09
## [4280,] -2.370675e+09 -9.166357e+08
## [4281,] -8.906019e+07 -4.709302e+07
## [4282,] -5.201832e+06 -5.951686e+06
## [4283,] -5.853049e+06 -6.486483e+06
## [4284,] -1.225653e+07 -1.026668e+07
## [4285,] -3.217467e+09 -1.167479e+09
## [4286,] -2.434289e+09 -8.256869e+08
## [4287,] -7.651267e+07 -4.166715e+07
## [4288,] -5.352680e+06 -6.124034e+06
## [4289,] -5.890037e+06 -6.502880e+06
## [4290,] -1.210016e+07 -1.029951e+07
## [4291,] -3.101958e+09 -1.098320e+09
## [4292,] -1.842811e+09 -6.579238e+08
## [4293,] -9.311392e+07 -4.670483e+07
## [4294,] -5.161422e+06 -6.032371e+06
## [4295,] -5.987285e+06 -6.554707e+06
## [4296,] -1.252775e+07 -1.046078e+07
## [4297,] -2.681097e+09 -9.320680e+08
## [4298,] -2.441847e+09 -7.704387e+08
## [4299,] -7.879349e+07 -4.307946e+07
## [4300,] -5.332418e+06 -6.128180e+06
## [4301,] -5.887151e+06 -6.464876e+06
## [4302,] -1.173001e+07 -1.001874e+07
## [4303,] -2.867450e+09 -1.037217e+09
## [4304,] -2.401777e+09 -8.535371e+08
## [4305,] -8.760123e+07 -4.847984e+07
## [4306,] -5.226428e+06 -6.047485e+06

```

```

## [4307,] -5.993981e+06 -6.574285e+06
## [4308,] -1.183086e+07 -1.055041e+07
## [4309,] -3.431597e+09 -1.147985e+09
## [4310,] -1.948352e+09 -6.999523e+08
## [4311,] -8.684777e+07 -4.577081e+07
## [4312,] -5.216370e+06 -6.058675e+06
## [4313,] -5.970260e+06 -6.544420e+06
## [4314,] -1.250939e+07 -1.042081e+07
## [4315,] -2.661356e+09 -9.374867e+08
## [4316,] -2.057110e+09 -7.171444e+08
## [4317,] -8.338583e+07 -4.620704e+07
## [4318,] -5.233418e+06 -6.077046e+06
## [4319,] -5.994258e+06 -6.534384e+06
## [4320,] -1.198179e+07 -1.034370e+07
## [4321,] -2.897061e+09 -1.030977e+09
## [4322,] -2.252726e+09 -7.882560e+08
## [4323,] -8.944565e+07 -4.608561e+07
## [4324,] -5.315802e+06 -6.110366e+06
## [4325,] -5.948979e+06 -6.504611e+06
## [4326,] -1.201725e+07 -1.056249e+07
## [4327,] -2.856987e+09 -1.244457e+09
## [4328,] -2.146214e+09 -9.111307e+08
## [4329,] -8.786887e+07 -4.679887e+07
## [4330,] -5.168952e+06 -6.014877e+06
## [4331,] -5.903872e+06 -6.537471e+06
## [4332,] -1.235374e+07 -1.043282e+07
## [4333,] -2.916914e+09 -1.091545e+09
## [4334,] -2.221886e+09 -8.064940e+08
## [4335,] -9.166587e+07 -4.768312e+07
## [4336,] -5.128504e+06 -6.018716e+06
## [4337,] -5.994811e+06 -6.562582e+06
## [4338,] -1.232851e+07 -1.046377e+07
## [4339,] -4.213675e+09 -1.513997e+09
## [4340,] -2.214102e+09 -8.436844e+08
## [4341,] -8.137914e+07 -4.401923e+07
## [4342,] -5.298958e+06 -6.162459e+06
## [4343,] -5.918460e+06 -6.542778e+06
## [4344,] -1.228047e+07 -1.031932e+07
## [4345,] -2.641687e+09 -9.145193e+08
## [4346,] -2.108518e+09 -7.343794e+08
## [4347,] -7.820059e+07 -4.155483e+07
## [4348,] -5.378225e+06 -6.184695e+06
## [4349,] -6.084304e+06 -6.641022e+06
## [4350,] -1.178241e+07 -1.012040e+07
## [4351,] -3.441807e+09 -1.231126e+09
## [4352,] -1.933452e+09 -6.573359e+08
## [4353,] -8.444259e+07 -4.292519e+07

```

```

## [4354,] -5.054789e+06 -5.982537e+06
## [4355,] -5.897272e+06 -6.553111e+06
## [4356,] -1.245957e+07 -1.046032e+07
## [4357,] -2.718727e+09 -1.030634e+09
## [4358,] -2.049205e+09 -7.743954e+08
## [4359,] -9.193965e+07 -5.007798e+07
## [4360,] -5.388863e+06 -6.207246e+06
## [4361,] -5.922454e+06 -6.592244e+06
## [4362,] -1.225462e+07 -1.017312e+07
## [4363,] -3.496431e+09 -1.198483e+09
## [4364,] -2.168322e+09 -8.341537e+08
## [4365,] -8.410036e+07 -4.546022e+07
## [4366,] -5.122248e+06 -6.077950e+06
## [4367,] -6.026915e+06 -6.581058e+06
## [4368,] -1.200986e+07 -1.019327e+07
## [4369,] -2.806741e+09 -9.773852e+08
## [4370,] -2.611930e+09 -9.907828e+08
## [4371,] -9.417560e+07 -4.861827e+07
## [4372,] -5.402893e+06 -6.181442e+06
## [4373,] -5.891728e+06 -6.507160e+06
## [4374,] -1.183860e+07 -1.014959e+07
## [4375,] -3.463174e+09 -1.283675e+09
## [4376,] -2.337484e+09 -9.009042e+08
## [4377,] -9.400220e+07 -5.025872e+07
## [4378,] -5.238006e+06 -6.100397e+06
## [4379,] -5.938673e+06 -6.543936e+06
## [4380,] -1.219765e+07 -1.035863e+07
## [4381,] -1.615938e+09 -5.931558e+08
## [4382,] -1.203215e+09 -4.538205e+08
## [4383,] -2.510152e+07 -1.071069e+07
## [4384,] -1.303249e+04 -5.520997e+04
## [4385,] -4.926283e+04 -9.234037e+04
## [4386,] -9.293813e+05 -5.730885e+05
## [4387,] -1.578690e+09 -6.253594e+08
## [4388,] -1.260148e+09 -4.435115e+08
## [4389,] -2.552278e+07 -1.050616e+07
## [4390,] -1.286280e+04 -5.520997e+04
## [4391,] -4.991827e+04 -9.174505e+04
## [4392,] -9.178809e+05 -5.821831e+05
## [4393,] -1.615938e+09 -6.207068e+08
## [4394,] -1.237217e+09 -4.538205e+08
## [4395,] -2.437276e+07 -1.077931e+07
## [4396,] -1.252675e+04 -5.416359e+04
## [4397,] -4.969931e+04 -9.056019e+04
## [4398,] -9.201753e+05 -5.749017e+05
## [4399,] -1.623440e+09 -6.114536e+08
## [4400,] -1.242930e+09 -4.401014e+08

```

```

## [4401,] -2.520651e+07 -1.043842e+07
## [4402,] -1.029903e+04 -5.486007e+04
## [4403,] -4.926283e+04 -9.413788e+04
## [4404,] -9.247725e+05 -5.694707e+05
## [4405,] -1.608454e+09 -6.114536e+08
## [4406,] -1.191986e+09 -4.607590e+08
## [4407,] -2.437276e+07 -1.091720e+07
## [4408,] -1.303249e+04 -5.520997e+04
## [4409,] -4.904531e+04 -9.204247e+04
## [4410,] -9.155895e+05 -5.712782e+05
## [4411,] -2.916006e+09 -1.121991e+09
## [4412,] -2.004898e+09 -6.570225e+08
## [4413,] -9.283259e+07 -4.607838e+07
## [4414,] -5.241504e+06 -6.093121e+06
## [4415,] -6.096456e+06 -6.671445e+06
## [4416,] -1.241828e+07 -1.022257e+07
## [4417,] -2.612243e+09 -8.916543e+08
## [4418,] -2.345038e+09 -9.055963e+08
## [4419,] -8.945003e+07 -4.853628e+07
## [4420,] -5.438132e+06 -6.226573e+06
## [4421,] -6.142852e+06 -6.692027e+06
## [4422,] -1.243210e+07 -1.038110e+07
## [4423,] -3.068690e+09 -1.121837e+09
## [4424,] -2.063225e+09 -7.207568e+08
## [4425,] -8.306389e+07 -4.682295e+07
## [4426,] -5.129667e+06 -5.994385e+06
## [4427,] -6.133409e+06 -6.702476e+06
## [4428,] -1.253592e+07 -1.035242e+07
## [4429,] -3.473521e+09 -1.223899e+09
## [4430,] -2.274573e+09 -8.289906e+08
## [4431,] -8.481794e+07 -4.698725e+07
## [4432,] -5.303575e+06 -6.111998e+06
## [4433,] -6.037943e+06 -6.552336e+06
## [4434,] -1.197162e+07 -1.017331e+07
## [4435,] -2.915594e+09 -1.134256e+09
## [4436,] -2.114990e+09 -8.289906e+08
## [4437,] -9.310811e+07 -5.019702e+07
## [4438,] -5.187509e+06 -6.067917e+06
## [4439,] -6.150711e+06 -6.700229e+06
## [4440,] -1.197691e+07 -1.009436e+07
## [4441,] -3.364355e+09 -1.103033e+09
## [4442,] -2.190115e+09 -7.919570e+08
## [4443,] -8.874623e+07 -5.066468e+07
## [4444,] -5.324459e+06 -6.138111e+06
## [4445,] -6.037154e+06 -6.629598e+06
## [4446,] -1.243068e+07 -1.034129e+07
## [4447,] -2.885231e+09 -1.102932e+09

```

```
## [4448,] -1.875745e+09 -6.776610e+08
## [4449,] -7.531066e+07 -4.212909e+07
## [4450,] -5.424740e+06 -6.256935e+06
## [4451,] -6.051627e+06 -6.642235e+06
## [4452,] -1.232659e+07 -1.040016e+07
## [4453,] -3.016775e+09 -1.053915e+09
## [4454,] -2.033440e+09 -6.525192e+08
## [4455,] -8.506720e+07 -4.574606e+07
## [4456,] -5.259434e+06 -6.075630e+06
## [4457,] -6.059149e+06 -6.609694e+06
## [4458,] -1.232356e+07 -1.052897e+07
## [4459,] -2.727098e+09 -9.080159e+08
## [4460,] -2.289708e+09 -7.557277e+08
## [4461,] -9.197340e+07 -4.732722e+07
## [4462,] -5.252594e+06 -6.167892e+06
## [4463,] -6.158574e+06 -6.713520e+06
## [4464,] -1.231212e+07 -1.023317e+07
## [4465,] -2.975795e+09 -1.041749e+09
## [4466,] -1.889558e+09 -6.732857e+08
## [4467,] -7.719189e+07 -4.135713e+07
## [4468,] -5.501784e+06 -6.264767e+06
## [4469,] -6.161290e+06 -6.721442e+06
## [4470,] -1.197551e+07 -1.022275e+07
## [4471,] -2.795501e+09 -1.011836e+09
## [4472,] -2.144444e+09 -7.511906e+08
## [4473,] -8.705160e+07 -4.706061e+07
## [4474,] -5.526302e+06 -6.261034e+06
## [4475,] -5.957354e+06 -6.596263e+06
## [4476,] -1.234503e+07 -1.044801e+07
## [4477,] -3.067759e+09 -1.127525e+09
## [4478,] -2.220086e+09 -8.146439e+08
## [4479,] -8.094148e+07 -4.411361e+07
## [4480,] -5.418307e+06 -6.227672e+06
## [4481,] -6.165365e+06 -6.725698e+06
## [4482,] -1.240934e+07 -1.036801e+07
## [4483,] -2.306287e+09 -8.254983e+08
## [4484,] -2.235328e+09 -7.644625e+08
## [4485,] -8.227900e+07 -4.426291e+07
## [4486,] -5.383727e+06 -6.209165e+06
## [4487,] -6.085232e+06 -6.674904e+06
## [4488,] -1.193872e+07 -1.022700e+07
## [4489,] -3.203268e+09 -1.210254e+09
## [4490,] -2.375451e+09 -8.951723e+08
## [4491,] -8.117122e+07 -4.639738e+07
## [4492,] -5.453425e+06 -6.250392e+06
## [4493,] -6.032656e+06 -6.685632e+06
## [4494,] -1.257475e+07 -1.043404e+07
```

```

## [4495,] -3.057021e+09 -1.077757e+09
## [4496,] -1.917403e+09 -6.899484e+08
## [4497,] -8.252451e+07 -4.699042e+07
## [4498,] -5.359867e+06 -6.176124e+06
## [4499,] -6.078531e+06 -6.695784e+06
## [4500,] -1.231303e+07 -1.043404e+07
## [4501,] -2.985304e+09 -1.017433e+09
## [4502,] -2.535994e+09 -9.096551e+08
## [4503,] -8.852474e+07 -4.430359e+07
## [4504,] -5.339253e+06 -6.213340e+06
## [4505,] -6.138081e+06 -6.717528e+06
## [4506,] -1.232376e+07 -1.066941e+07
## [4507,] -3.056768e+09 -1.108419e+09
## [4508,] -2.296599e+09 -7.507718e+08
## [4509,] -8.275648e+07 -4.659222e+07
## [4510,] -5.488743e+06 -6.291940e+06
## [4511,] -6.025984e+06 -6.678608e+06
## [4512,] -1.241869e+07 -1.067940e+07
## [4513,] -2.964637e+09 -1.262306e+09
## [4514,] -2.265533e+09 -8.900058e+08
## [4515,] -8.859665e+07 -4.718650e+07
## [4516,] -5.322372e+06 -6.169168e+06
## [4517,] -6.111930e+06 -6.642038e+06
## [4518,] -1.241564e+07 -1.060631e+07
## [4519,] -3.097959e+09 -1.171240e+09
## [4520,] -2.414550e+09 -8.142078e+08
## [4521,] -8.978278e+07 -4.647028e+07
## [4522,] -5.284587e+06 -6.124790e+06
## [4523,] -6.097385e+06 -6.654687e+06
## [4524,] -1.265289e+07 -1.059073e+07
## [4525,] -3.308931e+09 -1.164870e+09
## [4526,] -2.280857e+09 -8.187999e+08
## [4527,] -7.940514e+07 -4.257061e+07
## [4528,] -5.460994e+06 -6.303354e+06
## [4529,] -6.051996e+06 -6.647679e+06
## [4530,] -1.244563e+07 -1.044755e+07
## [4531,] -3.319222e+09 -1.196632e+09
## [4532,] -2.257382e+09 -7.864549e+08
## [4533,] -8.342643e+07 -4.595303e+07
## [4534,] -5.237110e+06 -6.077348e+06
## [4535,] -6.069182e+06 -6.711366e+06
## [4536,] -1.212084e+07 -1.035706e+07
## [4537,] -3.265657e+09 -1.222509e+09
## [4538,] -2.218934e+09 -9.042631e+08
## [4539,] -9.126415e+07 -4.610542e+07
## [4540,] -5.353897e+06 -6.147505e+06
## [4541,] -6.086114e+06 -6.721537e+06

```

```

## [4542,] -1.268552e+07 -1.044969e+07
## [4543,] -3.066405e+09 -1.190140e+09
## [4544,] -2.366510e+09 -8.945323e+08
## [4545,] -9.106429e+07 -4.667571e+07
## [4546,] -5.333209e+06 -6.166010e+06
## [4547,] -6.117621e+06 -6.678363e+06
## [4548,] -1.222637e+07 -1.041598e+07
## [4549,] -2.833515e+09 -1.058881e+09
## [4550,] -1.902355e+09 -6.682922e+08
## [4551,] -8.616720e+07 -4.683975e+07
## [4552,] -5.395648e+06 -6.236859e+06
## [4553,] -6.128967e+06 -6.776780e+06
## [4554,] -1.215349e+07 -1.037182e+07
## [4555,] -2.774134e+09 -9.814012e+08
## [4556,] -2.241702e+09 -8.230979e+08
## [4557,] -9.762907e+07 -5.125812e+07
## [4558,] -5.426962e+06 -6.236950e+06
## [4559,] -6.144906e+06 -6.747586e+06
## [4560,] -1.241889e+07 -1.051598e+07
## [4561,] -3.170148e+09 -1.089274e+09
## [4562,] -1.895153e+09 -6.598521e+08
## [4563,] -8.736558e+07 -4.628924e+07
## [4564,] -5.399199e+06 -6.222059e+06
## [4565,] -6.249934e+06 -6.796097e+06
## [4566,] -1.274145e+07 -1.079723e+07
## [4567,] -3.180480e+09 -1.120149e+09
## [4568,] -2.264587e+09 -8.369879e+08
## [4569,] -8.088107e+07 -4.323919e+07
## [4570,] -5.483044e+06 -6.304551e+06
## [4571,] -6.240691e+06 -6.806922e+06
## [4572,] -1.217179e+07 -1.037331e+07
## [4573,] -2.763923e+09 -9.579460e+08
## [4574,] -2.365915e+09 -7.545518e+08
## [4575,] -8.204224e+07 -4.312172e+07
## [4576,] -5.403092e+06 -6.229960e+06
## [4577,] -6.190687e+06 -6.749595e+06
## [4578,] -1.238680e+07 -1.057187e+07
## [4579,] -2.628353e+09 -9.292707e+08
## [4580,] -2.218214e+09 -8.274512e+08
## [4581,] -8.726994e+07 -4.765371e+07
## [4582,] -5.303181e+06 -6.259963e+06
## [4583,] -6.105818e+06 -6.785623e+06
## [4584,] -1.235243e+07 -1.046256e+07
## [4585,] -3.211575e+09 -1.046241e+09
## [4586,] -2.060449e+09 -7.366240e+08
## [4587,] -8.690777e+07 -4.595617e+07
## [4588,] -5.493957e+06 -6.327504e+06

```



```
## [4589,] -6.279732e+06 -6.837427e+06
## [4590,] -1.262234e+07 -1.067978e+07
## [4591,] -2.773168e+09 -9.518555e+08
## [4592,] -2.599748e+09 -9.330708e+08
## [4593,] -9.128318e+07 -5.048223e+07
## [4594,] -5.386366e+06 -6.230601e+06
## [4595,] -6.222227e+06 -6.785082e+06
## [4596,] -1.210599e+07 -1.034333e+07
## [4597,] -2.599217e+09 -8.896019e+08
## [4598,] -2.240762e+09 -8.132487e+08
## [4599,] -8.950654e+07 -5.004784e+07
## [4600,] -5.375985e+06 -6.219436e+06
## [4601,] -6.171218e+06 -6.770050e+06
## [4602,] -1.232579e+07 -1.084399e+07
## [4603,] -3.033918e+09 -1.100852e+09
## [4604,] -2.097014e+09 -7.947187e+08
## [4605,] -7.955914e+07 -4.241032e+07
## [4606,] -5.449200e+06 -6.354442e+06
## [4607,] -6.239935e+06 -6.806133e+06
## [4608,] -1.279699e+07 -1.081685e+07
## [4609,] -3.013167e+09 -1.088366e+09
## [4610,] -2.232655e+09 -8.037620e+08
## [4611,] -8.684087e+07 -4.590752e+07
## [4612,] -5.438931e+06 -6.328334e+06
## [4613,] -6.225521e+06 -6.811548e+06
## [4614,] -1.255840e+07 -1.061317e+07
## [4615,] -2.589256e+09 -9.004806e+08
## [4616,] -2.801417e+09 -9.829019e+08
## [4617,] -8.261625e+07 -4.734729e+07
## [4618,] -5.442495e+06 -6.332179e+06
## [4619,] -6.213568e+06 -6.829781e+06
## [4620,] -1.251837e+07 -1.051420e+07
## [4621,] -3.043772e+09 -1.100598e+09
## [4622,] -2.492561e+09 -8.267919e+08
## [4623,] -8.668859e+07 -4.579682e+07
## [4624,] -5.345668e+06 -6.302371e+06
## [4625,] -6.078711e+06 -6.734111e+06
## [4626,] -1.328019e+07 -1.093458e+07
## [4627,] -3.002692e+09 -1.100548e+09
## [4628,] -2.380456e+09 -9.128917e+08
## [4629,] -8.709309e+07 -4.666116e+07
## [4630,] -5.537114e+06 -6.339965e+06
## [4631,] -6.333179e+06 -6.903500e+06
## [4632,] -1.218658e+07 -1.035613e+07
## [4633,] -2.733004e+09 -9.802046e+08
## [4634,] -2.452000e+09 -8.884107e+08
## [4635,] -7.929499e+07 -4.276331e+07
```

```

## [4636,] -5.415120e+06 -6.257792e+06
## [4637,] -6.365604e+06 -6.890913e+06
## [4638,] -1.262183e+07 -1.070279e+07
## [4639,] -3.043351e+09 -1.009552e+09
## [4640,] -1.957558e+09 -6.883436e+08
## [4641,] -8.811562e+07 -4.346056e+07
## [4642,] -5.530355e+06 -6.302740e+06
## [4643,] -6.181298e+06 -6.793388e+06
## [4644,] -1.251154e+07 -1.066367e+07
## [4645,] -2.891060e+09 -1.112746e+09
## [4646,] -2.247506e+09 -8.080639e+08
## [4647,] -8.461418e+07 -4.697899e+07
## [4648,] -5.544395e+06 -6.332733e+06
## [4649,] -6.274341e+06 -6.826674e+06
## [4650,] -1.241016e+07 -1.066367e+07
## [4651,] -2.871050e+09 -1.106537e+09
## [4652,] -2.141119e+09 -8.034587e+08
## [4653,] -8.384573e+07 -4.569658e+07
## [4654,] -5.315013e+06 -6.239241e+06
## [4655,] -6.298942e+06 -6.793388e+06
## [4656,] -1.276679e+07 -1.078908e+07
## [4657,] -3.022819e+09 -1.118973e+09
## [4658,] -2.201596e+09 -7.897222e+08
## [4659,] -9.168804e+07 -5.168240e+07
## [4660,] -5.311574e+06 -6.198324e+06
## [4661,] -6.122892e+06 -6.767839e+06
## [4662,] -1.253695e+07 -1.065586e+07
## [4663,] -3.381302e+09 -1.137757e+09
## [4664,] -2.148633e+09 -7.851697e+08
## [4665,] -7.673361e+07 -4.250990e+07
## [4666,] -5.523428e+06 -6.366653e+06
## [4667,] -6.112111e+06 -6.774369e+06
## [4668,] -1.264120e+07 -1.075984e+07
## [4669,] -3.022651e+09 -1.266870e+09
## [4670,] -2.148491e+09 -8.265283e+08
## [4671,] -8.008337e+07 -4.348071e+07
## [4672,] -5.558625e+06 -6.430888e+06
## [4673,] -6.171825e+06 -6.837227e+06
## [4674,] -1.271790e+07 -1.068930e+07
## [4675,] -2.850864e+09 -9.395920e+08
## [4676,] -2.451698e+09 -8.218269e+08
## [4677,] -9.415358e+07 -4.918793e+07
## [4678,] -5.349711e+06 -6.280567e+06
## [4679,] -6.347479e+06 -6.939090e+06
## [4680,] -1.237271e+07 -1.056663e+07
## [4681,] -2.626473e+09 -9.452674e+08
## [4682,] -2.088544e+09 -7.445806e+08

```

```

## [4683,] -7.770706e+07 -4.200534e+07
## [4684,] -5.636523e+06 -6.480436e+06
## [4685,] -6.202754e+06 -6.887792e+06
## [4686,] -1.267454e+07 -1.075133e+07
## [4687,] -3.305415e+09 -1.169149e+09
## [4688,] -2.058992e+09 -8.641277e+08
## [4689,] -8.858095e+07 -4.920937e+07
## [4690,] -5.492353e+06 -6.352069e+06
## [4691,] -6.221236e+06 -6.814748e+06
## [4692,] -1.240031e+07 -1.055323e+07
## [4693,] -2.374731e+09 -8.126422e+08
## [4694,] -2.363834e+09 -8.688132e+08
## [4695,] -9.138984e+07 -4.762845e+07
## [4696,] -5.544999e+06 -6.262258e+06
## [4697,] -6.279020e+06 -6.872647e+06
## [4698,] -1.271101e+07 -1.082425e+07
## [4699,] -3.032487e+09 -1.181826e+09
## [4700,] -2.208640e+09 -7.985212e+08
## [4701,] -8.569283e+07 -4.620515e+07
## [4702,] -5.343322e+06 -6.254978e+06
## [4703,] -6.171590e+06 -6.808788e+06
## [4704,] -1.304836e+07 -1.081069e+07
## [4705,] -2.950677e+09 -1.118461e+09
## [4706,] -2.022005e+09 -6.964794e+08
## [4707,] -8.747427e+07 -4.838540e+07
## [4708,] -5.520698e+06 -6.322399e+06
## [4709,] -6.292975e+06 -6.876951e+06
## [4710,] -1.248096e+07 -1.064325e+07
## [4711,] -1.586105e+09 -6.022699e+08
## [4712,] -1.237217e+09 -4.503710e+08
## [4713,] -2.437276e+07 -1.077931e+07
## [4714,] -1.252675e+04 -5.486007e+04
## [4715,] -5.406903e+04 -9.430582e+04
## [4716,] -8.988091e+05 -5.526891e+05
## [4717,] -1.586044e+09 -5.355720e+08
## [4718,] -1.389975e+09 -5.292649e+08
## [4719,] -2.157214e+07 -9.389048e+06
## [4720,] -1.864553e+04 -6.357408e+04
## [4721,] -4.306014e+04 -8.866806e+04
## [4722,] -9.101897e+05 -5.688181e+05
## [4723,] -1.638433e+09 -6.441049e+08
## [4724,] -1.242876e+09 -4.854246e+08
## [4725,] -2.606208e+07 -1.099154e+07
## [4726,] -1.091710e+04 -5.382553e+04
## [4727,] -4.765552e+04 -9.131691e+04
## [4728,] -9.193457e+05 -5.888464e+05
## [4729,] -1.638433e+09 -6.583751e+08

```

```
## [4730,] -1.545239e+09 -5.329685e+08
## [4731,] -2.660703e+07 -1.113588e+07
## [4732,] -1.321172e+04 -5.735033e+04
## [4733,] -5.060348e+04 -9.387174e+04
## [4734,] -9.116483e+05 -5.754047e+05
## [4735,] -1.585983e+09 -6.067778e+08
## [4736,] -1.208743e+09 -4.572178e+08
## [4737,] -2.522186e+07 -1.044829e+07
## [4738,] -1.220326e+04 -5.735033e+04
## [4739,] -5.082442e+04 -9.417258e+04
## [4740,] -9.093646e+05 -5.699713e+05
## [4741,] -2.930461e+09 -1.063061e+09
## [4742,] -2.007373e+09 -7.136698e+08
## [4743,] -8.633193e+07 -4.724856e+07
## [4744,] -5.437163e+06 -6.330179e+06
## [4745,] -6.289709e+06 -6.896707e+06
## [4746,] -1.243801e+07 -1.060359e+07
## [4747,] -2.502990e+09 -9.051169e+08
## [4748,] -2.246419e+09 -8.259572e+08
## [4749,] -9.212314e+07 -4.614599e+07
## [4750,] -5.580959e+06 -6.420847e+06
## [4751,] -6.271692e+06 -6.872695e+06
## [4752,] -1.283715e+07 -1.079079e+07
## [4753,] -3.304361e+09 -1.200598e+09
## [4754,] -2.816751e+09 -9.971096e+08
## [4755,] -8.701617e+07 -4.617714e+07
## [4756,] -5.402949e+06 -6.293259e+06
## [4757,] -6.339873e+06 -6.876999e+06
## [4758,] -1.268800e+07 -1.065407e+07
## [4759,] -3.010902e+09 -1.032399e+09
## [4760,] -2.087496e+09 -7.528316e+08
## [4761,] -8.335961e+07 -4.690157e+07
## [4762,] -5.613065e+06 -6.379709e+06
## [4763,] -6.370934e+06 -6.906769e+06
## [4764,] -1.254349e+07 -1.077943e+07
## [4765,] -2.859436e+09 -1.111727e+09
## [4766,] -1.871048e+09 -6.918024e+08
## [4767,] -8.742143e+07 -4.747676e+07
## [4768,] -5.769721e+06 -6.504735e+06
## [4769,] -6.436874e+06 -6.993569e+06
## [4770,] -1.285596e+07 -1.083165e+07
## [4771,] -3.250655e+09 -1.080818e+09
## [4772,] -2.588760e+09 -9.166429e+08
## [4773,] -8.862847e+07 -4.635070e+07
## [4774,] -5.730552e+06 -6.550654e+06
## [4775,] -6.414776e+06 -6.975717e+06
## [4776,] -1.297877e+07 -1.084960e+07
```

```

## [4777,] -3.477482e+09 -1.245911e+09
## [4778,] -2.346900e+09 -8.824918e+08
## [4779,] -9.303171e+07 -4.852370e+07
## [4780,] -5.438018e+06 -6.181868e+06
## [4781,] -6.313579e+06 -6.921702e+06
## [4782,] -1.237616e+07 -1.060096e+07
## [4783,] -3.757524e+09 -1.232680e+09
## [4784,] -2.307474e+09 -8.441797e+08
## [4785,] -9.738030e+07 -4.769495e+07
## [4786,] -5.441839e+06 -6.459724e+06
## [4787,] -6.152197e+06 -6.883333e+06
## [4788,] -1.253899e+07 -1.077526e+07
## [4789,] -3.010315e+09 -1.265510e+09
## [4790,] -2.490196e+09 -8.068913e+08
## [4791,] -9.148195e+07 -4.512827e+07
## [4792,] -5.483674e+06 -7.976425e+06
## [4793,] -6.274479e+06 -6.885907e+06
## [4794,] -1.306993e+07 -1.095671e+07
## [4795,] -4.012907e+09 -1.581493e+09
## [4796,] -2.547189e+09 -1.059034e+09
## [4797,] -7.986346e+07 -4.414929e+07
## [4798,] -5.688222e+06 -6.516808e+06
## [4799,] -6.369599e+06 -6.941522e+06
## [4800,] -1.266336e+07 -1.081174e+07
## [4801,] -2.828961e+09 -1.111319e+09
## [4802,] -2.131643e+09 -7.043384e+08
## [4803,] -1.032656e+08 -5.214154e+07
## [4804,] -5.532943e+06 -6.365573e+06
## [4805,] -6.379794e+06 -6.944405e+06
## [4806,] -1.265720e+07 -1.081392e+07
## [4807,] -3.102807e+09 -9.613058e+08
## [4808,] -2.123948e+09 -8.821286e+08
## [4809,] -9.214225e+07 -5.097204e+07
## [4810,] -5.452711e+06 -6.422334e+06
## [4811,] -6.286252e+06 -6.957637e+06
## [4812,] -1.254910e+07 -1.077678e+07
## [4813,] -3.050940e+09 -1.007999e+09
## [4814,] -1.955395e+09 -6.659633e+08
## [4815,] -7.918492e+07 -4.254584e+07
## [4816,] -5.752788e+06 -6.570602e+06
## [4817,] -6.446066e+06 -7.026539e+06
## [4818,] -1.278999e+07 -1.078682e+07
## [4819,] -2.908336e+09 -1.074048e+09
## [4820,] -2.237363e+09 -8.065875e+08
## [4821,] -8.685381e+07 -4.577520e+07
## [4822,] -5.632054e+06 -6.464262e+06
## [4823,] -6.371837e+06 -6.998258e+06

```

```

## [4824,] -1.271852e+07 -1.082331e+07
## [4825,] -3.164988e+09 -1.001945e+09
## [4826,] -2.252664e+09 -7.927811e+08
## [4827,] -8.568725e+07 -4.648606e+07
## [4828,] -5.639136e+06 -6.494636e+06
## [4829,] -6.361934e+06 -6.987880e+06
## [4830,] -1.239321e+07 -1.061674e+07
## [4831,] -2.898128e+09 -1.037609e+09
## [4832,] -1.983924e+09 -6.699983e+08
## [4833,] -8.590946e+07 -4.693615e+07
## [4834,] -5.614629e+06 -6.449380e+06
## [4835,] -6.457999e+06 -7.046809e+06
## [4836,] -1.242622e+07 -1.062388e+07
## [4837,] -3.175052e+09 -1.007611e+09
## [4838,] -2.298735e+09 -7.789232e+08
## [4839,] -8.634054e+07 -4.754315e+07
## [4840,] -5.618338e+06 -6.540801e+06
## [4841,] -6.287387e+06 -6.971778e+06
## [4842,] -1.288286e+07 -1.076978e+07
## [4843,] -2.897799e+09 -1.067648e+09
## [4844,] -2.168334e+09 -8.155233e+08
## [4845,] -8.005478e+07 -4.373608e+07
## [4846,] -5.703599e+06 -6.571448e+06
## [4847,] -6.509647e+06 -7.090301e+06
## [4848,] -1.247078e+07 -1.061825e+07
## [4849,] -2.585525e+09 -9.038760e+08
## [4850,] -1.911987e+09 -6.698005e+08
## [4851,] -7.893497e+07 -4.277240e+07
## [4852,] -5.782238e+06 -6.613576e+06
## [4853,] -6.517160e+06 -7.090301e+06
## [4854,] -1.244544e+07 -1.060265e+07
## [4855,] -2.547752e+09 -9.038760e+08
## [4856,] -1.904899e+09 -6.698005e+08
## [4857,] -7.837802e+07 -4.249903e+07
## [4858,] -5.796594e+06 -6.617413e+06
## [4859,] -6.442233e+06 -6.999156e+06
## [4860,] -1.326602e+07 -1.112832e+07
## [4861,] -3.238123e+09 -1.141831e+09
## [4862,] -2.440650e+09 -8.293935e+08
## [4863,] -8.121002e+07 -4.347980e+07
## [4864,] -5.579861e+06 -6.484078e+06
## [4865,] -6.476328e+06 -7.065954e+06
## [4866,] -1.282755e+07 -1.089229e+07
## [4867,] -2.847520e+09 -9.897462e+08
## [4868,] -2.345346e+09 -8.246840e+08
## [4869,] -9.073092e+07 -4.744102e+07
## [4870,] -5.622222e+06 -6.423449e+06

```

```

## [4871,] -6.354558e+06 -6.982742e+06
## [4872,] -1.283612e+07 -1.096349e+07
## [4873,] -3.143278e+09 -1.199169e+09
## [4874,] -2.448596e+09 -8.434250e+08
## [4875,] -8.973671e+07 -4.860147e+07
## [4876,] -5.572817e+06 -6.453728e+06
## [4877,] -6.450281e+06 -7.046557e+06
## [4878,] -1.241636e+07 -1.066161e+07
## [4879,] -3.049759e+09 -1.073447e+09
## [4880,] -2.259572e+09 -8.014673e+08
## [4881,] -8.391444e+07 -4.490176e+07
## [4882,] -5.736232e+06 -6.606472e+06
## [4883,] -6.533064e+06 -7.117356e+06
## [4884,] -1.305618e+07 -1.090457e+07
## [4885,] -3.227090e+09 -1.097913e+09
## [4886,] -2.537391e+09 -7.650608e+08
## [4887,] -7.904363e+07 -4.437298e+07
## [4888,] -5.682945e+06 -6.511160e+06
## [4889,] -6.433423e+06 -7.034141e+06
## [4890,] -1.279494e+07 -1.098088e+07
## [4891,] -2.670899e+09 -8.757112e+08
## [4892,] -2.456252e+09 -8.765021e+08
## [4893,] -7.831448e+07 -4.299955e+07
## [4894,] -5.797477e+06 -6.656785e+06
## [4895,] -6.443669e+06 -7.060487e+06
## [4896,] -1.266069e+07 -1.080927e+07
## [4897,] -2.767939e+09 -1.001171e+09
## [4898,] -2.305712e+09 -7.966653e+08
## [4899,] -8.133402e+07 -4.412498e+07
## [4900,] -5.665529e+06 -6.553470e+06
## [4901,] -6.453922e+06 -7.071220e+06
## [4902,] -1.251022e+07 -1.067809e+07
## [4903,] -3.111152e+09 -1.122450e+09
## [4904,] -2.321098e+09 -7.965359e+08
## [4905,] -8.908947e+07 -4.754635e+07
## [4906,] -5.626629e+06 -6.545930e+06
## [4907,] -6.370834e+06 -6.989423e+06
## [4908,] -1.300840e+07 -1.089248e+07
## [4909,] -2.527893e+09 -9.088435e+08
## [4910,] -1.961019e+09 -6.525643e+08
## [4911,] -8.713890e+07 -4.655176e+07
## [4912,] -5.697702e+06 -6.538393e+06
## [4913,] -6.469174e+06 -7.040246e+06
## [4914,] -1.361082e+07 -1.113872e+07
## [4915,] -3.048999e+09 -1.085243e+09
## [4916,] -2.190055e+09 -7.782836e+08
## [4917,] -8.852648e+07 -4.713530e+07

```

```

## [4918,] -5.891676e+06 -6.672661e+06
## [4919,] -6.585881e+06 -7.146228e+06
## [4920,] -1.282466e+07 -1.101635e+07
## [4921,] -3.574007e+09 -1.344651e+09
## [4922,] -2.220385e+09 -7.691732e+08
## [4923,] -9.762632e+07 -4.962087e+07
## [4924,] -5.694318e+06 -6.561485e+06
## [4925,] -6.447021e+06 -7.131960e+06
## [4926,] -1.312326e+07 -1.116491e+07
## [4927,] -3.551481e+09 -1.277004e+09
## [4928,] -2.627141e+09 -8.100703e+08
## [4929,] -9.136372e+07 -4.818909e+07
## [4930,] -5.609561e+06 -6.470480e+06
## [4931,] -6.462552e+06 -7.098540e+06
## [4932,] -1.283489e+07 -1.087536e+07
## [4933,] -2.806495e+09 -1.122092e+09
## [4934,] -2.129315e+09 -8.521158e+08
## [4935,] -8.450899e+07 -4.790948e+07
## [4936,] -5.694668e+06 -6.588635e+06
## [4937,] -6.407795e+06 -6.991767e+06
## [4938,] -1.289498e+07 -1.090695e+07
## [4939,] -3.215297e+09 -1.153476e+09
## [4940,] -2.487452e+09 -8.710740e+08
## [4941,] -9.321762e+07 -4.793064e+07
## [4942,] -6.008732e+06 -6.781650e+06
## [4943,] -6.580603e+06 -7.148597e+06
## [4944,] -1.264931e+07 -1.081449e+07
## [4945,] -3.651883e+09 -1.310360e+09
## [4946,] -2.908468e+09 -9.897803e+08
## [4947,] -9.082270e+07 -4.954880e+07
## [4948,] -5.670041e+06 -6.531611e+06
## [4949,] -6.404499e+06 -7.001299e+06
## [4950,] -1.301485e+07 -1.115268e+07
## [4951,] -3.079192e+09 -1.054310e+09
## [4952,] -2.455116e+09 -8.472532e+08
## [4953,] -9.082270e+07 -4.910774e+07
## [4954,] -5.716308e+06 -6.504954e+06
## [4955,] -6.451764e+06 -7.076789e+06
## [4956,] -1.285680e+07 -1.096674e+07
## [4957,] -2.895743e+09 -1.103235e+09
## [4958,] -2.219809e+09 -7.869331e+08
## [4959,] -8.533694e+07 -4.722978e+07
## [4960,] -5.709265e+06 -6.585183e+06
## [4961,] -6.530650e+06 -7.099143e+06
## [4962,] -1.279680e+07 -1.099053e+07
## [4963,] -2.946113e+09 -1.048217e+09
## [4964,] -2.212172e+09 -8.144762e+08

```



```

## [4965,] -8.572412e+07 -4.795181e+07
## [4966,] -5.748537e+06 -6.573705e+06
## [4967,] -6.508103e+06 -7.096529e+06
## [4968,] -1.295998e+07 -1.098260e+07
## [4969,] -3.183408e+09 -1.012320e+09
## [4970,] -2.618441e+09 -9.542802e+08
## [4971,] -1.036278e+08 -6.172042e+07
## [4972,] -5.417282e+06 -6.226573e+06
## [4973,] -6.612539e+06 -7.171367e+06
## [4974,] -1.340871e+07 -1.115489e+07
## [4975,] -3.640351e+09 -1.217438e+09
## [4976,] -2.010809e+09 -7.331852e+08
## [4977,] -8.229874e+07 -4.455641e+07
## [4978,] -5.755867e+06 -6.596860e+06
## [4979,] -6.570007e+06 -7.153289e+06
## [4980,] -1.303691e+07 -1.115711e+07
## [4981,] -2.555083e+09 -8.748522e+08
## [4982,] -2.296610e+09 -8.329251e+08
## [4983,] -9.189614e+07 -4.989789e+07
## [4984,] -5.882065e+06 -6.735785e+06
## [4985,] -6.452625e+06 -7.090749e+06
## [4986,] -1.326497e+07 -1.128761e+07
## [4987,] -3.120107e+09 -1.165703e+09
## [4988,] -1.988771e+09 -6.983018e+08
## [4989,] -8.542167e+07 -4.962413e+07
## [4990,] -5.903880e+06 -6.716538e+06
## [4991,] -6.441558e+06 -7.079147e+06
## [4992,] -1.290689e+07 -1.094164e+07
## [4993,] -2.905288e+09 -1.121580e+09
## [4994,] -2.136101e+09 -8.003860e+08
## [4995,] -8.407275e+07 -4.743688e+07
## [4996,] -5.914847e+06 -6.735975e+06
## [4997,] -6.737625e+06 -7.264538e+06
## [4998,] -1.285225e+07 -1.103397e+07
## [4999,] -3.407381e+09 -1.249796e+09
## [5000,] -2.454434e+09 -8.802232e+08
## [5001,] -8.857398e+07 -4.517869e+07
## [5002,] -5.624745e+06 -6.498189e+06
## [5003,] -6.558307e+06 -7.156821e+06
## [5004,] -1.284605e+07 -1.102028e+07
## [5005,] -3.472888e+09 -1.059874e+09
## [5006,] -2.234472e+09 -8.705780e+08
## [5007,] -8.721457e+07 -5.189370e+07
## [5008,] -5.756571e+06 -6.643669e+06
## [5009,] -6.602497e+06 -7.192451e+06
## [5010,] -1.313622e+07 -1.096980e+07
## [5011,] -3.245865e+09 -1.216905e+09

```

```
## [5012,] -2.609287e+09 -9.487573e+08
## [5013,] -9.646888e+07 -4.953054e+07
## [5014,] -5.610864e+06 -6.532736e+06
## [5015,] -6.341812e+06 -6.907355e+06
## [5016,] -1.289684e+07 -1.102756e+07
## [5017,] -3.098807e+09 -1.047624e+09
## [5018,] -1.973920e+09 -6.641897e+08
## [5019,] -8.706197e+07 -4.807888e+07
## [5020,] -5.596827e+06 -6.532830e+06
## [5021,] -6.492323e+06 -7.169092e+06
## [5022,] -1.293985e+07 -1.109123e+07
## [5023,] -2.611225e+09 -9.361286e+08
## [5024,] -2.203687e+09 -7.955441e+08
## [5025,] -8.706197e+07 -4.778903e+07
## [5026,] -5.699716e+06 -6.701748e+06
## [5027,] -6.570344e+06 -7.164141e+06
## [5028,] -1.261713e+07 -1.081620e+07
## [5029,] -3.046890e+09 -1.114887e+09
## [5030,] -2.405922e+09 -8.799059e+08
## [5031,] -9.145582e+07 -4.869321e+07
## [5032,] -5.667887e+06 -6.575116e+06
## [5033,] -6.715896e+06 -7.284282e+06
## [5034,] -1.305128e+07 -1.132290e+07
## [5035,] -3.203179e+09 -1.197265e+09
## [5036,] -2.437858e+09 -8.512684e+08
## [5037,] -9.165611e+07 -4.972107e+07
## [5038,] -5.696331e+06 -6.590424e+06
## [5039,] -6.631132e+06 -7.177581e+06
## [5040,] -1.344009e+07 -1.121555e+07
## [5041,] -1.615815e+09 -5.750626e+08
## [5042,] -1.283180e+09 -4.782687e+08
## [5043,] -2.937488e+07 -1.257677e+07
## [5044,] -6.993464e+03 -4.745957e+04
## [5045,] -4.135854e+04 -8.564354e+04
## [5046,] -1.019793e+06 -6.235738e+05
## [5047,] -1.615815e+09 -6.113780e+08
## [5048,] -1.242822e+09 -4.298869e+08
## [5049,] -2.480310e+07 -1.072070e+07
## [5050,] -1.287112e+04 -5.699370e+04
## [5051,] -5.104585e+04 -9.177931e+04
## [5052,] -9.116483e+05 -5.790413e+05
## [5053,] -1.585983e+09 -5.885506e+08
## [5054,] -1.203109e+09 -4.711991e+08
## [5055,] -2.469896e+07 -1.024629e+07
## [5056,] -1.355678e+04 -5.487725e+04
## [5057,] -5.028565e+04 -9.554981e+04
## [5058,] -9.268812e+05 -5.765646e+05
```

```

## [5059,] -1.623255e+09 -5.975921e+08
## [5060,] -1.259985e+09 -4.925319e+08
## [5061,] -2.607769e+07 -1.156414e+07
## [5062,] -9.860944e+03 -5.488584e+04
## [5063,] -4.875739e+04 -9.224288e+04
## [5064,] -9.430802e+05 -6.004309e+05
## [5065,] -1.534386e+09 -6.067401e+08
## [5066,] -1.163988e+09 -4.366088e+08
## [5067,] -2.398359e+07 -1.086325e+07
## [5068,] -1.373527e+04 -5.771689e+04
## [5069,] -5.139170e+04 -9.676677e+04
## [5070,] -9.199818e+05 -5.639140e+05
## [5071,] -2.755734e+09 -9.762850e+08
## [5072,] -2.445799e+09 -7.999537e+08
## [5073,] -8.211314e+07 -4.826660e+07
## [5074,] -5.764260e+06 -6.644236e+06
## [5075,] -6.613458e+06 -7.138206e+06
## [5076,] -1.312608e+07 -1.118351e+07
## [5077,] -2.884408e+09 -1.146171e+09
## [5078,] -2.165417e+09 -8.137349e+08
## [5079,] -1.030408e+08 -5.243556e+07
## [5080,] -5.782268e+06 -6.659719e+06
## [5081,] -6.569521e+06 -7.165908e+06
## [5082,] -1.279556e+07 -1.114064e+07
## [5083,] -2.924425e+09 -1.096141e+09
## [5084,] -2.195648e+09 -8.183257e+08
## [5085,] -7.913341e+07 -4.291851e+07
## [5086,] -5.775184e+06 -6.706085e+06
## [5087,] -6.490687e+06 -7.185772e+06
## [5088,] -1.313716e+07 -1.110583e+07
## [5089,] -3.362934e+09 -1.209933e+09
## [5090,] -2.279920e+09 -9.235181e+08
## [5091,] -9.152891e+07 -5.007077e+07
## [5092,] -5.840152e+06 -6.656249e+06
## [5093,] -6.612924e+06 -7.184912e+06
## [5094,] -1.347690e+07 -1.131349e+07
## [5095,] -3.213217e+09 -1.190507e+09
## [5096,] -2.413436e+09 -8.796339e+08
## [5097,] -8.067129e+07 -4.447082e+07
## [5098,] -5.775537e+06 -6.652495e+06
## [5099,] -6.619378e+06 -7.189009e+06
## [5100,] -1.289156e+07 -1.097505e+07
## [5101,] -3.287518e+09 -1.077505e+09
## [5102,] -2.127482e+09 -8.135170e+08
## [5103,] -7.996199e+07 -4.366750e+07
## [5104,] -5.754225e+06 -6.683498e+06
## [5105,] -6.789883e+06 -7.326762e+06

```

```

## [5106,] -1.271102e+07 -1.087945e+07
## [5107,] -2.619742e+09 -9.184952e+08
## [5108,] -2.001967e+09 -6.678638e+08
## [5109,] -7.960169e+07 -4.353936e+07
## [5110,] -5.956429e+06 -6.803669e+06
## [5111,] -6.694494e+06 -7.285808e+06
## [5112,] -1.270249e+07 -1.086367e+07
## [5113,] -2.591198e+09 -9.016260e+08
## [5114,] -1.987476e+09 -6.636778e+08
## [5115,] -8.130520e+07 -4.299864e+07
## [5116,] -5.909287e+06 -6.757157e+06
## [5117,] -6.486841e+06 -7.171211e+06
## [5118,] -1.276773e+07 -1.088449e+07
## [5119,] -3.244472e+09 -1.120505e+09
## [5120,] -1.936968e+09 -6.803814e+08
## [5121,] -8.729028e+07 -4.781337e+07
## [5122,] -5.676127e+06 -6.649216e+06
## [5123,] -6.606519e+06 -7.204547e+06
## [5124,] -1.305941e+07 -1.114594e+07
## [5125,] -2.953829e+09 -1.126651e+09
## [5126,] -1.901366e+09 -6.593479e+08
## [5127,] -8.267350e+07 -4.497254e+07
## [5128,] -5.779739e+06 -6.691687e+06
## [5129,] -6.576291e+06 -7.230907e+06
## [5130,] -1.294722e+07 -1.116992e+07
## [5131,] -3.086996e+09 -1.228980e+09
## [5132,] -2.525691e+09 -7.766217e+08
## [5133,] -8.867905e+07 -5.151141e+07
## [5134,] -5.747511e+06 -6.687829e+06
## [5135,] -6.566231e+06 -7.204547e+06
## [5136,] -1.315472e+07 -1.128219e+07
## [5137,] -3.842948e+09 -1.242084e+09
## [5138,] -2.616174e+09 -9.231002e+08
## [5139,] -9.306878e+07 -4.840473e+07
## [5140,] -5.916809e+06 -6.595572e+06
## [5141,] -6.581325e+06 -7.172980e+06
## [5142,] -1.305076e+07 -1.114594e+07
## [5143,] -3.526213e+09 -1.411746e+09
## [5144,] -2.325972e+09 -8.840886e+08
## [5145,] -8.829960e+07 -4.841536e+07
## [5146,] -5.545662e+06 -6.398065e+06
## [5147,] -6.604288e+06 -7.154900e+06
## [5148,] -1.311063e+07 -1.119326e+07
## [5149,] -2.913198e+09 -1.040613e+09
## [5150,] -2.484785e+09 -8.223157e+08
## [5151,] -8.102441e+07 -4.375844e+07
## [5152,] -5.906286e+06 -6.668935e+06

```

```
## [5153,] -6.600942e+06 -7.193460e+06
## [5154,] -1.326949e+07 -1.128374e+07
## [5155,] -3.055582e+09 -1.132659e+09
## [5156,] -2.460431e+09 -8.551144e+08
## [5157,] -9.174836e+07 -5.067919e+07
## [5158,] -5.723033e+06 -6.711564e+06
## [5159,] -6.554535e+06 -7.250301e+06
## [5160,] -1.330680e+07 -1.104605e+07
## [5161,] -2.973542e+09 -1.064604e+09
## [5162,] -2.247880e+09 -7.718099e+08
## [5163,] -8.838579e+07 -4.732021e+07
## [5164,] -5.758860e+06 -6.673072e+06
## [5165,] -6.626466e+06 -7.262346e+06
## [5166,] -1.310676e+07 -1.114171e+07
## [5167,] -3.525578e+09 -1.113815e+09
## [5168,] -2.171548e+09 -8.221404e+08
## [5169,] -8.704209e+07 -4.806411e+07
## [5170,] -5.834451e+06 -6.735055e+06
## [5171,] -6.652038e+06 -7.254721e+06
## [5172,] -1.274775e+07 -1.092925e+07
## [5173,] -3.426403e+09 -1.101256e+09
## [5174,] -1.893633e+09 -6.631267e+08
## [5175,] -9.323103e+07 -5.043584e+07
## [5176,] -5.766373e+06 -6.673451e+06
## [5177,] -6.697959e+06 -7.297371e+06
## [5178,] -1.398354e+07 -1.142754e+07
## [5179,] -2.832618e+09 -1.070495e+09
## [5180,] -2.216930e+09 -7.581795e+08
## [5181,] -8.765758e+07 -4.794026e+07
## [5182,] -5.917791e+06 -6.785663e+06
## [5183,] -6.687806e+06 -7.289422e+06
## [5184,] -1.309424e+07 -1.112218e+07
## [5185,] -2.912539e+09 -1.082727e+09
## [5186,] -2.133700e+09 -8.127325e+08
## [5187,] -8.320788e+07 -4.508535e+07
## [5188,] -5.906910e+06 -6.750738e+06
## [5189,] -6.696835e+06 -7.301500e+06
## [5190,] -1.305650e+07 -1.122328e+07
## [5191,] -3.404438e+09 -1.189453e+09
## [5192,] -2.532928e+09 -8.501095e+08
## [5193,] -8.400143e+07 -4.680869e+07
## [5194,] -5.907088e+06 -6.747054e+06
## [5195,] -6.558205e+06 -7.222485e+06
## [5196,] -1.280929e+07 -1.099417e+07
## [5197,] -3.169199e+09 -1.125933e+09
## [5198,] -1.823302e+09 -6.754808e+08
## [5199,] -8.657091e+07 -4.771414e+07
```

```

## [5200,] -5.911071e+06 -6.770702e+06
## [5201,] -6.696298e+06 -7.316854e+06
## [5202,] -1.282570e+07 -1.099350e+07
## [5203,] -3.147990e+09 -1.189189e+09
## [5204,] -2.590016e+09 -8.171020e+08
## [5205,] -8.931911e+07 -5.035233e+07
## [5206,] -5.759740e+06 -6.724208e+06
## [5207,] -6.660800e+06 -7.255939e+06
## [5208,] -1.326655e+07 -1.141001e+07
## [5209,] -3.116693e+09 -1.157267e+09
## [5210,] -2.270286e+09 -7.668861e+08
## [5211,] -8.735173e+07 -4.571130e+07
## [5212,] -6.042345e+06 -6.891555e+06
## [5213,] -6.630448e+06 -7.274452e+06
## [5214,] -1.330144e+07 -1.128103e+07
## [5215,] -2.901994e+09 -1.082425e+09
## [5216,] -2.285772e+09 -9.371511e+08
## [5217,] -1.084470e+08 -5.837252e+07
## [5218,] -5.943844e+06 -6.825244e+06
## [5219,] -6.697714e+06 -7.291815e+06
## [5220,] -1.304639e+07 -1.123797e+07
## [5221,] -3.647267e+09 -1.321111e+09
## [5222,] -2.340242e+09 -8.545335e+08
## [5223,] -9.073842e+07 -5.007732e+07
## [5224,] -5.756425e+06 -6.701305e+06
## [5225,] -6.776955e+06 -7.377151e+06
## [5226,] -1.277907e+07 -1.096617e+07
## [5227,] -2.608180e+09 -9.400121e+08
## [5228,] -2.355742e+09 -7.621890e+08
## [5229,] -9.544226e+07 -4.982464e+07
## [5230,] -5.835692e+06 -6.709315e+06
## [5231,] -6.776120e+06 -7.368288e+06
## [5232,] -1.348389e+07 -1.132795e+07
## [5233,] -2.841488e+09 -9.342125e+08
## [5234,] -2.170409e+09 -7.983552e+08
## [5235,] -8.745174e+07 -4.764347e+07
## [5236,] -5.756777e+06 -6.678537e+06
## [5237,] -6.711295e+06 -7.353800e+06
## [5238,] -1.309685e+07 -1.119654e+07
## [5239,] -3.033410e+09 -1.247366e+09
## [5240,] -2.155319e+09 -8.214394e+08
## [5241,] -8.823651e+07 -4.822317e+07
## [5242,] -5.915322e+06 -6.798567e+06
## [5243,] -6.825029e+06 -7.413941e+06
## [5244,] -1.340734e+07 -1.137857e+07
## [5245,] -3.748723e+09 -1.348013e+09
## [5246,] -2.371219e+09 -8.589690e+08

```

```

## [5247,] -9.123982e+07 -4.882774e+07
## [5248,] -5.951835e+06 -6.783211e+06
## [5249,] -6.682534e+06 -7.286567e+06
## [5250,] -1.348876e+07 -1.134853e+07
## [5251,] -3.263209e+09 -1.119022e+09
## [5252,] -2.379051e+09 -8.541762e+08
## [5253,] -9.902648e+07 -5.425801e+07
## [5254,] -6.224346e+06 -7.006646e+06
## [5255,] -6.619567e+06 -7.326655e+06
## [5256,] -1.340344e+07 -1.131854e+07
## [5257,] -2.781781e+09 -1.075700e+09
## [5258,] -2.580835e+09 -9.515440e+08
## [5259,] -9.290533e+07 -5.064227e+07
## [5260,] -6.014218e+06 -6.888891e+06
## [5261,] -6.549363e+06 -7.266004e+06
## [5262,] -1.365234e+07 -1.143379e+07
## [5263,] -3.002103e+09 -1.087861e+09
## [5264,] -2.162289e+09 -7.220009e+08
## [5265,] -7.990609e+07 -4.376456e+07
## [5266,] -5.771806e+06 -6.675441e+06
## [5267,] -6.699762e+06 -7.291304e+06
## [5268,] -1.315849e+07 -1.133397e+07
## [5269,] -3.252047e+09 -1.181929e+09
## [5270,] -2.580524e+09 -8.303689e+08
## [5271,] -8.602024e+07 -4.861019e+07
## [5272,] -6.076835e+06 -6.889180e+06
## [5273,] -6.731692e+06 -7.353850e+06
## [5274,] -1.296196e+07 -1.107185e+07
## [5275,] -2.645454e+09 -9.223884e+08
## [5276,] -2.646797e+09 -9.068067e+08
## [5277,] -9.745754e+07 -5.233835e+07
## [5278,] -6.080694e+06 -6.963960e+06
## [5279,] -6.780441e+06 -7.439547e+06
## [5280,] -1.324472e+07 -1.130108e+07
## [5281,] -2.860496e+09 -1.003298e+09
## [5282,] -2.276710e+09 -7.751318e+08
## [5283,] -8.878855e+07 -4.589747e+07
## [5284,] -6.136082e+06 -6.964057e+06
## [5285,] -6.738498e+06 -7.315779e+06
## [5286,] -1.286973e+07 -1.105813e+07
## [5287,] -3.063272e+09 -1.162626e+09
## [5288,] -2.547433e+09 -8.680546e+08
## [5289,] -9.080108e+07 -4.763612e+07
## [5290,] -5.783003e+06 -6.710645e+06
## [5291,] -6.747562e+06 -7.365110e+06
## [5292,] -1.322101e+07 -1.130331e+07
## [5293,] -2.626079e+09 -9.914282e+08

```

```

## [5294,] -2.131865e+09 -8.162286e+08
## [5295,] -9.403542e+07 -4.924934e+07
## [5296,] -6.007623e+06 -6.838858e+06
## [5297,] -6.677802e+06 -7.361270e+06
## [5298,] -1.288929e+07 -1.108423e+07
## [5299,] -3.146189e+09 -1.181667e+09
## [5300,] -2.386149e+09 -8.069415e+08
## [5301,] -9.322522e+07 -5.013469e+07
## [5302,] -5.963831e+06 -6.764945e+06
## [5303,] -6.738791e+06 -7.361270e+06
## [5304,] -1.341875e+07 -1.148620e+07
## [5305,] -3.052711e+09 -1.226892e+09
## [5306,] -2.245561e+09 -7.977076e+08
## [5307,] -9.142969e+07 -4.926006e+07
## [5308,] -5.993188e+06 -6.882025e+06
## [5309,] -6.751826e+06 -7.404232e+06
## [5310,] -1.335987e+07 -1.121430e+07
## [5311,] -2.900100e+09 -9.854238e+08
## [5312,] -2.276272e+09 -7.613876e+08
## [5313,] -8.808736e+07 -4.825824e+07
## [5314,] -6.081236e+06 -6.964541e+06
## [5315,] -6.876189e+06 -7.451181e+06
## [5316,] -1.356746e+07 -1.151799e+07
## [5317,] -3.011403e+09 -1.062860e+09
## [5318,] -2.260746e+09 -8.206512e+08
## [5319,] -9.490868e+07 -5.197313e+07
## [5320,] -5.956996e+06 -6.874490e+06
## [5321,] -6.786730e+06 -7.419385e+06
## [5322,] -1.326309e+07 -1.139063e+07
## [5323,] -2.839940e+09 -9.794376e+08
## [5324,] -2.071943e+09 -8.440089e+08
## [5325,] -9.190368e+07 -5.034806e+07
## [5326,] -6.322953e+06 -7.079456e+06
## [5327,] -6.918011e+06 -7.475923e+06
## [5328,] -1.351070e+07 -1.145759e+07
## [5329,] -3.011151e+09 -1.093310e+09
## [5330,] -2.514095e+09 -7.928738e+08
## [5331,] -9.232015e+07 -4.888438e+07
## [5332,] -5.990075e+06 -6.953220e+06
## [5333,] -6.741386e+06 -7.355997e+06
## [5334,] -1.322437e+07 -1.126622e+07
## [5335,] -2.909570e+09 -1.038445e+09
## [5336,] -2.401351e+09 -9.209191e+08
## [5337,] -8.699802e+07 -4.832196e+07
## [5338,] -6.019406e+06 -6.914040e+06
## [5339,] -6.835973e+06 -7.414657e+06
## [5340,] -1.358924e+07 -1.144071e+07

```



```

## [5341,] -2.721591e+09 -9.675676e+08
## [5342,] -2.338098e+09 -8.675144e+08
## [5343,] -8.780940e+07 -4.790756e+07
## [5344,] -5.997648e+06 -6.886805e+06
## [5345,] -6.897975e+06 -7.495333e+06
## [5346,] -1.248882e+07 -1.087822e+07
## [5347,] -3.051866e+09 -1.062511e+09
## [5348,] -2.198955e+09 -7.927017e+08
## [5349,] -8.527791e+07 -4.747388e+07
## [5350,] -5.997648e+06 -6.929931e+06
## [5351,] -6.818323e+06 -7.396275e+06
## [5352,] -1.321493e+07 -1.121739e+07
## [5353,] -2.663401e+09 -9.329983e+08
## [5354,] -2.056715e+09 -6.204837e+08
## [5355,] -9.466475e+07 -5.089272e+07
## [5356,] -5.773657e+06 -6.778021e+06
## [5357,] -6.803549e+06 -7.434295e+06
## [5358,] -1.322290e+07 -1.132921e+07
## [5359,] -3.051528e+09 -1.245801e+09
## [5360,] -1.954797e+09 -6.698066e+08
## [5361,] -8.610960e+07 -4.867737e+07
## [5362,] -6.056599e+06 -6.938172e+06
## [5363,] -6.729535e+06 -7.439647e+06
## [5364,] -1.362626e+07 -1.140991e+07
## [5365,] -2.929217e+09 -1.068396e+09
## [5366,] -2.145740e+09 -8.435650e+08
## [5367,] -8.380841e+07 -4.440475e+07
## [5368,] -6.001751e+06 -6.922562e+06
## [5369,] -6.880839e+06 -7.496262e+06
## [5370,] -1.330376e+07 -1.141215e+07
## [5371,] -1.505319e+09 -5.975921e+08
## [5372,] -1.158460e+09 -4.537228e+08
## [5373,] -2.429212e+07 -1.038566e+07
## [5374,] -1.426462e+04 -5.879689e+04
## [5375,] -5.363991e+04 -9.494422e+04
## [5376,] -9.338065e+05 -5.875197e+05
## [5377,] -1.668628e+09 -6.775656e+08
## [5378,] -1.271529e+09 -4.746940e+08
## [5379,] -2.607769e+07 -1.114098e+07
## [5380,] -1.031019e+04 -5.523583e+04
## [5381,] -4.598177e+04 -9.343866e+04
## [5382,] -9.314952e+05 -5.930359e+05
## [5383,] -1.683891e+09 -6.582966e+08
## [5384,] -1.265750e+09 -5.070390e+08
## [5385,] -2.661491e+07 -1.079437e+07
## [5386,] -1.000958e+04 -5.523583e+04
## [5387,] -5.072663e+04 -9.768455e+04

```

```

## [5388,] -9.199818e+05 -5.657126e+05
## [5389,] -1.556369e+09 -6.113402e+08
## [5390,] -1.180653e+09 -4.132018e+08
## [5391,] -2.449890e+07 -1.025118e+07
## [5392,] -1.498598e+04 -5.700245e+04
## [5393,] -5.206111e+04 -9.615733e+04
## [5394,] -9.062602e+05 -5.765646e+05
## [5395,] -1.585922e+09 -5.885135e+08
## [5396,] -1.197435e+09 -4.298553e+08
## [5397,] -2.439540e+07 -1.052102e+07
## [5398,] -1.426462e+04 -5.700245e+04
## [5399,] -5.273485e+04 -9.585333e+04
## [5400,] -8.994380e+05 -5.820292e+05
## [5401,] -3.165673e+09 -1.187187e+09
## [5402,] -2.384880e+09 -8.767806e+08
## [5403,] -9.206491e+07 -5.061623e+07
## [5404,] -5.972643e+06 -6.852197e+06
## [5405,] -6.832025e+06 -7.429254e+06
## [5406,] -1.351409e+07 -1.147692e+07
## [5407,] -3.134202e+09 -1.187135e+09
## [5408,] -2.306238e+09 -9.155862e+08
## [5409,] -9.409921e+07 -4.870937e+07
## [5410,] -6.009241e+06 -6.856198e+06
## [5411,] -6.845150e+06 -7.450973e+06
## [5412,] -1.335861e+07 -1.142248e+07
## [5413,] -4.288881e+09 -1.566580e+09
## [5414,] -1.976103e+09 -7.036554e+08
## [5415,] -8.735043e+07 -4.728039e+07
## [5416,] -5.976647e+06 -6.876029e+06
## [5417,] -6.961451e+06 -7.521079e+06
## [5418,] -1.366897e+07 -1.162785e+07
## [5419,] -3.239164e+09 -1.219304e+09
## [5420,] -2.376666e+09 -9.154475e+08
## [5421,] -8.756048e+07 -4.844952e+07
## [5422,] -5.903939e+06 -6.883854e+06
## [5423,] -6.816104e+06 -7.428688e+06
## [5424,] -1.362158e+07 -1.155972e+07
## [5425,] -2.928638e+09 -1.111114e+09
## [5426,] -2.440285e+09 -8.910232e+08
## [5427,] -9.155106e+07 -5.068149e+07
## [5428,] -5.878774e+06 -6.833264e+06
## [5429,] -6.813838e+06 -7.477210e+06
## [5430,] -1.375685e+07 -1.168436e+07
## [5431,] -3.154507e+09 -1.061814e+09
## [5432,] -2.360503e+09 -8.620245e+08
## [5433,] -8.414028e+07 -4.605605e+07
## [5434,] -6.131237e+06 -7.006193e+06

```

```

## [5435,] -7.104006e+06 -7.674659e+06
## [5436,] -1.321441e+07 -1.127309e+07
## [5437,] -3.498233e+09 -1.167476e+09
## [5438,] -2.344691e+09 -7.514549e+08
## [5439,] -8.725480e+07 -4.735398e+07
## [5440,] -6.017366e+06 -6.986563e+06
## [5441,] -6.981926e+06 -7.545055e+06
## [5442,] -1.345839e+07 -1.150664e+07
## [5443,] -3.476038e+09 -1.284822e+09
## [5444,] -2.182480e+09 -8.149192e+08
## [5445,] -7.926282e+07 -4.398021e+07
## [5446,] -6.109369e+06 -6.955251e+06
## [5447,] -6.764723e+06 -7.541168e+06
## [5448,] -1.399929e+07 -1.174328e+07
## [5449,] -2.917982e+09 -1.049502e+09
## [5450,] -2.352405e+09 -8.666593e+08
## [5451,] -9.004274e+07 -4.723105e+07
## [5452,] -5.962876e+06 -6.888634e+06
## [5453,] -6.951149e+06 -7.531896e+06
## [5454,] -1.318445e+07 -1.126148e+07
## [5455,] -2.445382e+09 -8.983249e+08
## [5456,] -2.496020e+09 -8.906127e+08
## [5457,] -9.408887e+07 -5.061953e+07
## [5458,] -6.302770e+06 -7.149537e+06
## [5459,] -6.956622e+06 -7.583456e+06
## [5460,] -1.369575e+07 -1.157099e+07
## [5461,] -2.749079e+09 -1.231766e+09
## [5462,] -2.762045e+09 -9.051507e+08
## [5463,] -8.693540e+07 -5.411414e+07
## [5464,] -5.854462e+06 -6.842120e+06
## [5465,] -6.833256e+06 -7.484124e+06
## [5466,] -1.355366e+07 -1.168456e+07
## [5467,] -2.897303e+09 -1.104198e+09
## [5468,] -2.062413e+09 -7.029664e+08
## [5469,] -8.524412e+07 -4.687366e+07
## [5470,] -6.183966e+06 -6.944131e+06
## [5471,] -6.895246e+06 -7.457615e+06
## [5472,] -1.373611e+07 -8.596624e+06
## [5473,] -3.206031e+09 -1.037066e+09
## [5474,] -2.336103e+09 -8.615310e+08
## [5475,] -8.124758e+07 -4.392249e+07
## [5476,] -6.095355e+06 -6.908897e+06
## [5477,] -6.817038e+06 -7.426988e+06
## [5478,] -1.389301e+07 -1.169501e+07
## [5479,] -3.237772e+09 -1.154253e+09
## [5480,] -2.091919e+09 -7.824807e+08
## [5481,] -8.392462e+07 -4.660834e+07

```

```

## [5482,] -5.952670e+06 -7.023161e+06
## [5483,] -6.929078e+06 -7.506232e+06
## [5484,] -1.306088e+07 -1.126748e+07
## [5485,] -2.977791e+09 -1.036919e+09
## [5486,] -2.227398e+09 -7.868968e+08
## [5487,] -8.763633e+07 -4.836027e+07
## [5488,] -6.102994e+06 -6.999657e+06
## [5489,] -6.908729e+06 -7.582000e+06
## [5490,] -1.340598e+07 -1.143389e+07
## [5491,] -3.090645e+09 -1.036869e+09
## [5492,] -2.204416e+09 -8.005656e+08
## [5493,] -8.224917e+07 -4.479972e+07
## [5494,] -5.931123e+06 -6.987920e+06
## [5495,] -6.838139e+06 -7.540337e+06
## [5496,] -1.351695e+07 -1.151202e+07
## [5497,] -3.195054e+09 -1.067047e+09
## [5498,] -2.204272e+09 -7.913254e+08
## [5499,] -9.941629e+07 -4.883000e+07
## [5500,] -6.118014e+06 -7.039468e+06
## [5501,] -6.910464e+06 -7.537954e+06
## [5502,] -1.325354e+07 -1.134951e+07
## [5503,] -3.111150e+09 -1.018795e+09
## [5504,] -2.281026e+09 -7.821815e+08
## [5505,] -9.634019e+07 -5.303385e+07
## [5506,] -6.210780e+06 -7.055502e+06
## [5507,] -6.967622e+06 -7.584129e+06
## [5508,] -1.373387e+07 -1.165501e+07
## [5509,] -3.322386e+09 -1.263932e+09
## [5510,] -2.098716e+09 -8.188134e+08
## [5511,] -9.594467e+07 -5.138120e+07
## [5512,] -6.136839e+06 -7.027989e+06
## [5513,] -6.944631e+06 -7.570936e+06
## [5514,] -1.346273e+07 -1.158385e+07
## [5515,] -2.926571e+09 -1.103639e+09
## [5516,] -2.568183e+09 -9.093007e+08
## [5517,] -8.026997e+07 -4.431222e+07
## [5518,] -6.103809e+06 -6.980812e+06
## [5519,] -6.924259e+06 -7.538885e+06
## [5520,] -1.381874e+07 -1.161056e+07
## [5521,] -3.236729e+09 -1.128445e+09
## [5522,] -1.669647e+09 -5.911423e+08
## [5523,] -8.542766e+07 -4.787487e+07
## [5524,] -6.059849e+06 -7.000725e+06
## [5525,] -6.927139e+06 -7.539196e+06
## [5526,] -1.370578e+07 -1.168634e+07
## [5527,] -3.183750e+09 -1.191824e+09
## [5528,] -2.090941e+09 -7.371761e+08

```

```

## [5529,] -9.768261e+07 -4.907269e+07
## [5530,] -6.185425e+06 -7.048261e+06
## [5531,] -6.957017e+06 -7.621743e+06
## [5532,] -1.372030e+07 -1.166702e+07
## [5533,] -3.068939e+09 -1.097152e+09
## [5534,] -2.264901e+09 -7.954646e+08
## [5535,] -8.939878e+07 -4.835287e+07
## [5536,] -5.957652e+06 -6.996973e+06
## [5537,] -6.958460e+06 -7.607008e+06
## [5538,] -1.367282e+07 -1.156619e+07
## [5539,] -3.215121e+09 -1.000541e+09
## [5540,] -2.120509e+09 -8.231115e+08
## [5541,] -8.036585e+07 -4.466281e+07
## [5542,] -6.316222e+06 -7.199839e+06
## [5543,] -6.958758e+06 -7.588389e+06
## [5544,] -1.363105e+07 -1.173182e+07
## [5545,] -3.278761e+09 -1.159658e+09
## [5546,] -2.389970e+09 -8.895185e+08
## [5547,] -9.363302e+07 -5.163014e+07
## [5548,] -6.082261e+06 -7.012958e+06
## [5549,] -6.925152e+06 -7.566782e+06
## [5550,] -1.375504e+07 -1.178106e+07
## [5551,] -3.364704e+09 -1.166014e+09
## [5552,] -2.249340e+09 -7.591963e+08
## [5553,] -8.863762e+07 -4.837412e+07
## [5554,] -6.060300e+06 -7.072431e+06
## [5555,] -6.926592e+06 -7.568287e+06
## [5556,] -1.372201e+07 -1.176691e+07
## [5557,] -3.267922e+09 -1.121783e+09
## [5558,] -2.542884e+09 -7.501986e+08
## [5559,] -8.171244e+07 -4.496353e+07
## [5560,] -6.122975e+06 -7.025008e+06
## [5561,] -6.959056e+06 -7.596811e+06
## [5562,] -1.370429e+07 -1.166043e+07
## [5563,] -3.246645e+09 -1.115548e+09
## [5564,] -2.421649e+09 -7.907236e+08
## [5565,] -9.386529e+07 -4.942011e+07
## [5566,] -6.145140e+06 -7.116231e+06
## [5567,] -7.043580e+06 -7.622680e+06
## [5568,] -1.345977e+07 -1.148357e+07
## [5569,] -3.321241e+09 -1.090684e+09
## [5570,] -2.493806e+09 -8.844592e+08
## [5571,] -9.289819e+07 -5.335371e+07
## [5572,] -6.082714e+06 -7.009494e+06
## [5573,] -6.862779e+06 -7.560814e+06
## [5574,] -1.336895e+07 -1.150498e+07
## [5575,] -3.225091e+09 -1.029895e+09

```

```

## [5576,] -2.413372e+09 -1.120273e+09
## [5577,] -9.699222e+07 -5.646703e+07
## [5578,] -6.190048e+06 -7.080953e+06
## [5579,] -7.031166e+06 -7.626014e+06
## [5580,] -1.366173e+07 -1.164566e+07
## [5581,] -3.078426e+09 -1.078206e+09
## [5582,] -2.067911e+09 -7.235275e+08
## [5583,] -9.722862e+07 -5.156760e+07
## [5584,] -6.313211e+06 -7.196624e+06
## [5585,] -6.913437e+06 -7.589635e+06
## [5586,] -1.361435e+07 -1.181483e+07
## [5587,] -3.172208e+09 -1.053862e+09
## [5588,] -2.751040e+09 -9.431637e+08
## [5589,] -9.093528e+07 -4.730045e+07
## [5590,] -5.842605e+06 -6.802043e+06
## [5591,] -6.828862e+06 -7.603468e+06
## [5592,] -1.364895e+07 -1.168289e+07
## [5593,] -2.995994e+09 -1.084184e+09
## [5594,] -2.217804e+09 -7.902939e+08
## [5595,] -8.981393e+07 -5.147220e+07
## [5596,] -6.227763e+06 -7.045860e+06
## [5597,] -6.990498e+06 -7.621532e+06
## [5598,] -1.380213e+07 -1.180819e+07
## [5599,] -3.057354e+09 -1.127470e+09
## [5600,] -2.194728e+09 -7.232398e+08
## [5601,] -9.961910e+07 -5.407940e+07
## [5602,] -6.190778e+06 -7.101594e+06
## [5603,] -7.024562e+06 -7.651670e+06
## [5604,] -1.371582e+07 -1.169561e+07
## [5605,] -2.995659e+09 -1.152541e+09
## [5606,] -2.294645e+09 -9.034043e+08
## [5607,] -9.244078e+07 -4.780728e+07
## [5608,] -6.261585e+06 -7.129544e+06
## [5609,] -6.935282e+06 -7.607110e+06
## [5610,] -1.336041e+07 -1.149706e+07
## [5611,] -3.161031e+09 -1.029404e+09
## [5612,] -2.232822e+09 -7.810279e+08
## [5613,] -8.987188e+07 -4.958140e+07
## [5614,] -6.165008e+06 -7.085899e+06
## [5615,] -7.061316e+06 -7.717259e+06
## [5616,] -1.332786e+07 -1.147498e+07
## [5617,] -3.650033e+09 -1.229568e+09
## [5618,] -2.444450e+09 -8.504283e+08
## [5619,] -9.108107e+07 -5.048058e+07
## [5620,] -6.146686e+06 -7.169722e+06
## [5621,] -7.116476e+06 -7.668589e+06
## [5622,] -1.395790e+07 -1.175455e+07

```

```

## [5623,] -2.964715e+09 -1.083731e+09
## [5624,] -2.278763e+09 -9.178607e+08
## [5625,] -9.433520e+07 -5.094956e+07
## [5626,] -6.132085e+06 -7.118090e+06
## [5627,] -7.046282e+06 -7.717888e+06
## [5628,] -1.327476e+07 -1.139337e+07
## [5629,] -3.015511e+09 -1.041104e+09
## [5630,] -2.194227e+09 -7.627441e+08
## [5631,] -8.816648e+07 -4.875430e+07
## [5632,] -6.265869e+06 -7.158039e+06
## [5633,] -7.037319e+06 -7.651408e+06
## [5634,] -1.396038e+07 -1.175683e+07
## [5635,] -3.181508e+09 -1.071393e+09
## [5636,] -2.356644e+09 -7.762025e+08
## [5637,] -9.336568e+07 -5.143167e+07
## [5638,] -6.401096e+06 -7.262272e+06
## [5639,] -7.096154e+06 -7.729109e+06
## [5640,] -1.376114e+07 -1.165560e+07
## [5641,] -2.629445e+09 -9.299199e+08
## [5642,] -2.224586e+09 -7.806862e+08
## [5643,] -8.799871e+07 -4.819263e+07
## [5644,] -6.262319e+06 -7.178203e+06
## [5645,] -7.066279e+06 -7.711546e+06
## [5646,] -1.382904e+07 -1.170172e+07
## [5647,] -3.820342e+09 -1.262140e+09
## [5648,] -2.508581e+09 -9.424129e+08
## [5649,] -9.257307e+07 -5.129260e+07
## [5650,] -6.435199e+06 -7.294564e+06
## [5651,] -7.123775e+06 -7.741546e+06
## [5652,] -1.338762e+07 -1.150606e+07
## [5653,] -3.449514e+09 -1.391039e+09
## [5654,] -2.141141e+09 -8.126957e+08
## [5655,] -8.703388e+07 -4.834868e+07
## [5656,] -6.303538e+06 -7.182298e+06
## [5657,] -7.112147e+06 -7.707616e+06
## [5658,] -1.367495e+07 -1.176434e+07
## [5659,] -3.340905e+09 -1.101964e+09
## [5660,] -2.615248e+09 -8.126957e+08
## [5661,] -9.400309e+07 -5.011108e+07
## [5662,] -6.307283e+06 -7.162325e+06
## [5663,] -7.096456e+06 -7.707616e+06
## [5664,] -1.359542e+07 -1.169876e+07
## [5665,] -2.944036e+09 -9.642427e+08
## [5666,] -2.492280e+09 -8.126957e+08
## [5667,] -9.605857e+07 -5.374174e+07
## [5668,] -6.114084e+06 -7.078838e+06
## [5669,] -6.940797e+06 -7.686154e+06

```

```

## [5670,] -1.436415e+07 -1.218601e+07
## [5671,] -3.015007e+09 -1.095634e+09
## [5672,] -2.216653e+09 -7.850545e+08
## [5673,] -9.102716e+07 -4.593701e+07
## [5674,] -6.262686e+06 -7.130719e+06
## [5675,] -7.179481e+06 -7.769500e+06
## [5676,] -1.354178e+07 -1.161636e+07
## [5677,] -3.025251e+09 -1.108008e+09
## [5678,] -2.332707e+09 -8.311686e+08
## [5679,] -9.284820e+07 -5.015437e+07
## [5680,] -6.270246e+06 -7.186690e+06
## [5681,] -7.059359e+06 -7.701593e+06
## [5682,] -1.393454e+07 -1.186464e+07
## [5683,] -3.097273e+09 -1.101711e+09
## [5684,] -2.427531e+09 -8.833233e+08
## [5685,] -1.002668e+08 -5.409404e+07
## [5686,] -6.177309e+06 -7.182790e+06
## [5687,] -7.105203e+06 -7.744012e+06
## [5688,] -1.333924e+07 -1.147742e+07
## [5689,] -3.265301e+09 -1.107805e+09
## [5690,] -2.395513e+09 -8.736158e+08
## [5691,] -9.431002e+07 -5.093105e+07
## [5692,] -6.236950e+06 -7.123147e+06
## [5693,] -7.025810e+06 -7.718253e+06
## [5694,] -1.406238e+07 -1.189167e+07
## [5695,] -2.600147e+09 -9.238263e+08
## [5696,] -1.957106e+09 -6.923375e+08
## [5697,] -8.970687e+07 -4.843373e+07
## [5698,] -6.270613e+06 -7.143164e+06
## [5699,] -7.040271e+06 -7.782600e+06
## [5700,] -1.420308e+07 -1.198792e+07
## [5701,] -1.541697e+09 -6.159577e+08
## [5702,] -1.163988e+09 -4.571851e+08
## [5703,] -2.388118e+07 -1.038566e+07
## [5704,] -1.480397e+04 -5.771689e+04
## [5705,] -5.296039e+04 -9.646181e+04
## [5706,] -9.085399e+05 -5.693185e+05
## [5707,] -1.816433e+09 -5.840003e+08
## [5708,] -1.098465e+09 -3.714130e+08
## [5709,] -2.257712e+07 -8.959144e+06
## [5710,] -1.845738e+04 -6.360183e+04
## [5711,] -5.793959e+04 -1.015733e+05
## [5712,] -8.693666e+05 -5.419167e+05
## [5713,] -1.364097e+09 -5.354659e+08
## [5714,] -1.186181e+09 -3.968469e+08
## [5715,] -2.277648e+07 -9.148097e+06
## [5716,] -1.927675e+04 -6.322622e+04

```



```

## [5717,] -5.583365e+04 -9.877853e+04
## [5718,] -8.626850e+05 -5.348924e+05
## [5719,] -1.398737e+09 -5.268741e+08
## [5720,] -1.055871e+09 -4.066017e+08
## [5721,] -2.247776e+07 -9.211520e+06
## [5722,] -1.948437e+04 -6.473530e+04
## [5723,] -5.888808e+04 -9.939621e+04
## [5724,] -8.493992e+05 -5.507615e+05
## [5725,] -1.426761e+09 -5.098988e+08
## [5726,] -1.109246e+09 -3.714130e+08
## [5727,] -2.237863e+07 -1.018915e+07
## [5728,] -1.745820e+04 -6.360183e+04
## [5729,] -5.583365e+04 -1.012608e+05
## [5730,] -8.649093e+05 -5.419167e+05
## [5731,] -3.024747e+09 -1.034509e+09
## [5732,] -2.540418e+09 -8.976645e+08
## [5733,] -8.618783e+07 -4.642608e+07
## [5734,] -6.360669e+06 -7.199183e+06
## [5735,] -7.129365e+06 -7.741911e+06
## [5736,] -1.367837e+07 -1.180037e+07
## [5737,] -3.180388e+09 -1.308312e+09
## [5738,] -2.379361e+09 -8.686470e+08
## [5739,] -9.194497e+07 -5.278390e+07
## [5740,] -6.118680e+06 -7.223413e+06
## [5741,] -7.106108e+06 -7.766816e+06
## [5742,] -1.379614e+07 -1.173696e+07
## [5743,] -3.264865e+09 -1.202555e+09
## [5744,] -2.110376e+09 -8.543171e+08
## [5745,] -9.137301e+07 -4.790563e+07
## [5746,] -6.111484e+06 -7.095894e+06
## [5747,] -7.099721e+06 -7.708295e+06
## [5748,] -1.373965e+07 -1.184905e+07
## [5749,] -2.695588e+09 -9.292210e+08
## [5750,] -2.363337e+09 -8.074693e+08
## [5751,] -9.178828e+07 -5.205930e+07
## [5752,] -6.252502e+06 -7.207682e+06
## [5753,] -7.148319e+06 -7.791761e+06
## [5754,] -1.388765e+07 -1.178849e+07
## [5755,] -3.044778e+09 -1.138630e+09
## [5756,] -1.985375e+09 -6.666462e+08
## [5757,] -1.035911e+08 -5.359179e+07
## [5758,] -6.189348e+06 -7.179776e+06
## [5759,] -7.127651e+06 -7.742856e+06
## [5760,] -1.414999e+07 -1.179898e+07
## [5761,] -3.222054e+09 -1.088817e+09
## [5762,] -2.308304e+09 -8.780099e+08
## [5763,] -9.262165e+07 -5.193040e+07

```

```
## [5764,] -6.256416e+06 -7.167889e+06
## [5765,] -7.135511e+06 -7.726483e+06
## [5766,] -1.359414e+07 -1.164035e+07
## [5767,] -2.922439e+09 -1.088766e+09
## [5768,] -2.246297e+09 -8.027359e+08
## [5769,] -8.825696e+07 -4.926136e+07
## [5770,] -6.189531e+06 -7.191968e+06
## [5771,] -7.040319e+06 -7.698030e+06
## [5772,] -1.388690e+07 -1.179601e+07
## [5773,] -3.003608e+09 -1.064303e+09
## [5774,] -2.371007e+09 -9.021645e+08
## [5775,] -9.406686e+07 -5.105109e+07
## [5776,] -6.071441e+06 -7.196067e+06
## [5777,] -7.287466e+06 -7.859797e+06
## [5778,] -1.423614e+07 -1.204320e+07
## [5779,] -2.514311e+09 -9.063097e+08
## [5780,] -2.450435e+09 -8.971609e+08
## [5781,] -1.088471e+08 -5.426278e+07
## [5782,] -6.361780e+06 -7.264546e+06
## [5783,] -7.153313e+06 -7.818907e+06
## [5784,] -1.415173e+07 -1.191595e+07
## [5785,] -2.852001e+09 -1.088565e+09
## [5786,] -1.934625e+09 -6.580204e+08
## [5787,] -9.761030e+07 -5.064688e+07
## [5788,] -6.204840e+06 -7.272688e+06
## [5789,] -7.110231e+06 -7.776598e+06
## [5790,] -1.367538e+07 -1.174013e+07
## [5791,] -3.328112e+09 -1.157161e+09
## [5792,] -2.394242e+09 -8.537811e+08
## [5793,] -1.018212e+08 -5.477159e+07
## [5794,] -6.302095e+06 -7.200758e+06
## [5795,] -7.146048e+06 -7.789389e+06
## [5796,] -1.410274e+07 -1.197016e+07
## [5797,] -3.179095e+09 -1.169773e+09
## [5798,] -2.261120e+09 -8.023895e+08
## [5799,] -9.114827e+07 -5.172802e+07
## [5800,] -6.456648e+06 -7.451156e+06
## [5801,] -7.134401e+06 -7.837542e+06
## [5802,] -1.391711e+07 -1.185680e+07
## [5803,] -3.590829e+09 -1.368734e+09
## [5804,] -2.268623e+09 -7.659196e+08
## [5805,] -8.166012e+07 -4.478453e+07
## [5806,] -6.324859e+06 -7.201053e+06
## [5807,] -7.092833e+06 -7.843353e+06
## [5808,] -1.399111e+07 -1.176860e+07
## [5809,] -3.116008e+09 -1.063705e+09
## [5810,] -2.230079e+09 -8.022164e+08
```

```

## [5811,] -8.609714e+07 -4.579117e+07
## [5812,] -6.366375e+06 -7.309729e+06
## [5813,] -7.219117e+06 -7.827191e+06
## [5814,] -1.416746e+07 -1.184787e+07
## [5815,] -3.210097e+09 -1.188608e+09
## [5816,] -1.933953e+09 -6.701688e+08
## [5817,] -8.593135e+07 -4.666590e+07
## [5818,] -6.460998e+06 -7.362448e+06
## [5819,] -7.085598e+06 -7.742643e+06
## [5820,] -1.479507e+07 -1.242238e+07
## [5821,] -3.263031e+09 -1.169355e+09
## [5822,] -2.433344e+09 -8.628393e+08
## [5823,] -7.892879e+07 -4.345506e+07
## [5824,] -6.344183e+06 -7.310125e+06
## [5825,] -7.190755e+06 -7.816848e+06
## [5826,] -1.402543e+07 -1.184945e+07
## [5827,] -3.370199e+09 -1.039231e+09
## [5828,] -2.457336e+09 -9.407247e+08
## [5829,] -8.772956e+07 -5.019340e+07
## [5830,] -6.359313e+06 -7.354654e+06
## [5831,] -7.304639e+06 -7.938332e+06
## [5832,] -1.395058e+07 -1.185472e+07
## [5833,] -3.262682e+09 -1.253469e+09
## [5834,] -2.131030e+09 -7.745428e+08
## [5835,] -8.933398e+07 -4.991883e+07
## [5836,] -6.344461e+06 -7.310423e+06
## [5837,] -7.139994e+06 -7.794022e+06
## [5838,] -1.401895e+07 -1.201709e+07
## [5839,] -2.940886e+09 -1.069343e+09
## [5840,] -2.145964e+09 -7.972395e+08
## [5841,] -8.738073e+07 -5.007765e+07
## [5842,] -6.453977e+06 -7.342822e+06
## [5843,] -7.179677e+06 -7.865720e+06
## [5844,] -1.411119e+07 -1.207754e+07
## [5845,] -2.971206e+09 -1.124854e+09
## [5846,] -2.513647e+09 -7.299674e+08
## [5847,] -9.055411e+07 -5.053389e+07
## [5848,] -6.382272e+06 -7.270347e+06
## [5849,] -7.187567e+06 -7.851967e+06
## [5850,] -1.412918e+07 -1.200281e+07
## [5851,] -3.094382e+09 -1.175423e+09
## [5852,] -2.298831e+09 -8.769687e+08
## [5853,] -9.621750e+07 -4.891029e+07
## [5854,] -6.389811e+06 -7.270347e+06
## [5855,] -7.195460e+06 -7.854717e+06
## [5856,] -1.347131e+07 -1.166526e+07
## [5857,] -3.326701e+09 -1.069293e+09

```

```

## [5858,] -1.350707e+09 -5.384908e+08
## [5859,] -9.176787e+07 -4.775670e+07
## [5860,] -6.435230e+06 -7.326861e+06
## [5861,] -7.168003e+06 -7.837011e+06
## [5862,] -1.397343e+07 -1.184281e+07
## [5863,] -3.022142e+09 -1.045002e+09
## [5864,] -1.961987e+09 -6.824682e+08
## [5865,] -9.461159e+07 -5.205495e+07
## [5866,] -6.522740e+06 -7.428346e+06
## [5867,] -7.223577e+06 -7.848319e+06
## [5868,] -1.382422e+07 -1.183685e+07
## [5869,] -3.114899e+09 -1.194515e+09
## [5870,] -2.480913e+09 -7.080531e+08
## [5871,] -8.843368e+07 -4.998364e+07
## [5872,] -6.416603e+06 -7.387848e+06
## [5873,] -7.254087e+06 -7.940829e+06
## [5874,] -1.404433e+07 -1.194942e+07
## [5875,] -3.198594e+09 -1.194462e+09
## [5876,] -2.160666e+09 -8.247414e+08
## [5877,] -8.647613e+07 -4.954064e+07
## [5878,] -6.322584e+06 -7.282912e+06
## [5879,] -7.131878e+06 -7.791018e+06
## [5880,] -1.421776e+07 -1.212610e+07
## [5881,] -2.991060e+09 -1.213760e+09
## [5882,] -2.521250e+09 -8.433500e+08
## [5883,] -9.632246e+07 -5.165776e+07
## [5884,] -6.360330e+06 -7.307283e+06
## [5885,] -7.213641e+06 -7.859952e+06
## [5886,] -1.372256e+07 -1.180850e+07
## [5887,] -3.304531e+09 -1.087254e+09
## [5888,] -2.352936e+09 -8.765614e+08
## [5889,] -9.614710e+07 -4.930005e+07
## [5890,] -6.511972e+06 -7.449388e+06
## [5891,] -7.333325e+06 -7.904661e+06
## [5892,] -1.410242e+07 -1.185422e+07
## [5893,] -3.187456e+09 -9.909935e+08
## [5894,] -2.213273e+09 -7.830432e+08
## [5895,] -9.111334e+07 -4.599824e+07
## [5896,] -6.338149e+06 -7.319781e+06
## [5897,] -7.296174e+06 -7.937798e+06
## [5898,] -1.397688e+07 -1.199472e+07
## [5899,] -3.488928e+09 -1.181245e+09
## [5900,] -2.636272e+09 -9.751626e+08
## [5901,] -9.293524e+07 -5.231657e+07
## [5902,] -6.485541e+06 -7.388646e+06
## [5903,] -7.186755e+06 -7.878635e+06
## [5904,] -1.403310e+07 -1.202189e+07

```

```

## [5905,] -3.082919e+09 -1.093156e+09
## [5906,] -2.137465e+09 -7.470625e+08
## [5907,] -8.955079e+07 -4.788352e+07
## [5908,] -6.558010e+06 -7.457832e+06
## [5909,] -7.352548e+06 -7.979956e+06
## [5910,] -1.432069e+07 -1.220444e+07
## [5911,] -3.031135e+09 -1.056343e+09
## [5912,] -2.190077e+09 -7.828294e+08
## [5913,] -8.880338e+07 -4.878858e+07
## [5914,] -6.520148e+06 -7.433712e+06
## [5915,] -7.266490e+06 -7.975958e+06
## [5916,] -1.426640e+07 -1.215433e+07
## [5917,] -2.492981e+09 -8.879586e+08
## [5918,] -1.982584e+09 -6.692196e+08
## [5919,] -9.120089e+07 -4.894560e+07
## [5920,] -6.459538e+06 -7.381137e+06
## [5921,] -7.227480e+06 -7.976597e+06
## [5922,] -1.438591e+07 -1.199791e+07
## [5923,] -3.061578e+09 -1.187133e+09
## [5924,] -2.274024e+09 -8.008751e+08
## [5925,] -9.026216e+07 -4.987139e+07
## [5926,] -6.505390e+06 -7.422016e+06
## [5927,] -7.334856e+06 -7.969831e+06
## [5928,] -1.410589e+07 -1.207264e+07
## [5929,] -3.000008e+09 -1.092752e+09
## [5930,] -2.668828e+09 -9.148074e+08
## [5931,] -1.077565e+08 -5.488029e+07
## [5932,] -6.354196e+06 -7.328947e+06
## [5933,] -7.348455e+06 -7.995099e+06
## [5934,] -1.438515e+07 -1.218863e+07
## [5935,] -2.720632e+09 -1.129830e+09
## [5936,] -2.415111e+09 -8.710429e+08
## [5937,] -9.393665e+07 -4.976679e+07
## [5938,] -6.448822e+06 -7.389942e+06
## [5939,] -7.354082e+06 -7.981553e+06
## [5940,] -1.423702e+07 -1.213554e+07
## [5941,] -2.979290e+09 -1.086398e+09
## [5942,] -2.399192e+09 -8.567379e+08
## [5943,] -1.011717e+08 -5.306859e+07
## [5944,] -6.540144e+06 -7.442848e+06
## [5945,] -7.275952e+06 -8.016400e+06
## [5946,] -1.419440e+07 -1.219629e+07
## [5947,] -2.614579e+09 -8.985983e+08
## [5948,] -1.974620e+09 -6.814306e+08
## [5949,] -9.216358e+07 -5.098791e+07
## [5950,] -6.647577e+06 -7.536938e+06
## [5951,] -7.387840e+06 -7.991737e+06

```

```

## [5952,] -1.438110e+07 -1.215986e+07
## [5953,] -2.968791e+09 -1.086196e+09
## [5954,] -1.888991e+09 -6.479328e+08
## [5955,] -9.258064e+07 -5.189970e+07
## [5956,] -6.540519e+06 -7.447319e+06
## [5957,] -7.390814e+06 -8.017040e+06
## [5958,] -1.408565e+07 -1.208717e+07
## [5959,] -2.908084e+09 -1.086146e+09
## [5960,] -2.211907e+09 -7.777000e+08
## [5961,] -9.039289e+07 -4.996857e+07
## [5962,] -6.468241e+06 -7.541235e+06
## [5963,] -7.388147e+06 -7.997605e+06
## [5964,] -1.415759e+07 -1.207885e+07
## [5965,] -2.928222e+09 -1.086146e+09
## [5966,] -2.242532e+09 -7.867749e+08
## [5967,] -9.219293e+07 -4.864571e+07
## [5968,] -6.468241e+06 -7.537140e+06
## [5969,] -7.223725e+06 -7.928388e+06
## [5970,] -1.404974e+07 -1.212048e+07
## [5971,] -2.918144e+09 -1.092298e+09
## [5972,] -2.166363e+09 -7.731823e+08
## [5973,] -8.999529e+07 -4.952565e+07
## [5974,] -6.697856e+06 -7.524860e+06
## [5975,] -7.365649e+06 -8.046397e+06
## [5976,] -1.370772e+07 -1.182763e+07
## [5977,] -3.756300e+09 -1.258288e+09
## [5978,] -2.470787e+09 -9.390848e+08
## [5979,] -9.060656e+07 -4.865637e+07
## [5980,] -6.464541e+06 -7.362182e+06
## [5981,] -7.278038e+06 -7.965888e+06
## [5982,] -1.416335e+07 -1.219256e+07
## [5983,] -2.662058e+09 -8.433687e+08
## [5984,] -2.535645e+09 -9.590291e+08
## [5985,] -9.897533e+07 -5.013830e+07
## [5986,] -6.690327e+06 -7.635943e+06
## [5987,] -7.435354e+06 -8.066212e+06
## [5988,] -1.439193e+07 -1.227860e+07
## [5989,] -2.808109e+09 -9.665679e+08
## [5990,] -2.181206e+09 -7.775295e+08
## [5991,] -9.065021e+07 -4.986387e+07
## [5992,] -6.594410e+06 -7.447719e+06
## [5993,] -7.220530e+06 -7.949919e+06
## [5994,] -1.381029e+07 -1.186515e+07
## [5995,] -3.519770e+09 -1.225177e+09
## [5996,] -2.398293e+09 -8.609549e+08
## [5997,] -9.150764e+07 -4.917039e+07
## [5998,] -6.442458e+06 -7.407468e+06

```

```

## [5999,] -7.405388e+06 -8.043345e+06
## [6000,] -1.423647e+07 -1.223529e+07
## [6001,] -3.185041e+09 -1.104196e+09
## [6002,] -2.327174e+09 -8.896623e+08
## [6003,] -9.353580e+07 -5.170837e+07
## [6004,] -6.507074e+06 -7.431945e+06
## [6005,] -7.369540e+06 -7.994883e+06
## [6006,] -1.427262e+07 -1.228557e+07
## [6007,] -3.111829e+09 -1.199060e+09
## [6008,] -2.406020e+09 -7.863463e+08
## [6009,] -9.640656e+07 -5.232327e+07
## [6010,] -6.606566e+06 -7.493266e+06
## [6011,] -7.509004e+06 -8.114942e+06
## [6012,] -1.412182e+07 -1.211235e+07
## [6013,] -3.355402e+09 -1.211897e+09
## [6014,] -2.203422e+09 -7.817180e+08
## [6015,] -8.998518e+07 -4.981319e+07
## [6016,] -6.576119e+06 -7.513897e+06
## [6017,] -7.439572e+06 -8.062245e+06
## [6018,] -1.421114e+07 -1.218672e+07
## [6019,] -2.998083e+09 -1.091591e+09
## [6020,] -2.625364e+09 -1.019680e+09
## [6021,] -8.531084e+07 -5.329149e+07
## [6022,] -6.424193e+06 -7.371673e+06
## [6023,] -7.317284e+06 -7.979204e+06
## [6024,] -1.421690e+07 -1.230094e+07
## [6025,] -3.090558e+09 -1.211684e+09
## [6026,] -2.142708e+09 -8.701411e+08
## [6027,] -9.321985e+07 -5.237856e+07
## [6028,] -6.530486e+06 -7.510010e+06
## [6029,] -7.423832e+06 -8.059781e+06
## [6030,] -1.425302e+07 -1.235976e+07
## [6031,] -1.455063e+09 -5.098988e+08
## [6032,] -1.093095e+09 -3.872105e+08
## [6033,] -2.727478e+07 -1.073071e+07
## [6034,] -1.480844e+04 -5.916803e+04
## [6035,] -4.887827e+04 -9.240912e+04
## [6036,] -9.422404e+05 -5.850248e+05
## [6037,] -1.419729e+09 -5.141166e+08
## [6038,] -1.277266e+09 -4.853236e+08
## [6039,] -2.218102e+07 -9.275161e+06
## [6040,] -9.425266e+03 -4.944548e+04
## [6041,] -5.053131e+04 -9.437529e+04
## [6042,] -9.344475e+05 -5.788878e+05
## [6043,] -1.608147e+09 -6.251683e+08
## [6044,] -1.219890e+09 -4.675849e+08
## [6045,] -2.577350e+07 -1.032813e+07

```

```
## [6046,] -1.356959e+04 -5.595649e+04
## [6047,] -4.943461e+04 -9.528168e+04
## [6048,] -9.344475e+05 -5.843634e+05
## [6049,] -1.638186e+09 -6.298376e+08
## [6050,] -1.225562e+09 -4.781684e+08
## [6051,] -2.524489e+07 -1.094246e+07
## [6052,] -1.288360e+04 -5.455410e+04
## [6053,] -5.075210e+04 -9.467694e+04
## [6054,] -9.321355e+05 -5.807101e+05
## [6055,] -1.608147e+09 -6.251683e+08
## [6056,] -1.219890e+09 -4.675849e+08
## [6057,] -2.513982e+07 -1.066724e+07
## [6058,] -1.305343e+04 -5.560422e+04
## [6059,] -5.097336e+04 -9.287427e+04
## [6060,] -9.229158e+05 -5.843634e+05
## [6061,] -3.008214e+09 -1.264148e+09
## [6062,] -2.625285e+09 -9.684853e+08
## [6063,] -8.455327e+07 -4.722086e+07
## [6064,] -6.522958e+06 -7.489686e+06
## [6065,] -7.385273e+06 -8.052979e+06
## [6066,] -1.435837e+07 -1.229790e+07
## [6067,] -2.817022e+09 -1.001071e+09
## [6068,] -2.053470e+09 -6.638869e+08
## [6069,] -8.572626e+07 -4.737533e+07
## [6070,] -6.360269e+06 -7.453092e+06
## [6071,] -7.458934e+06 -8.065674e+06
## [6072,] -1.424649e+07 -1.219437e+07
## [6073,] -2.987635e+09 -1.042730e+09
## [6074,] -2.526253e+09 -8.989541e+08
## [6075,] -9.125352e+07 -4.942467e+07
## [6076,] -6.568941e+06 -7.551244e+06
## [6077,] -7.452391e+06 -8.081167e+06
## [6078,] -1.360032e+07 -1.182644e+07
## [6079,] -3.398107e+09 -1.237616e+09
## [6080,] -2.437126e+09 -8.413983e+08
## [6081,] -9.290444e+07 -5.184033e+07
## [6082,] -6.542489e+06 -7.494270e+06
## [6083,] -7.355408e+06 -8.080255e+06
## [6084,] -1.410405e+07 -1.207926e+07
## [6085,] -2.786937e+09 -1.000781e+09
## [6086,] -2.149728e+09 -7.677459e+08
## [6087,] -9.231481e+07 -5.321680e+07
## [6088,] -6.676894e+06 -7.551748e+06
## [6089,] -7.593256e+06 -8.208139e+06
## [6090,] -1.458697e+07 -1.226526e+07
## [6091,] -3.343464e+09 -1.140898e+09
## [6092,] -2.357397e+09 -8.601479e+08
```



```

## [6093,] -8.976215e+07 -4.935274e+07
## [6094,] -6.596389e+06 -7.568354e+06
## [6095,] -7.508485e+06 -8.153578e+06
## [6096,] -1.459281e+07 -1.241355e+07
## [6097,] -3.089708e+09 -1.084887e+09
## [6098,] -2.477032e+09 -7.902576e+08
## [6099,] -8.976215e+07 -4.979489e+07
## [6100,] -6.653978e+06 -7.564252e+06
## [6101,] -7.484308e+06 -8.108813e+06
## [6102,] -1.426554e+07 -1.222037e+07
## [6103,] -2.956399e+09 -1.090985e+09
## [6104,] -2.708114e+09 -1.013873e+09
## [6105,] -9.625066e+07 -4.981646e+07
## [6106,] -6.677273e+06 -7.589088e+06
## [6107,] -7.511484e+06 -8.109135e+06
## [6108,] -1.440397e+07 -1.240746e+07
## [6109,] -3.110294e+09 -1.140743e+09
## [6110,] -2.541894e+09 -8.648226e+08
## [6111,] -9.916248e+07 -5.374310e+07
## [6112,] -6.704471e+06 -7.630437e+06
## [6113,] -7.484927e+06 -8.129028e+06
## [6114,] -1.447596e+07 -1.240675e+07
## [6115,] -2.708134e+09 -9.480370e+08
## [6116,] -1.950891e+09 -6.717188e+08
## [6117,] -9.568039e+07 -5.453570e+07
## [6118,] -6.558604e+06 -7.442181e+06
## [6119,] -7.565983e+06 -8.165758e+06
## [6120,] -1.450911e+07 -1.231955e+07
## [6121,] -3.429529e+09 -1.103028e+09
## [6122,] -2.436221e+09 -8.597894e+08
## [6123,] -9.779936e+07 -5.198347e+07
## [6124,] -6.701084e+06 -7.655686e+06
## [6125,] -7.543527e+06 -8.167644e+06
## [6126,] -1.473713e+07 -1.268269e+07
## [6127,] -3.006621e+09 -1.121576e+09
## [6128,] -2.224742e+09 -8.221102e+08
## [6129,] -9.574019e+07 -5.168206e+07
## [6130,] -6.467619e+06 -7.462942e+06
## [6131,] -7.326828e+06 -8.058653e+06
## [6132,] -1.445951e+07 -1.232421e+07
## [6133,] -3.984977e+09 -1.483941e+09
## [6134,] -2.247685e+09 -7.898281e+08
## [6135,] -9.211824e+07 -5.065578e+07
## [6136,] -6.620432e+06 -7.627026e+06
## [6137,] -7.355201e+06 -8.113540e+06
## [6138,] -1.473636e+07 -1.255445e+07
## [6139,] -3.429082e+09 -1.256337e+09

```

```
## [6140,] -2.388114e+09 -8.596101e+08
## [6141,] -9.234863e+07 -5.097600e+07
## [6142,] -6.686122e+06 -7.627330e+06
## [6143,] -7.551042e+06 -8.175464e+06
## [6144,] -1.438275e+07 -1.232887e+07
## [6145,] -3.026677e+09 -1.078053e+09
## [6146,] -2.216736e+09 -7.760387e+08
## [6147,] -9.357432e+07 -4.862342e+07
## [6148,] -6.597707e+06 -7.614977e+06
## [6149,] -7.424856e+06 -8.141834e+06
## [6150,] -1.451010e+07 -1.248905e+07
## [6151,] -2.526198e+09 -9.022196e+08
## [6152,] -2.301481e+09 -8.172030e+08
## [6153,] -8.997947e+07 -4.995679e+07
## [6154,] -6.674651e+06 -7.610963e+06
## [6155,] -7.571432e+06 -8.219168e+06
## [6156,] -1.430696e+07 -1.225870e+07
## [6157,] -3.538830e+09 -1.412718e+09
## [6158,] -1.921663e+09 -6.755328e+08
## [6159,] -9.299731e+07 -4.952467e+07
## [6160,] -6.605561e+06 -7.565866e+06
## [6161,] -7.502900e+06 -8.128165e+06
## [6162,] -1.429463e+07 -1.234801e+07
## [6163,] -3.396058e+09 -1.017623e+09
## [6164,] -2.332644e+09 -8.546814e+08
## [6165,] -9.625520e+07 -4.937747e+07
## [6166,] -6.721069e+06 -7.520802e+06
## [6167,] -7.489468e+06 -8.136559e+06
## [6168,] -1.447618e+07 -1.238167e+07
## [6169,] -3.298911e+09 -1.223252e+09
## [6170,] -2.309124e+09 -7.401796e+08
## [6171,] -9.040609e+07 -4.706251e+07
## [6172,] -6.725032e+06 -7.631754e+06
## [6173,] -7.550160e+06 -8.230748e+06
## [6174,] -1.425520e+07 -1.235338e+07
## [6175,] -2.795169e+09 -1.059622e+09
## [6176,] -2.216520e+09 -8.032623e+08
## [6177,] -8.980998e+07 -4.938821e+07
## [6178,] -6.814293e+06 -7.677149e+06
## [6179,] -7.587951e+06 -8.182965e+06
## [6180,] -1.436056e+07 -1.238401e+07
## [6181,] -2.525968e+09 -9.589349e+08
## [6182,] -2.316852e+09 -8.263730e+08
## [6183,] -9.464898e+07 -4.998920e+07
## [6184,] -6.694313e+06 -7.656701e+06
## [6185,] -7.480537e+06 -8.205757e+06
## [6186,] -1.430292e+07 -1.238939e+07
```

```

## [6187,] -3.277183e+09 -1.197103e+09
## [6188,] -2.036723e+09 -6.965385e+08
## [6189,] -1.000638e+08 -5.046676e+07
## [6190,] -6.791429e+06 -7.673524e+06
## [6191,] -7.490397e+06 -8.176758e+06
## [6192,] -1.454758e+07 -1.232978e+07
## [6193,] -2.964795e+09 -1.035244e+09
## [6194,] -2.193308e+09 -7.938772e+08
## [6195,] -8.928803e+07 -4.988447e+07
## [6196,] -6.772007e+06 -7.669393e+06
## [6197,] -7.600898e+06 -8.210460e+06
## [6198,] -1.464816e+07 -1.250689e+07
## [6199,] -3.160684e+09 -1.196997e+09
## [6200,] -2.395226e+09 -8.686540e+08
## [6201,] -9.533551e+07 -4.886560e+07
## [6202,] -6.656154e+06 -7.603544e+06
## [6203,] -7.551093e+06 -8.164299e+06
## [6204,] -1.466318e+07 -1.234355e+07
## [6205,] -3.616140e+09 -1.302404e+09
## [6206,] -2.262149e+09 -8.591173e+08
## [6207,] -9.209335e+07 -5.093567e+07
## [6208,] -6.660097e+06 -7.587202e+06
## [6209,] -7.474603e+06 -8.207973e+06
## [6210,] -1.475164e+07 -1.245850e+07
## [6211,] -2.553610e+09 -8.795098e+08
## [6212,] -2.697772e+09 -8.306908e+08
## [6213,] -9.193653e+07 -4.977986e+07
## [6214,] -6.733627e+06 -7.678063e+06
## [6215,] -7.558301e+06 -8.180211e+06
## [6216,] -1.424061e+07 -1.228103e+07
## [6217,] -3.298033e+09 -1.108210e+09
## [6218,] -1.956508e+09 -6.294475e+08
## [6219,] -8.977092e+07 -4.994926e+07
## [6220,] -6.706845e+06 -7.632970e+06
## [6221,] -7.522395e+06 -8.224251e+06
## [6222,] -1.461585e+07 -1.252780e+07
## [6223,] -3.181161e+09 -1.071192e+09
## [6224,] -2.490995e+09 -7.844617e+08
## [6225,] -9.665591e+07 -4.996006e+07
## [6226,] -6.652874e+06 -7.711469e+06
## [6227,] -7.476717e+06 -8.241142e+06
## [6228,] -1.461585e+07 -1.255323e+07
## [6229,] -2.873581e+09 -1.071192e+09
## [6230,] -2.277170e+09 -7.134439e+08
## [6231,] -9.278529e+07 -5.311549e+07
## [6232,] -6.714573e+06 -7.608265e+06
## [6233,] -7.447235e+06 -8.190521e+06

```

```

## [6234,] -1.479021e+07 -1.265519e+07
## [6235,] -2.581558e+09 -9.411339e+08
## [6236,] -2.185073e+09 -7.843761e+08
## [6237,] -9.022608e+07 -5.043748e+07
## [6238,] -6.897751e+06 -7.803172e+06
## [6239,] -7.697437e+06 -8.341926e+06
## [6240,] -1.488161e+07 -1.245097e+07
## [6241,] -2.883335e+09 -1.083277e+09
## [6242,] -2.200195e+09 -8.026127e+08
## [6243,] -9.345027e+07 -5.149446e+07
## [6244,] -6.734293e+06 -7.732602e+06
## [6245,] -7.525707e+06 -8.208025e+06
## [6246,] -1.455693e+07 -1.237204e+07
## [6247,] -2.984211e+09 -1.058826e+09
## [6248,] -2.238336e+09 -7.752301e+08
## [6249,] -8.905144e+07 -4.941294e+07
## [6250,] -6.788689e+06 -7.707837e+06
## [6251,] -7.651543e+06 -8.296973e+06
## [6252,] -1.483471e+07 -1.258574e+07
## [6253,] -3.361865e+09 -1.301742e+09
## [6254,] -2.362680e+09 -7.616537e+08
## [6255,] -9.106693e+07 -5.076791e+07
## [6256,] -6.765581e+06 -7.716325e+06
## [6257,] -7.603080e+06 -8.274704e+06
## [6258,] -1.452878e+07 -1.244721e+07
## [6259,] -3.055661e+09 -1.089219e+09
## [6260,] -2.268925e+09 -8.024395e+08
## [6261,] -9.188237e+07 -5.033228e+07
## [6262,] -6.595949e+06 -7.703900e+06
## [6263,] -7.543678e+06 -8.274704e+06
## [6264,] -1.515572e+07 -1.286438e+07
## [6265,] -2.953409e+09 -1.107701e+09
## [6266,] -2.230379e+09 -7.660530e+08
## [6267,] -8.463633e+07 -4.613843e+07
## [6268,] -6.812410e+06 -7.753865e+06
## [6269,] -7.592574e+06 -8.232747e+06
## [6270,] -1.469599e+07 -1.261901e+07
## [6271,] -3.180385e+09 -1.176941e+09
## [6272,] -1.891726e+09 -6.536761e+08
## [6273,] -1.005490e+08 -5.476508e+07
## [6274,] -6.592401e+06 -7.625743e+06
## [6275,] -7.575167e+06 -8.268137e+06
## [6276,] -1.465269e+07 -1.257040e+07
## [6277,] -3.169710e+09 -1.176837e+09
## [6278,] -1.941374e+09 -6.577913e+08
## [6279,] -9.316396e+07 -4.994173e+07
## [6280,] -6.746673e+06 -7.787436e+06

```

```
## [6281,] -7.635006e+06 -8.251543e+06
## [6282,] -1.463691e+07 -1.247113e+07
## [6283,] -3.127700e+09 -1.151294e+09
## [6284,] -2.362160e+09 -8.677984e+08
## [6285,] -1.070078e+08 -5.684350e+07
## [6286,] -6.766249e+06 -7.708753e+06
## [6287,] -7.575790e+06 -8.240598e+06
## [6288,] -1.443288e+07 -1.245962e+07
## [6289,] -3.275084e+09 -1.058229e+09
## [6290,] -2.299282e+09 -8.112654e+08
## [6291,] -1.006563e+08 -5.345795e+07
## [6292,] -6.817070e+06 -7.758836e+06
## [6293,] -7.718703e+06 -8.327216e+06
## [6294,] -1.495501e+07 -1.279054e+07
## [6295,] -2.505124e+09 -9.064002e+08
## [6296,] -1.856082e+09 -6.658633e+08
## [6297,] -9.920675e+07 -5.119778e+07
## [6298,] -7.068693e+06 -7.938625e+06
## [6299,] -7.660364e+06 -8.320303e+06
## [6300,] -1.441065e+07 -1.249812e+07
## [6301,] -3.480719e+09 -1.280988e+09
## [6302,] -2.176356e+09 -7.522222e+08
## [6303,] -9.144208e+07 -4.839151e+07
## [6304,] -6.654577e+06 -7.647164e+06
## [6305,] -7.393881e+06 -8.117781e+06
## [6306,] -1.534287e+07 -1.309740e+07
## [6307,] -3.044438e+09 -1.144720e+09
## [6308,] -2.369605e+09 -8.867473e+08
## [6309,] -8.908465e+07 -4.870451e+07
## [6310,] -6.555192e+06 -7.610389e+06
## [6311,] -7.927898e+06 -8.490042e+06
## [6312,] -1.486771e+07 -1.279529e+07
## [6313,] -3.613659e+09 -1.157211e+09
## [6314,] -2.221715e+09 -7.654609e+08
## [6315,] -9.210224e+07 -5.184266e+07
## [6316,] -6.809762e+06 -7.713710e+06
## [6317,] -7.807126e+06 -8.424744e+06
## [6318,] -1.464044e+07 -1.258451e+07
## [6319,] -3.602188e+09 -1.254117e+09
## [6320,] -2.448858e+09 -8.435788e+08
## [6321,] -1.007636e+08 -5.399667e+07
## [6322,] -6.720721e+06 -7.668411e+06
## [6323,] -7.677606e+06 -8.304308e+06
## [6324,] -1.497453e+07 -1.269749e+07
## [6325,] -2.627249e+09 -8.617026e+08
## [6326,] -1.904864e+09 -6.448244e+08
## [6327,] -8.332578e+07 -4.587833e+07
```

```

## [6328,] -7.006063e+06 -7.930945e+06
## [6329,] -7.823900e+06 -8.442168e+06
## [6330,] -1.460637e+07 -1.251057e+07
## [6331,] -2.598586e+09 -8.892327e+08
## [6332,] -2.056390e+09 -7.341980e+08
## [6333,] -9.037571e+07 -4.966034e+07
## [6334,] -6.751977e+06 -7.714220e+06
## [6335,] -7.656498e+06 -8.338925e+06
## [6336,] -1.475231e+07 -1.267120e+07
## [6337,] -3.178748e+09 -1.163196e+09
## [6338,] -2.384754e+09 -8.340045e+08
## [6339,] -7.644583e+07 -4.256849e+07
## [6340,] -6.845414e+06 -7.818241e+06
## [6341,] -7.605002e+06 -8.390002e+06
## [6342,] -1.465137e+07 -1.277364e+07
## [6343,] -3.168247e+09 -1.088160e+09
## [6344,] -2.737590e+09 -9.155543e+08
## [6345,] -9.118806e+07 -5.026298e+07
## [6346,] -6.829813e+06 -7.726755e+06
## [6347,] -7.680952e+06 -8.330427e+06
## [6348,] -1.491824e+07 -1.247602e+07
## [6349,] -4.098913e+09 -1.510010e+09
## [6350,] -2.228863e+09 -8.014874e+08
## [6351,] -9.220493e+07 -5.116829e+07
## [6352,] -6.790982e+06 -7.739301e+06
## [6353,] -7.694867e+06 -8.396015e+06
## [6354,] -1.468140e+07 -1.255456e+07
## [6355,] -3.147126e+09 -1.045445e+09
## [6356,] -2.521109e+09 -8.060001e+08
## [6357,] -9.265151e+07 -5.255803e+07
## [6358,] -6.892710e+06 -7.822822e+06
## [6359,] -7.670705e+06 -8.396342e+06
## [6360,] -1.461067e+07 -1.253996e+07
## [6361,] -1.585801e+09 -6.345243e+08
## [6362,] -1.202950e+09 -4.710996e+08
## [6363,] -2.472175e+07 -1.094246e+07
## [6364,] -1.356959e+04 -5.525307e+04
## [6365,] -5.186324e+04 -9.287427e+04
## [6366,] -9.298263e+05 -5.861944e+05
## [6367,] -1.615631e+09 -6.439497e+08
## [6368,] -1.219890e+09 -4.571198e+08
## [6369,] -2.503498e+07 -1.080441e+07
## [6370,] -1.356959e+04 -5.701997e+04
## [6371,] -5.164005e+04 -9.317351e+04
## [6372,] -9.321355e+05 -5.825353e+05
## [6373,] -1.638186e+09 -6.392283e+08
## [6374,] -1.231249e+09 -4.640834e+08

```

```

## [6375,] -2.441050e+07 -1.006080e+07
## [6376,] -1.928184e+04 -6.474464e+04
## [6377,] -5.712950e+04 -1.014350e+05
## [6378,] -8.685602e+05 -5.448074e+05
## [6379,] -1.440819e+09 -5.268390e+08
## [6380,] -1.045305e+09 -3.871804e+08
## [6381,] -2.189339e+07 -9.472104e+06
## [6382,] -1.866556e+04 -6.361108e+04
## [6383,] -5.759946e+04 -1.001889e+05
## [6384,] -8.663312e+05 -5.465753e+05
## [6385,] -1.370934e+09 -5.311261e+08
## [6386,] -1.045305e+09 -4.000548e+08
## [6387,] -2.189339e+07 -9.601391e+06
## [6388,] -1.805930e+04 -6.361108e+04
## [6389,] -5.878281e+04 -9.987861e+04
## [6390,] -9.884156e+05 -5.972401e+05
## [6391,] -3.348766e+09 -1.143996e+09
## [6392,] -2.078032e+09 -6.610940e+08
## [6393,] -9.266622e+07 -5.061458e+07
## [6394,] -6.861514e+06 -7.802079e+06
## [6395,] -7.732126e+06 -8.380877e+06
## [6396,] -1.480929e+07 -1.268137e+07
## [6397,] -3.348677e+09 -1.094064e+09
## [6398,] -2.352725e+09 -8.337397e+08
## [6399,] -9.308441e+07 -5.182399e+07
## [6400,] -6.845990e+06 -7.777203e+06
## [6401,] -7.662868e+06 -8.359751e+06
## [6402,] -1.462236e+07 -1.284071e+07
## [6403,] -3.199282e+09 -1.118814e+09
## [6404,] -2.360600e+09 -8.151073e+08
## [6405,] -9.328648e+07 -5.273209e+07
## [6406,] -6.795348e+06 -7.768886e+06
## [6407,] -7.650807e+06 -8.369846e+06
## [6408,] -1.494108e+07 -1.268373e+07
## [6409,] -2.674446e+09 -9.510023e+08
## [6410,] -1.990097e+09 -7.033842e+08
## [6411,] -9.009416e+07 -4.989429e+07
## [6412,] -6.663979e+06 -7.760778e+06
## [6413,] -7.879253e+06 -8.431150e+06
## [6414,] -1.457586e+07 -1.260949e+07
## [6415,] -3.391517e+09 -1.188237e+09
## [6416,] -2.352428e+09 -8.382538e+08
## [6417,] -8.331605e+07 -4.658273e+07
## [6418,] -7.270347e+06 -8.113958e+06
## [6419,] -7.726092e+06 -8.334892e+06
## [6420,] -1.497397e+07 -1.270551e+07
## [6421,] -2.830579e+09 -9.623439e+08

```

```

## [6422,] -2.062851e+09 -7.248975e+08
## [6423,] -1.001542e+08 -5.142768e+07
## [6424,] -6.913076e+06 -7.857056e+06
## [6425,] -7.734591e+06 -8.431807e+06
## [6426,] -1.498915e+07 -1.268537e+07
## [6427,] -3.272985e+09 -1.168935e+09
## [6428,] -2.251103e+09 -7.736989e+08
## [6429,] -9.622839e+07 -5.219204e+07
## [6430,] -6.889565e+06 -7.736274e+06
## [6431,] -7.715502e+06 -8.377762e+06
## [6432,] -1.484127e+07 -1.272803e+07
## [6433,] -3.177714e+09 -1.168935e+09
## [6434,] -2.251103e+09 -8.809700e+08
## [6435,] -9.850042e+07 -5.825651e+07
## [6436,] -6.921018e+06 -7.861340e+06
## [6437,] -7.771630e+06 -8.416309e+06
## [6438,] -1.468163e+07 -1.260570e+07
## [6439,] -3.001512e+09 -1.063056e+09
## [6440,] -2.830701e+09 -1.057516e+09
## [6441,] -9.978141e+07 -5.435322e+07
## [6442,] -6.999819e+06 -7.945309e+06
## [6443,] -7.725515e+06 -8.373994e+06
## [6444,] -1.462919e+07 -1.260805e+07
## [6445,] -2.606770e+09 -9.108212e+08
## [6446,] -2.391562e+09 -7.600939e+08
## [6447,] -9.792351e+07 -4.968515e+07
## [6448,] -6.753502e+06 -7.782284e+06
## [6449,] -7.680740e+06 -8.358549e+06
## [6450,] -1.466837e+07 -1.260191e+07
## [6451,] -2.990974e+09 -1.056788e+09
## [6452,] -2.227709e+09 -8.855644e+08
## [6453,] -1.034299e+08 -5.501761e+07
## [6454,] -6.905813e+06 -7.895348e+06
## [6455,] -7.645744e+06 -8.316380e+06
## [6456,] -1.474434e+07 -1.263828e+07
## [6457,] -2.980622e+09 -1.081065e+09
## [6458,] -2.258298e+09 -7.824512e+08
## [6459,] -9.634837e+07 -5.303991e+07
## [6460,] -6.847333e+06 -7.807783e+06
## [6461,] -7.828910e+06 -8.455930e+06
## [6462,] -1.435434e+07 -1.237823e+07
## [6463,] -2.530730e+09 -8.937487e+08
## [6464,] -2.084318e+09 -7.071244e+08
## [6465,] -9.760023e+07 -5.289869e+07
## [6466,] -6.847429e+06 -7.962860e+06
## [6467,] -7.659941e+06 -8.339684e+06
## [6468,] -1.474357e+07 -1.262905e+07

```



```

## [6469,] -2.960054e+09 -1.062607e+09
## [6470,] -2.320175e+09 -7.508815e+08
## [6471,] -9.110936e+07 -5.124816e+07
## [6472,] -6.945452e+06 -7.920928e+06
## [6473,] -7.727979e+06 -8.410670e+06
## [6474,] -1.470683e+07 -1.265458e+07
## [6475,] -2.939806e+09 -1.056540e+09
## [6476,] -2.196827e+09 -7.597990e+08
## [6477,] -9.130927e+07 -5.065050e+07
## [6478,] -6.882699e+06 -7.833016e+06
## [6479,] -7.717387e+06 -8.368369e+06
## [6480,] -1.502904e+07 -1.279045e+07
## [6481,] -3.166097e+09 -1.213279e+09
## [6482,] -2.106317e+09 -8.375902e+08
## [6483,] -1.063420e+08 -5.698884e+07
## [6484,] -6.773948e+06 -7.687993e+06
## [6485,] -7.834137e+06 -8.484209e+06
## [6486,] -1.513385e+07 -1.280994e+07
## [6487,] -2.979954e+09 -1.074544e+09
## [6488,] -2.288657e+09 -7.912097e+08
## [6489,] -9.544316e+07 -5.358771e+07
## [6490,] -6.898939e+06 -7.846161e+06
## [6491,] -7.756223e+06 -8.482945e+06
## [6492,] -1.519572e+07 -1.303914e+07
## [6493,] -3.565783e+09 -1.092902e+09
## [6494,] -2.351020e+09 -8.468291e+08
## [6495,] -8.983192e+07 -5.133572e+07
## [6496,] -6.930510e+06 -7.951169e+06
## [6497,] -7.846975e+06 -8.517602e+06
## [6498,] -1.478135e+07 -1.268958e+07
## [6499,] -3.071982e+09 -1.074394e+09
## [6500,] -2.181075e+09 -7.865243e+08
## [6501,] -9.507929e+07 -5.194842e+07
## [6502,] -6.883565e+06 -7.942862e+06
## [6503,] -7.749865e+06 -8.544992e+06
## [6504,] -1.476550e+07 -1.268342e+07
## [6505,] -2.989720e+09 -1.056043e+09
## [6506,] -2.358670e+09 -8.514229e+08
## [6507,] -9.468637e+07 -5.302103e+07
## [6508,] -6.918928e+06 -7.896791e+06
## [6509,] -7.833555e+06 -8.483604e+06
## [6510,] -1.471037e+07 -1.271754e+07
## [6511,] -3.422194e+09 -1.265396e+09
## [6512,] -2.551558e+09 -9.387643e+08
## [6513,] -1.166025e+08 -5.769232e+07
## [6514,] -6.970027e+06 -7.951375e+06
## [6515,] -7.866543e+06 -8.523660e+06

```

```

## [6516,] -1.520685e+07 -1.295452e+07
## [6517,] -3.389471e+09 -1.265342e+09
## [6518,] -2.319366e+09 -8.139296e+08
## [6519,] -9.409111e+07 -5.349046e+07
## [6520,] -6.974159e+06 -7.951582e+06
## [6521,] -7.902676e+06 -8.529720e+06
## [6522,] -1.545648e+07 -1.286542e+07
## [6523,] -3.346113e+09 -1.265287e+09
## [6524,] -2.264850e+09 -8.138424e+08
## [6525,] -9.760481e+07 -4.901755e+07
## [6526,] -7.009850e+06 -7.960204e+06
## [6527,] -7.864425e+06 -8.532916e+06
## [6528,] -1.477059e+07 -1.272227e+07
## [6529,] -2.999586e+09 -1.031756e+09
## [6530,] -2.173077e+09 -7.908229e+08
## [6531,] -9.011746e+07 -5.050492e+07
## [6532,] -6.990118e+06 -7.947584e+06
## [6533,] -7.823207e+06 -8.504280e+06
## [6534,] -1.474301e+07 -1.266259e+07
## [6535,] -2.749635e+09 -1.001940e+09
## [6536,] -2.303399e+09 -7.861815e+08
## [6537,] -9.847927e+07 -5.097402e+07
## [6538,] -6.802393e+06 -7.901705e+06
## [6539,] -7.734744e+06 -8.414881e+06
## [6540,] -1.527067e+07 -1.296169e+07
## [6541,] -3.164807e+09 -1.142136e+09
## [6542,] -2.413546e+09 -8.090034e+08
## [6543,] -9.419491e+07 -5.326275e+07
## [6544,] -6.951125e+06 -7.939589e+06
## [6545,] -7.895357e+06 -8.542177e+06
## [6546,] -1.484016e+07 -1.265879e+07
## [6547,] -3.334810e+09 -1.098465e+09
## [6548,] -2.318850e+09 -8.797003e+08
## [6549,] -9.378903e+07 -5.542301e+07
## [6550,] -7.026045e+06 -7.939589e+06
## [6551,] -7.818352e+06 -8.496357e+06
## [6552,] -1.497878e+07 -1.292413e+07
## [6553,] -3.302596e+09 -1.129571e+09
## [6554,] -2.421522e+09 -7.680066e+08
## [6555,] -9.098695e+07 -5.145624e+07
## [6556,] -6.864973e+06 -7.860037e+06
## [6557,] -7.873634e+06 -8.562594e+06
## [6558,] -1.503362e+07 -1.281180e+07
## [6559,] -3.497955e+09 -1.123162e+09
## [6560,] -2.493677e+09 -9.283369e+08
## [6561,] -9.386304e+07 -5.225395e+07
## [6562,] -7.062161e+06 -8.011719e+06

```

```

## [6563,] -7.886504e+06 -8.573142e+06
## [6564,] -1.528781e+07 -1.273719e+07
## [6565,] -3.009049e+09 -1.073642e+09
## [6566,] -2.326301e+09 -7.768119e+08
## [6567,] -9.447244e+07 -5.090097e+07
## [6568,] -6.857543e+06 -7.902323e+06
## [6569,] -7.850725e+06 -8.581762e+06
## [6570,] -1.507334e+07 -1.277138e+07
## [6571,] -3.122574e+09 -1.079759e+09
## [6572,] -2.583434e+09 -8.939665e+08
## [6573,] -9.610713e+07 -5.347149e+07
## [6574,] -6.884912e+06 -7.961135e+06
## [6575,] -7.826003e+06 -8.510056e+06
## [6576,] -1.532526e+07 -1.300335e+07
## [6577,] -3.091404e+09 -1.135587e+09
## [6578,] -2.381397e+09 -8.134065e+08
## [6579,] -9.184597e+07 -5.347149e+07
## [6580,] -7.086062e+06 -7.990726e+06
## [6581,] -7.910101e+06 -8.566127e+06
## [6582,] -1.492169e+07 -1.281108e+07
## [6583,] -3.345052e+09 -1.135536e+09
## [6584,] -2.485353e+09 -8.555374e+08
## [6585,] -9.756409e+07 -5.348267e+07
## [6586,] -6.904592e+06 -7.873102e+06
## [6587,] -7.838518e+06 -8.548906e+06
## [6588,] -1.512578e+07 -1.289689e+07
## [6589,] -3.122489e+09 -1.123008e+09
## [6590,] -2.542291e+09 -8.226429e+08
## [6591,] -1.000610e+08 -5.106135e+07
## [6592,] -6.842024e+06 -7.856370e+06
## [6593,] -7.859292e+06 -8.518975e+06
## [6594,] -1.525299e+07 -1.285085e+07
## [6595,] -2.917564e+09 -1.001505e+09
## [6596,] -2.428910e+09 -8.132757e+08
## [6597,] -8.911656e+07 -5.139381e+07
## [6598,] -7.090326e+06 -8.007912e+06
## [6599,] -7.854109e+06 -8.533630e+06
## [6600,] -1.502278e+07 -1.289616e+07
## [6601,] -3.185038e+09 -1.160644e+09
## [6602,] -2.357409e+09 -8.459398e+08
## [6603,] -9.493935e+07 -5.366945e+07
## [6604,] -6.999269e+06 -7.969969e+06
## [6605,] -7.840366e+06 -8.602557e+06
## [6606,] -1.492092e+07 -1.283607e+07
## [6607,] -3.091065e+09 -1.049153e+09
## [6608,] -2.365292e+09 -8.601548e+08
## [6609,] -8.853910e+07 -5.065709e+07

```

```

## [6610,] -6.948159e+06 -8.008016e+06
## [6611,] -8.027065e+06 -8.656044e+06
## [6612,] -1.452275e+07 -1.256857e+07
## [6613,] -2.604040e+09 -8.924242e+08
## [6614,] -2.164525e+09 -7.675831e+08
## [6615,] -9.212001e+07 -5.050822e+07
## [6616,] -7.098369e+06 -8.024909e+06
## [6617,] -7.952186e+06 -8.601284e+06
## [6618,] -1.488986e+07 -1.280726e+07
## [6619,] -2.957726e+09 -1.019133e+09
## [6620,] -2.958579e+09 -1.071551e+09
## [6621,] -1.011876e+08 -5.554823e+07
## [6622,] -6.873849e+06 -7.928225e+06
## [6623,] -7.833974e+06 -8.569992e+06
## [6624,] -1.514283e+07 -1.297290e+07
## [6625,] -2.371522e+09 -8.321347e+08
## [6626,] -2.468748e+09 -9.527920e+08
## [6627,] -9.827624e+07 -5.540370e+07
## [6628,] -6.699185e+06 -7.941036e+06
## [6629,] -8.005482e+06 -8.650937e+06
## [6630,] -1.483039e+07 -1.287205e+07
## [6631,] -3.290665e+09 -9.952768e+08
## [6632,] -2.059798e+09 -7.318395e+08
## [6633,] -9.301383e+07 -5.283101e+07
## [6634,] -6.964476e+06 -8.055139e+06
## [6635,] -7.961446e+06 -8.616674e+06
## [6636,] -1.504570e+07 -1.296906e+07
## [6637,] -3.100841e+09 -1.173012e+09
## [6638,] -2.263251e+09 -7.808276e+08
## [6639,] -9.773021e+07 -5.253822e+07
## [6640,] -7.150812e+06 -8.076424e+06
## [6641,] -7.921513e+06 -8.626923e+06
## [6642,] -1.529063e+07 -1.305779e+07
## [6643,] -3.574181e+09 -1.153835e+09
## [6644,] -2.232339e+09 -7.989799e+08
## [6645,] -1.062303e+08 -5.502791e+07
## [6646,] -6.945195e+06 -7.987962e+06
## [6647,] -8.037010e+06 -8.683710e+06
## [6648,] -1.542453e+07 -1.309480e+07
## [6649,] -2.926566e+09 -1.097452e+09
## [6650,] -2.232267e+09 -7.360276e+08
## [6651,] -9.046599e+07 -5.136426e+07
## [6652,] -7.139145e+06 -8.064025e+06
## [6653,] -7.984247e+06 -8.620218e+06
## [6654,] -1.488085e+07 -1.288467e+07
## [6655,] -3.038454e+09 -9.890685e+08
## [6656,] -2.590441e+09 -7.581570e+08

```

```

## [6657,] -9.349190e+07 -5.077681e+07
## [6658,] -6.882539e+06 -7.979636e+06
## [6659,] -7.880780e+06 -8.567174e+06
## [6660,] -1.459272e+07 -1.264218e+07
## [6661,] -3.152356e+09 -1.147253e+09
## [6662,] -1.921741e+09 -6.299904e+08
## [6663,] -1.015830e+08 -5.109742e+07
## [6664,] -7.016423e+06 -8.013587e+06
## [6665,] -7.971030e+06 -8.652600e+06
## [6666,] -1.540155e+07 -1.308229e+07
## [6667,] -2.966707e+09 -1.078805e+09
## [6668,] -2.231978e+09 -8.079605e+08
## [6669,] -1.139810e+08 -6.228564e+07
## [6670,] -6.973126e+06 -8.013691e+06
## [6671,] -7.949204e+06 -8.661594e+06
## [6672,] -1.512365e+07 -1.297238e+07
## [6673,] -3.430063e+09 -1.178880e+09
## [6674,] -2.749302e+09 -9.824046e+08
## [6675,] -9.257084e+07 -5.039539e+07
## [6676,] -7.008911e+06 -8.026675e+06
## [6677,] -8.008950e+06 -8.663204e+06
## [6678,] -1.534446e+07 -1.335127e+07
## [6679,] -3.651781e+09 -1.310299e+09
## [6680,] -2.524191e+09 -8.497738e+08
## [6681,] -1.016754e+08 -5.590986e+07
## [6682,] -7.140027e+06 -8.115874e+06
## [6683,] -8.006494e+06 -8.680873e+06
## [6684,] -1.501139e+07 -1.291139e+07
## [6685,] -3.310766e+09 -1.165959e+09
## [6686,] -2.285587e+09 -8.356452e+08
## [6687,] -9.503323e+07 -5.191437e+07
## [6688,] -6.957960e+06 -8.005871e+06
## [6689,] -7.886341e+06 -8.613238e+06
## [6690,] -1.563566e+07 -1.324581e+07
## [6691,] -1.633492e+09 -5.856276e+08
## [6692,] -1.234567e+09 -4.453429e+08
## [6693,] -2.336036e+07 -9.714227e+06
## [6694,] -2.734551e+02 -1.235904e+04
## [6695,] -9.393846e+03 -3.233427e+04
## [6696,] -6.867774e+05 -4.076252e+05
## [6697,] -1.656171e+09 -5.946840e+08
## [6698,] -1.217526e+09 -4.873743e+08
## [6699,] -2.356314e+07 -1.004318e+07
## [6700,] -4.393364e+02 -1.170875e+04
## [6701,] -8.159372e+03 -2.966740e+04
## [6702,] -6.450635e+05 -3.654410e+05
## [6703,] -1.610847e+09 -5.810518e+08

```

```

## [6704,] -1.058795e+09 -4.018862e+08
## [6705,] -2.608053e+07 -1.059084e+07
## [6706,] -4.904122e+01 -1.338652e+04
## [6707,] -1.084061e+04 -3.370205e+04
## [6708,] -6.246169e+05 -3.543532e+05
## [6709,] -1.352669e+09 -5.197804e+08
## [6710,] -1.133887e+09 -4.249119e+08
## [6711,] -2.359283e+07 -9.668093e+06
## [6712,] -5.791182e+00 -1.573282e+04
## [6713,] -1.254900e+04 -3.573373e+04
## [6714,] -6.971152e+05 -3.927777e+05
## [6715,] -1.566091e+09 -5.990512e+08
## [6716,] -1.217259e+09 -4.589791e+08
## [6717,] -2.390631e+07 -1.000110e+07
## [6718,] -5.342149e+02 -1.140390e+04
## [6719,] -9.184744e+03 -3.282802e+04
## [6720,] -6.951184e+05 -3.988002e+05
## [6721,] -1.405602e+09 -4.931336e+08
## [6722,] -1.208530e+09 -4.433184e+08
## [6723,] -2.525257e+07 -1.074072e+07
## [6724,] -1.630525e+04 -6.287013e+04
## [6725,] -5.356561e+04 -9.943187e+04
## [6726,] -8.901916e+05 -5.583845e+05
## [6727,] -1.483525e+09 -5.527863e+08
## [6728,] -1.141799e+09 -4.098178e+08
## [6729,] -2.170506e+07 -9.541358e+06
## [6730,] -1.887491e+04 -6.705129e+04
## [6731,] -5.796682e+04 -1.025497e+05
## [6732,] -8.412075e+05 -5.494784e+05
## [6733,] -1.714436e+09 -6.020449e+08
## [6734,] -1.219783e+09 -4.675188e+08
## [6735,] -2.589544e+07 -1.067722e+07
## [6736,] -1.806915e+04 -6.400637e+04
## [6737,] -5.301245e+04 -9.744873e+04
## [6738,] -1.021804e+06 -6.346432e+05
## [6739,] -1.912681e+09 -7.217318e+08
## [6740,] -1.371493e+09 -5.215823e+08
## [6741,] -2.622381e+07 -9.745862e+06
## [6742,] -1.189999e+04 -5.848012e+04
## [6743,] -5.045920e+04 -9.427672e+04
## [6744,] -9.598717e+05 -5.878735e+05
## [6745,] -1.645553e+09 -6.485718e+08
## [6746,] -1.329758e+09 -4.674857e+08
## [6747,] -2.526793e+07 -1.130683e+07
## [6748,] -1.157686e+04 -5.811998e+04
## [6749,] -5.001939e+04 -9.518264e+04
## [6750,] -9.551879e+05 -5.933913e+05

```

```

## [6751,] -2.996741e+09 -1.204407e+09
## [6752,] -2.239215e+09 -9.270800e+08
## [6753,] -1.008482e+08 -5.359788e+07
## [6754,] -7.052709e+06 -8.052363e+06
## [6755,] -8.034601e+06 -8.686989e+06
## [6756,] -1.490288e+07 -1.289658e+07
## [6757,] -3.321323e+09 -1.178618e+09
## [6758,] -2.163033e+09 -8.030524e+08
## [6759,] -9.165433e+07 -5.241208e+07
## [6760,] -7.045081e+06 -8.031526e+06
## [6761,] -7.862197e+06 -8.582255e+06
## [6762,] -1.510605e+07 -1.291305e+07
## [6763,] -3.099309e+09 -1.197735e+09
## [6764,] -2.254305e+09 -8.029225e+08
## [6765,] -9.227120e+07 -5.472122e+07
## [6766,] -6.856422e+06 -7.888547e+06
## [6767,] -7.976942e+06 -8.655873e+06
## [6768,] -1.491724e+07 -1.307384e+07
## [6769,] -2.776055e+09 -1.134043e+09
## [6770,] -2.331844e+09 -7.664826e+08
## [6771,] -9.371369e+07 -5.169005e+07
## [6772,] -7.212639e+06 -8.137867e+06
## [6773,] -8.081359e+06 -8.671924e+06
## [6774,] -1.500312e+07 -1.299847e+07
## [6775,] -3.119671e+09 -1.078052e+09
## [6776,] -2.080273e+09 -7.177492e+08
## [6777,] -9.787081e+07 -5.509939e+07
## [6778,] -7.101399e+06 -8.117128e+06
## [6779,] -8.069615e+06 -8.720498e+06
## [6780,] -1.565482e+07 -1.308104e+07
## [6781,] -3.026506e+09 -1.096389e+09
## [6782,] -2.498881e+09 -7.617867e+08
## [6783,] -8.918303e+07 -4.951098e+07
## [6784,] -7.061706e+06 -7.998574e+06
## [6785,] -7.980672e+06 -8.691548e+06
## [6786,] -1.548484e+07 -1.320250e+07
## [6787,] -3.245682e+09 -1.158978e+09
## [6788,] -2.622010e+09 -9.715463e+08
## [6789,] -9.399051e+07 -5.280442e+07
## [6790,] -7.053781e+06 -8.104384e+06
## [6791,] -8.211143e+06 -8.835488e+06
## [6792,] -1.467302e+07 -1.271693e+07
## [6793,] -2.573101e+09 -8.798709e+08
## [6794,] -2.147189e+09 -8.071788e+08
## [6795,] -9.481891e+07 -4.981679e+07
## [6796,] -7.113524e+06 -8.266758e+06
## [6797,] -8.071491e+06 -8.754352e+06

```

```

## [6798,] -1.526820e+07 -1.318438e+07
## [6799,] -3.203084e+09 -1.197207e+09
## [6800,] -1.970422e+09 -6.621615e+08
## [6801,] -9.464492e+07 -5.329520e+07
## [6802,] -7.157451e+06 -8.155734e+06
## [6803,] -7.976994e+06 -8.687710e+06
## [6804,] -1.541819e+07 -1.316701e+07
## [6805,] -3.224218e+09 -1.165176e+09
## [6806,] -2.386408e+09 -8.777070e+08
## [6807,] -9.546125e+07 -5.329520e+07
## [6808,] -7.281791e+06 -8.172886e+06
## [6809,] -8.110885e+06 -8.801197e+06
## [6810,] -1.536446e+07 -1.313470e+07
## [6811,] -3.087922e+09 -1.152382e+09
## [6812,] -2.434046e+09 -8.302132e+08
## [6813,] -1.025726e+08 -4.941750e+07
## [6814,] -7.177614e+06 -8.121900e+06
## [6815,] -8.052311e+06 -8.676479e+06
## [6816,] -1.509361e+07 -1.323899e+07
## [6817,] -3.098288e+09 -1.197101e+09
## [6818,] -2.299880e+09 -8.490166e+08
## [6819,] -9.651663e+07 -5.423856e+07
## [6820,] -7.097913e+06 -8.160204e+06
## [6821,] -7.992722e+06 -8.698335e+06
## [6822,] -1.506237e+07 -1.299317e+07
## [6823,] -2.944529e+09 -1.071540e+09
## [6824,] -2.346724e+09 -8.489720e+08
## [6825,] -9.797668e+07 -5.424981e+07
## [6826,] -7.070221e+06 -8.202973e+06
## [6827,] -7.983177e+06 -8.749215e+06
## [6828,] -1.555527e+07 -1.322399e+07
## [6829,] -3.330575e+09 -1.216420e+09
## [6830,] -2.588342e+09 -9.065980e+08
## [6831,] -9.067401e+07 -5.227504e+07
## [6832,] -7.046541e+06 -8.092380e+06
## [6833,] -8.037486e+06 -8.718936e+06
## [6834,] -1.532617e+07 -1.316000e+07
## [6835,] -3.192111e+09 -1.145907e+09
## [6836,] -2.354441e+09 -8.774806e+08
## [6837,] -9.862961e+07 -5.289330e+07
## [6838,] -7.098206e+06 -8.156258e+06
## [6839,] -8.093537e+06 -8.768592e+06
## [6840,] -1.521653e+07 -1.303249e+07
## [6841,] -3.077148e+09 -1.059173e+09
## [6842,] -2.506232e+09 -9.761321e+08
## [6843,] -9.886800e+07 -5.337333e+07
## [6844,] -7.242287e+06 -8.203499e+06

```



```
## [6845,] -8.240905e+06 -8.866360e+06
## [6846,] -1.496216e+07 -1.305529e+07
## [6847,] -3.340988e+09 -1.248927e+09
## [6848,] -2.654478e+09 -9.211262e+08
## [6849,] -9.559569e+07 -5.324281e+07
## [6850,] -7.178302e+06 -8.156677e+06
## [6851,] -8.027005e+06 -8.774739e+06
## [6852,] -1.528454e+07 -1.316481e+07
## [6853,] -3.255263e+09 -1.183869e+09
## [6854,] -2.057163e+09 -7.171761e+08
## [6855,] -9.559569e+07 -5.008354e+07
## [6856,] -7.302723e+06 -8.186524e+06
## [6857,] -8.193417e+06 -8.828757e+06
## [6858,] -1.512253e+07 -1.304904e+07
## [6859,] -2.764716e+09 -9.874830e+08
## [6860,] -2.497888e+09 -8.917289e+08
## [6861,] -1.001667e+08 -5.432864e+07
## [6862,] -7.306952e+06 -8.276603e+06
## [6863,] -8.214656e+06 -8.877094e+06
## [6864,] -1.515641e+07 -1.304592e+07
## [6865,] -3.319210e+09 -1.028862e+09
## [6866,] -2.222014e+09 -7.791630e+08
## [6867,] -9.199115e+07 -5.191004e+07
## [6868,] -7.254729e+06 -8.225294e+06
## [6869,] -8.104114e+06 -8.797053e+06
## [6870,] -1.554686e+07 -1.323364e+07
## [6871,] -3.045785e+09 -1.022843e+09
## [6872,] -2.425220e+09 -8.532592e+08
## [6873,] -9.040653e+07 -5.177032e+07
## [6874,] -7.158726e+06 -8.169881e+06
## [6875,] -8.083340e+06 -8.746368e+06
## [6876,] -1.541163e+07 -1.311757e+07
## [6877,] -3.035422e+09 -1.215940e+09
## [6878,] -2.393368e+09 -7.927647e+08
## [6879,] -9.505716e+07 -5.058328e+07
## [6880,] -7.331462e+06 -8.285505e+06
## [6881,] -8.018079e+06 -8.730583e+06
## [6882,] -1.571638e+07 -1.331138e+07
## [6883,] -3.297416e+09 -1.114065e+09
## [6884,] -2.546389e+09 -8.866633e+08
## [6885,] -1.044786e+08 -5.625321e+07
## [6886,] -7.123147e+06 -8.136123e+06
## [6887,] -8.115935e+06 -8.821021e+06
## [6888,] -1.574142e+07 -1.343950e+07
## [6889,] -2.853057e+09 -1.016646e+09
## [6890,] -2.772064e+09 -9.405049e+08
## [6891,] -9.551058e+07 -5.409915e+07
```

```
## [6892,] -7.179088e+06 -8.208717e+06
## [6893,] -8.044975e+06 -8.738333e+06
## [6894,] -1.516416e+07 -1.313104e+07
## [6895,] -2.994148e+09 -1.064749e+09
## [6896,] -2.214014e+09 -7.834842e+08
## [6897,] -9.308620e+07 -5.062677e+07
## [6898,] -7.139276e+06 -8.140587e+06
## [6899,] -8.239712e+06 -8.908997e+06
## [6900,] -1.484561e+07 -1.285189e+07
## [6901,] -2.912943e+09 -1.082973e+09
## [6902,] -2.019849e+09 -7.298564e+08
## [6903,] -9.029472e+07 -4.974784e+07
## [6904,] -7.360258e+06 -8.307515e+06
## [6905,] -8.204707e+06 -8.822982e+06
## [6906,] -1.540065e+07 -1.329003e+07
## [6907,] -3.096842e+09 -1.189764e+09
## [6908,] -2.213798e+09 -7.608169e+08
## [6909,] -9.271214e+07 -5.109643e+07
## [6910,] -7.207386e+06 -8.238975e+06
## [6911,] -8.164168e+06 -8.827522e+06
## [6912,] -1.516338e+07 -1.311297e+07
## [6913,] -3.107139e+09 -1.101403e+09
## [6914,] -2.456678e+09 -8.481707e+08
## [6915,] -9.172173e+07 -5.155728e+07
## [6916,] -7.307944e+06 -8.303427e+06
## [6917,] -8.179756e+06 -8.843731e+06
## [6918,] -1.513206e+07 -1.310984e+07
## [6919,] -3.024489e+09 -1.126235e+09
## [6920,] -2.448567e+09 -7.297325e+08
## [6921,] -9.294327e+07 -5.037270e+07
## [6922,] -7.324181e+06 -8.264895e+06
## [6923,] -8.195359e+06 -8.859954e+06
## [6924,] -1.537170e+07 -1.321959e+07
## [6925,] -2.852649e+09 -1.082822e+09
## [6926,] -2.175654e+09 -7.878173e+08
## [6927,] -9.436129e+07 -5.477330e+07
## [6928,] -7.139766e+06 -8.192262e+06
## [6929,] -8.015353e+06 -8.774177e+06
## [6930,] -1.549653e+07 -1.315247e+07
## [6931,] -3.034496e+09 -1.189500e+09
## [6932,] -2.480632e+09 -7.561805e+08
## [6933,] -9.996190e+07 -5.635641e+07
## [6934,] -7.044529e+06 -7.992938e+06
## [6935,] -8.249138e+06 -8.901225e+06
## [6936,] -1.568553e+07 -1.337911e+07
## [6937,] -2.983373e+09 -1.101200e+09
## [6938,] -2.298267e+09 -7.786511e+08
```

```

## [6939,] -1.171793e+08 -6.116934e+07
## [6940,] -7.352664e+06 -8.171034e+06
## [6941,] -7.895133e+06 -8.625307e+06
## [6942,] -1.550255e+07 -1.324497e+07
## [6943,] -2.753721e+09 -1.010323e+09
## [6944,] -2.236396e+09 -7.876886e+08
## [6945,] -9.646568e+07 -5.161216e+07
## [6946,] -7.240050e+06 -8.239607e+06
## [6947,] -8.123137e+06 -8.843113e+06
## [6948,] -1.487429e+07 -1.291295e+07
## [6949,] -2.912283e+09 -1.094872e+09
## [6950,] -2.456147e+09 -7.875600e+08
## [6951,] -9.629018e+07 -5.406884e+07
## [6952,] -7.240247e+06 -8.231256e+06
## [6953,] -8.190713e+06 -8.875573e+06
## [6954,] -1.536073e+07 -1.320072e+07
## [6955,] -3.148153e+09 -1.125876e+09
## [6956,] -2.408143e+09 -8.431418e+08
## [6957,] -1.101206e+08 -6.287804e+07
## [6958,] -7.192263e+06 -8.235642e+06
## [6959,] -8.267030e+06 -8.916881e+06
## [6960,] -1.564262e+07 -1.355890e+07
## [6961,] -3.306722e+09 -1.348401e+09
## [6962,] -2.243640e+09 -7.738331e+08
## [6963,] -9.408841e+07 -5.002522e+07
## [6964,] -7.272885e+06 -8.253194e+06
## [6965,] -8.190118e+06 -8.828249e+06
## [6966,] -1.544708e+07 -1.331569e+07
## [6967,] -3.458217e+09 -1.280658e+09
## [6968,] -2.205167e+09 -7.964332e+08
## [6969,] -9.191211e+07 -5.291115e+07
## [6970,] -7.264941e+06 -8.270449e+06
## [6971,] -8.104862e+06 -8.929280e+06
## [6972,] -1.532166e+07 -1.323406e+07
## [6973,] -2.627324e+09 -9.515192e+08
## [6974,] -2.336581e+09 -8.288047e+08
## [6975,] -8.637882e+07 -4.757157e+07
## [6976,] -7.240938e+06 -8.249120e+06
## [6977,] -8.274897e+06 -8.904545e+06
## [6978,] -1.537113e+07 -1.316691e+07
## [6979,] -3.370903e+09 -1.221220e+09
## [6980,] -2.719456e+09 -9.495398e+08
## [6981,] -9.953314e+07 -5.370881e+07
## [6982,] -7.261218e+06 -8.262188e+06
## [6983,] -8.148700e+06 -8.855178e+06
## [6984,] -1.551482e+07 -1.322148e+07
## [6985,] -3.435970e+09 -1.182344e+09

```

```

## [6986,] -2.328450e+09 -8.759873e+08
## [6987,] -9.461383e+07 -5.175500e+07
## [6988,] -7.374395e+06 -8.361306e+06
## [6989,] -8.250165e+06 -8.931591e+06
## [6990,] -1.537973e+07 -1.318355e+07
## [6991,] -3.033233e+09 -1.063652e+09
## [6992,] -2.182014e+09 -7.825434e+08
## [6993,] -9.769267e+07 -5.481067e+07
## [6994,] -7.201250e+06 -8.365620e+06
## [6995,] -8.151824e+06 -8.858435e+06
## [6996,] -1.541729e+07 -1.330549e+07
## [6997,] -3.064109e+09 -1.175891e+09
## [6998,] -2.289399e+09 -8.379509e+08
## [6999,] -9.543003e+07 -5.403853e+07
## [7000,] -7.313762e+06 -8.288144e+06
## [7001,] -8.193898e+06 -8.867198e+06
## [7002,] -1.557746e+07 -1.323574e+07
## [7003,] -3.295310e+09 -1.027490e+09
## [7004,] -2.471418e+09 -8.473697e+08
## [7005,] -9.583945e+07 -5.342477e+07
## [7006,] -7.289579e+06 -8.365620e+06
## [7007,] -8.177055e+06 -8.855515e+06
## [7008,] -1.538572e+07 -1.318910e+07
## [7009,] -2.961631e+09 -1.051429e+09
## [7010,] -1.953275e+09 -6.731181e+08
## [7011,] -9.403362e+07 -5.192772e+07
## [7012,] -7.157483e+06 -8.249752e+06
## [7013,] -8.071109e+06 -8.867535e+06
## [7014,] -1.532267e+07 -1.317413e+07
## [7015,] -2.870957e+09 -1.081817e+09
## [7016,] -2.174228e+09 -8.052694e+08
## [7017,] -9.263278e+07 -5.224089e+07
## [7018,] -7.314060e+06 -8.279875e+06
## [7019,] -8.176137e+06 -8.866242e+06
## [7020,] -1.569970e+07 -1.348871e+07
## [7021,] -3.479453e+09 -1.220900e+09
## [7022,] -2.455087e+09 -8.284527e+08
## [7023,] -1.029801e+08 -6.286960e+07
## [7024,] -7.105798e+06 -8.331459e+06
## [7025,] -8.280271e+06 -8.927700e+06
## [7026,] -1.525717e+07 -1.323501e+07
## [7027,] -3.043255e+09 -1.015428e+09
## [7028,] -2.568916e+09 -9.493043e+08
## [7029,] -9.024544e+07 -5.015502e+07
## [7030,] -7.233702e+06 -8.335871e+06
## [7031,] -8.239545e+06 -8.932267e+06
## [7032,] -1.577829e+07 -1.330717e+07

```

```

## [7033,] -3.053378e+09 -1.069490e+09
## [7034,] -2.908189e+09 -1.015300e+09
## [7035,] -9.127166e+07 -5.212280e+07
## [7036,] -7.383097e+06 -8.370571e+06
## [7037,] -8.259597e+06 -8.947273e+06
## [7038,] -1.471901e+07 -1.279397e+07
## [7039,] -3.230813e+09 -1.188341e+09
## [7040,] -2.478958e+09 -8.236143e+08
## [7041,] -9.842045e+07 -5.411720e+07
## [7042,] -7.254071e+06 -8.349114e+06
## [7043,] -8.157157e+06 -8.899083e+06
## [7044,] -1.559135e+07 -1.334454e+07
## [7045,] -3.316129e+09 -1.106276e+09
## [7046,] -2.422737e+09 -8.997933e+08
## [7047,] -1.015601e+08 -5.334999e+07
## [7048,] -7.286245e+06 -8.306070e+06
## [7049,] -8.268383e+06 -8.935876e+06
## [7050,] -1.545593e+07 -1.336762e+07
## [7051,] -1.683577e+09 -6.438334e+08
## [7052,] -1.259714e+09 -4.816220e+08
## [7053,] -2.600986e+07 -1.081949e+07
## [7054,] -1.206323e+04 -5.598252e+04
## [7055,] -4.980020e+04 -9.457821e+04
## [7056,] -9.505155e+05 -5.989350e+05
## [7057,] -1.691234e+09 -6.297226e+08
## [7058,] -1.259714e+09 -4.816220e+08
## [7059,] -2.622381e+07 -1.068222e+07
## [7060,] -1.206323e+04 -5.776096e+04
## [7061,] -4.914554e+04 -9.518264e+04
## [7062,] -9.481837e+05 -5.860399e+05
## [7063,] -1.683577e+09 -6.344088e+08
## [7064,] -1.271256e+09 -4.887690e+08
## [7065,] -2.665435e+07 -1.047795e+07
## [7066,] -1.306600e+04 -5.492881e+04
## [7067,] -5.001939e+04 -9.488019e+04
## [7068,] -9.481837e+05 -5.989350e+05
## [7069,] -1.706600e+09 -6.297226e+08
## [7070,] -1.335681e+09 -4.535601e+08
## [7071,] -2.611673e+07 -1.068222e+07
## [7072,] -1.239304e+04 -5.598252e+04
## [7073,] -5.112253e+04 -9.457821e+04
## [7074,] -9.551879e+05 -5.897099e+05
## [7075,] -1.698908e+09 -6.157681e+08
## [7076,] -1.312069e+09 -4.604966e+08
## [7077,] -2.579678e+07 -1.102703e+07
## [7078,] -1.222758e+04 -5.633598e+04
## [7079,] -5.001939e+04 -9.427672e+04

```

```

## [7080,] -9.528503e+05 -5.933913e+05
## [7081,] -3.424248e+09 -1.169090e+09
## [7082,] -2.359201e+09 -8.422989e+08
## [7083,] -1.011694e+08 -5.491254e+07
## [7084,] -7.428046e+06 -8.418428e+06
## [7085,] -8.291295e+06 -8.950885e+06
## [7086,] -1.548678e+07 -1.326524e+07
## [7087,] -3.042665e+09 -9.973495e+08
## [7088,] -2.188883e+09 -7.595949e+08
## [7089,] -9.476254e+07 -5.171436e+07
## [7090,] -7.363244e+06 -8.470549e+06
## [7091,] -8.291295e+06 -8.971444e+06
## [7092,] -1.556824e+07 -1.341067e+07
## [7093,] -3.230466e+09 -1.137286e+09
## [7094,] -2.406493e+09 -8.327760e+08
## [7095,] -9.723866e+07 -5.478015e+07
## [7096,] -7.234392e+06 -8.375418e+06
## [7097,] -8.323979e+06 -8.893904e+06
## [7098,] -1.566282e+07 -1.319245e+07
## [7099,] -2.531342e+09 -8.996951e+08
## [7100,] -1.916920e+09 -6.601574e+08
## [7101,] -1.065489e+08 -5.588147e+07
## [7102,] -7.258583e+06 -8.423076e+06
## [7103,] -8.195840e+06 -8.918962e+06
## [7104,] -1.545173e+07 -1.324151e+07
## [7105,] -3.230379e+09 -1.220419e+09
## [7106,] -2.960338e+09 -1.232229e+09
## [7107,] -9.685634e+07 -5.449329e+07
## [7108,] -7.416255e+06 -8.392906e+06
## [7109,] -8.284722e+06 -8.964607e+06
## [7110,] -1.590315e+07 -1.358015e+07
## [7111,] -3.724617e+09 -1.194458e+09
## [7112,] -2.625858e+09 -8.609239e+08
## [7113,] -8.961083e+07 -4.909377e+07
## [7114,] -7.379941e+06 -8.354272e+06
## [7115,] -8.445543e+06 -9.087446e+06
## [7116,] -1.564571e+07 -1.345622e+07
## [7117,] -2.990971e+09 -1.093456e+09
## [7118,] -1.966692e+09 -6.641748e+08
## [7119,] -1.014878e+08 -5.102991e+07
## [7120,] -7.343617e+06 -8.375949e+06
## [7121,] -8.271258e+06 -8.953537e+06
## [7122,] -1.471923e+07 -1.290570e+07
## [7123,] -3.261803e+09 -1.143271e+09
## [7124,] -2.295923e+09 -8.185277e+08
## [7125,] -9.919660e+07 -5.209305e+07
## [7126,] -7.445217e+06 -8.419386e+06

```

```
## [7127,] -8.188387e+06 -8.896548e+06
## [7128,] -1.553493e+07 -1.330980e+07
## [7129,] -2.909809e+09 -9.793850e+08
## [7130,] -2.150530e+09 -8.046190e+08
## [7131,] -9.305537e+07 -5.286231e+07
## [7132,] -7.283308e+06 -8.345970e+06
## [7133,] -8.323706e+06 -8.990442e+06
## [7134,] -1.561652e+07 -1.343792e+07
## [7135,] -3.219186e+09 -1.168515e+09
## [7136,] -2.413782e+09 -8.606997e+08
## [7137,] -9.965977e+07 -5.426346e+07
## [7138,] -7.315845e+06 -8.273192e+06
## [7139,] -8.280376e+06 -8.965961e+06
## [7140,] -1.591028e+07 -1.353386e+07
## [7141,] -3.477741e+09 -1.050438e+09
## [7142,] -2.542843e+09 -8.991058e+08
## [7143,] -1.064906e+08 -5.789123e+07
## [7144,] -7.311911e+06 -8.342085e+06
## [7145,] -8.379815e+06 -9.010423e+06
## [7146,] -1.563727e+07 -1.351870e+07
## [7147,] -3.072403e+09 -1.093052e+09
## [7148,] -2.287645e+09 -8.652861e+08
## [7149,] -9.640428e+07 -5.096773e+07
## [7150,] -7.111829e+06 -8.282091e+06
## [7151,] -8.419954e+06 -9.081587e+06
## [7152,] -1.541356e+07 -1.330202e+07
## [7153,] -3.293029e+09 -1.180926e+09
## [7154,] -2.310836e+09 -8.556785e+08
## [7155,] -1.037632e+08 -5.921944e+07
## [7156,] -7.535831e+06 -8.507025e+06
## [7157,] -8.373207e+06 -9.074367e+06
## [7158,] -1.557371e+07 -1.353874e+07
## [7159,] -2.889077e+09 -1.155443e+09
## [7160,] -2.149892e+09 -7.633548e+08
## [7161,] -8.586137e+07 -4.805447e+07
## [7162,] -7.450188e+06 -8.450669e+06
## [7163,] -8.264420e+06 -9.040579e+06
## [7164,] -1.558919e+07 -1.336878e+07
## [7165,] -2.969618e+09 -1.032098e+09
## [7166,] -2.187597e+09 -7.768185e+08
## [7167,] -9.482657e+07 -5.221445e+07
## [7168,] -7.593467e+06 -8.542079e+06
## [7169,] -8.376373e+06 -9.030427e+06
## [7170,] -1.541617e+07 -1.340940e+07
## [7171,] -3.020624e+09 -9.964809e+08
## [7172,] -2.045800e+09 -8.555891e+08
## [7173,] -9.199426e+07 -5.297349e+07
```

```

## [7174,] -7.742260e+06 -8.642749e+06
## [7175,] -8.284502e+06 -9.040919e+06
## [7176,] -1.568303e+07 -1.348204e+07
## [7177,] -3.378802e+09 -1.092749e+09
## [7178,] -2.302750e+09 -8.842076e+08
## [7179,] -9.690603e+07 -5.515063e+07
## [7180,] -7.320773e+06 -8.364488e+06
## [7181,] -8.331327e+06 -9.004250e+06
## [7182,] -1.548122e+07 -1.339114e+07
## [7183,] -3.040895e+09 -1.043961e+09
## [7184,] -2.310468e+09 -8.272215e+08
## [7185,] -1.010865e+08 -5.285457e+07
## [7186,] -7.312803e+06 -8.351657e+06
## [7187,] -8.222814e+06 -8.961779e+06
## [7188,] -1.574258e+07 -1.336172e+07
## [7189,] -2.918717e+09 -1.092648e+09
## [7190,] -2.389033e+09 -8.506719e+08
## [7191,] -9.326188e+07 -5.286568e+07
## [7192,] -7.532341e+06 -8.516371e+06
## [7193,] -8.395660e+06 -9.047501e+06
## [7194,] -1.551209e+07 -1.342863e+07
## [7195,] -2.898529e+09 -1.019912e+09
## [7196,] -2.164465e+09 -7.585844e+08
## [7197,] -9.717245e+07 -5.504062e+07
## [7198,] -7.585855e+06 -8.512232e+06
## [7199,] -8.331980e+06 -9.025550e+06
## [7200,] -1.578322e+07 -1.349570e+07
## [7201,] -3.239068e+09 -1.086394e+09
## [7202,] -2.357197e+09 -8.936538e+08
## [7203,] -9.677523e+07 -4.945527e+07
## [7204,] -7.418553e+06 -8.486355e+06
## [7205,] -8.420335e+06 -9.087897e+06
## [7206,] -1.615888e+07 -1.377209e+07
## [7207,] -2.948674e+09 -1.092446e+09
## [7208,] -2.365006e+09 -7.363243e+08
## [7209,] -9.433474e+07 -5.245433e+07
## [7210,] -7.305234e+06 -8.499396e+06
## [7211,] -8.369165e+06 -9.019995e+06
## [7212,] -1.549245e+07 -1.337532e+07
## [7213,] -3.154584e+09 -1.193244e+09
## [7214,] -2.255841e+09 -8.791182e+08
## [7215,] -9.637882e+07 -5.336792e+07
## [7216,] -7.418553e+06 -8.486355e+06
## [7217,] -8.343639e+06 -9.058343e+06
## [7218,] -1.588108e+07 -1.342789e+07
## [7219,] -3.270797e+09 -1.025727e+09
## [7220,] -2.509076e+09 -9.032879e+08

```



```

## [7221,] -1.067273e+08 -5.967184e+07
## [7222,] -7.491961e+06 -8.529970e+06
## [7223,] -8.346800e+06 -9.023282e+06
## [7224,] -1.582655e+07 -1.333401e+07
## [7225,] -2.908161e+09 -1.098514e+09
## [7226,] -2.599185e+09 -7.991594e+08
## [7227,] -1.018268e+08 -5.431191e+07
## [7228,] -7.643885e+06 -8.573697e+06
## [7229,] -8.362561e+06 -9.027873e+06
## [7230,] -1.561436e+07 -1.342715e+07
## [7231,] -3.009466e+09 -1.086142e+09
## [7232,] -2.380588e+09 -8.646119e+08
## [7233,] -9.275941e+07 -5.218467e+07
## [7234,] -7.394496e+06 -8.486675e+06
## [7235,] -8.445046e+06 -9.101724e+06
## [7236,] -1.546341e+07 -1.346225e+07
## [7237,] -3.259884e+09 -1.186656e+09
## [7238,] -2.179230e+09 -7.583739e+08
## [7239,] -1.065585e+08 -5.557585e+07
## [7240,] -7.463710e+06 -8.443385e+06
## [7241,] -8.338625e+06 -9.091537e+06
## [7242,] -1.520361e+07 -1.318513e+07
## [7243,] -3.410403e+09 -1.212373e+09
## [7244,] -2.436169e+09 -8.933797e+08
## [7245,] -1.029322e+08 -5.652759e+07
## [7246,] -7.362282e+06 -8.413179e+06
## [7247,] -8.336118e+06 -9.091878e+06
## [7248,] -1.583183e+07 -1.354946e+07
## [7249,] -3.291626e+09 -1.199374e+09
## [7250,] -2.724412e+09 -9.375077e+08
## [7251,] -9.895183e+07 -5.374140e+07
## [7252,] -7.472063e+06 -8.460944e+06
## [7253,] -8.387187e+06 -9.053459e+06
## [7254,] -1.584135e+07 -1.341764e+07
## [7255,] -3.039968e+09 -1.167314e+09
## [7256,] -2.263116e+09 -8.788463e+08
## [7257,] -9.978649e+07 -5.389496e+07
## [7258,] -7.706377e+06 -8.718972e+06
## [7259,] -8.227574e+06 -9.052153e+06
## [7260,] -1.558179e+07 -1.343201e+07
## [7261,] -3.248901e+09 -1.160902e+09
## [7262,] -2.317317e+09 -8.835715e+08
## [7263,] -1.006553e+08 -5.562143e+07
## [7264,] -7.439680e+06 -8.474178e+06
## [7265,] -8.421648e+06 -9.124792e+06
## [7266,] -1.562564e+07 -1.345516e+07
## [7267,] -3.631311e+09 -1.372972e+09

```

```

## [7268,] -2.372307e+09 -8.643872e+08
## [7269,] -9.939919e+07 -5.315161e+07
## [7270,] -7.468287e+06 -8.500358e+06
## [7271,] -8.326696e+06 -9.058399e+06
## [7272,] -1.597418e+07 -1.359280e+07
## [7273,] -3.366645e+09 -1.160798e+09
## [7274,] -2.427867e+09 -8.835261e+08
## [7275,] -9.610304e+07 -5.485490e+07
## [7276,] -7.427580e+06 -8.500358e+06
## [7277,] -8.414695e+06 -9.073170e+06
## [7278,] -1.584055e+07 -1.348712e+07
## [7279,] -3.091317e+09 -1.135534e+09
## [7280,] -2.293874e+09 -8.548293e+08
## [7281,] -9.569306e+07 -5.408246e+07
## [7282,] -7.488682e+06 -8.522116e+06
## [7283,] -8.411849e+06 -9.087953e+06
## [7284,] -1.622385e+07 -1.382318e+07
## [7285,] -3.744411e+09 -1.291287e+09
## [7286,] -2.186310e+09 -7.271339e+08
## [7287,] -1.047164e+08 -5.302136e+07
## [7288,] -7.346599e+06 -8.483079e+06
## [7289,] -8.311294e+06 -9.089602e+06
## [7290,] -1.612412e+07 -1.363376e+07
## [7291,] -3.111994e+09 -1.019278e+09
## [7292,] -2.193903e+09 -7.942351e+08
## [7293,] -9.468682e+07 -5.226198e+07
## [7294,] -7.562436e+06 -8.557094e+06
## [7295,] -8.433369e+06 -9.145892e+06
## [7296,] -1.591339e+07 -1.366913e+07
## [7297,] -3.475578e+09 -1.352218e+09
## [7298,] -2.623352e+09 -8.738175e+08
## [7299,] -1.043040e+08 -5.581190e+07
## [7300,] -7.439980e+06 -8.570296e+06
## [7301,] -8.415023e+06 -9.076466e+06
## [7302,] -1.546103e+07 -1.350397e+07
## [7303,] -3.630942e+09 -1.251248e+09
## [7304,] -2.395698e+09 -8.737271e+08
## [7305,] -9.739856e+07 -5.366639e+07
## [7306,] -7.468688e+06 -8.566145e+06
## [7307,] -8.458099e+06 -9.138989e+06
## [7308,] -1.567138e+07 -1.338355e+07
## [7309,] -2.537803e+09 -8.812753e+08
## [7310,] -2.148263e+09 -8.404370e+08
## [7311,] -9.393305e+07 -5.615946e+07
## [7312,] -7.383528e+06 -8.448892e+06
## [7313,] -8.344672e+06 -9.115617e+06
## [7314,] -1.581646e+07 -1.362344e+07

```

```
## [7315,] -3.301451e+09 -1.128902e+09
## [7316,] -2.483613e+09 -8.077500e+08
## [7317,] -1.018315e+08 -5.369998e+07
## [7318,] -7.481223e+06 -8.488065e+06
## [7319,] -8.383142e+06 -9.108383e+06
## [7320,] -1.589269e+07 -1.356167e+07
## [7321,] -2.245995e+09 -7.584734e+08
## [7322,] -2.178232e+09 -8.031025e+08
## [7323,] -9.458725e+07 -5.463560e+07
## [7324,] -7.690942e+06 -8.636676e+06
## [7325,] -8.420441e+06 -9.123536e+06
## [7326,] -1.561037e+07 -1.345855e+07
## [7327,] -2.987796e+09 -1.018887e+09
## [7328,] -2.140467e+09 -7.622152e+08
## [7329,] -7.864350e+07 -4.561521e+07
## [7330,] -7.653758e+06 -8.575415e+06
## [7331,] -8.517521e+06 -9.162104e+06
## [7332,] -1.554425e+07 -1.356411e+07
## [7333,] -2.947097e+09 -1.060912e+09
## [7334,] -2.246765e+09 -7.621730e+08
## [7335,] -9.400712e+07 -5.100709e+07
## [7336,] -7.518288e+06 -8.527542e+06
## [7337,] -8.523579e+06 -9.204072e+06
## [7338,] -1.570770e+07 -1.345220e+07
## [7339,] -2.896637e+09 -1.024748e+09
## [7340,] -2.193187e+09 -7.846890e+08
## [7341,] -9.483559e+07 -5.252412e+07
## [7342,] -7.629221e+06 -8.579999e+06
## [7343,] -8.449265e+06 -9.126842e+06
## [7344,] -1.615668e+07 -1.383230e+07
## [7345,] -3.215892e+09 -1.166531e+09
## [7346,] -2.672656e+09 -9.269011e+08
## [7347,] -1.042463e+08 -5.639675e+07
## [7348,] -7.449121e+06 -8.505991e+06
## [7349,] -8.589922e+06 -9.240170e+06
## [7350,] -1.583389e+07 -1.361312e+07
## [7351,] -3.236981e+09 -1.091335e+09
## [7352,] -2.467014e+09 -7.665315e+08
## [7353,] -9.713639e+07 -5.225428e+07
## [7354,] -7.580165e+06 -8.580321e+06
## [7355,] -8.368670e+06 -9.108097e+06
## [7356,] -1.621015e+07 -1.376610e+07
## [7357,] -3.408708e+09 -1.277106e+09
## [7358,] -1.568812e+09 -5.468491e+08
## [7359,] -1.032581e+08 -5.629698e+07
## [7360,] -7.572358e+06 -8.545832e+06
## [7361,] -8.460401e+06 -9.159190e+06
```

```

## [7362,] -1.583573e+07 -1.358834e+07
## [7363,] -3.408440e+09 -1.036372e+09
## [7364,] -2.331560e+09 -8.635337e+08
## [7365,] -1.022127e+08 -5.260168e+07
## [7366,] -7.466015e+06 -8.554555e+06
## [7367,] -8.448990e+06 -9.209739e+06
## [7368,] -1.577864e+07 -1.357952e+07
## [7369,] -2.997073e+09 -9.597365e+08
## [7370,] -2.394426e+09 -8.633990e+08
## [7371,] -9.827670e+07 -5.555996e+07
## [7372,] -7.507128e+06 -8.554877e+06
## [7373,] -8.662016e+06 -9.320928e+06
## [7374,] -1.617615e+07 -1.385032e+07
## [7375,] -3.289435e+09 -1.378582e+09
## [7376,] -2.588665e+09 -9.462931e+08
## [7377,] -8.781069e+07 -4.966295e+07
## [7378,] -7.771170e+06 -8.770203e+06
## [7379,] -8.511242e+06 -9.197202e+06
## [7380,] -1.559090e+07 -1.361652e+07
## [7381,] -1.722035e+09 -6.250537e+08
## [7382,] -1.312069e+09 -4.780682e+08
## [7383,] -2.622381e+07 -1.130683e+07
## [7384,] -1.094394e+04 -5.884136e+04
## [7385,] -5.090094e+04 -9.397571e+04
## [7386,] -9.481837e+05 -5.952363e+05
## [7387,] -1.745319e+09 -6.111513e+08
## [7388,] -1.282851e+09 -4.851889e+08
## [7389,] -2.600986e+07 -1.102703e+07
## [7390,] -1.189999e+04 -5.884136e+04
## [7391,] -5.067983e+04 -9.518264e+04
## [7392,] -9.551879e+05 -5.970842e+05
## [7393,] -1.668315e+09 -6.344088e+08
## [7394,] -1.277047e+09 -4.674857e+08
## [7395,] -2.687093e+07 -1.054582e+07
## [7396,] -1.141696e+04 -5.704624e+04
## [7397,] -5.134460e+04 -9.457821e+04
## [7398,] -9.551879e+05 -5.989350e+05
## [7399,] -1.714309e+09 -6.297226e+08
## [7400,] -1.282851e+09 -4.816220e+08
## [7401,] -2.697955e+07 -1.081949e+07
## [7402,] -1.173787e+04 -5.598252e+04
## [7403,] -5.090094e+04 -9.397571e+04
## [7404,] -9.388848e+05 -5.933913e+05
## [7405,] -1.653123e+09 -6.344088e+08
## [7406,] -1.259714e+09 -4.959687e+08
## [7407,] -2.600986e+07 -1.088845e+07
## [7408,] -1.189999e+04 -5.740304e+04

```

```
## [7409,] -4.936328e+04 -9.639727e+04
## [7410,] -9.481837e+05 -5.823814e+05
## [7411,] -3.246724e+09 -1.178721e+09
## [7412,] -2.555598e+09 -8.395954e+08
## [7413,] -9.279777e+07 -5.343052e+07
## [7414,] -7.527878e+06 -8.542115e+06
## [7415,] -8.457272e+06 -9.206474e+06
## [7416,] -1.616224e+07 -1.382855e+07
## [7417,] -3.310499e+09 -1.006198e+09
## [7418,] -2.354453e+09 -8.631295e+08
## [7419,] -1.008747e+08 -5.578457e+07
## [7420,] -7.479150e+06 -8.538078e+06
## [7421,] -8.531952e+06 -9.209794e+06
## [7422,] -1.597649e+07 -1.378087e+07
## [7423,] -2.498624e+09 -9.024920e+08
## [7424,] -2.307384e+09 -7.794256e+08
## [7425,] -9.447739e+07 -5.332225e+07
## [7426,] -7.697013e+06 -8.687016e+06
## [7427,] -8.527819e+06 -9.211455e+06
## [7428,] -1.576330e+07 -1.353005e+07
## [7429,] -2.564271e+09 -8.969010e+08
## [7430,] -2.154157e+09 -7.885105e+08
## [7431,] -9.819041e+07 -5.456340e+07
## [7432,] -7.792588e+06 -8.775273e+06
## [7433,] -8.566708e+06 -9.305668e+06
## [7434,] -1.581692e+07 -1.364154e+07
## [7435,] -2.659451e+09 -9.883941e+08
## [7436,] -2.094270e+09 -8.067948e+08
## [7437,] -9.266978e+07 -5.257179e+07
## [7438,] -7.672305e+06 -8.647602e+06
## [7439,] -8.400957e+06 -9.156618e+06
## [7440,] -1.615795e+07 -1.379790e+07
## [7441,] -3.006448e+09 -1.090477e+09
## [7442,] -1.863297e+09 -6.534928e+08
## [7443,] -9.311747e+07 -5.275697e+07
## [7444,] -7.722270e+06 -8.665480e+06
## [7445,] -8.557156e+06 -9.298704e+06
## [7446,] -1.588281e+07 -1.360546e+07
## [7447,] -2.955397e+09 -1.078100e+09
## [7448,] -2.596147e+09 -8.112789e+08
## [7449,] -1.052018e+08 -5.901398e+07
## [7450,] -7.643817e+06 -8.626115e+06
## [7451,] -8.461442e+06 -9.178098e+06
## [7452,] -1.619565e+07 -1.400237e+07
## [7453,] -2.844818e+09 -1.047617e+09
## [7454,] -2.093920e+09 -7.973890e+08
## [7455,] -9.113764e+07 -4.963390e+07
```

```
## [7456,] -7.672813e+06 -8.639371e+06
## [7457,] -8.566100e+06 -9.233342e+06
## [7458,] -1.616329e+07 -1.359025e+07
## [7459,] -2.924910e+09 -1.065795e+09
## [7460,] -2.138700e+09 -7.973890e+08
## [7461,] -9.951512e+07 -5.617785e+07
## [7462,] -7.747364e+06 -8.700859e+06
## [7463,] -8.623629e+06 -9.296057e+06
## [7464,] -1.568577e+07 -1.367863e+07
## [7465,] -3.078078e+09 -9.823031e+08
## [7466,] -2.206757e+09 -7.837047e+08
## [7467,] -9.620204e+07 -5.187067e+07
## [7468,] -7.615078e+06 -8.670088e+06
## [7469,] -8.377621e+06 -9.203553e+06
## [7470,] -1.583780e+07 -1.374953e+07
## [7471,] -3.006113e+09 -1.084129e+09
## [7472,] -1.948078e+09 -6.206215e+08
## [7473,] -1.067416e+08 -5.744003e+07
## [7474,] -7.508435e+06 -8.521402e+06
## [7475,] -8.531675e+06 -9.263180e+06
## [7476,] -1.633345e+07 -1.384410e+07
## [7477,] -3.363543e+09 -1.197363e+09
## [7478,] -2.620770e+09 -8.391084e+08
## [7479,] -1.029308e+08 -5.496369e+07
## [7480,] -7.627736e+06 -8.644079e+06
## [7481,] -8.529470e+06 -9.281795e+06
## [7482,] -1.582403e+07 -1.366583e+07
## [7483,] -3.341691e+09 -1.171546e+09
## [7484,] -2.441011e+09 -8.202844e+08
## [7485,] -9.895044e+07 -5.497502e+07
## [7486,] -7.631957e+06 -8.626654e+06
## [7487,] -8.561019e+06 -9.228068e+06
## [7488,] -1.596716e+07 -1.377221e+07
## [7489,] -3.298729e+09 -1.210139e+09
## [7490,] -2.497441e+09 -8.249374e+08
## [7491,] -1.008334e+08 -5.358703e+07
## [7492,] -7.640302e+06 -8.666236e+06
## [7493,] -8.513882e+06 -9.274496e+06
## [7494,] -1.608825e+07 -1.384013e+07
## [7495,] -3.298642e+09 -1.146113e+09
## [7496,] -2.252358e+09 -7.699268e+08
## [7497,] -9.464086e+07 -5.207667e+07
## [7498,] -7.603342e+06 -8.657564e+06
## [7499,] -8.760584e+06 -9.411122e+06
## [7500,] -1.559899e+07 -1.353588e+07
## [7501,] -3.005610e+09 -1.071588e+09
## [7502,] -2.489188e+09 -8.721016e+08
```

```

## [7503,] -1.012849e+08 -5.499768e+07
## [7504,] -7.554167e+06 -8.644510e+06
## [7505,] -8.474178e+06 -9.268865e+06
## [7506,] -1.614857e+07 -1.387824e+07
## [7507,] -3.330660e+09 -1.236054e+09
## [7508,] -2.472950e+09 -8.201531e+08
## [7509,] -1.013003e+08 -5.688785e+07
## [7510,] -7.570575e+06 -8.648896e+06
## [7511,] -8.606072e+06 -9.328703e+06
## [7512,] -1.516384e+07 -1.328731e+07
## [7513,] -3.277090e+09 -1.108461e+09
## [7514,] -2.198641e+09 -7.743499e+08
## [7515,] -9.589658e+07 -5.134601e+07
## [7516,] -7.644730e+06 -8.723738e+06
## [7517,] -8.535863e+06 -9.297437e+06
## [7518,] -1.599160e+07 -1.379490e+07
## [7519,] -3.118900e+09 -1.158612e+09
## [7520,] -2.345477e+09 -8.341065e+08
## [7521,] -9.880308e+07 -5.471025e+07
## [7522,] -7.615888e+06 -8.675344e+06
## [7523,] -8.578915e+06 -9.276507e+06
## [7524,] -1.613548e+07 -1.374162e+07
## [7525,] -3.298378e+09 -1.071488e+09
## [7526,] -2.505250e+09 -7.970438e+08
## [7527,] -9.859512e+07 -5.440102e+07
## [7528,] -7.665364e+06 -8.697325e+06
## [7529,] -8.576042e+06 -9.282484e+06
## [7530,] -1.613548e+07 -1.375049e+07
## [7531,] -3.056754e+09 -1.177725e+09
## [7532,] -2.138064e+09 -7.166914e+08
## [7533,] -9.965237e+07 -5.395005e+07
## [7534,] -7.864974e+06 -8.829902e+06
## [7535,] -8.525998e+06 -9.290131e+06
## [7536,] -1.590213e+07 -1.378280e+07
## [7537,] -2.497401e+09 -9.017576e+08
## [7538,] -2.432550e+09 -8.767182e+08
## [7539,] -1.053899e+08 -5.457811e+07
## [7540,] -7.661438e+06 -8.653607e+06
## [7541,] -8.576373e+06 -9.279840e+06
## [7542,] -1.614776e+07 -1.398468e+07
## [7543,] -3.077230e+09 -1.164861e+09
## [7544,] -2.545707e+09 -7.786578e+08
## [7545,] -8.502405e+07 -4.786204e+07
## [7546,] -7.723697e+06 -8.777120e+06
## [7547,] -8.658958e+06 -9.329740e+06
## [7548,] -1.592651e+07 -1.382330e+07
## [7549,] -3.255173e+09 -1.158300e+09

```

```
## [7550,] -2.360698e+09 -8.431931e+08
## [7551,] -1.005819e+08 -5.432556e+07
## [7552,] -7.666075e+06 -8.711284e+06
## [7553,] -8.647746e+06 -9.336080e+06
## [7554,] -1.646856e+07 -1.411200e+07
## [7555,] -3.548555e+09 -1.322270e+09
## [7556,] -2.267055e+09 -8.479106e+08
## [7557,] -1.056992e+08 -5.810320e+07
## [7558,] -7.518221e+06 -8.627947e+06
## [7559,] -8.614763e+06 -9.298816e+06
## [7560,] -1.628105e+07 -1.399213e+07
## [7561,] -3.427376e+09 -1.229027e+09
## [7562,] -2.305769e+09 -7.784872e+08
## [7563,] -1.048401e+08 -5.842276e+07
## [7564,] -7.811610e+06 -8.795458e+06
## [7565,] -8.537515e+06 -9.359097e+06
## [7566,] -1.614880e+07 -1.394988e+07
## [7567,] -2.534185e+09 -8.958029e+08
## [7568,] -2.055719e+09 -7.829348e+08
## [7569,] -9.874693e+07 -5.544507e+07
## [7570,] -7.962412e+06 -8.893047e+06
## [7571,] -8.625343e+06 -9.393820e+06
## [7572,] -1.611649e+07 -1.375958e+07
## [7573,] -3.286718e+09 -1.183552e+09
## [7574,] -2.228309e+09 -7.206308e+08
## [7575,] -9.261985e+07 -5.283807e+07
## [7576,] -7.770181e+06 -8.760321e+06
## [7577,] -8.645858e+06 -9.397175e+06
## [7578,] -1.615761e+07 -1.393125e+07
## [7579,] -3.243938e+09 -1.070838e+09
## [7580,] -2.463827e+09 -8.906866e+08
## [7581,] -9.920905e+07 -5.423889e+07
## [7582,] -7.708041e+06 -8.764845e+06
## [7583,] -8.530845e+06 -9.238442e+06
## [7584,] -1.620575e+07 -1.390447e+07
## [7585,] -3.169962e+09 -1.034504e+09
## [7586,] -2.544936e+09 -9.297954e+08
## [7587,] -9.326948e+07 -5.611608e+07
## [7588,] -7.803684e+06 -8.800317e+06
## [7589,] -8.659012e+06 -9.326799e+06
## [7590,] -1.579067e+07 -1.379437e+07
## [7591,] -2.813287e+09 -1.120140e+09
## [7592,] -2.235757e+09 -9.003506e+08
## [7593,] -9.777004e+07 -5.502379e+07
## [7594,] -7.807852e+06 -8.681251e+06
## [7595,] -8.638814e+06 -9.350786e+06
## [7596,] -1.590155e+07 -1.382673e+07
```



```

## [7597,] -3.014412e+09 -1.076846e+09
## [7598,] -2.594200e+09 -8.009817e+08
## [7599,] -1.047353e+08 -5.395345e+07
## [7600,] -7.712386e+06 -8.747407e+06
## [7601,] -8.717185e+06 -9.381159e+06
## [7602,] -1.590765e+07 -1.384132e+07
## [7603,] -2.953237e+09 -1.095224e+09
## [7604,] -2.281874e+09 -7.826782e+08
## [7605,] -9.635654e+07 -5.243790e+07
## [7606,] -7.954617e+06 -8.915959e+06
## [7607,] -8.633379e+06 -9.369142e+06
## [7608,] -1.589466e+07 -1.365177e+07
## [7609,] -3.470354e+09 -1.241646e+09
## [7610,] -2.618893e+09 -9.595718e+08
## [7611,] -9.331376e+07 -5.154331e+07
## [7612,] -7.812328e+06 -8.791796e+06
## [7613,] -8.721698e+06 -9.403885e+06
## [7614,] -1.626547e+07 -1.388834e+07
## [7615,] -3.372143e+09 -1.082821e+09
## [7616,] -2.503873e+09 -8.100605e+08
## [7617,] -1.045681e+08 -5.246003e+07
## [7618,] -7.708550e+06 -8.774223e+06
## [7619,] -8.596274e+06 -9.396537e+06
## [7620,] -1.623652e+07 -1.392404e+07
## [7621,] -3.211733e+09 -1.183184e+09
## [7622,] -2.407404e+09 -8.239720e+08
## [7623,] -9.970277e+07 -5.506914e+07
## [7624,] -7.795763e+06 -8.800753e+06
## [7625,] -8.631161e+06 -9.378847e+06
## [7626,] -1.621991e+07 -1.389082e+07
## [7627,] -2.743945e+09 -9.577018e+08
## [7628,] -2.227587e+09 -8.615139e+08
## [7629,] -1.022886e+08 -5.667951e+07
## [7630,] -7.825353e+06 -8.810040e+06
## [7631,] -8.679288e+06 -9.429012e+06
## [7632,] -1.583585e+07 -1.396151e+07
## [7633,] -2.892197e+09 -1.107240e+09
## [7634,] -2.495380e+09 -9.096980e+08
## [7635,] -9.502781e+07 -5.497055e+07
## [7636,] -7.821284e+06 -8.810149e+06
## [7637,] -8.738812e+06 -9.445763e+06
## [7638,] -1.641513e+07 -1.396399e+07
## [7639,] -3.393203e+09 -1.163662e+09
## [7640,] -2.204388e+09 -7.822935e+08
## [7641,] -9.324443e+07 -5.407701e+07
## [7642,] -7.947239e+06 -8.912601e+06
## [7643,] -8.663897e+06 -9.388903e+06

```

```

## [7644,] -1.589224e+07 -1.392501e+07
## [7645,] -2.842047e+09 -1.094718e+09
## [7646,] -2.685020e+09 -9.742782e+08
## [7647,] -9.982489e+07 -5.593999e+07
## [7648,] -7.759245e+06 -8.846040e+06
## [7649,] -8.743665e+06 -9.456842e+06
## [7650,] -1.606098e+07 -1.385044e+07
## [7651,] -2.982786e+09 -1.027880e+09
## [7652,] -2.242493e+09 -7.507689e+08
## [7653,] -9.508741e+07 -5.332124e+07
## [7654,] -7.871833e+06 -8.837169e+06
## [7655,] -8.723368e+06 -9.408628e+06
## [7656,] -1.599391e+07 -1.382373e+07
## [7657,] -3.221525e+09 -1.176309e+09
## [7658,] -2.470822e+09 -8.997546e+08
## [7659,] -1.066455e+08 -6.058433e+07
## [7660,] -7.626858e+06 -8.691449e+06
## [7661,] -8.684458e+06 -9.440428e+06
## [7662,] -1.622096e+07 -1.405281e+07
## [7663,] -2.802276e+09 -9.805795e+08
## [7664,] -2.527518e+09 -8.851692e+08
## [7665,] -1.053681e+08 -5.865662e+07
## [7666,] -7.796787e+06 -8.779728e+06
## [7667,] -8.706323e+06 -9.433067e+06
## [7668,] -1.592962e+07 -1.375509e+07
## [7669,] -3.568789e+09 -1.195460e+09
## [7670,] -2.560016e+09 -8.947119e+08
## [7671,] -1.043433e+08 -5.757453e+07
## [7672,] -7.709874e+06 -8.850913e+06
## [7673,] -8.645966e+06 -9.472631e+06
## [7674,] -1.637473e+07 -1.406103e+07
## [7675,] -3.726200e+09 -1.094466e+09
## [7676,] -2.430364e+09 -8.468429e+08
## [7677,] -1.047870e+08 -5.918558e+07
## [7678,] -7.998401e+06 -9.042868e+06
## [7679,] -8.769180e+06 -9.423044e+06
## [7680,] -1.662397e+07 -1.417468e+07
## [7681,] -3.137015e+09 -1.131726e+09
## [7682,] -2.382539e+09 -8.657876e+08
## [7683,] -9.536625e+07 -5.383684e+07
## [7684,] -7.776385e+06 -8.789005e+06
## [7685,] -8.737249e+06 -9.480356e+06
## [7686,] -1.651681e+07 -1.421074e+07
## [7687,] -2.439483e+09 -8.183945e+08
## [7688,] -2.568076e+09 -9.141356e+08
## [7689,] -9.869539e+07 -5.571852e+07
## [7690,] -7.793237e+06 -8.944677e+06

```

```

## [7691,] -8.668117e+06 -9.393296e+06
## [7692,] -1.647090e+07 -1.412316e+07
## [7693,] -3.468824e+09 -1.169559e+09
## [7694,] -2.625870e+09 -9.338146e+08
## [7695,] -1.035364e+08 -5.681766e+07
## [7696,] -7.822412e+06 -8.784801e+06
## [7697,] -8.749188e+06 -9.414357e+06
## [7698,] -1.603672e+07 -1.400648e+07
## [7699,] -2.871282e+09 -1.182343e+09
## [7700,] -2.061415e+09 -8.752707e+08
## [7701,] -9.478373e+07 -5.745056e+07
## [7702,] -7.822412e+06 -8.837933e+06
## [7703,] -8.658176e+06 -9.397980e+06
## [7704,] -1.661339e+07 -1.447282e+07
## [7705,] -3.064107e+09 -9.171001e+08
## [7706,] -2.470215e+09 -8.848510e+08
## [7707,] -1.018548e+08 -5.541783e+07
## [7708,] -7.776692e+06 -8.793754e+06
## [7709,] -8.828058e+06 -9.481052e+06
## [7710,] -1.632821e+07 -1.402688e+07
## [7711,] -1.668315e+09 -6.297226e+08
## [7712,] -1.271256e+09 -4.851889e+08
## [7713,] -2.708839e+07 -1.054582e+07
## [7714,] -1.157686e+04 -5.669056e+04
## [7715,] -5.001939e+04 -9.457821e+04
## [7716,] -9.473415e+05 -5.890458e+05
## [7717,] -1.714246e+09 -6.296842e+08
## [7718,] -1.271202e+09 -4.639517e+08
## [7719,] -2.321464e+07 -9.362389e+06
## [7720,] -1.930222e+04 -6.402493e+04
## [7721,] -5.836265e+04 -1.024470e+05
## [7722,] -8.720304e+05 -5.475565e+05
## [7723,] -1.433521e+09 -5.483051e+08
## [7724,] -1.103595e+09 -3.999325e+08
## [7725,] -2.231580e+07 -9.620342e+06
## [7726,] -1.889003e+04 -6.440290e+04
## [7727,] -5.859991e+04 -1.011947e+05
## [7728,] -9.707788e+05 -6.094241e+05
## [7729,] -1.714246e+09 -5.882911e+08
## [7730,] -1.169164e+09 -4.534950e+08
## [7731,] -2.486403e+07 -1.048785e+07
## [7732,] -1.501743e+04 -5.922158e+04
## [7733,] -5.384539e+04 -9.734857e+04
## [7734,] -9.372092e+05 -5.847163e+05
## [7735,] -1.839885e+09 -6.968301e+08
## [7736,] -1.311959e+09 -4.922945e+08
## [7737,] -2.966878e+07 -1.269464e+07

```

```
## [7738,] -1.079611e+04 -6.403421e+04
## [7739,] -4.596145e+04 -9.370980e+04
## [7740,] -9.960272e+05 -6.200043e+05
## [7741,] -3.189087e+09 -1.106579e+09
## [7742,] -2.518754e+09 -8.000736e+08
## [7743,] -1.037806e+08 -5.527347e+07
## [7744,] -7.570205e+06 -8.723233e+06
## [7745,] -8.576257e+06 -9.372604e+06
## [7746,] -1.652220e+07 -1.403585e+07
## [7747,] -2.941375e+09 -1.106528e+09
## [7748,] -2.334893e+09 -7.548008e+08
## [7749,] -8.015631e+07 -4.634060e+07
## [7750,] -7.789483e+06 -8.838369e+06
## [7751,] -8.716680e+06 -9.477043e+06
## [7752,] -1.632740e+07 -1.407098e+07
## [7753,] -3.146864e+09 -1.094061e+09
## [7754,] -1.770153e+09 -6.027955e+08
## [7755,] -9.608534e+07 -5.608868e+07
## [7756,] -7.723119e+06 -8.873989e+06
## [7757,] -8.757282e+06 -9.443847e+06
## [7758,] -1.657628e+07 -1.420270e+07
## [7759,] -3.230984e+09 -1.169245e+09
## [7760,] -2.421621e+09 -8.511246e+08
## [7761,] -1.044994e+08 -5.705633e+07
## [7762,] -7.719178e+06 -8.807682e+06
## [7763,] -8.746006e+06 -9.456259e+06
## [7764,] -1.653381e+07 -1.406449e+07
## [7765,] -3.294781e+09 -1.220738e+09
## [7766,] -2.583846e+09 -8.558195e+08
## [7767,] -9.613028e+07 -5.410289e+07
## [7768,] -7.940485e+06 -8.914353e+06
## [7769,] -8.831982e+06 -9.512333e+06
## [7770,] -1.593250e+07 -1.382888e+07
## [7771,] -3.022385e+09 -1.075493e+09
## [7772,] -2.485834e+09 -8.275800e+08
## [7773,] -9.819362e+07 -5.456579e+07
## [7774,] -7.624258e+06 -8.522401e+06
## [7775,] -8.802847e+06 -9.506282e+06
## [7776,] -1.623002e+07 -1.406124e+07
## [7777,] -3.146606e+09 -1.181922e+09
## [7778,] -2.373882e+09 -8.701169e+08
## [7779,] -9.944213e+07 -5.580982e+07
## [7780,] -7.735866e+06 -8.896548e+06
## [7781,] -8.817408e+06 -9.521414e+06
## [7782,] -1.637497e+07 -1.403433e+07
## [7783,] -3.284002e+09 -1.093909e+09
## [7784,] -2.421546e+09 -8.558195e+08
```

```

## [7785,] -1.021743e+08 -5.456579e+07
## [7786,] -8.088381e+06 -9.048567e+06
## [7787,] -8.757951e+06 -9.504944e+06
## [7788,] -1.647465e+07 -1.396518e+07
## [7789,] -2.890471e+09 -1.057133e+09
## [7790,] -2.241191e+09 -7.859805e+08
## [7791,] -9.825420e+07 -5.216393e+07
## [7792,] -8.114272e+06 -9.035553e+06
## [7793,] -8.863466e+06 -9.526828e+06
## [7794,] -1.614522e+07 -1.394654e+07
## [7795,] -3.283477e+09 -1.168827e+09
## [7796,] -2.453130e+09 -8.555513e+08
## [7797,] -1.050375e+08 -5.650601e+07
## [7798,] -7.815506e+06 -8.861647e+06
## [7799,] -8.774766e+06 -9.498255e+06
## [7800,] -1.655785e+07 -1.425785e+07
## [7801,] -3.219617e+09 -1.175156e+09
## [7802,] -2.365464e+09 -8.602584e+08
## [7803,] -9.996699e+07 -5.573339e+07
## [7804,] -7.819779e+06 -8.892865e+06
## [7805,] -8.860882e+06 -9.563553e+06
## [7806,] -1.688706e+07 -1.435415e+07
## [7807,] -3.198412e+09 -1.187918e+09
## [7808,] -2.389120e+09 -8.938436e+08
## [7809,] -9.422232e+07 -5.237051e+07
## [7810,] -8.319923e+06 -9.216233e+06
## [7811,] -8.843704e+06 -9.573008e+06
## [7812,] -1.670967e+07 -1.437153e+07
## [7813,] -3.445287e+09 -1.252923e+09
## [7814,] -2.357283e+09 -8.317688e+08
## [7815,] -1.049013e+08 -5.469004e+07
## [7816,] -7.920618e+06 -8.960151e+06
## [7817,] -8.765433e+06 -9.582467e+06
## [7818,] -1.630748e+07 -1.416036e+07
## [7819,] -3.052277e+09 -1.194193e+09
## [7820,] -2.294690e+09 -8.553278e+08
## [7821,] -9.445533e+07 -5.751200e+07
## [7822,] -7.954237e+06 -8.924467e+06
## [7823,] -8.794506e+06 -9.552119e+06
## [7824,] -1.639458e+07 -1.406146e+07
## [7825,] -3.011140e+09 -1.008719e+09
## [7826,] -2.217561e+09 -7.630236e+08
## [7827,] -1.030116e+08 -5.502276e+07
## [7828,] -7.975492e+06 -8.982709e+06
## [7829,] -8.882350e+06 -9.573708e+06
## [7830,] -1.619090e+07 -1.406968e+07
## [7831,] -3.155869e+09 -1.130493e+09

```

```

## [7832,] -2.380674e+09 -8.315925e+08
## [7833,] -9.676657e+07 -5.566841e+07
## [7834,] -7.925230e+06 -8.911542e+06
## [7835,] -8.835961e+06 -9.528574e+06
## [7836,] -1.642904e+07 -1.413834e+07
## [7837,] -3.368505e+09 -1.272413e+09
## [7838,] -2.648903e+09 -9.080394e+08
## [7839,] -9.576964e+07 -5.460308e+07
## [7840,] -7.871044e+06 -8.951991e+06
## [7841,] -8.778397e+06 -9.514134e+06
## [7842,] -1.621202e+07 -1.406244e+07
## [7843,] -3.357518e+09 -1.099120e+09
## [7844,] -2.640402e+09 -8.549703e+08
## [7845,] -9.036206e+07 -5.009370e+07
## [7846,] -7.972005e+06 -8.987950e+06
## [7847,] -8.981765e+06 -9.649460e+06
## [7848,] -1.665479e+07 -1.410410e+07
## [7849,] -2.929207e+09 -1.008331e+09
## [7850,] -2.111332e+09 -7.852523e+08
## [7851,] -9.438558e+07 -5.234069e+07
## [7852,] -8.022623e+06 -9.010322e+06
## [7853,] -8.923052e+06 -9.625093e+06
## [7854,] -1.615078e+07 -1.395171e+07
## [7855,] -2.878982e+09 -1.086745e+09
## [7856,] -2.201734e+09 -7.098688e+08
## [7857,] -9.337148e+07 -5.340615e+07
## [7858,] -8.026849e+06 -9.014800e+06
## [7859,] -8.895399e+06 -9.566002e+06
## [7860,] -1.643360e+07 -1.418760e+07
## [7861,] -3.197202e+09 -1.142649e+09
## [7862,] -2.606850e+09 -9.126576e+08
## [7863,] -1.057340e+08 -5.828868e+07
## [7864,] -7.850648e+06 -8.939156e+06
## [7865,] -8.863576e+06 -9.590644e+06
## [7866,] -1.677138e+07 -1.429272e+07
## [7867,] -3.144549e+09 -1.129979e+09
## [7868,] -2.301515e+09 -8.125920e+08
## [7869,] -1.044621e+08 -5.421877e+07
## [7870,] -8.078161e+06 -9.037758e+06
## [7871,] -8.995850e+06 -9.642720e+06
## [7872,] -1.619113e+07 -1.410583e+07
## [7873,] -2.898608e+09 -1.080358e+09
## [7874,] -2.148415e+09 -7.714607e+08
## [7875,] -9.445983e+07 -5.285154e+07
## [7876,] -8.040051e+06 -9.010873e+06
## [7877,] -8.934158e+06 -9.633581e+06
## [7878,] -1.631657e+07 -1.397132e+07

```

```
## [7879,] -2.898608e+09 -1.019959e+09
## [7880,] -2.193770e+09 -7.941557e+08
## [7881,] -9.385047e+07 -5.423003e+07
## [7882,] -8.112112e+06 -8.997445e+06
## [7883,] -8.934158e+06 -9.627492e+06
## [7884,] -1.647781e+07 -1.428291e+07
## [7885,] -3.531918e+09 -1.291944e+09
## [7886,] -1.823222e+09 -5.976975e+08
## [7887,] -1.004826e+08 -5.549301e+07
## [7888,] -7.918072e+06 -9.024531e+06
## [7889,] -8.921472e+06 -9.580887e+06
## [7890,] -1.647079e+07 -1.420412e+07
## [7891,] -3.576185e+09 -1.305268e+09
## [7892,] -2.395560e+09 -7.986045e+08
## [7893,] -9.758146e+07 -5.550440e+07
## [7894,] -7.784433e+06 -8.939704e+06
## [7895,] -8.778451e+06 -9.626496e+06
## [7896,] -1.677327e+07 -1.428541e+07
## [7897,] -2.948754e+09 -1.193295e+09
## [7898,] -2.231712e+09 -8.832606e+08
## [7899,] -9.799546e+07 -5.472738e+07
## [7900,] -8.031907e+06 -8.975418e+06
## [7901,] -9.018444e+06 -9.577851e+06
## [7902,] -1.622886e+07 -1.420412e+07
## [7903,] -3.186154e+09 -1.123517e+09
## [7904,] -2.223982e+09 -7.712909e+08
## [7905,] -9.904951e+07 -5.598468e+07
## [7906,] -7.888925e+06 -8.962127e+06
## [7907,] -8.825361e+06 -9.626847e+06
## [7908,] -1.609683e+07 -1.398200e+07
## [7909,] -3.102367e+09 -1.031655e+09
## [7910,] -2.483549e+09 -8.450204e+08
## [7911,] -1.041281e+08 -5.615286e+07
## [7912,] -7.943689e+06 -8.975748e+06
## [7913,] -8.973340e+06 -9.665113e+06
## [7914,] -1.622805e+07 -1.408635e+07
## [7915,] -2.918219e+09 -1.067840e+09
## [7916,] -2.689706e+09 -9.122883e+08
## [7917,] -9.475262e+07 -5.050986e+07
## [7918,] -7.826413e+06 -8.984688e+06
## [7919,] -8.988041e+06 -9.649868e+06
## [7920,] -1.681167e+07 -1.429370e+07
## [7921,] -3.112588e+09 -1.001840e+09
## [7922,] -2.411167e+09 -8.355263e+08
## [7923,] -1.050156e+08 -5.791484e+07
## [7924,] -7.947997e+06 -9.011644e+06
## [7925,] -8.913358e+06 -9.608941e+06
```

```
## [7926,] -1.652478e+07 -1.427234e+07
## [7927,] -3.302502e+09 -1.098411e+09
## [7928,] -2.269833e+09 -7.801577e+08
## [7929,] -9.765696e+07 -5.401198e+07
## [7930,] -8.028200e+06 -8.962566e+06
## [7931,] -8.987079e+06 -9.722155e+06
## [7932,] -1.673243e+07 -1.429294e+07
## [7933,] -3.019529e+09 -1.067690e+09
## [7934,] -2.371351e+09 -8.121564e+08
## [7935,] -1.054765e+08 -5.604187e+07
## [7936,] -7.922993e+06 -8.953747e+06
## [7937,] -8.899055e+06 -9.615375e+06
## [7938,] -1.667375e+07 -1.430199e+07
## [7939,] -3.270357e+09 -1.225386e+09
## [7940,] -2.434974e+09 -8.590485e+08
## [7941,] -1.020648e+08 -5.495030e+07
## [7942,] -8.079100e+06 -9.155721e+06
## [7943,] -8.909471e+06 -9.626202e+06
## [7944,] -1.656290e+07 -1.428062e+07
## [7945,] -3.206625e+09 -1.129414e+09
## [7946,] -2.475090e+09 -8.307113e+08
## [7947,] -1.067861e+08 -5.496163e+07
## [7948,] -7.885354e+06 -8.989599e+06
## [7949,] -8.858462e+06 -9.597480e+06
## [7950,] -1.629747e+07 -1.412403e+07
## [7951,] -2.353990e+09 -8.217630e+08
## [7952,] -2.261892e+09 -8.259980e+08
## [7953,] -1.018843e+08 -5.481786e+07
## [7954,] -7.994736e+06 -9.079376e+06
## [7955,] -8.747841e+06 -9.446102e+06
## [7956,] -1.672182e+07 -1.440095e+07
## [7957,] -3.039797e+09 -1.019374e+09
## [7958,] -2.466874e+09 -7.982159e+08
## [7959,] -1.023228e+08 -5.405691e+07
## [7960,] -8.032842e+06 -9.021152e+06
## [7961,] -8.924458e+06 -9.629597e+06
## [7962,] -1.650721e+07 -1.437372e+07
## [7963,] -3.377555e+09 -1.238309e+09
## [7964,] -2.371128e+09 -9.022389e+08
## [7965,] -1.057544e+08 -5.546231e+07
## [7966,] -7.927605e+06 -8.985457e+06
## [7967,] -8.893877e+06 -9.631295e+06
## [7968,] -1.683237e+07 -1.452179e+07
## [7969,] -2.538108e+09 -8.704219e+08
## [7970,] -1.850247e+09 -6.293886e+08
## [7971,] -1.040549e+08 -5.547370e+07
## [7972,] -8.096693e+06 -9.120315e+06
```



```

## [7973,] -9.026376e+06 -9.704865e+06
## [7974,] -1.635118e+07 -1.415602e+07
## [7975,] -3.664806e+09 -1.212052e+09
## [7976,] -2.851211e+09 -9.266292e+08
## [7977,] -9.611394e+07 -5.271392e+07
## [7978,] -8.007912e+06 -9.111418e+06
## [7979,] -9.128532e+06 -9.801562e+06
## [7980,] -1.588650e+07 -1.384830e+07
## [7981,] -2.877260e+09 -1.001405e+09
## [7982,] -2.515151e+09 -9.118267e+08
## [7983,] -1.025965e+08 -5.565251e+07
## [7984,] -8.029031e+06 -9.124931e+06
## [7985,] -8.953171e+06 -9.662472e+06
## [7986,] -1.681191e+07 -1.421260e+07
## [7987,] -3.174435e+09 -1.166947e+09
## [7988,] -2.184964e+09 -8.164371e+08
## [7989,] -1.007125e+08 -5.613343e+07
## [7990,] -7.881887e+06 -8.963554e+06
## [7991,] -8.859472e+06 -9.610694e+06
## [7992,] -1.661622e+07 -1.424871e+07
## [7993,] -3.111650e+09 -1.135275e+09
## [7994,] -2.269105e+09 -8.586454e+08
## [7995,] -9.636427e+07 -5.335709e+07
## [7996,] -8.165059e+06 -9.161234e+06
## [7997,] -8.963619e+06 -9.685535e+06
## [7998,] -1.656396e+07 -1.434498e+07
## [7999,] -3.248289e+09 -1.116512e+09
## [8000,] -2.354909e+09 -8.397352e+08
## [8001,] -1.030520e+08 -5.474211e+07
## [8002,] -7.978600e+06 -9.089141e+06
## [8003,] -8.931335e+06 -9.694698e+06
## [8004,] -1.670060e+07 -1.428160e+07
## [8005,] -3.111650e+09 -1.141564e+09
## [8006,] -2.386506e+09 -8.210354e+08
## [8007,] -1.032647e+08 -5.536337e+07
## [8008,] -8.105602e+06 -9.134277e+06
## [8009,] -9.035902e+06 -9.733099e+06
## [8010,] -1.629852e+07 -1.440522e+07
## [8011,] -3.442238e+09 -1.270942e+09
## [8012,] -2.605212e+09 -9.264431e+08
## [8013,] -1.039194e+08 -5.321544e+07
## [8014,] -7.987132e+06 -9.066781e+06
## [8015,] -8.827713e+06 -9.423381e+06
## [8016,] -1.648261e+07 -1.418804e+07
## [8017,] -3.596955e+09 -1.331396e+09
## [8018,] -2.539234e+09 -7.886888e+08
## [8019,] -9.993504e+07 -5.555340e+07

```

```

## [8020,] -7.928535e+06 -9.053643e+06
## [8021,] -8.917355e+06 -9.686239e+06
## [8022,] -1.706004e+07 -1.458669e+07
## [8023,] -3.574357e+09 -1.290736e+09
## [8024,] -2.192124e+09 -7.704847e+08
## [8025,] -1.037684e+08 -5.526452e+07
## [8026,] -8.033986e+06 -9.094192e+06
## [8027,] -8.974750e+06 -9.709331e+06
## [8028,] -1.668918e+07 -1.443424e+07
## [8029,] -3.387330e+09 -1.211573e+09
## [8030,] -2.315269e+09 -8.161314e+08
## [8031,] -9.935394e+07 -5.652794e+07
## [8032,] -8.021411e+06 -9.139340e+06
## [8033,] -9.011699e+06 -9.732450e+06
## [8034,] -1.639365e+07 -1.421358e+07
## [8035,] -2.896552e+09 -1.030673e+09
## [8036,] -2.146645e+09 -7.839681e+08
## [8037,] -9.280401e+07 -5.312966e+07
## [8038,] -8.161531e+06 -9.148472e+06
## [8039,] -9.128929e+06 -9.814265e+06
## [8040,] -1.668835e+07 -1.438805e+07
## [8041,] -1.823929e+09 -7.166511e+08
## [8042,] -1.432116e+09 -5.252239e+08
## [8043,] -2.887602e+07 -1.232446e+07
## [8044,] -8.459344e+03 -5.390214e+04
## [8045,] -4.596145e+04 -9.221410e+04
## [8046,] -8.681842e+05 -5.551573e+05
## [8047,] -1.384431e+09 -5.309148e+08
## [8048,] -1.050259e+09 -3.998714e+08
## [8049,] -2.529098e+07 -1.076578e+07
## [8050,] -1.993919e+04 -6.748570e+04
## [8051,] -5.875984e+04 -1.036036e+05
## [8052,] -8.474341e+05 -5.421080e+05
## [8053,] -1.356771e+09 -4.970771e+08
## [8054,] -1.018901e+09 -3.774550e+08
## [8055,] -2.106984e+07 -8.995777e+06
## [8056,] -2.255195e+04 -6.866273e+04
## [8057,] -6.361262e+04 -1.051886e+05
## [8058,] -8.496386e+05 -5.491794e+05
## [8059,] -1.329447e+09 -5.012416e+08
## [8060,] -1.395402e+09 -5.067294e+08
## [8061,] -2.364211e+07 -9.569703e+06
## [8062,] -1.829498e+04 -6.443082e+04
## [8063,] -5.734155e+04 -1.014048e+05
## [8064,] -1.003870e+06 -6.167619e+05
## [8065,] -1.799996e+09 -6.675410e+08
## [8066,] -1.389348e+09 -5.067294e+08

```

```
## [8067,] -2.519349e+07 -1.070221e+07
## [8068,] -1.539427e+04 -5.887696e+04
## [8069,] -5.455695e+04 -9.677248e+04
## [8070,] -9.401706e+05 -5.888910e+05
## [8071,] -3.184084e+09 -1.147405e+09
## [8072,] -2.101642e+09 -6.411549e+08
## [8073,] -1.013022e+08 -5.470031e+07
## [8074,] -8.123538e+06 -9.162344e+06
## [8075,] -8.868627e+06 -9.687295e+06
## [8076,] -1.662269e+07 -1.442690e+07
## [8077,] -3.069266e+09 -1.166320e+09
## [8078,] -2.401559e+09 -8.205538e+08
## [8079,] -1.036486e+08 -5.332698e+07
## [8080,] -8.000821e+06 -9.153428e+06
## [8081,] -8.820649e+06 -9.698163e+06
## [8082,] -1.660318e+07 -1.438148e+07
## [8083,] -3.194438e+09 -1.140996e+09
## [8084,] -2.260584e+09 -8.298746e+08
## [8085,] -9.963896e+07 -5.627092e+07
## [8086,] -8.098155e+06 -9.117361e+06
## [8087,] -9.178422e+06 -9.874827e+06
## [8088,] -1.667775e+07 -1.444180e+07
## [8089,] -3.058864e+09 -1.166268e+09
## [8090,] -2.361823e+09 -9.062442e+08
## [8091,] -9.883530e+07 -5.473423e+07
## [8092,] -7.828979e+06 -9.023245e+06
## [8093,] -8.864750e+06 -9.661883e+06
## [8094,] -1.672937e+07 -1.443523e+07
## [8095,] -2.471431e+09 -8.806388e+08
## [8096,] -2.401334e+09 -8.297425e+08
## [8097,] -9.926718e+07 -5.351349e+07
## [8098,] -7.993008e+06 -9.091021e+06
## [8099,] -8.991487e+06 -9.748171e+06
## [8100,] -1.649093e+07 -1.433134e+07
## [8101,] -4.164015e+09 -1.534984e+09
## [8102,] -2.361377e+09 -8.248564e+08
## [8103,] -1.061320e+08 -6.052270e+07
## [8104,] -8.018641e+06 -9.145403e+06
## [8105,] -8.969943e+06 -9.713503e+06
## [8106,] -1.699305e+07 -1.462527e+07
## [8107,] -3.462436e+09 -1.243476e+09
## [8108,] -2.345489e+09 -8.435106e+08
## [8109,] -1.002102e+08 -5.575863e+07
## [8110,] -7.934491e+06 -9.073483e+06
## [8111,] -9.006882e+06 -9.828691e+06
## [8112,] -1.700565e+07 -1.450905e+07
## [8113,] -3.606215e+09 -1.165694e+09
```

```

## [8114,] -2.259712e+09 -7.969642e+08
## [8115,] -9.023443e+07 -5.118982e+07
## [8116,] -8.086677e+06 -9.150247e+06
## [8117,] -9.135940e+06 -9.830760e+06
## [8118,] -1.654765e+07 -1.430264e+07
## [8119,] -3.353180e+09 -1.115235e+09
## [8120,] -2.137863e+09 -7.831980e+08
## [8121,] -1.136885e+08 -6.124760e+07
## [8122,] -7.951824e+06 -9.074035e+06
## [8123,] -8.932797e+06 -9.699276e+06
## [8124,] -1.685356e+07 -1.449587e+07
## [8125,] -2.835126e+09 -1.121418e+09
## [8126,] -2.305927e+09 -8.621939e+08
## [8127,] -1.045387e+08 -5.803826e+07
## [8128,] -8.061664e+06 -9.186823e+06
## [8129,] -9.018380e+06 -9.782309e+06
## [8130,] -1.644611e+07 -1.426243e+07
## [8131,] -3.203511e+09 -1.140119e+09
## [8132,] -2.376500e+09 -8.479175e+08
## [8133,] -1.026369e+08 -5.630879e+07
## [8134,] -8.116919e+06 -9.182414e+06
## [8135,] -9.027221e+06 -9.831470e+06
## [8136,] -1.673857e+07 -1.448929e+07
## [8137,] -3.161449e+09 -1.178195e+09
## [8138,] -2.313651e+09 -8.669192e+08
## [8139,] -1.005271e+08 -5.646598e+07
## [8140,] -8.206405e+06 -9.182414e+06
## [8141,] -9.136623e+06 -9.880754e+06
## [8142,] -1.649468e+07 -1.431672e+07
## [8143,] -3.396227e+09 -1.165433e+09
## [8144,] -2.259349e+09 -8.909674e+08
## [8145,] -1.007371e+08 -5.568223e+07
## [8146,] -8.193592e+06 -9.214080e+06
## [8147,] -9.130693e+06 -9.825318e+06
## [8148,] -1.664080e+07 -1.450751e+07
## [8149,] -3.192969e+09 -1.146421e+09
## [8150,] -2.464294e+09 -8.013344e+08
## [8151,] -1.043560e+08 -5.822116e+07
## [8152,] -8.061872e+06 -9.241378e+06
## [8153,] -9.074790e+06 -9.825672e+06
## [8154,] -1.689833e+07 -1.453740e+07
## [8155,] -2.975445e+09 -1.029545e+09
## [8156,] -2.182678e+09 -7.693822e+08
## [8157,] -1.035646e+08 -5.620910e+07
## [8158,] -8.198387e+06 -9.282680e+06
## [8159,] -9.032493e+06 -9.784727e+06
## [8160,] -1.723006e+07 -1.445134e+07

```

```
## [8161,] -3.483145e+09 -1.114776e+09
## [8162,] -2.528682e+09 -9.004036e+08
## [8163,] -8.530783e+07 -4.998035e+07
## [8164,] -8.117650e+06 -9.214860e+06
## [8165,] -9.021042e+06 -9.831173e+06
## [8166,] -1.681180e+07 -1.452092e+07
## [8167,] -2.572786e+09 -8.741668e+08
## [8168,] -2.026137e+09 -7.118309e+08
## [8169,] -9.730260e+07 -5.344203e+07
## [8170,] -8.075208e+06 -9.205806e+06
## [8171,] -9.301846e+06 -9.993524e+06
## [8172,] -1.678863e+07 -1.456325e+07
## [8173,] -3.266425e+09 -1.171387e+09
## [8174,] -2.360115e+09 -8.522912e+08
## [8175,] -9.444812e+07 -5.269072e+07
## [8176,] -8.126256e+06 -9.174265e+06
## [8177,] -9.087639e+06 -9.823660e+06
## [8178,] -1.694234e+07 -1.458736e+07
## [8179,] -3.373737e+09 -1.171335e+09
## [8180,] -2.352092e+09 -7.379139e+08
## [8181,] -9.366572e+07 -5.195575e+07
## [8182,] -8.096833e+06 -9.206251e+06
## [8183,] -9.083715e+06 -9.847270e+06
## [8184,] -1.693522e+07 -1.455335e+07
## [8185,] -3.129145e+09 -1.071387e+09
## [8186,] -2.660345e+09 -9.544185e+08
## [8187,] -1.095241e+08 -7.114746e+07
## [8188,] -8.152312e+06 -9.098174e+06
## [8189,] -9.113651e+06 -9.859945e+06
## [8190,] -1.698723e+07 -1.453762e+07
## [8191,] -3.615763e+09 -1.275412e+09
## [8192,] -2.391373e+09 -8.192410e+08
## [8193,] -1.022024e+08 -5.693082e+07
## [8194,] -8.152312e+06 -9.233649e+06
## [8195,] -9.110690e+06 -9.866108e+06
## [8196,] -1.712561e+07 -1.474826e+07
## [8197,] -3.831859e+09 -1.329222e+09
## [8198,] -2.487523e+09 -9.796431e+08
## [8199,] -9.926118e+07 -5.551820e+07
## [8200,] -8.084313e+06 -9.283574e+06
## [8201,] -9.211659e+06 -9.853784e+06
## [8202,] -1.703659e+07 -1.461072e+07
## [8203,] -3.244718e+09 -9.875759e+08
## [8204,] -1.452607e+09 -4.862863e+08
## [8205,] -9.555765e+07 -5.398067e+07
## [8206,] -8.169461e+06 -9.242828e+06
## [8207,] -9.350823e+06 -1.001632e+07
```

```

## [8208,] -1.666952e+07 -1.445232e+07
## [8209,] -3.015248e+09 -1.183865e+09
## [8210,] -2.204615e+09 -7.733787e+08
## [8211,] -9.455212e+07 -5.353144e+07
## [8212,] -8.293671e+06 -9.301985e+06
## [8213,] -9.158477e+06 -9.872627e+06
## [8214,] -1.679324e+07 -1.459496e+07
## [8215,] -3.181152e+09 -1.177408e+09
## [8216,] -2.375383e+09 -8.614760e+08
## [8217,] -1.001277e+08 -5.663837e+07
## [8218,] -8.063434e+06 -9.188713e+06
## [8219,] -9.169044e+06 -9.914468e+06
## [8220,] -1.709150e+07 -1.468908e+07
## [8221,] -3.351411e+09 -1.215990e+09
## [8222,] -2.454959e+09 -8.613863e+08
## [8223,] -1.005777e+08 -5.525213e+07
## [8224,] -8.216741e+06 -9.297660e+06
## [8225,] -9.120259e+06 -9.866818e+06
## [8226,] -1.694341e+07 -1.453356e+07
## [8227,] -3.233762e+09 -1.120446e+09
## [8228,] -2.414932e+09 -8.283784e+08
## [8229,] -9.932209e+07 -5.729340e+07
## [8230,] -8.208192e+06 -9.306759e+06
## [8231,] -9.334847e+06 -1.002462e+07
## [8232,] -1.661987e+07 -1.435165e+07
## [8233,] -2.984286e+09 -1.064945e+09
## [8234,] -2.593434e+09 -8.853127e+08
## [8235,] -1.056949e+08 -5.874000e+07
## [8236,] -8.131555e+06 -9.293225e+06
## [8237,] -9.252764e+06 -9.964317e+06
## [8238,] -1.656760e+07 -1.436651e+07
## [8239,] -3.994618e+09 -1.315388e+09
## [8240,] -2.430753e+09 -8.612966e+08
## [8241,] -1.046373e+08 -5.763393e+07
## [8242,] -8.264051e+06 -9.316086e+06
## [8243,] -9.108752e+06 -9.901104e+06
## [8244,] -1.703492e+07 -1.465495e+07
## [8245,] -3.416290e+09 -1.170812e+09
## [8246,] -2.527606e+09 -8.376107e+08
## [8247,] -1.037981e+08 -5.669589e+07
## [8248,] -8.174355e+06 -9.252569e+06
## [8249,] -9.137076e+06 -9.939912e+06
## [8250,] -1.726922e+07 -1.486309e+07
## [8251,] -3.416201e+09 -1.363024e+09
## [8252,] -2.454732e+09 -8.235841e+08
## [8253,] -9.442292e+07 -5.513067e+07
## [8254,] -8.110720e+06 -9.230120e+06

```

```

## [8255,] -9.343207e+06 -1.003329e+07
## [8256,] -1.729188e+07 -1.482876e+07
## [8257,] -2.803406e+09 -9.929607e+08
## [8258,] -2.211664e+09 -8.468942e+08
## [8259,] -9.776591e+07 -5.378554e+07
## [8260,] -8.256004e+06 -9.312093e+06
## [8261,] -9.244844e+06 -9.980880e+06
## [8262,] -1.627153e+07 -1.420793e+07
## [8263,] -3.190724e+09 -1.145076e+09
## [8264,] -2.150835e+09 -7.774281e+08
## [8265,] -9.573701e+07 -5.504337e+07
## [8266,] -8.355085e+06 -9.421880e+06
## [8267,] -9.287001e+06 -9.975039e+06
## [8268,] -1.667599e+07 -1.449478e+07
## [8269,] -3.004016e+09 -9.636671e+08
## [8270,] -2.211448e+09 -7.549752e+08
## [8271,] -9.573701e+07 -5.426959e+07
## [8272,] -8.350774e+06 -9.357891e+06
## [8273,] -9.275045e+06 -9.978138e+06
## [8274,] -1.671511e+07 -1.443107e+07
## [8275,] -2.852725e+09 -1.089012e+09
## [8276,] -2.438230e+09 -8.140371e+08
## [8277,] -9.758924e+07 -5.835304e+07
## [8278,] -8.277659e+06 -9.357891e+06
## [8279,] -9.224317e+06 -9.947169e+06
## [8280,] -1.689170e+07 -1.461347e+07
## [8281,] -2.932844e+09 -1.076694e+09
## [8282,] -2.068799e+09 -7.819155e+08
## [8283,] -1.030553e+08 -5.756786e+07
## [8284,] -8.316433e+06 -9.371697e+06
## [8285,] -9.366579e+06 -1.004817e+07
## [8286,] -1.697321e+07 -1.464347e+07
## [8287,] -3.569699e+09 -1.183129e+09
## [8288,] -2.470226e+09 -8.325692e+08
## [8289,] -8.952185e+07 -5.065346e+07
## [8290,] -8.265105e+06 -9.335426e+06
## [8291,] -9.178700e+06 -9.949252e+06
## [8292,] -1.705850e+07 -1.464932e+07
## [8293,] -2.952819e+09 -1.016253e+09
## [8294,] -2.478144e+09 -9.336817e+08
## [8295,] -9.889470e+07 -5.263090e+07
## [8296,] -8.282373e+06 -9.449822e+06
## [8297,] -9.165500e+06 -9.910782e+06
## [8298,] -1.674011e+07 -1.450895e+07
## [8299,] -3.065288e+09 -1.016253e+09
## [8300,] -2.211089e+09 -7.637057e+08
## [8301,] -9.601680e+07 -5.340412e+07

```

```

## [8302,] -8.342685e+06 -9.399564e+06
## [8303,] -9.223686e+06 -1.000229e+07
## [8304,] -1.720625e+07 -1.485076e+07
## [8305,] -4.040520e+09 -1.496202e+09
## [8306,] -2.334757e+09 -7.282186e+08
## [8307,] -9.279241e+07 -5.145590e+07
## [8308,] -8.252667e+06 -9.408937e+06
## [8309,] -9.270447e+06 -9.991969e+06
## [8310,] -1.702088e+07 -1.466941e+07
## [8311,] -3.137611e+09 -1.170027e+09
## [8312,] -2.485922e+09 -7.816163e+08
## [8313,] -9.916385e+07 -5.717323e+07
## [8314,] -8.291383e+06 -9.390757e+06
## [8315,] -9.306330e+06 -9.998173e+06
## [8316,] -1.718557e+07 -1.454719e+07
## [8317,] -3.469541e+09 -1.215031e+09
## [8318,] -2.210801e+09 -7.770447e+08
## [8319,] -9.793221e+07 -5.639605e+07
## [8320,] -8.137588e+06 -9.299674e+06
## [8321,] -9.260166e+06 -9.987496e+06
## [8322,] -1.696799e+07 -1.459287e+07
## [8323,] -3.425673e+09 -1.254274e+09
## [8324,] -2.453521e+09 -8.510424e+08
## [8325,] -1.090163e+08 -5.546818e+07
## [8326,] -8.146204e+06 -9.240746e+06
## [8327,] -9.142778e+06 -9.914940e+06
## [8328,] -1.685261e+07 -1.452235e+07
## [8329,] -3.179256e+09 -1.150822e+09
## [8330,] -2.389430e+09 -8.042424e+08
## [8331,] -1.049658e+08 -5.755977e+07
## [8332,] -8.223436e+06 -9.345777e+06
## [8333,] -9.199918e+06 -9.937291e+06
## [8334,] -1.696003e+07 -1.475048e+07
## [8335,] -3.306365e+09 -1.163347e+09
## [8336,] -2.233384e+09 -7.455019e+08
## [8337,] -1.034699e+08 -5.458187e+07
## [8338,] -8.365195e+06 -9.405150e+06
## [8339,] -9.304717e+06 -1.008667e+07
## [8340,] -1.711094e+07 -1.468875e+07
## [8341,] -3.316915e+09 -1.125411e+09
## [8342,] -2.501515e+09 -7.903702e+08
## [8343,] -1.033037e+08 -5.570400e+07
## [8344,] -8.236589e+06 -9.391769e+06
## [8345,] -9.276479e+06 -1.000444e+07
## [8346,] -1.705790e+07 -1.476809e+07
## [8347,] -3.199792e+09 -1.163191e+09
## [8348,] -2.389131e+09 -8.649853e+08

```



```

## [8349,] -1.026664e+08 -5.743581e+07
## [8350,] -8.232309e+06 -9.419216e+06
## [8351,] -9.249603e+06 -9.988926e+06
## [8352,] -1.696906e+07 -1.486021e+07
## [8353,] -3.295392e+09 -1.156842e+09
## [8354,] -2.349647e+09 -8.272352e+08
## [8355,] -1.005564e+08 -5.743581e+07
## [8356,] -8.313824e+06 -9.378060e+06
## [8357,] -9.399405e+06 -9.930094e+06
## [8358,] -1.713707e+07 -1.470378e+07
## [8359,] -2.733069e+09 -9.002422e+08
## [8360,] -2.373223e+09 -8.412484e+08
## [8361,] -1.001523e+08 -5.792435e+07
## [8362,] -8.378567e+06 -9.387311e+06
## [8363,] -9.245300e+06 -1.002790e+07
## [8364,] -1.712358e+07 -1.459970e+07
## [8365,] -3.338244e+09 -1.240675e+09
## [8366,] -2.141974e+09 -7.948085e+08
## [8367,] -9.912281e+07 -5.234202e+07
## [8368,] -8.447897e+06 -9.451513e+06
## [8369,] -9.288780e+06 -1.000790e+07
## [8370,] -1.682422e+07 -1.465131e+07
## [8371,] -1.645305e+09 -5.927092e+08
## [8372,] -1.191353e+09 -4.708674e+08
## [8373,] -2.561552e+07 -1.049775e+07
## [8374,] -1.394956e+04 -5.996771e+04
## [8375,] -5.161852e+04 -1.004697e+05
## [8376,] -9.286035e+05 -5.925699e+05
## [8377,] -1.592805e+09 -6.295692e+08
## [8378,] -1.271038e+09 -4.195419e+08
## [8379,] -2.487927e+07 -1.056568e+07
## [8380,] -1.240937e+04 -6.330003e+04
## [8381,] -5.296461e+04 -9.738386e+04
## [8382,] -9.729393e+05 -6.130085e+05
## [8383,] -1.799996e+09 -6.342548e+08
## [8384,] -1.329535e+09 -5.067294e+08
## [8385,] -2.679416e+07 -1.139796e+07
## [8386,] -1.175377e+04 -5.357339e+04
## [8387,] -5.028976e+04 -9.404506e+04
## [8388,] -9.753014e+05 -6.111361e+05
## [8389,] -1.752859e+09 -6.531712e+08
## [8390,] -1.103392e+09 -3.998103e+08
## [8391,] -2.647795e+07 -1.057065e+07
## [8392,] -1.430845e+04 -5.924835e+04
## [8393,] -4.443323e+04 -7.865268e+04
## [8394,] -9.768113e+05 -6.104601e+05
## [8395,] -1.823733e+09 -7.115475e+08

```

```

## [8396,] -1.401412e+09 -4.850206e+08
## [8397,] -2.723731e+07 -1.212094e+07
## [8398,] -1.049971e+04 -5.602592e+04
## [8399,] -5.151996e+04 -9.663751e+04
## [8400,] -9.269372e+05 -5.820735e+05
## [8401,] -3.273764e+09 -1.175783e+09
## [8402,] -2.240623e+09 -7.452515e+08
## [8403,] -9.624156e+07 -5.495956e+07
## [8404,] -8.228345e+06 -9.396678e+06
## [8405,] -9.278490e+06 -1.000963e+07
## [8406,] -1.715606e+07 -1.486866e+07
## [8407,] -2.851093e+09 -1.094161e+09
## [8408,] -2.476927e+09 -8.792228e+08
## [8409,] -1.046467e+08 -5.875881e+07
## [8410,] -8.258534e+06 -9.419779e+06
## [8411,] -9.353702e+06 -1.008463e+07
## [8412,] -1.681358e+07 -1.489892e+07
## [8413,] -3.273501e+09 -1.169243e+09
## [8414,] -2.171828e+09 -7.855159e+08
## [8415,] -1.010688e+08 -5.718829e+07
## [8416,] -8.310158e+06 -9.442795e+06
## [8417,] -9.340377e+06 -1.006145e+07
## [8418,] -1.792699e+07 -1.520195e+07
## [8419,] -3.479267e+09 -1.320435e+09
## [8420,] -2.741799e+09 -9.427308e+08
## [8421,] -1.083664e+08 -5.959923e+07
## [8422,] -8.275900e+06 -9.392556e+06
## [8423,] -9.264241e+06 -1.003830e+07
## [8424,] -1.702303e+07 -1.468057e+07
## [8425,] -3.157154e+09 -9.975394e+08
## [8426,] -2.179324e+09 -7.854731e+08
## [8427,] -1.038387e+08 -5.735827e+07
## [8428,] -8.413888e+06 -9.479725e+06
## [8429,] -9.325735e+06 -1.013040e+07
## [8430,] -1.727714e+07 -1.467726e+07
## [8431,] -3.032639e+09 -1.181921e+09
## [8432,] -2.541556e+09 -8.456494e+08
## [8433,] -9.408481e+07 -5.333273e+07
## [8434,] -8.263243e+06 -9.365372e+06
## [8435,] -9.249659e+06 -1.006043e+07
## [8436,] -1.658428e+07 -1.447295e+07
## [8437,] -3.251945e+09 -1.156375e+09
## [8438,] -1.851704e+09 -6.180791e+08
## [8439,] -1.137082e+08 -5.898979e+07
## [8440,] -8.466208e+06 -9.512239e+06
## [8441,] -9.212911e+06 -9.991070e+06
## [8442,] -1.725281e+07 -1.483865e+07

```

```

## [8443,] -3.315771e+09 -1.162566e+09
## [8444,] -2.309463e+09 -8.173174e+08
## [8445,] -9.951419e+07 -5.743932e+07
## [8446,] -8.392906e+06 -9.448281e+06
## [8447,] -9.468134e+06 -1.016586e+07
## [8448,] -1.698819e+07 -1.482277e+07
## [8449,] -3.326337e+09 -1.075190e+09
## [8450,] -2.396020e+09 -7.988704e+08
## [8451,] -1.050332e+08 -5.856691e+07
## [8452,] -8.306810e+06 -9.443810e+06
## [8453,] -9.298499e+06 -1.005217e+07
## [8454,] -1.709329e+07 -1.480102e+07
## [8455,] -3.209046e+09 -1.156063e+09
## [8456,] -2.598585e+09 -7.491849e+08
## [8457,] -1.048188e+08 -5.856691e+07
## [8458,] -8.410307e+06 -9.434644e+06
## [8459,] -9.322450e+06 -1.011449e+07
## [8460,] -1.693178e+07 -1.483454e+07
## [8461,] -3.326161e+09 -1.062901e+09
## [8462,] -2.451780e+09 -8.786338e+08
## [8463,] -1.063401e+08 -5.906023e+07
## [8464,] -8.349962e+06 -9.457679e+06
## [8465,] -9.324120e+06 -1.008816e+07
## [8466,] -1.724838e+07 -1.491762e+07
## [8467,] -3.380129e+09 -1.075090e+09
## [8468,] -2.623298e+09 -8.452495e+08
## [8469,] -1.059403e+08 -5.606613e+07
## [8470,] -8.389011e+06 -9.467081e+06
## [8471,] -9.372464e+06 -1.009475e+07
## [8472,] -1.719155e+07 -1.484632e+07
## [8473,] -3.135301e+09 -1.136973e+09
## [8474,] -2.356182e+09 -8.452050e+08
## [8475,] -1.020975e+08 -5.606613e+07
## [8476,] -8.384691e+06 -9.471671e+06
## [8477,] -9.366457e+06 -1.011971e+07
## [8478,] -1.727102e+07 -1.479104e+07
## [8479,] -3.208787e+09 -1.200694e+09
## [8480,] -2.356182e+09 -8.452050e+08
## [8481,] -1.014640e+08 -5.716868e+07
## [8482,] -8.397653e+06 -9.480854e+06
## [8483,] -9.342450e+06 -1.008229e+07
## [8484,] -1.677376e+07 -1.461337e+07
## [8485,] -2.960295e+09 -1.168564e+09
## [8486,] -2.332469e+09 -7.623548e+08
## [8487,] -1.090100e+08 -5.926827e+07
## [8488,] -8.393544e+06 -9.485674e+06
## [8489,] -9.390842e+06 -1.011695e+07

```

```
## [8490,] -1.692384e+07 -1.473509e+07
## [8491,] -3.135044e+09 -1.174840e+09
## [8492,] -2.308949e+09 -7.225320e+08
## [8493,] -9.692334e+07 -5.454355e+07
## [8494,] -8.328954e+06 -9.430739e+06
## [8495,] -9.449737e+06 -1.017494e+07
## [8496,] -1.697940e+07 -1.474096e+07
## [8497,] -2.859501e+09 -1.014549e+09
## [8498,] -2.507798e+09 -8.687270e+08
## [8499,] -1.049596e+08 -5.915423e+07
## [8500,] -8.350809e+06 -9.453994e+06
## [8501,] -9.289582e+06 -1.010519e+07
## [8502,] -1.758907e+07 -1.488167e+07
## [8503,] -3.368502e+09 -1.161888e+09
## [8504,] -2.155385e+09 -7.938178e+08
## [8505,] -1.077819e+08 -6.078708e+07
## [8506,] -8.128278e+06 -9.335239e+06
## [8507,] -9.300224e+06 -1.007887e+07
## [8508,] -1.808066e+07 -1.510072e+07
## [8509,] -3.532732e+09 -1.486879e+09
## [8510,] -2.215989e+09 -7.354665e+08
## [8511,] -9.969722e+07 -5.885612e+07
## [8512,] -8.502568e+06 -9.610798e+06
## [8513,] -9.276646e+06 -1.008858e+07
## [8514,] -1.732823e+07 -1.483477e+07
## [8515,] -3.208007e+09 -1.149112e+09
## [8516,] -2.402994e+09 -8.167495e+08
## [8517,] -9.639609e+07 -5.632616e+07
## [8518,] -8.407364e+06 -9.491172e+06
## [8519,] -9.416299e+06 -1.015587e+07
## [8520,] -1.727486e+07 -1.490526e+07
## [8521,] -3.186841e+09 -9.906504e+08
## [8522,] -2.614136e+09 -9.566935e+08
## [8523,] -1.020559e+08 -5.777219e+07
## [8524,] -8.429109e+06 -9.482097e+06
## [8525,] -9.366860e+06 -1.017952e+07
## [8526,] -1.698403e+07 -1.472690e+07
## [8527,] -3.092756e+09 -1.123874e+09
## [8528,] -2.347499e+09 -7.890818e+08
## [8529,] -1.033287e+08 -5.386300e+07
## [8530,] -8.520296e+06 -9.509675e+06
## [8531,] -9.504162e+06 -1.021573e+07
## [8532,] -1.777860e+07 -1.517701e+07
## [8533,] -2.929038e+09 -1.044057e+09
## [8534,] -2.613980e+09 -9.022001e+08
## [8535,] -9.956455e+07 -5.388544e+07
## [8536,] -8.559741e+06 -9.588259e+06
```

```

## [8537,] -9.328209e+06 -1.017988e+07
## [8538,] -1.713505e+07 -1.472945e+07
## [8539,] -3.051261e+09 -1.037993e+09
## [8540,] -2.238526e+09 -7.484740e+08
## [8541,] -1.089829e+08 -5.764800e+07
## [8542,] -8.321510e+06 -9.505415e+06
## [8543,] -9.486719e+06 -1.025412e+07
## [8544,] -1.699580e+07 -1.482988e+07
## [8545,] -2.918629e+09 -1.031849e+09
## [8546,] -2.410428e+09 -8.350915e+08
## [8547,] -1.025567e+08 -5.719529e+07
## [8548,] -8.459984e+06 -9.560907e+06
## [8549,] -9.438428e+06 -1.016946e+07
## [8550,] -1.749548e+07 -1.490627e+07
## [8551,] -3.175638e+09 -1.148646e+09
## [8552,] -2.139570e+09 -7.887813e+08
## [8553,] -1.006883e+08 -5.737686e+07
## [8554,] -8.477560e+06 -9.547302e+06
## [8555,] -9.459888e+06 -1.017608e+07
## [8556,] -1.703803e+07 -1.488779e+07
## [8557,] -3.335154e+09 -1.098663e+09
## [8558,] -2.346981e+09 -8.350032e+08
## [8559,] -9.550559e+07 -5.486793e+07
## [8560,] -8.408321e+06 -9.496785e+06
## [8561,] -9.522027e+06 -1.024367e+07
## [8562,] -1.734204e+07 -1.497693e+07
## [8563,] -3.217707e+09 -1.174002e+09
## [8564,] -2.450191e+09 -7.887384e+08
## [8565,] -1.007036e+08 -5.659829e+07
## [8566,] -8.564749e+06 -9.625927e+06
## [8567,] -9.431415e+06 -1.022170e+07
## [8568,] -1.702458e+07 -1.476466e+07
## [8569,] -2.918381e+09 -1.019763e+09
## [8570,] -2.781939e+09 -8.585628e+08
## [8571,] -1.047344e+08 -5.914604e+07
## [8572,] -8.542937e+06 -9.570474e+06
## [8573,] -9.500845e+06 -1.030342e+07
## [8574,] -1.706410e+07 -1.491217e+07
## [8575,] -2.838380e+09 -1.135994e+09
## [8576,] -2.006557e+09 -9.313483e+08
## [8577,] -1.023912e+08 -5.597012e+07
## [8578,] -8.438731e+06 -9.542920e+06
## [8579,] -9.427069e+06 -1.022345e+07
## [8580,] -1.735838e+07 -1.489035e+07
## [8581,] -3.575908e+09 -1.180292e+09
## [8582,] -2.245701e+09 -7.393325e+08
## [8583,] -1.064867e+08 -5.965359e+07

```

```

## [8584,] -8.399886e+06 -9.455686e+06
## [8585,] -9.340255e+06 -1.013928e+07
## [8586,] -1.733124e+07 -1.495763e+07
## [8587,] -3.019694e+09 -1.025577e+09
## [8588,] -2.346610e+09 -8.347824e+08
## [8589,] -8.914366e+07 -5.022063e+07
## [8590,] -8.508523e+06 -9.686639e+06
## [8591,] -9.595529e+06 -1.024125e+07
## [8592,] -1.730412e+07 -1.503434e+07
## [8593,] -2.168043e+09 -7.234550e+08
## [8594,] -2.663038e+09 -9.114186e+08
## [8595,] -1.003605e+08 -5.872261e+07
## [8596,] -8.469623e+06 -9.561928e+06
## [8597,] -9.444514e+06 -1.023534e+07
## [8598,] -1.708221e+07 -1.477231e+07
## [8599,] -2.887757e+09 -1.167311e+09
## [8600,] -2.401795e+09 -8.393878e+08
## [8601,] -9.932994e+07 -5.825403e+07
## [8602,] -8.556665e+06 -9.557316e+06
## [8603,] -9.413054e+06 -1.018379e+07
## [8604,] -1.753663e+07 -1.507406e+07
## [8605,] -3.143518e+09 -1.141924e+09
## [8606,] -2.555159e+09 -8.582494e+08
## [8607,] -1.116098e+08 -6.086221e+07
## [8608,] -8.318583e+06 -9.493093e+06
## [8609,] -9.438832e+06 -1.021374e+07
## [8610,] -1.731324e+07 -1.505213e+07
## [8611,] -3.195903e+09 -1.173583e+09
## [8612,] -2.161502e+09 -7.085320e+08
## [8613,] -9.421243e+07 -5.450525e+07
## [8614,] -8.482865e+06 -9.585230e+06
## [8615,] -9.558450e+06 -1.029403e+07
## [8616,] -1.693333e+07 -1.467053e+07
## [8617,] -3.486660e+09 -1.154453e+09
## [8618,] -2.679492e+09 -9.659006e+08
## [8619,] -1.021223e+08 -5.687108e+07
## [8620,] -8.457032e+06 -9.733805e+06
## [8621,] -9.490494e+06 -1.023920e+07
## [8622,] -1.744209e+07 -1.506063e+07
## [8623,] -3.174605e+09 -1.148024e+09
## [8624,] -2.473506e+09 -8.676012e+08
## [8625,] -9.569985e+07 -5.563800e+07
## [8626,] -8.794551e+06 -9.808635e+06
## [8627,] -9.565217e+06 -1.031996e+07
## [8628,] -1.751128e+07 -1.510632e+07
## [8629,] -2.907166e+09 -1.055095e+09
## [8630,] -2.417122e+09 -8.626945e+08

```

```

## [8631,] -1.088491e+08 -5.882805e+07
## [8632,] -8.548798e+06 -9.613641e+06
## [8633,] -9.572980e+06 -1.029337e+07
## [8634,] -1.712562e+07 -1.493267e+07
## [8635,] -3.442145e+09 -1.110188e+09
## [8636,] -2.489288e+09 -8.865935e+08
## [8637,] -9.575966e+07 -5.351823e+07
## [8638,] -8.667280e+06 -9.678840e+06
## [8639,] -9.590209e+06 -1.032069e+07
## [8640,] -1.747040e+07 -1.508694e+07
## [8641,] -3.153119e+09 -1.122593e+09
## [8642,] -2.440883e+09 -8.721156e+08
## [8643,] -1.018076e+08 -5.663628e+07
## [8644,] -8.540400e+06 -9.655651e+06
## [8645,] -9.508346e+06 -1.024517e+07
## [8646,] -1.747040e+07 -1.512415e+07
## [8647,] -3.121797e+09 -1.091584e+09
## [8648,] -2.314324e+09 -7.925696e+08
## [8649,] -1.005443e+08 -5.616466e+07
## [8650,] -8.601535e+06 -9.613982e+06
## [8651,] -9.466037e+06 -1.029234e+07
## [8652,] -1.723749e+07 -1.494448e+07
## [8653,] -3.398362e+09 -1.122542e+09
## [8654,] -1.883656e+09 -6.489359e+08
## [8655,] -1.033225e+08 -5.760862e+07
## [8656,] -8.593111e+06 -9.646725e+06
## [8657,] -9.601372e+06 -1.033857e+07
## [8658,] -1.773061e+07 -1.506757e+07
## [8659,] -3.641439e+09 -1.283991e+09
## [8660,] -2.712313e+09 -9.009611e+08
## [8661,] -1.080725e+08 -5.793845e+07
## [8662,] -8.362932e+06 -9.605075e+06
## [8663,] -9.459014e+06 -1.022218e+07
## [8664,] -1.750960e+07 -1.511406e+07
## [8665,] -2.866613e+09 -1.048752e+09
## [8666,] -2.763244e+09 -1.026814e+09
## [8667,] -1.072038e+08 -6.116897e+07
## [8668,] -8.654435e+06 -9.748916e+06
## [8669,] -9.561890e+06 -1.029131e+07
## [8670,] -1.740959e+07 -1.511406e+07
## [8671,] -3.247763e+09 -1.147558e+09
## [8672,] -2.440657e+09 -8.340760e+08
## [8673,] -9.317423e+07 -6.265129e+07
## [8674,] -8.663213e+06 -9.623575e+06
## [8675,] -9.528545e+06 -1.029760e+07
## [8676,] -1.757614e+07 -1.522254e+07
## [8677,] -3.540818e+09 -1.153830e+09

```

```

## [8678,] -2.213688e+09 -8.387237e+08
## [8679,] -1.089607e+08 -5.731444e+07
## [8680,] -8.588954e+06 -9.642321e+06
## [8681,] -9.525866e+06 -1.031371e+07
## [8682,] -1.723306e+07 -1.493111e+07
## [8683,] -3.529645e+09 -1.185652e+09
## [8684,] -2.529463e+09 -8.960066e+08
## [8685,] -8.862801e+07 -5.087354e+07
## [8686,] -8.541043e+06 -9.674884e+06
## [8687,] -9.542703e+06 -1.030602e+07
## [8688,] -1.755886e+07 -1.505750e+07
## [8689,] -3.258133e+09 -1.172798e+09
## [8690,] -2.392506e+09 -8.106395e+08
## [8691,] -1.055398e+08 -5.878473e+07
## [8692,] -8.545510e+06 -9.679639e+06
## [8693,] -9.559555e+06 -1.031093e+07
## [8694,] -1.748511e+07 -1.510061e+07
## [8695,] -2.876274e+09 -1.054598e+09
## [8696,] -2.416371e+09 -8.245560e+08
## [8697,] -1.004417e+08 -5.814450e+07
## [8698,] -8.106542e+06 -9.421505e+06
## [8699,] -9.667727e+06 -1.035369e+07
## [8700,] -1.709342e+07 -1.500440e+07
## [8701,] -1.622578e+09 -5.881057e+08
## [8702,] -1.191248e+09 -4.499171e+08
## [8703,] -2.890888e+07 -1.190857e+07
## [8704,] -1.035119e+04 -5.221814e+04
## [8705,] -5.844464e+04 -1.025556e+05
## [8706,] -9.238028e+05 -5.759520e+05
## [8707,] -1.497386e+09 -5.568528e+08
## [8708,] -1.152322e+09 -4.261196e+08
## [8709,] -2.366441e+07 -1.004288e+07
## [8710,] -9.610094e+03 -5.394473e+04
## [8711,] -5.540189e+04 -9.974728e+04
## [8712,] -8.538700e+05 -5.490299e+05
## [8713,] -1.336084e+09 -4.969749e+08
## [8714,] -1.389178e+09 -5.139557e+08
## [8715,] -2.858038e+07 -1.184170e+07
## [8716,] -1.035492e+04 -5.463980e+04
## [8717,] -4.804330e+04 -9.424763e+04
## [8718,] -9.586293e+05 -5.979537e+05
## [8719,] -1.744872e+09 -6.201358e+08
## [8720,] -1.124951e+09 -4.328438e+08
## [8721,] -2.376635e+07 -1.010933e+07
## [8722,] -1.851223e+04 -5.818189e+04
## [8723,] -5.656255e+04 -9.820396e+04
## [8724,] -9.562875e+05 -5.795903e+05

```



```

## [8725,] -1.563006e+09 -6.341394e+08
## [8726,] -1.431827e+09 -5.362603e+08
## [8727,] -2.325884e+07 -9.844858e+06
## [8728,] -1.810861e+04 -6.521835e+04
## [8729,] -5.868207e+04 -1.028700e+05
## [8730,] -8.806143e+05 -5.777697e+05
## [8731,] -3.529372e+09 -1.303831e+09
## [8732,] -2.661461e+09 -9.252413e+08
## [8733,] -9.507612e+07 -5.485215e+07
## [8734,] -8.663753e+06 -9.740176e+06
## [8735,] -9.695202e+06 -1.039160e+07
## [8736,] -1.756804e+07 -1.513110e+07
## [8737,] -2.997235e+09 -1.185389e+09
## [8738,] -2.236213e+09 -8.812703e+08
## [8739,] -1.036599e+08 -5.425628e+07
## [8740,] -8.428506e+06 -9.532046e+06
## [8741,] -9.605814e+06 -1.040006e+07
## [8742,] -1.717183e+07 -1.503144e+07
## [8743,] -3.007365e+09 -1.042329e+09
## [8744,] -2.122545e+09 -7.875370e+08
## [8745,] -9.883115e+07 -5.426754e+07
## [8746,] -8.511091e+06 -9.619859e+06
## [8747,] -9.695907e+06 -1.036705e+07
## [8748,] -1.763385e+07 -1.516421e+07
## [8749,] -3.300216e+09 -1.159701e+09
## [8750,] -2.472062e+09 -8.383254e+08
## [8751,] -1.062804e+08 -5.949917e+07
## [8752,] -8.677577e+06 -9.773477e+06
## [8753,] -9.516840e+06 -1.027285e+07
## [8754,] -1.763022e+07 -1.516084e+07
## [8755,] -2.895726e+09 -1.066390e+09
## [8756,] -2.251293e+09 -7.337268e+08
## [8757,] -9.763179e+07 -5.476507e+07
## [8758,] -8.717167e+06 -9.792139e+06
## [8759,] -9.668782e+06 -1.038954e+07
## [8760,] -1.725043e+07 -1.500284e+07
## [8761,] -3.246805e+09 -1.115642e+09
## [8762,] -2.455880e+09 -8.714839e+08
## [8763,] -9.783873e+07 -5.523078e+07
## [8764,] -8.633694e+06 -9.717600e+06
## [8765,] -9.656582e+06 -1.033900e+07
## [8766,] -1.743620e+07 -1.518544e+07
## [8767,] -2.508327e+09 -8.804559e+08
## [8768,] -2.423750e+09 -8.618867e+08
## [8769,] -1.035246e+08 -5.839762e+07
## [8770,] -8.616279e+06 -9.680551e+06
## [8771,] -9.770076e+06 -1.045642e+07

```

```

## [8772,] -1.737268e+07 -1.520072e+07
## [8773,] -3.078920e+09 -1.210880e+09
## [8774,] -2.399774e+09 -7.602464e+08
## [8775,] -1.009999e+08 -5.745336e+07
## [8776,] -8.533505e+06 -9.783150e+06
## [8777,] -9.655585e+06 -1.041698e+07
## [8778,] -1.762937e+07 -1.520668e+07
## [8779,] -3.058185e+09 -9.422533e+08
## [8780,] -2.305278e+09 -8.570410e+08
## [8781,] -9.892233e+07 -5.667427e+07
## [8782,] -8.664724e+06 -9.769159e+06
## [8783,] -9.634255e+06 -1.036638e+07
## [8784,] -1.741898e+07 -1.498352e+07
## [8785,] -2.945847e+09 -1.066240e+09
## [8786,] -2.328706e+09 -8.428518e+08
## [8787,] -1.031301e+08 -5.730637e+07
## [8788,] -8.682296e+06 -9.703998e+06
## [8789,] -9.529649e+06 -1.031135e+07
## [8790,] -1.806044e+07 -1.522198e+07
## [8791,] -3.162048e+09 -1.103022e+09
## [8792,] -2.367940e+09 -8.381042e+08
## [8793,] -1.072403e+08 -5.812473e+07
## [8794,] -8.625469e+06 -9.718172e+06
## [8795,] -9.517887e+06 -1.031171e+07
## [8796,] -1.763858e+07 -1.514064e+07
## [8797,] -3.429338e+09 -1.178455e+09
## [8798,] -2.281750e+09 -8.569067e+08
## [8799,] -1.114147e+08 -6.055513e+07
## [8800,] -8.560098e+06 -9.783609e+06
## [8801,] -9.636655e+06 -1.047974e+07
## [8802,] -1.742091e+07 -1.521782e+07
## [8803,] -3.099131e+09 -1.152895e+09
## [8804,] -2.407203e+09 -8.615278e+08
## [8805,] -1.017399e+08 -5.817134e+07
## [8806,] -8.682944e+06 -9.718629e+06
## [8807,] -9.617043e+06 -1.041808e+07
## [8808,] -1.818467e+07 -1.547695e+07
## [8809,] -2.925070e+09 -1.078097e+09
## [8810,] -2.528003e+09 -8.806352e+08
## [8811,] -1.071027e+08 -6.224324e+07
## [8812,] -8.582255e+06 -9.663023e+06
## [8813,] -9.649194e+06 -1.036923e+07
## [8814,] -1.762405e+07 -1.510857e+07
## [8815,] -3.320698e+09 -1.159129e+09
## [8816,] -2.367494e+09 -8.191603e+08
## [8817,] -1.079710e+08 -6.011482e+07
## [8818,] -8.595369e+06 -9.653752e+06

```

```

## [8819,] -9.600491e+06 -1.036607e+07
## [8820,] -1.758026e+07 -1.517971e+07
## [8821,] -3.428891e+09 -1.090322e+09
## [8822,] -2.719015e+09 -9.393085e+08
## [8823,] -9.947630e+07 -5.884688e+07
## [8824,] -8.525757e+06 -9.663251e+06
## [8825,] -9.643450e+06 -1.041071e+07
## [8826,] -1.776779e+07 -1.541972e+07
## [8827,] -3.161360e+09 -1.165379e+09
## [8828,] -2.383159e+09 -8.566383e+08
## [8829,] -1.015751e+08 -5.820632e+07
## [8830,] -8.674480e+06 -9.737581e+06
## [8831,] -9.676995e+06 -1.042654e+07
## [8832,] -1.770731e+07 -1.534463e+07
## [8833,] -3.016336e+09 -1.152688e+09
## [8834,] -2.471074e+09 -8.144363e+08
## [8835,] -1.060537e+08 -5.583542e+07
## [8836,] -8.608708e+06 -9.798184e+06
## [8837,] -9.683100e+06 -1.039489e+07
## [8838,] -1.767711e+07 -1.518566e+07
## [8839,] -3.161275e+09 -1.158973e+09
## [8840,] -2.335803e+09 -8.518520e+08
## [8841,] -1.047799e+08 -5.710531e+07
## [8842,] -8.789186e+06 -9.802969e+06
## [8843,] -9.687857e+06 -1.046002e+07
## [8844,] -1.750284e+07 -1.516365e+07
## [8845,] -3.256214e+09 -1.011630e+09
## [8846,] -2.265696e+09 -8.236347e+08
## [8847,] -1.013950e+08 -5.570193e+07
## [8848,] -8.771615e+06 -9.770420e+06
## [8849,] -9.717066e+06 -1.039209e+07
## [8850,] -1.745920e+07 -1.528166e+07
## [8851,] -3.129826e+09 -1.139962e+09
## [8852,] -2.265696e+09 -8.852743e+08
## [8853,] -1.039401e+08 -5.538991e+07
## [8854,] -8.758367e+06 -9.691320e+06
## [8855,] -9.683452e+06 -1.039841e+07
## [8856,] -1.723989e+07 -1.530974e+07
## [8857,] -3.109005e+09 -1.108712e+09
## [8858,] -2.312266e+09 -8.236347e+08
## [8859,] -1.054551e+08 -5.968793e+07
## [8860,] -8.547869e+06 -9.714665e+06
## [8861,] -9.709598e+06 -1.043501e+07
## [8862,] -1.728242e+07 -1.510700e+07
## [8863,] -2.639549e+09 -8.469157e+08
## [8864,] -2.181404e+09 -7.776478e+08
## [8865,] -9.808075e+07 -5.556859e+07

```

```
## [8866,] -8.869291e+06 -9.765987e+06
## [8867,] -9.754156e+06 -1.047485e+07
## [8868,] -1.790113e+07 -1.544033e+07
## [8869,] -3.352381e+09 -1.114774e+09
## [8870,] -2.374799e+09 -8.095521e+08
## [8871,] -1.040025e+08 -5.859633e+07
## [8872,] -8.714713e+06 -9.915950e+06
## [8873,] -9.595813e+06 -1.044983e+07
## [8874,] -1.752481e+07 -1.520275e+07
## [8875,] -3.245238e+09 -1.146058e+09
## [8876,] -2.470618e+09 -7.820930e+08
## [8877,] -1.042161e+08 -5.843620e+07
## [8878,] -8.618110e+06 -9.728961e+06
## [8879,] -9.793028e+06 -1.048970e+07
## [8880,] -1.784322e+07 -1.531155e+07
## [8881,] -3.213374e+09 -1.139704e+09
## [8882,] -2.150988e+09 -7.640079e+08
## [8883,] -1.072609e+08 -5.829963e+07
## [8884,] -8.644618e+06 -9.799103e+06
## [8885,] -9.672298e+06 -1.043751e+07
## [8886,] -1.763797e+07 -1.522401e+07
## [8887,] -2.824314e+09 -1.053259e+09
## [8888,] -2.311752e+09 -8.514952e+08
## [8889,] -9.941996e+07 -5.626327e+07
## [8890,] -8.579175e+06 -9.874183e+06
## [8891,] -9.648254e+06 -1.047595e+07
## [8892,] -1.799433e+07 -1.546096e+07
## [8893,] -3.025741e+09 -1.059217e+09
## [8894,] -2.543418e+09 -7.416262e+08
## [8895,] -1.068594e+08 -5.784437e+07
## [8896,] -8.649220e+06 -9.748038e+06
## [8897,] -9.659099e+06 -1.043331e+07
## [8898,] -1.740671e+07 -1.528865e+07
## [8899,] -3.866550e+09 -1.315664e+09
## [8900,] -1.902438e+09 -6.937429e+08
## [8901,] -1.086453e+08 -5.867825e+07
## [8902,] -8.614485e+06 -9.804347e+06
## [8903,] -9.659451e+06 -1.044635e+07
## [8904,] -1.856275e+07 -1.576883e+07
## [8905,] -3.739917e+09 -1.229130e+09
## [8906,] -2.226384e+09 -7.458840e+08
## [8907,] -9.802480e+07 -5.568257e+07
## [8908,] -8.826015e+06 -9.902788e+06
## [8909,] -9.871360e+06 -1.058672e+07
## [8910,] -1.744222e+07 -1.513514e+07
## [8911,] -2.893506e+09 -1.046872e+09
## [8912,] -2.326936e+09 -8.091608e+08
```

```

## [8913,] -1.003331e+08 -5.726711e+07
## [8914,] -8.645481e+06 -9.823383e+06
## [8915,] -9.695079e+06 -1.048022e+07
## [8916,] -1.773972e+07 -1.541236e+07
## [8917,] -3.362207e+09 -1.151858e+09
## [8918,] -2.002452e+09 -7.150685e+08
## [8919,] -1.044034e+08 -5.905810e+07
## [8920,] -8.667640e+06 -9.814265e+06
## [8921,] -9.759693e+06 -1.049012e+07
## [8922,] -1.766196e+07 -1.532114e+07
## [8923,] -3.254819e+09 -1.101702e+09
## [8924,] -2.342392e+09 -7.906776e+08
## [8925,] -1.018525e+08 -5.761917e+07
## [8926,] -8.862047e+06 -9.926849e+06
## [8927,] -9.949290e+06 -1.064820e+07
## [8928,] -1.786004e+07 -1.543037e+07
## [8929,] -3.107556e+09 -1.145385e+09
## [8930,] -2.692109e+09 -8.557887e+08
## [8931,] -1.048472e+08 -6.068963e+07
## [8932,] -8.716121e+06 -9.875221e+06
## [8933,] -9.752209e+06 -1.051733e+07
## [8934,] -1.773887e+07 -1.526161e+07
## [8935,] -3.170214e+09 -1.145385e+09
## [8936,] -2.350177e+09 -8.089869e+08
## [8937,] -1.025027e+08 -5.810849e+07
## [8938,] -8.786721e+06 -9.847117e+06
## [8939,] -9.758337e+06 -1.050143e+07
## [8940,] -1.760808e+07 -1.530839e+07
## [8941,] -3.107556e+09 -1.158037e+09
## [8942,] -2.334473e+09 -8.322233e+08
## [8943,] -1.027148e+08 -5.747197e+07
## [8944,] -8.602109e+06 -9.805151e+06
## [8945,] -9.686620e+06 -1.045873e+07
## [8946,] -1.761449e+07 -1.536124e+07
## [8947,] -3.107471e+09 -9.871901e+08
## [8948,] -2.759791e+09 -9.087446e+08
## [8949,] -1.089752e+08 -6.184853e+07
## [8950,] -8.575881e+06 -9.795812e+06
## [8951,] -9.604346e+06 -1.046508e+07
## [8952,] -1.800840e+07 -1.558718e+07
## [8953,] -3.128202e+09 -1.151598e+09
## [8954,] -2.318602e+09 -7.768809e+08
## [8955,] -9.711173e+07 -5.546162e+07
## [8956,] -8.773897e+06 -9.833540e+06
## [8957,] -9.725357e+06 -1.045770e+07
## [8958,] -1.775454e+07 -1.536983e+07
## [8959,] -2.943111e+09 -1.076793e+09

```

```

## [8960,] -2.624798e+09 -9.732438e+08
## [8961,] -9.734828e+07 -5.579667e+07
## [8962,] -8.528327e+06 -9.721716e+06
## [8963,] -9.836176e+06 -1.054709e+07
## [8964,] -1.757627e+07 -1.513874e+07
## [8965,] -3.286186e+09 -1.107542e+09
## [8966,] -2.509647e+09 -8.555205e+08
## [8967,] -1.040851e+08 -5.770040e+07
## [8968,] -8.760864e+06 -9.875912e+06
## [8969,] -9.958278e+06 -1.065750e+07
## [8970,] -1.726301e+07 -1.494047e+07
## [8971,] -2.912687e+09 -1.070585e+09
## [8972,] -2.271676e+09 -8.366006e+08
## [8973,] -1.026111e+08 -5.755310e+07
## [8974,] -8.716879e+06 -9.861970e+06
## [8975,] -9.788715e+06 -1.056162e+07
## [8976,] -1.770331e+07 -1.526600e+07
## [8977,] -3.254121e+09 -1.132443e+09
## [8978,] -2.326125e+09 -8.649923e+08
## [8979,] -1.005169e+08 -5.350942e+07
## [8980,] -8.730312e+06 -9.974942e+06
## [8981,] -9.714180e+06 -1.054783e+07
## [8982,] -1.776293e+07 -1.543399e+07
## [8983,] -3.647802e+09 -1.281091e+09
## [8984,] -2.310209e+09 -7.993091e+08
## [8985,] -9.599773e+07 -5.555271e+07
## [8986,] -8.827758e+06 -9.885866e+06
## [8987,] -9.743429e+06 -1.050822e+07
## [8988,] -1.840692e+07 -1.577696e+07
## [8989,] -3.749734e+09 -1.215189e+09
## [8990,] -2.428580e+09 -8.316943e+08
## [8991,] -1.144626e+08 -6.280755e+07
## [8992,] -8.629563e+06 -9.815758e+06
## [8993,] -9.693137e+06 -1.048774e+07
## [8994,] -1.776208e+07 -1.531121e+07
## [8995,] -3.404153e+09 -1.113397e+09
## [8996,] -2.248103e+09 -7.719409e+08
## [8997,] -1.061420e+08 -5.875206e+07
## [8998,] -8.836951e+06 -9.914372e+06
## [8999,] -9.843750e+06 -1.060280e+07
## [9000,] -1.749356e+07 -1.531381e+07
## [9001,] -2.942282e+09 -1.045933e+09
## [9002,] -2.171697e+09 -7.854369e+08
## [9003,] -1.021149e+08 -5.829503e+07
## [9004,] -8.748709e+06 -9.909907e+06
## [9005,] -9.733595e+06 -1.052345e+07
## [9006,] -1.762030e+07 -1.528234e+07

```

```

## [9007,] -3.075106e+09 -1.119472e+09
## [9008,] -2.271020e+09 -7.673130e+08
## [9009,] -1.023265e+08 -5.877549e+07
## [9010,] -8.828303e+06 -9.933398e+06
## [9011,] -9.841027e+06 -1.058401e+07
## [9012,] -1.771083e+07 -1.540421e+07
## [9013,] -3.147887e+09 -1.107034e+09
## [9014,] -2.224869e+09 -8.409007e+08
## [9015,] -1.025538e+08 -5.515371e+07
## [9016,] -8.590710e+06 -9.849074e+06
## [9017,] -9.671120e+06 -1.052204e+07
## [9018,] -1.758655e+07 -1.527896e+07
## [9019,] -2.972526e+09 -1.125666e+09
## [9020,] -2.372565e+09 -7.853513e+08
## [9021,] -1.053281e+08 -5.577730e+07
## [9022,] -8.877231e+06 -1.007031e+07
## [9023,] -9.881436e+06 -1.065152e+07
## [9024,] -1.783470e+07 -1.544442e+07
## [9025,] -3.231934e+09 -1.189021e+09
## [9026,] -2.301831e+09 -8.549394e+08
## [9027,] -1.049302e+08 -5.913215e+07
## [9028,] -8.779946e+06 -9.905558e+06
## [9029,] -9.757096e+06 -1.059893e+07
## [9030,] -1.785127e+07 -1.546924e+07
## [9031,] -1.482995e+09 -5.480904e+08
## [9032,] -1.130347e+09 -4.127980e+08
## [9033,] -3.006208e+07 -1.257841e+07
## [9034,] -1.066443e+04 -5.711635e+04
## [9035,] -4.902839e+04 -9.653777e+04
## [9036,] -1.005200e+06 -6.196867e+05
## [9037,] -1.815586e+09 -6.625763e+08
## [9038,] -1.377054e+09 -5.029469e+08
## [9039,] -2.781045e+07 -1.177502e+07
## [9040,] -1.414370e+04 -6.221583e+04
## [9041,] -4.816329e+04 -9.471738e+04
## [9042,] -1.024487e+06 -6.367585e+05
## [9043,] -1.511787e+09 -5.436996e+08
## [9044,] -1.224974e+09 -4.429967e+08
## [9045,] -2.501436e+07 -1.051757e+07
## [9046,] -8.346185e+03 -5.500620e+04
## [9047,] -5.179436e+04 -9.947332e+04
## [9048,] -1.033320e+06 -6.322567e+05
## [9049,] -1.461422e+09 -5.789895e+08
## [9050,] -1.270766e+09 -5.175707e+08
## [9051,] -2.673331e+07 -1.135828e+07
## [9052,] -1.293777e+04 -6.112286e+04
## [9053,] -5.169563e+04 -9.933648e+04

```

```
## [9054,] -9.749030e+05 -6.145674e+05
## [9055,] -1.721401e+09 -6.200216e+08
## [9056,] -1.259171e+09 -4.920232e+08
## [9057,] -2.598105e+07 -1.114762e+07
## [9058,] -1.397556e+04 -5.856884e+04
## [9059,] -5.440714e+04 -9.871898e+04
## [9060,] -9.444253e+05 -6.015043e+05
## [9061,] -2.871604e+09 -1.045735e+09
## [9062,] -2.247668e+09 -8.836381e+08
## [9063,] -1.103593e+08 -6.206506e+07
## [9064,] -8.669800e+06 -9.774547e+06
## [9065,] -9.883156e+06 -1.060213e+07
## [9066,] -1.789820e+07 -1.555067e+07
## [9067,] -3.252988e+09 -1.082164e+09
## [9068,] -2.516631e+09 -7.671013e+08
## [9069,] -1.024038e+08 -5.803402e+07
## [9070,] -8.713991e+06 -9.924576e+06
## [9071,] -9.802117e+06 -1.055959e+07
## [9072,] -1.788723e+07 -1.549330e+07
## [9073,] -3.327568e+09 -1.137899e+09
## [9074,] -2.492122e+09 -9.077313e+08
## [9075,] -1.086708e+08 -5.982504e+07
## [9076,] -8.877886e+06 -9.967144e+06
## [9077,] -9.782337e+06 -1.053588e+07
## [9078,] -1.765154e+07 -1.511541e+07
## [9079,] -3.295301e+09 -1.188705e+09
## [9080,] -2.419689e+09 -8.264949e+08
## [9081,] -9.660354e+07 -5.664220e+07
## [9082,] -8.847022e+06 -9.948548e+06
## [9083,] -9.850321e+06 -1.063521e+07
## [9084,] -1.792688e+07 -1.552078e+07
## [9085,] -3.295126e+09 -1.253731e+09
## [9086,] -2.690048e+09 -9.173945e+08
## [9087,] -9.807937e+07 -5.729726e+07
## [9088,] -8.989672e+06 -1.003825e+07
## [9089,] -9.842801e+06 -1.060821e+07
## [9090,] -1.757398e+07 -1.533277e+07
## [9091,] -3.002338e+09 -1.057477e+09
## [9092,] -2.239477e+09 -7.226205e+08
## [9093,] -1.203813e+08 -6.249194e+07
## [9094,] -8.710238e+06 -9.878333e+06
## [9095,] -9.887663e+06 -1.061958e+07
## [9096,] -1.798407e+07 -1.554566e+07
## [9097,] -3.188823e+09 -1.094058e+09
## [9098,] -2.193506e+09 -9.123949e+08
## [9099,] -1.020887e+08 -5.891618e+07
## [9100,] -8.914024e+06 -1.001487e+07
```



```

## [9101,] -9.917173e+06 -1.064376e+07
## [9102,] -1.772030e+07 -1.531923e+07
## [9103,] -3.157065e+09 -1.118705e+09
## [9104,] -2.277664e+09 -8.030360e+08
## [9105,] -1.042614e+08 -5.767261e+07
## [9106,] -8.869983e+06 -9.968186e+06
## [9107,] -9.930248e+06 -1.068615e+07
## [9108,] -1.759877e+07 -1.528099e+07
## [9109,] -3.262493e+09 -1.156321e+09
## [9110,] -2.434997e+09 -8.733868e+08
## [9111,] -9.840804e+07 -5.659968e+07
## [9112,] -8.954808e+06 -1.007703e+07
## [9113,] -9.983237e+06 -1.074755e+07
## [9114,] -1.764537e+07 -1.543705e+07
## [9115,] -3.369652e+09 -1.081410e+09
## [9116,] -2.316247e+09 -8.447677e+08
## [9117,] -1.126067e+08 -5.787819e+07
## [9118,] -8.910447e+06 -1.004887e+07
## [9119,] -9.816888e+06 -1.064203e+07
## [9120,] -1.779564e+07 -1.539867e+07
## [9121,] -2.920278e+09 -1.233419e+09
## [9122,] -2.246292e+09 -8.352308e+08
## [9123,] -1.095663e+08 -6.000249e+07
## [9124,] -8.928485e+06 -1.002075e+07
## [9125,] -1.003846e+07 -1.074044e+07
## [9126,] -1.773791e+07 -1.542947e+07
## [9127,] -3.456411e+09 -1.220254e+09
## [9128,] -2.663839e+09 -9.665731e+08
## [9129,] -1.117845e+08 -6.050180e+07
## [9130,] -9.004525e+06 -1.016302e+07
## [9131,] -9.874375e+06 -1.067943e+07
## [9132,] -1.822503e+07 -1.555192e+07
## [9133,] -3.401835e+09 -1.156009e+09
## [9134,] -2.215569e+09 -7.935231e+08
## [9135,] -1.074178e+08 -5.970224e+07
## [9136,] -8.808770e+06 -9.978534e+06
## [9137,] -9.873012e+06 -1.066519e+07
## [9138,] -1.817029e+07 -1.569987e+07
## [9139,] -3.611443e+09 -1.181446e+09
## [9140,] -2.556020e+09 -9.069487e+08
## [9141,] -9.995865e+07 -5.666869e+07
## [9142,] -8.830919e+06 -9.978534e+06
## [9143,] -9.859321e+06 -1.065416e+07
## [9144,] -1.788211e+07 -1.557342e+07
## [9145,] -3.083329e+09 -1.162251e+09
## [9146,] -2.200179e+09 -8.539566e+08
## [9147,] -1.052749e+08 -6.101513e+07

```

```

## [9148,] -8.826596e+06 -1.004000e+07
## [9149,] -9.982937e+06 -1.069263e+07
## [9150,] -1.797331e+07 -1.563014e+07
## [9151,] -3.533274e+09 -1.168562e+09
## [9152,] -2.555866e+09 -8.586593e+08
## [9153,] -1.046472e+08 -5.875916e+07
## [9154,] -8.906762e+06 -1.006388e+07
## [9155,] -1.003917e+07 -1.077014e+07
## [9156,] -1.765288e+07 -1.547231e+07
## [9157,] -2.899673e+09 -1.074888e+09
## [9158,] -2.102224e+09 -7.306666e+08
## [9159,] -1.033819e+08 -5.893146e+07
## [9160,] -8.911214e+06 -1.009229e+07
## [9161,] -9.972626e+06 -1.068837e+07
## [9162,] -1.785091e+07 -1.563880e+07
## [9163,] -3.293547e+09 -1.187651e+09
## [9164,] -2.426170e+09 -8.163196e+08
## [9165,] -1.038235e+08 -5.814238e+07
## [9166,] -8.973770e+06 -1.005926e+07
## [9167,] -9.957140e+06 -1.073976e+07
## [9168,] -1.791810e+07 -1.555033e+07
## [9169,] -3.533002e+09 -1.437163e+09
## [9170,] -2.161939e+09 -7.660435e+08
## [9171,] -9.714049e+07 -5.705353e+07
## [9172,] -8.911542e+06 -1.013058e+07
## [9173,] -9.982280e+06 -1.074656e+07
## [9174,] -1.788406e+07 -1.558469e+07
## [9175,] -3.325541e+09 -1.062551e+09
## [9176,] -2.386230e+09 -8.162323e+08
## [9177,] -1.075129e+08 -5.595210e+07
## [9178,] -8.924905e+06 -1.005476e+07
## [9179,] -9.945116e+06 -1.070158e+07
## [9180,] -1.857891e+07 -1.580275e+07
## [9181,] -3.250722e+09 -1.155646e+09
## [9182,] -2.482202e+09 -8.968830e+08
## [9183,] -1.070950e+08 -5.962319e+07
## [9184,] -8.884955e+06 -1.003124e+07
## [9185,] -9.874433e+06 -1.071158e+07
## [9186,] -1.812043e+07 -1.559676e+07
## [9187,] -2.869229e+09 -1.074637e+09
## [9188,] -2.307418e+09 -8.441459e+08
## [9189,] -1.005155e+08 -5.661467e+07
## [9190,] -8.947639e+06 -1.006469e+07
## [9191,] -9.948924e+06 -1.074087e+07
## [9192,] -1.737714e+07 -1.524225e+07
## [9193,] -3.072225e+09 -1.014304e+09
## [9194,] -2.433716e+09 -8.488215e+08

```

```

## [9195,] -1.052013e+08 -5.853218e+07
## [9196,] -8.730456e+06 -9.942147e+06
## [9197,] -9.814935e+06 -1.064960e+07
## [9198,] -1.820116e+07 -1.585219e+07
## [9199,] -3.072140e+09 -1.026163e+09
## [9200,] -2.268399e+09 -7.884017e+08
## [9201,] -1.020363e+08 -5.887637e+07
## [9202,] -8.992532e+06 -1.008860e+07
## [9203,] -9.957197e+06 -1.075912e+07
## [9204,] -1.768694e+07 -1.542890e+07
## [9205,] -3.176152e+09 -1.232560e+09
## [9206,] -2.385633e+09 -8.345243e+08
## [9207,] -1.098224e+08 -6.448861e+07
## [9208,] -8.850295e+06 -1.011739e+07
## [9209,] -1.001957e+07 -1.075949e+07
## [9210,] -1.836032e+07 -1.595292e+07
## [9211,] -3.155005e+09 -1.148851e+09
## [9212,] -2.789546e+09 -9.911386e+08
## [9213,] -9.874185e+07 -5.528552e+07
## [9214,] -8.908185e+06 -1.004174e+07
## [9215,] -1.000441e+07 -1.079207e+07
## [9216,] -1.843131e+07 -1.584714e+07
## [9217,] -2.958879e+09 -1.074086e+09
## [9218,] -2.489376e+09 -7.881013e+08
## [9219,] -1.088080e+08 -6.123019e+07
## [9220,] -8.890714e+06 -1.007994e+07
## [9221,] -9.997187e+06 -1.079101e+07
## [9222,] -1.810681e+07 -1.575465e+07
## [9223,] -3.186062e+09 -1.167622e+09
## [9224,] -2.424966e+09 -8.156211e+08
## [9225,] -1.070998e+08 -6.076361e+07
## [9226,] -8.842077e+06 -1.003760e+07
## [9227,] -1.003929e+07 -1.080893e+07
## [9228,] -1.802175e+07 -1.577021e+07
## [9229,] -3.196505e+09 -1.080104e+09
## [9230,] -2.298752e+09 -8.155775e+08
## [9231,] -1.047301e+08 -5.962676e+07
## [9232,] -8.935464e+06 -1.011809e+07
## [9233,] -1.008286e+07 -1.078636e+07
## [9234,] -1.842017e+07 -1.597043e+07
## [9235,] -3.410751e+09 -1.271701e+09
## [9236,] -2.345586e+09 -8.577639e+08
## [9237,] -1.028265e+08 -5.883302e+07
## [9238,] -8.984688e+06 -1.019903e+07
## [9239,] -1.005346e+07 -1.080751e+07
## [9240,] -1.803841e+07 -1.572879e+07
## [9241,] -3.228112e+09 -1.110900e+09

```

```

## [9242,] -2.448841e+09 -8.062941e+08
## [9243,] -1.051747e+08 -5.915458e+07
## [9244,] -8.802312e+06 -1.007082e+07
## [9245,] -1.005658e+07 -1.081718e+07
## [9246,] -1.799777e+07 -1.570981e+07
## [9247,] -3.019776e+09 -1.135890e+09
## [9248,] -2.206288e+09 -8.155338e+08
## [9249,] -1.177837e+08 -6.527384e+07
## [9250,] -8.966922e+06 -1.012782e+07
## [9251,] -1.005520e+07 -1.085774e+07
## [9252,] -1.776136e+07 -1.557388e+07
## [9253,] -3.206879e+09 -1.117070e+09
## [9254,] -2.537872e+09 -8.247823e+08
## [9255,] -1.041196e+08 -5.852403e+07
## [9256,] -8.917858e+06 -1.005674e+07
## [9257,] -1.008496e+07 -1.083370e+07
## [9258,] -1.788906e+07 -1.557046e+07
## [9259,] -3.553464e+09 -1.161053e+09
## [9260,] -2.198531e+09 -7.430068e+08
## [9261,] -1.075811e+08 -6.014822e+07
## [9262,] -9.106031e+06 -1.020879e+07
## [9263,] -1.007561e+07 -1.081110e+07
## [9264,] -1.783849e+07 -1.579794e+07
## [9265,] -2.978692e+09 -1.055540e+09
## [9266,] -2.321852e+09 -7.473938e+08
## [9267,] -9.992207e+07 -5.632651e+07
## [9268,] -9.200910e+06 -1.023275e+07
## [9269,] -1.010228e+07 -1.088400e+07
## [9270,] -1.849785e+07 -1.591839e+07
## [9271,] -3.259613e+09 -1.110696e+09
## [9272,] -2.529475e+09 -8.481093e+08
## [9273,] -1.014076e+08 -5.952417e+07
## [9274,] -8.976297e+06 -1.013778e+07
## [9275,] -1.004658e+07 -1.081327e+07
## [9276,] -1.830563e+07 -1.566425e+07
## [9277,] -3.133073e+09 -1.079802e+09
## [9278,] -2.529398e+09 -8.575401e+08
## [9279,] -1.024797e+08 -5.729620e+07
## [9280,] -9.178635e+06 -1.024743e+07
## [9281,] -9.992413e+06 -1.081185e+07
## [9282,] -1.792140e+07 -1.595235e+07
## [9283,] -3.248718e+09 -1.104340e+09
## [9284,] -2.521092e+09 -8.291840e+08
## [9285,] -1.042132e+08 -5.652967e+07
## [9286,] -9.088589e+06 -1.032888e+07
## [9287,] -1.000655e+07 -1.085886e+07
## [9288,] -1.798505e+07 -1.564109e+07

```

```

## [9289,] -3.377283e+09 -1.141716e+09
## [9290,] -2.352782e+09 -8.059036e+08
## [9291,] -1.019221e+08 -5.798993e+07
## [9292,] -8.914499e+06 -1.015749e+07
## [9293,] -1.026026e+07 -1.096982e+07
## [9294,] -1.827320e+07 -1.578602e+07
## [9295,] -4.202053e+09 -1.365786e+09
## [9296,] -2.077877e+09 -7.559544e+08
## [9297,] -1.044895e+08 -5.944523e+07
## [9298,] -9.030776e+06 -1.018615e+07
## [9299,] -1.006806e+07 -1.085495e+07
## [9300,] -1.833747e+07 -1.590298e+07
## [9301,] -3.420395e+09 -1.264302e+09
## [9302,] -2.297653e+09 -8.571374e+08
## [9303,] -1.166390e+08 -6.594343e+07
## [9304,] -9.075877e+06 -1.017211e+07
## [9305,] -1.007465e+07 -1.084885e+07
## [9306,] -1.817669e+07 -1.578178e+07
## [9307,] -3.163592e+09 -1.147712e+09
## [9308,] -2.753693e+09 -9.003720e+08
## [9309,] -1.015923e+08 -5.742352e+07
## [9310,] -9.098580e+06 -1.023428e+07
## [9311,] -1.012976e+07 -1.093847e+07
## [9312,] -1.836366e+07 -1.596560e+07
## [9313,] -3.258304e+09 -1.128640e+09
## [9314,] -2.512033e+09 -8.474418e+08
## [9315,] -1.095968e+08 -6.132953e+07
## [9316,] -9.018104e+06 -1.018697e+07
## [9317,] -1.003666e+07 -1.087080e+07
## [9318,] -1.845893e+07 -1.590137e+07
## [9319,] -3.333210e+09 -1.179293e+09
## [9320,] -2.487699e+09 -8.856451e+08
## [9321,] -1.037599e+08 -5.729971e+07
## [9322,] -9.243571e+06 -1.032562e+07
## [9323,] -1.020696e+07 -1.095688e+07
## [9324,] -1.857880e+07 -1.595523e+07
## [9325,] -3.205235e+09 -1.109881e+09
## [9326,] -2.084651e+09 -7.600423e+08
## [9327,] -1.027119e+08 -5.906770e+07
## [9328,] -9.166638e+06 -1.023952e+07
## [9329,] -1.001216e+07 -1.082593e+07
## [9330,] -1.807308e+07 -1.554340e+07
## [9331,] -2.836505e+09 -1.054646e+09
## [9332,] -2.174415e+09 -7.600002e+08
## [9333,] -9.873587e+07 -5.700631e+07
## [9334,] -9.234615e+06 -1.030657e+07
## [9335,] -1.001527e+07 -1.084854e+07

```

```

## [9336,] -1.818518e+07 -1.587540e+07
## [9337,] -3.184078e+09 -1.128538e+09
## [9338,] -2.220042e+09 -7.825271e+08
## [9339,] -1.033649e+08 -5.653316e+07
## [9340,] -9.207438e+06 -1.029699e+07
## [9341,] -1.008232e+07 -1.087298e+07
## [9342,] -1.809994e+07 -1.584336e+07
## [9343,] -2.926472e+09 -1.147350e+09
## [9344,] -2.431078e+09 -8.425482e+08
## [9345,] -1.059660e+08 -5.718758e+07
## [9346,] -8.907017e+06 -1.013050e+07
## [9347,] -1.012634e+07 -1.096738e+07
## [9348,] -1.835823e+07 -1.569393e+07
## [9349,] -3.343450e+09 -1.211197e+09
## [9350,] -2.685215e+09 -8.471749e+08
## [9351,] -1.021537e+08 -5.548231e+07
## [9352,] -9.014286e+06 -1.018291e+07
## [9353,] -1.016871e+07 -1.093996e+07
## [9354,] -1.830329e+07 -1.589022e+07
## [9355,] -3.408342e+09 -1.109576e+09
## [9356,] -2.375183e+09 -8.424151e+08
## [9357,] -1.101638e+08 -6.028226e+07
## [9358,] -9.045883e+06 -1.022126e+07
## [9359,] -1.008789e+07 -1.088200e+07
## [9360,] -1.807137e+07 -1.585472e+07
## [9361,] -1.660088e+09 -6.107736e+08
## [9362,] -1.253421e+09 -4.812866e+08
## [9363,] -2.576810e+07 -1.080091e+07
## [9364,] -1.468967e+04 -6.223413e+04
## [9365,] -5.440714e+04 -1.005772e+05
## [9366,] -9.490827e+05 -6.089517e+05
## [9367,] -1.629848e+09 -6.340239e+08
## [9368,] -1.230552e+09 -4.884312e+08
## [9369,] -2.555601e+07 -1.107784e+07
## [9370,] -1.243389e+04 -6.448669e+04
## [9371,] -5.602086e+04 -9.995590e+04
## [9372,] -9.607763e+05 -5.996496e+05
## [9373,] -1.675312e+09 -6.061756e+08
## [9374,] -1.241960e+09 -4.636555e+08
## [9375,] -2.555601e+07 -1.100828e+07
## [9376,] -1.433039e+04 -6.335540e+04
## [9377,] -5.326892e+04 -1.012005e+05
## [9378,] -9.490827e+05 -6.052223e+05
## [9379,] -1.660088e+09 -6.246717e+08
## [9380,] -1.241960e+09 -4.636555e+08
## [9381,] -2.716799e+07 -1.164223e+07
## [9382,] -1.579421e+04 -6.002161e+04

```

```

## [9383,] -5.326892e+04 -9.964595e+04
## [9384,] -9.749030e+05 -5.867468e+05
## [9385,] -1.660088e+09 -6.153889e+08
## [9386,] -1.224867e+09 -4.848523e+08
## [9387,] -2.534481e+07 -1.121762e+07
## [9388,] -1.579421e+04 -5.929300e+04
## [9389,] -5.463622e+04 -9.933648e+04
## [9390,] -9.490827e+05 -6.089517e+05
## [9391,] -3.099979e+09 -1.084828e+09
## [9392,] -2.084163e+09 -7.642257e+08
## [9393,] -1.134841e+08 -6.109763e+07
## [9394,] -9.257962e+06 -1.028335e+07
## [9395,] -1.023802e+07 -1.093060e+07
## [9396,] -1.832661e+07 -1.580711e+07
## [9397,] -3.674425e+09 -1.323877e+09
## [9398,] -2.312277e+09 -7.113544e+08
## [9399,] -1.055983e+08 -5.818794e+07
## [9400,] -9.104297e+06 -1.026422e+07
## [9401,] -1.015031e+07 -1.093060e+07
## [9402,] -1.821408e+07 -1.586425e+07
## [9403,] -2.966529e+09 -1.134499e+09
## [9404,] -2.304483e+09 -8.189921e+08
## [9405,] -9.778926e+07 -5.691753e+07
## [9406,] -9.149359e+06 -1.029291e+07
## [9407,] -1.020352e+07 -1.094683e+07
## [9408,] -1.811859e+07 -1.577514e+07
## [9409,] -2.996981e+09 -1.042229e+09
## [9410,] -2.166287e+09 -7.596631e+08
## [9411,] -1.084450e+08 -5.773312e+07
## [9412,] -9.158607e+06 -1.029315e+07
## [9413,] -1.018822e+07 -1.095045e+07
## [9414,] -1.820670e+07 -1.591460e+07
## [9415,] -3.120599e+09 -1.166004e+09
## [9416,] -2.560284e+09 -7.821851e+08
## [9417,] -1.056297e+08 -5.998132e+07
## [9418,] -9.176672e+06 -1.029794e+07
## [9419,] -1.021015e+07 -1.095045e+07
## [9420,] -1.837046e+07 -1.575270e+07
## [9421,] -3.079087e+09 -1.140683e+09
## [9422,] -2.470782e+09 -8.096458e+08
## [9423,] -1.034892e+08 -5.998132e+07
## [9424,] -9.145070e+06 -1.029794e+07
## [9425,] -1.018509e+07 -1.096994e+07
## [9426,] -1.828849e+07 -1.588597e+07
## [9427,] -3.685547e+09 -1.364770e+09
## [9428,] -2.327611e+09 -7.685477e+08
## [9429,] -1.126588e+08 -6.279323e+07

```

```

## [9430,] -9.077866e+06 -1.029350e+07
## [9431,] -1.016841e+07 -1.098188e+07
## [9432,] -1.850318e+07 -1.599026e+07
## [9433,] -3.257170e+09 -1.185019e+09
## [9434,] -2.560052e+09 -8.995925e+08
## [9435,] -1.146837e+08 -6.099378e+07
## [9436,] -9.150025e+06 -1.041842e+07
## [9437,] -1.017642e+07 -1.100972e+07
## [9438,] -1.828393e+07 -1.572948e+07
## [9439,] -2.766474e+09 -1.054051e+09
## [9440,] -2.166003e+09 -7.594947e+08
## [9441,] -1.050479e+08 -5.938169e+07
## [9442,] -9.313175e+06 -1.040880e+07
## [9443,] -1.032721e+07 -1.106187e+07
## [9444,] -1.815113e+07 -1.587218e+07
## [9445,] -2.955804e+09 -1.035925e+09
## [9446,] -2.173489e+09 -7.505371e+08
## [9447,] -9.997717e+07 -5.699827e+07
## [9448,] -9.199946e+06 -1.030822e+07
## [9449,] -1.021751e+07 -1.096781e+07
## [9450,] -1.828306e+07 -1.589999e+07
## [9451,] -2.895066e+09 -1.041785e+09
## [9452,] -2.010071e+09 -6.393107e+08
## [9453,] -1.014938e+08 -5.991391e+07
## [9454,] -9.060450e+06 -1.028931e+07
## [9455,] -1.013336e+07 -1.091626e+07
## [9456,] -1.853235e+07 -1.599822e+07
## [9457,] -2.925067e+09 -1.090371e+09
## [9458,] -2.413904e+09 -8.512791e+08
## [9459,] -1.177324e+08 -6.728031e+07
## [9460,] -9.195867e+06 -1.031348e+07
## [9461,] -1.030345e+07 -1.107317e+07
## [9462,] -1.806058e+07 -1.578752e+07
## [9463,] -4.079163e+09 -1.548959e+09
## [9464,] -2.608837e+09 -8.798261e+08
## [9465,] -1.106086e+08 -5.629106e+07
## [9466,] -9.341516e+06 -1.040505e+07
## [9467,] -1.031151e+07 -1.106846e+07
## [9468,] -1.850716e+07 -1.595569e+07
## [9469,] -3.352644e+09 -1.165273e+09
## [9470,] -2.485870e+09 -8.605930e+08
## [9471,] -1.052046e+08 -5.885540e+07
## [9472,] -9.142112e+06 -1.034271e+07
## [9473,] -1.016119e+07 -1.098413e+07
## [9474,] -1.844828e+07 -1.595834e+07
## [9475,] -3.203159e+09 -1.158867e+09
## [9476,] -2.342330e+09 -8.463299e+08

```



```

## [9477,] -1.050213e+08 -5.952310e+07
## [9478,] -9.214637e+06 -1.037175e+07
## [9479,] -1.026956e+07 -1.101849e+07
## [9480,] -1.850629e+07 -1.601230e+07
## [9481,] -3.417535e+09 -1.171540e+09
## [9482,] -2.501920e+09 -7.951666e+08
## [9483,] -1.041650e+08 -5.952310e+07
## [9484,] -9.205584e+06 -1.041022e+07
## [9485,] -1.028843e+07 -1.102500e+07
## [9486,] -1.829725e+07 -1.598969e+07
## [9487,] -2.995392e+09 -1.017371e+09
## [9488,] -2.334263e+09 -8.274246e+08
## [9489,] -1.014369e+08 -5.954668e+07
## [9490,] -9.223918e+06 -1.029527e+07
## [9491,] -1.019008e+07 -1.104675e+07
## [9492,] -1.867712e+07 -1.596019e+07
## [9493,] -3.245061e+09 -1.184125e+09
## [9494,] -2.421129e+09 -8.413952e+08
## [9495,] -1.081096e+08 -6.005595e+07
## [9496,] -9.174376e+06 -1.047335e+07
## [9497,] -1.032066e+07 -1.103879e+07
## [9498,] -1.860106e+07 -1.598542e+07
## [9499,] -3.056661e+09 -1.035138e+09
## [9500,] -2.287178e+09 -8.745685e+08
## [9501,] -1.107854e+08 -6.156077e+07
## [9502,] -9.374579e+06 -1.044958e+07
## [9503,] -1.039541e+07 -1.110628e+07
## [9504,] -1.855234e+07 -1.603596e+07
## [9505,] -3.449675e+09 -1.164804e+09
## [9506,] -2.632893e+09 -9.330426e+08
## [9507,] -1.068708e+08 -6.439678e+07
## [9508,] -9.429575e+06 -1.050281e+07
## [9509,] -1.026158e+07 -1.110156e+07
## [9510,] -1.810804e+07 -1.585094e+07
## [9511,] -2.883732e+09 -1.059116e+09
## [9512,] -2.357392e+09 -8.696872e+08
## [9513,] -1.114635e+08 -6.439678e+07
## [9514,] -9.392968e+06 -1.046900e+07
## [9515,] -1.039085e+07 -1.112773e+07
## [9516,] -1.875533e+07 -1.601334e+07
## [9517,] -3.615757e+09 -1.288756e+09
## [9518,] -2.460829e+09 -8.744329e+08
## [9519,] -1.060227e+08 -5.979102e+07
## [9520,] -9.193235e+06 -1.032986e+07
## [9521,] -1.036629e+07 -1.110886e+07
## [9522,] -1.857495e+07 -1.592300e+07
## [9523,] -3.107809e+09 -1.101802e+09

```

```

## [9524,] -2.164225e+09 -7.406758e+08
## [9525,] -1.011848e+08 -5.727552e+07
## [9526,] -9.448469e+06 -1.047442e+07
## [9527,] -1.040916e+07 -1.116963e+07
## [9528,] -1.843739e+07 -1.606311e+07
## [9529,] -3.233669e+09 -1.083268e+09
## [9530,] -2.420453e+09 -8.222824e+08
## [9531,] -1.069499e+08 -5.903140e+07
## [9532,] -9.439301e+06 -1.056149e+07
## [9533,] -1.020128e+07 -1.103233e+07
## [9534,] -1.845423e+07 -1.611724e+07
## [9535,] -3.138804e+09 -1.139084e+09
## [9536,] -2.356872e+09 -8.221948e+08
## [9537,] -1.050417e+08 -5.889414e+07
## [9538,] -9.370911e+06 -1.046018e+07
## [9539,] -1.024871e+07 -1.114706e+07
## [9540,] -1.802127e+07 -1.579829e+07
## [9541,] -3.416195e+09 -1.196406e+09
## [9542,] -2.623949e+09 -9.376303e+08
## [9543,] -1.063487e+08 -5.874532e+07
## [9544,] -8.937804e+06 -1.019665e+07
## [9545,] -1.035123e+07 -1.110634e+07
## [9546,] -1.843652e+07 -1.610069e+07
## [9547,] -3.159639e+09 -1.089261e+09
## [9548,] -2.615567e+09 -9.080147e+08
## [9549,] -1.052721e+08 -5.731022e+07
## [9550,] -9.320863e+06 -1.046030e+07
## [9551,] -1.034807e+07 -1.113906e+07
## [9552,] -1.850852e+07 -1.601438e+07
## [9553,] -3.854205e+09 -1.261695e+09
## [9554,] -2.452257e+09 -8.693266e+08
## [9555,] -1.024985e+08 -5.971190e+07
## [9556,] -9.230008e+06 -1.039768e+07
## [9557,] -1.028190e+07 -1.107367e+07
## [9558,] -1.863228e+07 -1.620650e+07
## [9559,] -3.004345e+09 -1.058669e+09
## [9560,] -2.333082e+09 -8.313927e+08
## [9561,] -1.100822e+08 -5.989742e+07
## [9562,] -9.234763e+06 -1.043643e+07
## [9563,] -1.035651e+07 -1.114454e+07
## [9564,] -1.829207e+07 -1.593704e+07
## [9565,] -3.128028e+09 -1.040453e+09
## [9566,] -2.565712e+09 -8.883832e+08
## [9567,] -1.121001e+08 -6.057098e+07
## [9568,] -9.248590e+06 -1.040296e+07
## [9569,] -1.032356e+07 -1.117587e+07
## [9570,] -1.821311e+07 -1.597793e+07

```

```
## [9571,] -3.159124e+09 -1.107490e+09
## [9572,] -2.262798e+09 -8.079942e+08
## [9573,] -1.013232e+08 -5.929821e+07
## [9574,] -9.285138e+06 -1.055772e+07
## [9575,] -1.034916e+07 -1.118937e+07
## [9576,] -1.846563e+07 -1.606068e+07
## [9577,] -3.243494e+09 -1.058420e+09
## [9578,] -2.673416e+09 -1.097548e+09
## [9579,] -1.077589e+08 -6.109655e+07
## [9580,] -9.298891e+06 -1.043702e+07
## [9581,] -1.033830e+07 -1.111257e+07
## [9582,] -1.865781e+07 -1.617250e+07
## [9583,] -3.318142e+09 -1.195984e+09
## [9584,] -2.073908e+09 -7.624945e+08
## [9585,] -1.030469e+08 -5.916064e+07
## [9586,] -9.518613e+06 -1.064537e+07
## [9587,] -1.050159e+07 -1.124890e+07
## [9588,] -1.831452e+07 -1.603458e+07
## [9589,] -3.339474e+09 -1.113548e+09
## [9590,] -2.301329e+09 -7.490306e+08
## [9591,] -1.130696e+08 -5.901148e+07
## [9592,] -9.381281e+06 -1.049528e+07
## [9593,] -1.033096e+07 -1.115078e+07
## [9594,] -1.872937e+07 -1.618132e+07
## [9595,] -2.753630e+09 -9.692211e+08
## [9596,] -2.379740e+09 -8.593381e+08
## [9597,] -1.024413e+08 -5.966825e+07
## [9598,] -9.326538e+06 -1.048562e+07
## [9599,] -1.029491e+07 -1.109044e+07
## [9600,] -1.885011e+07 -1.635157e+07
## [9601,] -2.111360e+09 -7.106065e+08
## [9602,] -2.216299e+09 -8.262820e+08
## [9603,] -1.024722e+08 -5.936885e+07
## [9604,] -9.340433e+06 -1.063612e+07
## [9605,] -1.040575e+07 -1.116609e+07
## [9606,] -1.859410e+07 -1.619977e+07
## [9607,] -3.253508e+09 -1.100940e+09
## [9608,] -2.371609e+09 -8.355911e+08
## [9609,] -1.072029e+08 -5.954204e+07
## [9610,] -9.308661e+06 -1.057310e+07
## [9611,] -1.038361e+07 -1.120219e+07
## [9612,] -1.864573e+07 -1.615164e+07
## [9613,] -3.274807e+09 -1.088605e+09
## [9614,] -2.293260e+09 -8.402873e+08
## [9615,] -1.085072e+08 -6.084125e+07
## [9616,] -9.368029e+06 -1.048609e+07
## [9617,] -1.047092e+07 -1.117448e+07
```

```

## [9618,] -1.909943e+07 -1.643797e+07
## [9619,] -2.982778e+09 -1.064044e+09
## [9620,] -2.765760e+09 -9.467925e+08
## [9621,] -1.156463e+08 -6.485993e+07
## [9622,] -9.322767e+06 -1.040931e+07
## [9623,] -1.053028e+07 -1.123910e+07
## [9624,] -1.827099e+07 -1.598428e+07
## [9625,] -3.491258e+09 -1.307527e+09
## [9626,] -2.177919e+09 -7.179447e+08
## [9627,] -1.017034e+08 -5.910544e+07
## [9628,] -9.510429e+06 -1.058813e+07
## [9629,] -1.051437e+07 -1.125226e+07
## [9630,] -1.884836e+07 -1.634994e+07
## [9631,] -3.392838e+09 -1.280706e+09
## [9632,] -2.515646e+09 -9.769333e+08
## [9633,] -1.006507e+08 -5.750708e+07
## [9634,] -9.395891e+06 -1.055430e+07
## [9635,] -1.041141e+07 -1.123764e+07
## [9636,] -1.849960e+07 -1.602523e+07
## [9637,] -2.992632e+09 -1.069933e+09
## [9638,] -2.458858e+09 -8.877000e+08
## [9639,] -1.070811e+08 -6.173240e+07
## [9640,] -9.177820e+06 -1.053505e+07
## [9641,] -1.032786e+07 -1.115412e+07
## [9642,] -1.885788e+07 -1.620429e+07
## [9643,] -3.360078e+09 -1.208220e+09
## [9644,] -2.572696e+09 -8.732131e+08
## [9645,] -1.036745e+08 -6.028478e+07
## [9646,] -9.346001e+06 -1.057890e+07
## [9647,] -1.048331e+07 -1.123328e+07
## [9648,] -1.892693e+07 -1.622972e+07
## [9649,] -3.370803e+09 -1.214655e+09
## [9650,] -2.539809e+09 -8.731680e+08
## [9651,] -1.103871e+08 -6.225090e+07
## [9652,] -9.455874e+06 -1.055962e+07
## [9653,] -1.050733e+07 -1.128120e+07
## [9654,] -1.843702e+07 -1.605317e+07
## [9655,] -2.961870e+09 -1.045536e+09
## [9656,] -2.308164e+09 -8.351935e+08
## [9657,] -1.036900e+08 -6.029665e+07
## [9658,] -9.410062e+06 -1.057902e+07
## [9659,] -1.047555e+07 -1.122853e+07
## [9660,] -1.870517e+07 -1.613959e+07
## [9661,] -3.115991e+09 -1.163188e+09
## [9662,] -2.355166e+09 -8.445969e+08
## [9663,] -1.056173e+08 -5.964822e+07
## [9664,] -9.543336e+06 -1.063257e+07

```

```

## [9665,] -1.045193e+07 -1.123366e+07
## [9666,] -1.878432e+07 -1.629030e+07
## [9667,] -3.817395e+09 -1.396275e+09
## [9668,] -1.801556e+09 -6.456758e+08
## [9669,] -1.078113e+08 -6.064598e+07
## [9670,] -9.437874e+06 -1.057938e+07
## [9671,] -1.039212e+07 -1.120446e+07
## [9672,] -1.856626e+07 -1.626052e+07
## [9673,] -3.295035e+09 -1.182127e+09
## [9674,] -2.292309e+09 -7.527643e+08
## [9675,] -1.113653e+08 -6.199320e+07
## [9676,] -9.424470e+06 -1.062831e+07
## [9677,] -1.032792e+07 -1.099419e+07
## [9678,] -1.928754e+07 -1.684745e+07
## [9679,] -3.209820e+09 -1.169240e+09
## [9680,] -2.458100e+09 -7.526385e+08
## [9681,] -1.057273e+08 -5.940775e+07
## [9682,] -9.452077e+06 -1.058956e+07
## [9683,] -1.047842e+07 -1.128418e+07
## [9684,] -1.912641e+07 -1.650187e+07
## [9685,] -3.348397e+09 -1.188334e+09
## [9686,] -2.530793e+09 -9.163373e+08
## [9687,] -1.110044e+08 -6.025278e+07
## [9688,] -9.269870e+06 -1.047857e+07
## [9689,] -1.040447e+07 -1.119757e+07
## [9690,] -1.855421e+07 -1.627820e+07
## [9691,] -1.775963e+09 -6.721279e+08
## [9692,] -1.253421e+09 -4.741947e+08
## [9693,] -2.555601e+07 -1.086981e+07
## [9694,] -1.487098e+04 -6.112286e+04
## [9695,] -5.509584e+04 -9.871898e+04
## [9696,] -9.467526e+05 -6.033618e+05
## [9697,] -1.660088e+09 -6.107736e+08
## [9698,] -1.247684e+09 -4.532347e+08
## [9699,] -2.534481e+07 -1.086981e+07
## [9700,] -9.915639e+03 -5.191128e+04
## [9701,] -5.486579e+04 -9.902749e+04
## [9702,] -9.514157e+05 -6.052223e+05
## [9703,] -1.637382e+09 -6.293391e+08
## [9704,] -1.264935e+09 -4.566951e+08
## [9705,] -2.695021e+07 -1.059551e+07
## [9706,] -1.362518e+04 -6.373139e+04
## [9707,] -5.417853e+04 -1.012005e+05
## [9708,] -9.654737e+05 -5.904190e+05
## [9709,] -1.705969e+09 -6.915968e+08
## [9710,] -1.230552e+09 -4.636555e+08
## [9711,] -2.641745e+07 -1.129298e+07

```

```

## [9712,] -1.812836e+04 -6.951431e+04
## [9713,] -5.004879e+04 -9.796752e+04
## [9714,] -1.009802e+06 -6.327842e+05
## [9715,] -1.744617e+09 -6.672646e+08
## [9716,] -1.179813e+09 -4.463210e+08
## [9717,] -2.462008e+07 -1.060049e+07
## [9718,] -1.598683e+04 -6.261595e+04
## [9719,] -5.591818e+04 -1.020004e+05
## [9720,] -9.366234e+05 -5.989799e+05
## [9721,] -3.188302e+09 -1.137331e+09
## [9722,] -2.417747e+09 -8.253597e+08
## [9723,] -1.073026e+08 -5.945487e+07
## [9724,] -9.333783e+06 -1.054167e+07
## [9725,] -1.048093e+07 -1.128348e+07
## [9726,] -1.891966e+07 -1.637759e+07
## [9727,] -3.413069e+09 -1.266475e+09
## [9728,] -2.604624e+09 -8.773799e+08
## [9729,] -1.021926e+08 -5.582331e+07
## [9730,] -9.702132e+06 -1.086397e+07
## [9731,] -1.036409e+07 -1.120161e+07
## [9732,] -1.892255e+07 -1.630288e+07
## [9733,] -3.445637e+09 -1.137176e+09
## [9734,] -2.449534e+09 -9.063576e+08
## [9735,] -9.885003e+07 -6.210155e+07
## [9736,] -9.434532e+06 -1.059525e+07
## [9737,] -1.041329e+07 -1.125934e+07
## [9738,] -1.912755e+07 -1.649320e+07
## [9739,] -2.860068e+09 -1.032779e+09
## [9740,] -2.789720e+09 -1.042978e+09
## [9741,] -9.990864e+07 -6.112768e+07
## [9742,] -9.586442e+06 -1.070734e+07
## [9743,] -1.038834e+07 -1.124656e+07
## [9744,] -1.910952e+07 -1.657375e+07
## [9745,] -3.093770e+09 -1.149627e+09
## [9746,] -2.481528e+09 -8.580394e+08
## [9747,] -1.104562e+08 -5.824059e+07
## [9748,] -9.444035e+06 -1.063449e+07
## [9749,] -1.049296e+07 -1.130916e+07
## [9750,] -1.908482e+07 -1.652155e+07
## [9751,] -3.804285e+09 -1.292818e+09
## [9752,] -2.237175e+09 -7.881509e+08
## [9753,] -1.037726e+08 -5.842381e+07
## [9754,] -9.494751e+06 -1.072735e+07
## [9755,] -1.058889e+07 -1.136570e+07
## [9756,] -1.902881e+07 -1.648887e+07
## [9757,] -2.889723e+09 -1.032583e+09
## [9758,] -2.797972e+09 -9.456172e+08

```

```
## [9759,] -1.109288e+08 -6.382313e+07
## [9760,] -9.494751e+06 -1.064932e+07
## [9761,] -1.060806e+07 -1.139549e+07
## [9762,] -1.897288e+07 -1.641741e+07
## [9763,] -3.293632e+09 -1.220039e+09
## [9764,] -2.417070e+09 -7.790254e+08
## [9765,] -9.873311e+07 -5.716237e+07
## [9766,] -9.494864e+06 -1.066405e+07
## [9767,] -1.054283e+07 -1.132459e+07
## [9768,] -1.889998e+07 -1.634960e+07
## [9769,] -3.219175e+09 -1.124332e+09
## [9770,] -2.489388e+09 -9.012047e+08
## [9771,] -1.096259e+08 -6.151536e+07
## [9772,] -9.421467e+06 -1.060082e+07
## [9773,] -1.047286e+07 -1.129819e+07
## [9774,] -1.860604e+07 -1.613392e+07
## [9775,] -3.522019e+09 -1.155748e+09
## [9776,] -2.145899e+09 -7.654580e+08
## [9777,] -1.029524e+08 -5.575827e+07
## [9778,] -9.624220e+06 -1.074237e+07
## [9779,] -1.056551e+07 -1.133818e+07
## [9780,] -1.896534e+07 -1.647833e+07
## [9781,] -2.909469e+09 -1.056482e+09
## [9782,] -2.093474e+09 -7.342779e+08
## [9783,] -1.040483e+08 -5.943488e+07
## [9784,] -9.394354e+06 -1.053814e+07
## [9785,] -1.071131e+07 -1.133011e+07
## [9786,] -1.877070e+07 -1.632594e+07
## [9787,] -3.336208e+09 -1.074686e+09
## [9788,] -2.361263e+09 -8.294549e+08
## [9789,] -1.068584e+08 -6.025638e+07
## [9790,] -9.481532e+06 -1.068402e+07
## [9791,] -1.056269e+07 -1.136831e+07
## [9792,] -1.874997e+07 -1.634528e+07
## [9793,] -3.218828e+09 -1.117886e+09
## [9794,] -2.432747e+09 -8.201364e+08
## [9795,] -1.044914e+08 -6.074483e+07
## [9796,] -9.321460e+06 -1.055764e+07
## [9797,] -1.041652e+07 -1.128905e+07
## [9798,] -1.859485e+07 -1.622938e+07
## [9799,] -3.599605e+09 -1.319432e+09
## [9800,] -2.464784e+09 -8.672101e+08
## [9801,] -1.071065e+08 -6.044274e+07
## [9802,] -9.643194e+06 -1.075752e+07
## [9803,] -1.066855e+07 -1.141506e+07
## [9804,] -1.849464e+07 -1.620314e+07
## [9805,] -3.208088e+09 -1.136558e+09
```

```
## [9806,] -2.138037e+09 -7.697411e+08
## [9807,] -1.075402e+08 -5.995550e+07
## [9808,] -9.408412e+06 -1.061126e+07
## [9809,] -1.059037e+07 -1.135731e+07
## [9810,] -1.901950e+07 -1.661651e+07
## [9811,] -3.576998e+09 -1.272299e+09
## [9812,] -2.553947e+09 -8.718588e+08
## [9813,] -1.007366e+08 -5.678065e+07
## [9814,] -9.615650e+06 -1.074798e+07
## [9815,] -1.063050e+07 -1.145857e+07
## [9816,] -1.902617e+07 -1.644757e+07
## [9817,] -3.346629e+09 -1.213111e+09
## [9818,] -2.504915e+09 -7.922818e+08
## [9819,] -1.086921e+08 -5.791342e+07
## [9820,] -9.560453e+06 -1.073356e+07
## [9821,] -1.060210e+07 -1.142577e+07
## [9822,] -1.880007e+07 -1.632431e+07
## [9823,] -3.041052e+09 -1.142644e+09
## [9824,] -2.290407e+09 -8.385604e+08
## [9825,] -1.028796e+08 -6.016510e+07
## [9826,] -9.611253e+06 -1.067987e+07
## [9827,] -1.061488e+07 -1.137938e+07
## [9828,] -1.880007e+07 -1.638238e+07
## [9829,] -3.071968e+09 -1.161624e+09
## [9830,] -2.290407e+09 -8.245257e+08
## [9831,] -1.047993e+08 -5.935600e+07
## [9832,] -9.560453e+06 -1.067987e+07
## [9833,] -1.056698e+07 -1.140256e+07
## [9834,] -1.887278e+07 -1.626634e+07
## [9835,] -3.030782e+09 -1.161624e+09
## [9836,] -2.360818e+09 -7.968117e+08
## [9837,] -1.104450e+08 -5.823246e+07
## [9838,] -9.482323e+06 -1.062644e+07
## [9839,] -1.066467e+07 -1.142762e+07
## [9840,] -1.909465e+07 -1.642384e+07
## [9841,] -3.609970e+09 -1.252106e+09
## [9842,] -2.472237e+09 -8.620801e+08
## [9843,] -1.065680e+08 -5.955276e+07
## [9844,] -9.505528e+06 -1.070950e+07
## [9845,] -1.062521e+07 -1.140001e+07
## [9846,] -1.864014e+07 -1.632000e+07
## [9847,] -3.688699e+09 -1.271917e+09
## [9848,] -2.129977e+09 -7.604281e+08
## [9849,] -1.063678e+08 -5.972622e+07
## [9850,] -9.611708e+06 -1.075359e+07
## [9851,] -1.072638e+07 -1.146157e+07
## [9852,] -2.008946e+07 -1.720809e+07
```



```

## [9853,] -3.356712e+09 -1.174051e+09
## [9854,] -2.496267e+09 -8.571891e+08
## [9855,] -1.019133e+08 -5.766487e+07
## [9856,] -9.686068e+06 -1.079300e+07
## [9857,] -1.069285e+07 -1.147339e+07
## [9858,] -1.879833e+07 -1.644862e+07
## [9859,] -3.092155e+09 -1.167673e+09
## [9860,] -2.423849e+09 -9.548183e+08
## [9861,] -1.019133e+08 -5.991176e+07
## [9862,] -9.713941e+06 -1.080771e+07
## [9863,] -1.051393e+07 -1.134415e+07
## [9864,] -1.894011e+07 -1.640631e+07
## [9865,] -3.175546e+09 -1.167621e+09
## [9866,] -2.415793e+09 -8.335601e+08
## [9867,] -1.068474e+08 -6.106325e+07
## [9868,] -9.510580e+06 -1.073440e+07
## [9869,] -1.059859e+07 -1.140224e+07
## [9870,] -1.896095e+07 -1.644511e+07
## [9871,] -2.510772e+09 -8.220654e+08
## [9872,] -2.455827e+09 -8.619006e+08
## [9873,] -1.064151e+08 -5.799486e+07
## [9874,] -9.478408e+06 -1.086183e+07
## [9875,] -1.053162e+07 -1.132287e+07
## [9876,] -1.896761e+07 -1.634470e+07
## [9877,] -3.196502e+09 -1.117171e+09
## [9878,] -2.129625e+09 -7.512974e+08
## [9879,] -1.053695e+08 -5.962354e+07
## [9880,] -9.529329e+06 -1.079348e+07
## [9881,] -1.073855e+07 -1.147084e+07
## [9882,] -1.846316e+07 -1.640550e+07
## [9883,] -3.206877e+09 -1.154761e+09
## [9884,] -2.407601e+09 -9.100493e+08
## [9885,] -1.079796e+08 -6.044634e+07
## [9886,] -9.570814e+06 -1.068594e+07
## [9887,] -1.069680e+07 -1.146419e+07
## [9888,] -1.892882e+07 -1.648314e+07
## [9889,] -3.238535e+09 -1.129512e+09
## [9890,] -2.407451e+09 -8.380294e+08
## [9891,] -9.949986e+07 -5.870450e+07
## [9892,] -9.742656e+06 -1.084782e+07
## [9893,] -1.060289e+07 -1.141333e+07
## [9894,] -1.900090e+07 -1.633689e+07
## [9895,] -3.280929e+09 -1.073734e+09
## [9896,] -2.407376e+09 -8.193051e+08
## [9897,] -1.041466e+08 -5.538473e+07
## [9898,] -9.534273e+06 -1.084290e+07
## [9899,] -1.049455e+07 -1.141996e+07

```

```

## [9900,] -1.927982e+07 -1.670302e+07
## [9901,] -3.302230e+09 -1.167255e+09
## [9902,] -2.455297e+09 -8.520889e+08
## [9903,] -1.158092e+08 -6.447670e+07
## [9904,] -9.794166e+06 -1.086772e+07
## [9905,] -1.071217e+07 -1.155336e+07
## [9906,] -1.912919e+07 -1.662133e+07
## [9907,] -3.195811e+09 -1.167151e+09
## [9908,] -2.431089e+09 -6.943190e+08
## [9909,] -1.048354e+08 -6.117077e+07
## [9910,] -9.650105e+06 -1.077951e+07
## [9911,] -1.071075e+07 -1.146866e+07
## [9912,] -1.924072e+07 -1.660805e+07
## [9913,] -3.122475e+09 -1.167151e+09
## [9914,] -2.552557e+09 -9.195858e+08
## [9915,] -1.111591e+08 -6.167492e+07
## [9916,] -9.580840e+06 -1.073560e+07
## [9917,] -1.074146e+07 -1.152375e+07
## [9918,] -1.896497e+07 -1.658503e+07
## [9919,] -3.420839e+09 -1.231646e+09
## [9920,] -2.511662e+09 -9.294049e+08
## [9921,] -1.059412e+08 -6.037867e+07
## [9922,] -9.617925e+06 -1.085825e+07
## [9923,] -1.052250e+07 -1.138282e+07
## [9924,] -1.931338e+07 -1.675385e+07
## [9925,] -3.039451e+09 -1.049144e+09
## [9926,] -2.535959e+09 -8.377198e+08
## [9927,] -1.051125e+08 -6.072823e+07
## [9928,] -9.507451e+06 -1.081430e+07
## [9929,] -1.068581e+07 -1.148272e+07
## [9930,] -1.895367e+07 -1.658420e+07
## [9931,] -3.366279e+09 -1.110338e+09
## [9932,] -2.626545e+09 -8.283109e+08
## [9933,] -1.066201e+08 -6.204025e+07
## [9934,] -9.720192e+06 -1.080939e+07
## [9935,] -1.075971e+07 -1.152932e+07
## [9936,] -1.944273e+07 -1.681539e+07
## [9937,] -2.957630e+09 -9.546726e+08
## [9938,] -2.158825e+09 -7.597118e+08
## [9939,] -1.010897e+08 -5.752112e+07
## [9940,] -9.766866e+06 -1.087336e+07
## [9941,] -1.069081e+07 -1.151119e+07
## [9942,] -1.903334e+07 -1.648337e+07
## [9943,] -3.227068e+09 -1.104085e+09
## [9944,] -2.359259e+09 -8.282669e+08
## [9945,] -1.042714e+08 -5.799839e+07
## [9946,] -9.660059e+06 -1.081945e+07

```

```

## [9947,] -1.072471e+07 -1.150306e+07
## [9948,] -1.900869e+07 -1.645073e+07
## [9949,] -3.258738e+09 -1.154086e+09
## [9950,] -2.778096e+09 -7.866928e+08
## [9951,] -1.032519e+08 -5.835268e+07
## [9952,] -9.674200e+06 -1.080007e+07
## [9953,] -1.081058e+07 -1.155861e+07
## [9954,] -1.912276e+07 -1.645962e+07
## [9955,] -3.452815e+09 -1.147607e+09
## [9956,] -2.430336e+09 -8.705958e+08
## [9957,] -1.193965e+08 -6.647589e+07
## [9958,] -9.572743e+06 -1.082496e+07
## [9959,] -1.069371e+07 -1.150089e+07
## [9960,] -1.900694e+07 -1.638121e+07
## [9961,] -3.268950e+09 -1.172899e+09
## [9962,] -2.510820e+09 -8.373217e+08
## [9963,] -1.082657e+08 -6.197169e+07
## [9964,] -9.563742e+06 -1.077618e+07
## [9965,] -1.062041e+07 -1.151459e+07
## [9966,] -1.897854e+07 -1.653926e+07
## [9967,] -3.290124e+09 -1.097444e+09
## [9968,] -2.374375e+09 -8.046960e+08
## [9969,] -1.160561e+08 -6.516687e+07
## [9970,] -9.605416e+06 -1.076161e+07
## [9971,] -1.077444e+07 -1.153124e+07
## [9972,] -1.941896e+07 -1.668558e+07
## [9973,] -3.110874e+09 -1.116047e+09
## [9974,] -1.867242e+09 -6.352213e+08
## [9975,] -1.122541e+08 -6.348800e+07
## [9976,] -9.619404e+06 -1.086474e+07
## [9977,] -1.074727e+07 -1.152310e+07
## [9978,] -1.927450e+07 -1.685491e+07
## [9979,] -3.927586e+09 -1.330889e+09
## [9980,] -2.334865e+09 -8.371448e+08
## [9981,] -9.833132e+07 -6.119830e+07
## [9982,] -9.421617e+06 -1.053310e+07
## [9983,] -1.060160e+07 -1.127650e+07
## [9984,] -1.893974e+07 -1.660041e+07
## [9985,] -3.069258e+09 -1.115945e+09
## [9986,] -2.837543e+09 -9.237687e+08
## [9987,] -1.063773e+08 -5.957170e+07
## [9988,] -9.577926e+06 -1.082065e+07
## [9989,] -1.067841e+07 -1.147173e+07
## [9990,] -1.973959e+07 -1.720056e+07
## [9991,] -3.485210e+09 -1.250539e+09
## [9992,] -2.543133e+09 -9.041505e+08
## [9993,] -1.055155e+08 -5.828619e+07

```

```

## [9994,] -9.744831e+06 -1.089930e+07
## [9995,] -1.077803e+07 -1.153829e+07
## [9996,] -1.891892e+07 -1.661992e+07
## [9997,] -3.100316e+09 -1.085028e+09
## [9998,] -2.366328e+09 -8.092177e+08
## [9999,] -1.035891e+08 -5.957170e+07
## [10000,] -9.842859e+06 -1.086486e+07
## [10001,] -1.082640e+07 -1.151497e+07
## [10002,] -1.905071e+07 -1.662615e+07
## [10003,] -3.419409e+09 -1.084978e+09
## [10004,] -2.658884e+09 -1.024969e+09
## [10005,] -1.042605e+08 -5.799028e+07
## [10006,] -9.726444e+06 -1.092418e+07
## [10007,] -1.081244e+07 -1.163739e+07
## [10008,] -1.879333e+07 -1.643424e+07
## [10009,] -2.895968e+09 -1.054397e+09
## [10010,] -2.326812e+09 -8.183430e+08
## [10011,] -1.130016e+08 -6.156222e+07
## [10012,] -9.749832e+06 -1.086030e+07
## [10013,] -1.077376e+07 -1.156054e+07
## [10014,] -1.899098e+07 -1.659959e+07
## [10015,] -3.506892e+09 -1.230627e+09
## [10016,] -2.445602e+09 -8.090438e+08
## [10017,] -1.114655e+08 -6.272939e+07
## [10018,] -9.801361e+06 -1.100851e+07
## [10019,] -1.070019e+07 -1.154758e+07
## [10020,] -1.932910e+07 -1.672931e+07
## [10021,] -1.724829e+09 -6.646248e+08
## [10022,] -1.321275e+09 -4.907931e+08
## [10023,] -2.432500e+07 -9.677599e+06
## [10024,] -6.548728e+02 -1.746627e+04
## [10025,] -1.502979e+04 -3.945291e+04
## [10026,] -6.884274e+05 -3.937361e+05
## [10027,] -1.338880e+09 -4.945272e+08
## [10028,] -1.037539e+09 -3.698739e+08
## [10029,] -2.280832e+07 -9.487933e+06
## [10030,] -3.193306e+02 -1.272592e+04
## [10031,] -1.295585e+04 -3.402489e+04
## [10032,] -7.110029e+05 -4.232174e+05
## [10033,] -1.442968e+09 -5.541537e+08
## [10034,] -1.245509e+09 -4.588481e+08
## [10035,] -2.020270e+07 -8.371659e+06
## [10036,] -3.322487e+02 -1.728419e+04
## [10037,] -1.475122e+04 -3.900073e+04
## [10038,] -7.595064e+05 -4.118336e+05
## [10039,] -1.573234e+09 -6.172872e+08
## [10040,] -1.303422e+09 -4.978713e+08

```

```
## [10041,] -2.455463e+07 -1.069403e+07
## [10042,] -1.908859e+02 -1.709347e+04
## [10043,] -1.387783e+04 -3.795339e+04
## [10044,] -7.156056e+05 -4.112787e+05
## [10045,] -1.686026e+09 -5.852579e+08
## [10046,] -1.222659e+09 -4.657918e+08
## [10047,] -2.333306e+07 -9.893162e+06
## [10048,] -9.506169e+01 -1.501593e+04
## [10049,] -1.103588e+04 -3.477369e+04
## [10050,] -7.115623e+05 -4.158961e+05
## [10051,] -1.629786e+09 -5.879204e+08
## [10052,] -1.219142e+09 -4.601359e+08
## [10053,] -2.329571e+07 -1.000081e+07
## [10054,] -1.935830e+04 -6.873964e+04
## [10055,] -6.176077e+04 -1.072547e+05
## [10056,] -9.013813e+05 -5.799418e+05
## [10057,] -1.511550e+09 -5.744031e+08
## [10058,] -1.230444e+09 -4.601031e+08
## [10059,] -2.567743e+07 -1.046956e+07
## [10060,] -1.543069e+04 -6.337387e+04
## [10061,] -5.581559e+04 -1.021752e+05
## [10062,] -9.684794e+05 -6.282966e+05
## [10063,] -1.644809e+09 -6.061003e+08
## [10064,] -1.241852e+09 -4.706021e+08
## [10065,] -2.483586e+07 -1.101842e+07
## [10066,] -1.656225e+04 -6.114100e+04
## [10067,] -5.698056e+04 -9.968165e+04
## [10068,] -9.473981e+05 -6.132120e+05
## [10069,] -1.614710e+09 -6.245953e+08
## [10070,] -1.224760e+09 -4.741281e+08
## [10071,] -2.536020e+07 -1.087989e+07
## [10072,] -1.714305e+04 -6.077275e+04
## [10073,] -5.352176e+04 -9.844643e+04
## [10074,] -9.755580e+05 -6.245082e+05
## [10075,] -1.879417e+09 -7.567063e+08
## [10076,] -1.190878e+09 -4.292851e+08
## [10077,] -2.505259e+07 -1.054236e+07
## [10078,] -1.381274e+04 -6.004857e+04
## [10079,] -5.456124e+04 -1.014106e+05
## [10080,] -9.770681e+05 -6.144093e+05
## [10081,] -3.440795e+09 -1.166002e+09
## [10082,] -2.625136e+09 -9.185665e+08
## [10083,] -1.028472e+08 -5.917025e+07
## [10084,] -9.592575e+06 -1.076270e+07
## [10085,] -1.066066e+07 -1.153316e+07
## [10086,] -1.934927e+07 -1.678727e+07
## [10087,] -3.278566e+09 -1.103120e+09
```

```
## [10088,] -2.264264e+09 -8.274314e+08
## [10089,] -1.056411e+08 -5.950452e+07
## [10090,] -9.741092e+06 -1.087074e+07
## [10091,] -1.079886e+07 -1.157652e+07
## [10092,] -1.910789e+07 -1.665027e+07
## [10093,] -2.855575e+09 -1.072382e+09
## [10094,] -2.550704e+09 -8.843792e+08
## [10095,] -1.126381e+08 -6.064020e+07
## [10096,] -9.900018e+06 -1.096932e+07
## [10097,] -1.080388e+07 -1.162182e+07
## [10098,] -1.928907e+07 -1.662369e+07
## [10099,] -3.662576e+09 -1.256597e+09
## [10100,] -2.658175e+09 -1.003863e+09
## [10101,] -9.849810e+07 -5.793563e+07
## [10102,] -9.923844e+06 -1.099440e+07
## [10103,] -1.064360e+07 -1.154873e+07
## [10104,] -1.952776e+07 -1.665921e+07
## [10105,] -2.480013e+09 -8.582443e+08
## [10106,] -2.469123e+09 -8.650062e+08
## [10107,] -1.158521e+08 -6.267255e+07
## [10108,] -9.695164e+06 -1.091073e+07
## [10109,] -1.086275e+07 -1.161256e+07
## [10110,] -1.949897e+07 -1.675975e+07
## [10111,] -2.825364e+09 -9.883878e+08
## [10112,] -2.271626e+09 -6.761719e+08
## [10113,] -1.094103e+08 -6.004913e+07
## [10114,] -9.797725e+06 -1.091577e+07
## [10115,] -1.083224e+07 -1.162111e+07
## [10116,] -1.910613e+07 -1.672683e+07
## [10117,] -3.203762e+09 -1.096634e+09
## [10118,] -2.365287e+09 -8.040025e+08
## [10119,] -1.055202e+08 -6.152989e+07
## [10120,] -9.751092e+06 -1.094043e+07
## [10121,] -1.080642e+07 -1.164788e+07
## [10122,] -1.927008e+07 -1.660606e+07
## [10123,] -3.342298e+09 -1.096583e+09
## [10124,] -2.325927e+09 -8.553555e+08
## [10125,] -1.101002e+08 -5.942559e+07
## [10126,] -9.760524e+06 -1.096523e+07
## [10127,] -1.082113e+07 -1.165310e+07
## [10128,] -1.937528e+07 -1.682131e+07
## [10129,] -3.151140e+09 -1.165533e+09
## [10130,] -2.793285e+09 -1.008767e+09
## [10131,] -1.109805e+08 -6.253111e+07
## [10132,] -9.905635e+06 -1.101975e+07
## [10133,] -1.075846e+07 -1.159475e+07
## [10134,] -1.901121e+07 -1.658926e+07
```

```
## [10135,] -3.245842e+09 -1.165428e+09
## [10136,] -2.349311e+09 -8.363933e+08
## [10137,] -1.038537e+08 -5.705282e+07
## [10138,] -9.891787e+06 -1.097548e+07
## [10139,] -1.082833e+07 -1.164048e+07
## [10140,] -1.929312e+07 -1.669583e+07
## [10141,] -3.439540e+09 -1.096330e+09
## [10142,] -2.541592e+09 -8.742140e+08
## [10143,] -1.095222e+08 -5.964607e+07
## [10144,] -9.892018e+06 -1.105989e+07
## [10145,] -1.088509e+07 -1.169262e+07
## [10146,] -1.944057e+07 -1.686249e+07
## [10147,] -3.057250e+09 -1.127407e+09
## [10148,] -2.632278e+09 -9.981981e+08
## [10149,] -1.164350e+08 -6.360134e+07
## [10150,] -9.826563e+06 -1.098078e+07
## [10151,] -1.083839e+07 -1.158403e+07
## [10152,] -1.937350e+07 -1.673143e+07
## [10153,] -3.277429e+09 -1.210185e+09
## [10154,] -2.468439e+09 -8.837884e+08
## [10155,] -1.054308e+08 -5.790426e+07
## [10156,] -9.784756e+06 -1.098103e+07
## [10157,] -1.083230e+07 -1.166470e+07
## [10158,] -1.919774e+07 -1.664615e+07
## [10159,] -3.494145e+09 -1.322819e+09
## [10160,] -2.582341e+09 -8.127933e+08
## [10161,] -1.027016e+08 -5.667147e+07
## [10162,] -9.873838e+06 -1.114001e+07
## [10163,] -1.084236e+07 -1.166843e+07
## [10164,] -1.952712e+07 -1.662933e+07
## [10165,] -3.098104e+09 -1.108404e+09
## [10166,] -2.940039e+09 -1.018562e+09
## [10167,] -1.078719e+08 -6.101802e+07
## [10168,] -9.548700e+06 -1.306923e+07
## [10169,] -1.096910e+07 -1.174267e+07
## [10170,] -1.896975e+07 -1.667734e+07
## [10171,] -3.843586e+09 -1.309018e+09
## [10172,] -2.059239e+09 -8.547746e+08
## [10173,] -1.040251e+08 -6.104189e+07
## [10174,] -9.883560e+06 -1.101626e+07
## [10175,] -1.089629e+07 -1.176136e+07
## [10176,] -1.901147e+07 -1.677522e+07
## [10177,] -3.406020e+09 -1.203285e+09
## [10178,] -2.475898e+09 -8.690182e+08
## [10179,] -1.112060e+08 -6.203915e+07
## [10180,] -9.664733e+06 -1.091291e+07
## [10181,] -1.077896e+07 -1.163610e+07
```

```
## [10182,] -1.911508e+07 -1.653997e+07
## [10183,] -2.823902e+09 -1.040945e+09
## [10184,] -2.656520e+09 -9.322097e+08
## [10185,] -1.036764e+08 -6.077480e+07
## [10186,] -9.879447e+06 -1.103173e+07
## [10187,] -1.076001e+07 -1.166663e+07
## [10188,] -1.998569e+07 -1.710217e+07
## [10189,] -3.373107e+09 -1.242177e+09
## [10190,] -2.499869e+09 -8.403828e+08
## [10191,] -1.056192e+08 -5.932674e+07
## [10192,] -9.851453e+06 -1.103681e+07
## [10193,] -1.095760e+07 -1.171734e+07
## [10194,] -1.898507e+07 -1.665262e+07
## [10195,] -3.383764e+09 -1.151802e+09
## [10196,] -2.140522e+09 -7.712324e+08
## [10197,] -1.017978e+08 -5.789615e+07
## [10198,] -1.000667e+07 -1.108654e+07
## [10199,] -1.100312e+07 -1.176104e+07
## [10200,] -1.946398e+07 -1.687445e+07
## [10201,] -3.254813e+09 -1.177193e+09
## [10202,] -2.140451e+09 -7.532740e+08
## [10203,] -9.783964e+07 -5.585549e+07
## [10204,] -1.007769e+07 -1.121117e+07
## [10205,] -1.087836e+07 -1.172929e+07
## [10206,] -1.907526e+07 -1.663933e+07
## [10207,] -3.660172e+09 -1.295125e+09
## [10208,] -2.395232e+09 -7.532321e+08
## [10209,] -1.106894e+08 -6.099776e+07
## [10210,] -9.809822e+06 -1.108690e+07
## [10211,] -1.089168e+07 -1.177003e+07
## [10212,] -1.936145e+07 -1.697564e+07
## [10213,] -3.297314e+09 -1.114006e+09
## [10214,] -2.581254e+09 -8.975381e+08
## [10215,] -1.111303e+08 -6.099776e+07
## [10216,] -9.684089e+06 -1.090883e+07
## [10217,] -1.085466e+07 -1.172147e+07
## [10218,] -1.964299e+07 -1.698194e+07
## [10219,] -3.459730e+09 -1.222226e+09
## [10220,] -2.355549e+09 -8.121399e+08
## [10221,] -1.052678e+08 -6.068313e+07
## [10222,] -9.688846e+06 -1.088433e+07
## [10223,] -1.096160e+07 -1.178201e+07
## [10224,] -1.930503e+07 -1.684415e+07
## [10225,] -3.159551e+09 -9.988866e+08
## [10226,] -2.639116e+09 -8.167262e+08
## [10227,] -1.107216e+08 -6.383312e+07
## [10228,] -9.758729e+06 -1.093372e+07
```



```

## [10229,] -1.083708e+07 -1.168642e+07
## [10230,] -1.892457e+07 -1.674253e+07
## [10231,] -3.275679e+09 -1.126329e+09
## [10232,] -2.483063e+09 -8.637032e+08
## [10233,] -1.057292e+08 -6.087015e+07
## [10234,] -9.772827e+06 -1.096839e+07
## [10235,] -1.094430e+07 -1.177081e+07
## [10236,] -1.909441e+07 -1.670609e+07
## [10237,] -3.286268e+09 -1.120031e+09
## [10238,] -2.580943e+09 -9.971844e+08
## [10239,] -1.079084e+08 -6.137305e+07
## [10240,] -9.805610e+06 -1.098828e+07
## [10241,] -1.086007e+07 -1.173381e+07
## [10242,] -1.951502e+07 -1.702058e+07
## [10243,] -3.525373e+09 -1.132440e+09
## [10244,] -2.292613e+09 -7.440615e+08
## [10245,] -1.034370e+08 -6.075458e+07
## [10246,] -9.960699e+06 -1.109273e+07
## [10247,] -1.097897e+07 -1.177981e+07
## [10248,] -1.927173e+07 -1.687197e+07
## [10249,] -3.086124e+09 -1.151284e+09
## [10250,] -2.300314e+09 -8.398512e+08
## [10251,] -1.066550e+08 -6.026608e+07
## [10252,] -9.852719e+06 -1.107783e+07
## [10253,] -1.091405e+07 -1.178991e+07
## [10254,] -1.954204e+07 -1.698658e+07
## [10255,] -2.942774e+09 -1.058319e+09
## [10256,] -2.331396e+09 -8.117915e+08
## [10257,] -9.800599e+07 -5.660943e+07
## [10258,] -1.001278e+07 -1.110291e+07
## [10259,] -1.104772e+07 -1.177683e+07
## [10260,] -1.928515e+07 -1.687469e+07
## [10261,] -3.137945e+09 -1.101141e+09
## [10262,] -2.269150e+09 -8.491916e+08
## [10263,] -1.086414e+08 -6.077841e+07
## [10264,] -9.876373e+06 -1.115267e+07
## [10265,] -1.100212e+07 -1.179704e+07
## [10266,] -1.925363e+07 -1.685504e+07
## [10267,] -2.812709e+09 -1.094965e+09
## [10268,] -2.253720e+09 -8.210626e+08
## [10269,] -1.108342e+08 -5.964142e+07
## [10270,] -9.904519e+06 -1.111782e+07
## [10271,] -1.106077e+07 -1.173646e+07
## [10272,] -1.967214e+07 -1.710789e+07
## [10273,] -3.647796e+09 -1.261150e+09
## [10274,] -2.498723e+09 -8.256739e+08
## [10275,] -1.112915e+08 -6.243337e+07

```

```
## [10276,] -9.904634e+06 -1.109309e+07
## [10277,] -1.101877e+07 -1.180754e+07
## [10278,] -1.940385e+07 -1.683811e+07
## [10279,] -3.704117e+09 -1.215132e+09
## [10280,] -2.466238e+09 -7.841658e+08
## [10281,] -1.080355e+08 -6.146887e+07
## [10282,] -9.999091e+06 -1.117309e+07
## [10283,] -1.095085e+07 -1.177087e+07
## [10284,] -1.962881e+07 -1.700821e+07
## [10285,] -3.425843e+09 -1.163655e+09
## [10286,] -2.490391e+09 -8.680274e+08
## [10287,] -1.056868e+08 -6.051188e+07
## [10288,] -9.867692e+06 -1.112851e+07
## [10289,] -1.099529e+07 -1.181694e+07
## [10290,] -1.944808e+07 -1.690883e+07
## [10291,] -3.371244e+09 -1.009975e+09
## [10292,] -2.276374e+09 -7.885437e+08
## [10293,] -1.102864e+08 -6.417176e+07
## [10294,] -1.006085e+07 -1.108886e+07
## [10295,] -1.086554e+07 -1.180009e+07
## [10296,] -1.918133e+07 -1.677759e+07
## [10297,] -3.126829e+09 -1.150765e+09
## [10298,] -2.354362e+09 -8.347146e+08
## [10299,] -1.068129e+08 -6.136471e+07
## [10300,] -9.891364e+06 -1.113871e+07
## [10301,] -1.113274e+07 -1.189504e+07
## [10302,] -1.945100e+07 -1.697066e+07
## [10303,] -3.137175e+09 -1.113088e+09
## [10304,] -2.291662e+09 -7.838662e+08
## [10305,] -1.134343e+08 -6.504990e+07
## [10306,] -9.882215e+06 -1.116884e+07
## [10307,] -1.098303e+07 -1.188189e+07
## [10308,] -1.983195e+07 -1.725694e+07
## [10309,] -3.157833e+09 -1.106725e+09
## [10310,] -2.094044e+09 -7.837807e+08
## [10311,] -1.081785e+08 -6.289786e+07
## [10312,] -9.929507e+06 -1.111444e+07
## [10313,] -1.090875e+07 -1.175748e+07
## [10314,] -1.901600e+07 -1.666204e+07
## [10315,] -3.210336e+09 -1.131617e+09
## [10316,] -2.314799e+09 -8.533454e+08
## [10317,] -1.075422e+08 -6.208257e+07
## [10318,] -9.976564e+06 -1.118417e+07
## [10319,] -1.102898e+07 -1.185862e+07
## [10320,] -1.948854e+07 -1.701559e+07
## [10321,] -3.274017e+09 -1.182336e+09
## [10322,] -2.346127e+09 -8.486127e+08
```

```
## [10323,] -1.071084e+08 -6.224761e+07
## [10324,] -9.906020e+06 -1.115924e+07
## [10325,] -1.104528e+07 -1.185862e+07
## [10326,] -1.950968e+07 -1.702546e+07
## [10327,] -3.316819e+09 -1.163186e+09
## [10328,] -2.079083e+09 -8.158092e+08
## [10329,] -1.119599e+08 -6.460580e+07
## [10330,] -9.864043e+06 -1.111966e+07
## [10331,] -1.100005e+07 -1.180164e+07
## [10332,] -1.958668e+07 -1.694928e+07
## [10333,] -3.074337e+09 -1.175830e+09
## [10334,] -2.473389e+09 -7.566399e+08
## [10335,] -1.064910e+08 -6.112080e+07
## [10336,] -9.948548e+06 -1.111966e+07
## [10337,] -1.103587e+07 -1.187591e+07
## [10338,] -1.945978e+07 -1.694928e+07
## [10339,] -3.435687e+09 -1.266962e+09
## [10340,] -2.393288e+09 -8.250153e+08
## [10341,] -1.119922e+08 -6.295848e+07
## [10342,] -1.003376e+07 -1.115985e+07
## [10343,] -1.102177e+07 -1.188157e+07
## [10344,] -1.974498e+07 -1.711636e+07
## [10345,] -3.094787e+09 -1.125099e+09
## [10346,] -2.291076e+09 -8.156346e+08
## [10347,] -1.082739e+08 -6.115665e+07
## [10348,] -9.817712e+06 -1.114005e+07
## [10349,] -1.116739e+07 -1.194102e+07
## [10350,] -1.919206e+07 -1.691535e+07
## [10351,] -3.063672e+09 -9.625715e+08
## [10352,] -2.100985e+09 -7.431447e+08
## [10353,] -1.031249e+08 -5.857718e+07
## [10354,] -1.017612e+07 -1.122485e+07
## [10355,] -1.107251e+07 -1.189360e+07
## [10356,] -1.945508e+07 -1.701392e+07
## [10357,] -3.262749e+09 -1.063345e+09
## [10358,] -2.529806e+09 -8.913606e+08
## [10359,] -1.129288e+08 -6.466724e+07
## [10360,] -1.001510e+07 -1.123997e+07
## [10361,] -1.103518e+07 -1.187858e+07
## [10362,] -1.987190e+07 -1.712543e+07
## [10363,] -3.589800e+09 -1.300023e+09
## [10364,] -2.670268e+09 -9.553451e+08
## [10365,] -1.040237e+08 -5.877265e+07
## [10366,] -1.004841e+07 -1.121023e+07
## [10367,] -1.110084e+07 -1.191619e+07
## [10368,] -1.988939e+07 -1.725083e+07
## [10369,] -3.326681e+09 -1.169029e+09
```

```
## [10370,] -2.440616e+09 -7.924175e+08
## [10371,] -1.105433e+08 -6.253367e+07
## [10372,] -1.011494e+07 -1.126047e+07
## [10373,] -1.119622e+07 -1.196744e+07
## [10374,] -1.988849e+07 -1.721026e+07
## [10375,] -3.533813e+09 -1.259794e+09
## [10376,] -2.337314e+09 -7.877285e+08
## [10377,] -1.179919e+08 -6.225127e+07
## [10378,] -1.000176e+07 -1.118090e+07
## [10379,] -1.123787e+07 -1.200030e+07
## [10380,] -1.973166e+07 -1.719316e+07
## [10381,] -1.432826e+09 -5.969198e+08
## [10382,] -1.179655e+09 -4.776005e+08
## [10383,] -3.022736e+07 -1.261095e+07
## [10384,] -1.179356e+04 -5.860435e+04
## [10385,] -5.423119e+04 -9.848192e+04
## [10386,] -1.024079e+06 -6.364366e+05
## [10387,] -1.879284e+09 -7.012736e+08
## [10388,] -1.190826e+09 -4.393964e+08
## [10389,] -2.516514e+07 -1.088998e+07
## [10390,] -1.581265e+04 -6.759055e+04
## [10391,] -5.842174e+04 -1.041020e+05
## [10392,] -9.410658e+05 -5.988238e+05
## [10393,] -1.584766e+09 -6.245189e+08
## [10394,] -1.202049e+09 -4.600376e+08
## [10395,] -2.495556e+07 -1.075226e+07
## [10396,] -1.657169e+04 -6.301736e+04
## [10397,] -5.889698e+04 -1.022113e+05
## [10398,] -9.341137e+05 -6.025335e+05
## [10399,] -1.569960e+09 -6.198694e+08
## [10400,] -1.190826e+09 -4.705358e+08
## [10401,] -2.464283e+07 -1.075226e+07
## [10402,] -1.814318e+04 -6.301736e+04
## [10403,] -5.794842e+04 -1.031545e+05
## [10404,] -9.550475e+05 -5.914387e+05
## [10405,] -1.547881e+09 -6.245189e+08
## [10406,] -1.190826e+09 -4.462241e+08
## [10407,] -2.443544e+07 -1.102857e+07
## [10408,] -1.754553e+04 -6.264349e+04
## [10409,] -5.771248e+04 -1.034699e+05
## [10410,] -9.527100e+05 -6.025335e+05
## [10411,] -3.219692e+09 -1.162456e+09
## [10412,] -2.695002e+09 -9.752218e+08
## [10413,] -1.069125e+08 -6.094894e+07
## [10414,] -1.006329e+07 -1.126096e+07
## [10415,] -1.123167e+07 -1.200069e+07
## [10416,] -1.944859e+07 -1.696840e+07
```

```
## [10417,] -3.083408e+09 -1.118242e+09
## [10418,] -2.026523e+09 -6.820786e+08
## [10419,] -1.052193e+08 -6.097280e+07
## [10420,] -1.001166e+07 -1.126133e+07
## [10421,] -1.112380e+07 -1.194676e+07
## [10422,] -2.003639e+07 -1.732793e+07
## [10423,] -2.970437e+09 -1.038579e+09
## [10424,] -2.368347e+09 -8.103987e+08
## [10425,] -1.201309e+08 -6.498343e+07
## [10426,] -1.002133e+07 -1.120159e+07
## [10427,] -1.110455e+07 -1.193698e+07
## [10428,] -1.984698e+07 -1.723120e+07
## [10429,] -3.390610e+09 -1.194133e+09
## [10430,] -2.512516e+09 -8.667221e+08
## [10431,] -1.129337e+08 -6.399936e+07
## [10432,] -1.006399e+07 -1.124169e+07
## [10433,] -1.112273e+07 -1.196261e+07
## [10434,] -1.955632e+07 -1.708882e+07
## [10435,] -3.577544e+09 -1.252754e+09
## [10436,] -2.619266e+09 -9.298781e+08
## [10437,] -1.151692e+08 -6.467096e+07
## [10438,] -1.005453e+07 -1.130178e+07
## [10439,] -1.124084e+07 -1.202717e+07
## [10440,] -1.942571e+07 -1.717439e+07
## [10441,] -3.357949e+09 -1.213428e+09
## [10442,] -2.383865e+09 -8.148492e+08
## [10443,] -1.061902e+08 -5.991677e+07
## [10444,] -1.009275e+07 -1.136744e+07
## [10445,] -1.116423e+07 -1.208056e+07
## [10446,] -1.962958e+07 -1.711768e+07
## [10447,] -3.346980e+09 -1.074684e+09
## [10448,] -2.281930e+09 -8.101812e+08
## [10449,] -1.051144e+08 -6.187693e+07
## [10450,] -9.993486e+06 -1.121207e+07
## [10451,] -1.105305e+07 -1.197847e+07
## [10452,] -1.982091e+07 -1.729638e+07
## [10453,] -3.521744e+09 -1.181075e+09
## [10454,] -2.313035e+09 -8.240938e+08
## [10455,] -1.066220e+08 -6.056665e+07
## [10456,] -1.006434e+07 -1.132222e+07
## [10457,] -1.112820e+07 -1.192420e+07
## [10458,] -1.947085e+07 -1.708799e+07
## [10459,] -2.899338e+09 -1.038333e+09
## [10460,] -2.627341e+09 -8.809284e+08
## [10461,] -1.172661e+08 -6.337993e+07
## [10462,] -9.922997e+06 -1.116230e+07
## [10463,] -1.115150e+07 -1.197207e+07
```

```
## [10464,] -1.968558e+07 -1.704129e+07
## [10465,] -3.577087e+09 -9.558519e+08
## [10466,] -2.174580e+09 -8.100942e+08
## [10467,] -1.141467e+08 -6.307134e+07
## [10468,] -9.918530e+06 -1.118748e+07
## [10469,] -1.102590e+07 -1.195360e+07
## [10470,] -1.968174e+07 -1.714656e+07
## [10471,] -3.644197e+09 -1.319264e+09
## [10472,] -2.212499e+09 -8.616384e+08
## [10473,] -1.040908e+08 -6.273929e+07
## [10474,] -1.030747e+07 -1.130252e+07
## [10475,] -1.125185e+07 -1.206581e+07
## [10476,] -1.953338e+07 -1.715647e+07
## [10477,] -3.644013e+09 -1.285520e+09
## [10478,] -2.144211e+09 -7.555053e+08
## [10479,] -1.073664e+08 -6.227904e+07
## [10480,] -1.004139e+07 -1.128785e+07
## [10481,] -1.123616e+07 -1.210753e+07
## [10482,] -1.941250e+07 -1.697411e+07
## [10483,] -3.814560e+09 -1.278736e+09
## [10484,] -2.204587e+09 -7.598868e+08
## [10485,] -1.065321e+08 -6.131574e+07
## [10486,] -1.016014e+07 -1.135334e+07
## [10487,] -1.122155e+07 -1.201402e+07
## [10488,] -1.964134e+07 -1.718814e+07
## [10489,] -3.249932e+09 -1.080402e+09
## [10490,] -2.054802e+09 -7.778381e+08
## [10491,] -1.117968e+08 -6.132771e+07
## [10492,] -9.989814e+06 -1.124817e+07
## [10493,] -1.120695e+07 -1.202953e+07
## [10494,] -1.964428e+07 -1.720081e+07
## [10495,] -2.586279e+09 -9.043218e+08
## [10496,] -2.398910e+09 -7.959558e+08
## [10497,] -1.020741e+08 -6.199721e+07
## [10498,] -1.026046e+07 -1.126831e+07
## [10499,] -1.111373e+07 -1.197364e+07
## [10500,] -1.995310e+07 -1.729026e+07
## [10501,] -3.113088e+09 -1.148744e+09
## [10502,] -2.174009e+09 -8.660923e+08
## [10503,] -1.082994e+08 -6.068565e+07
## [10504,] -1.016988e+07 -1.133852e+07
## [10505,] -1.127458e+07 -1.204504e+07
## [10506,] -1.988901e+07 -1.733009e+07
## [10507,] -3.239141e+09 -1.098759e+09
## [10508,] -2.312300e+09 -8.190057e+08
## [10509,] -1.096264e+08 -6.037183e+07
## [10510,] -1.005143e+07 -1.131354e+07
```

```
## [10511,] -1.119603e+07 -1.207269e+07
## [10512,] -1.880772e+07 -1.652544e+07
## [10513,] -3.238967e+09 -1.154967e+09
## [10514,] -2.188950e+09 -7.641121e+08
## [10515,] -1.038198e+08 -5.974662e+07
## [10516,] -1.012747e+07 -1.133889e+07
## [10517,] -1.130647e+07 -1.210530e+07
## [10518,] -1.896662e+07 -1.675268e+07
## [10519,] -3.217525e+09 -1.110896e+09
## [10520,] -2.158481e+09 -7.111225e+08
## [10521,] -1.099258e+08 -6.223446e+07
## [10522,] -1.012307e+07 -1.136941e+07
## [10523,] -1.127426e+07 -1.204812e+07
## [10524,] -1.968110e+07 -1.726509e+07
## [10525,] -3.249148e+09 -1.079950e+09
## [10526,] -2.288444e+09 -8.515159e+08
## [10527,] -1.055959e+08 -6.241178e+07
## [10528,] -9.976603e+06 -1.127919e+07
## [10529,] -1.126109e+07 -1.213683e+07
## [10530,] -1.972360e+07 -1.710635e+07
## [10531,] -3.091727e+09 -1.110794e+09
## [10532,] -2.272948e+09 -8.467884e+08
## [10533,] -1.108215e+08 -6.374176e+07
## [10534,] -1.020879e+07 -1.140477e+07
## [10535,] -1.130723e+07 -1.208220e+07
## [10536,] -1.954332e+07 -1.720548e+07
## [10537,] -3.133324e+09 -1.079950e+09
## [10538,] -2.494523e+09 -7.549173e+08
## [10539,] -1.095513e+08 -6.129543e+07
## [10540,] -1.021391e+07 -1.138500e+07
## [10541,] -1.126660e+07 -1.209132e+07
## [10542,] -1.965898e+07 -1.724437e+07
## [10543,] -3.091473e+09 -1.129356e+09
## [10544,] -2.319372e+09 -8.278779e+08
## [10545,] -1.157883e+08 -6.312358e+07
## [10546,] -1.023322e+07 -1.149624e+07
## [10547,] -1.122932e+07 -1.213117e+07
## [10548,] -1.979627e+07 -1.726342e+07
## [10549,] -3.344946e+09 -1.186279e+09
## [10550,] -2.413852e+09 -8.184372e+08
## [10551,] -1.192417e+08 -6.551052e+07
## [10552,] -1.024300e+07 -1.141572e+07
## [10553,] -1.124760e+07 -1.213650e+07
## [10554,] -1.989518e+07 -1.721648e+07
## [10555,] -3.597218e+09 -1.179710e+09
## [10556,] -2.485893e+09 -8.558542e+08
## [10557,] -1.149874e+08 -6.170765e+07
```

```
## [10558,] -1.001561e+07 -1.134074e+07
## [10559,] -1.119906e+07 -1.215096e+07
## [10560,] -1.997977e+07 -1.734498e+07
## [10561,] -3.090793e+09 -1.128945e+09
## [10562,] -2.024116e+09 -6.849216e+08
## [10563,] -1.092413e+08 -6.139119e+07
## [10564,] -1.020532e+07 -1.142125e+07
## [10565,] -1.131427e+07 -1.216122e+07
## [10566,] -1.980898e+07 -1.706702e+07
## [10567,] -3.101164e+09 -1.122691e+09
## [10568,] -2.233645e+09 -7.324220e+08
## [10569,] -1.061997e+08 -6.122729e+07
## [10570,] -1.032491e+07 -1.153255e+07
## [10571,] -1.121403e+07 -1.213577e+07
## [10572,] -1.978383e+07 -1.707333e+07
## [10573,] -3.163586e+09 -1.128842e+09
## [10574,] -2.142371e+09 -7.544135e+08
## [10575,] -1.110469e+08 -6.060955e+07
## [10576,] -1.018186e+07 -1.151760e+07
## [10577,] -1.128021e+07 -1.218749e+07
## [10578,] -1.989338e+07 -1.730430e+07
## [10579,] -3.563301e+09 -1.277425e+09
## [10580,] -2.599958e+09 -8.939704e+08
## [10581,] -1.099787e+08 -5.917524e+07
## [10582,] -1.026316e+07 -1.147234e+07
## [10583,] -1.135651e+07 -1.216734e+07
## [10584,] -1.984300e+07 -1.732697e+07
## [10585,] -3.131956e+09 -1.109980e+09
## [10586,] -2.310610e+09 -8.226466e+08
## [10587,] -1.056321e+08 -6.243959e+07
## [10588,] -1.037336e+07 -1.153304e+07
## [10589,] -1.143971e+07 -1.220541e+07
## [10590,] -1.960149e+07 -1.715087e+07
## [10591,] -2.896459e+09 -1.048648e+09
## [10592,] -2.263911e+09 -6.888932e+08
## [10593,] -1.028847e+08 -5.984474e+07
## [10594,] -1.028252e+07 -1.167557e+07
## [10595,] -1.133230e+07 -1.217992e+07
## [10596,] -2.003446e+07 -1.739594e+07
## [10597,] -3.663683e+09 -1.244062e+09
## [10598,] -2.187306e+09 -8.225151e+08
## [10599,] -1.069743e+08 -6.198044e+07
## [10600,] -1.011117e+07 -1.128153e+07
## [10601,] -1.136720e+07 -1.219210e+07
## [10602,] -1.994499e+07 -1.732253e+07
## [10603,] -3.110701e+09 -1.030470e+09
## [10604,] -2.574735e+09 -9.132013e+08
```



```
## [10605,] -1.153925e+08 -6.551427e+07
## [10606,] -1.014939e+07 -1.136711e+07
## [10607,] -1.134259e+07 -1.215635e+07
## [10608,] -2.059838e+07 -1.777003e+07
## [10609,] -3.408514e+09 -1.185437e+09
## [10610,] -2.666005e+09 -8.647885e+08
## [10611,] -1.087611e+08 -5.924580e+07
## [10612,] -1.030213e+07 -1.149330e+07
## [10613,] -1.138928e+07 -1.219098e+07
## [10614,] -2.021219e+07 -1.763185e+07
## [10615,] -3.173132e+09 -1.128278e+09
## [10616,] -2.492844e+09 -8.083987e+08
## [10617,] -1.101070e+08 -6.286774e+07
## [10618,] -1.020684e+07 -1.143799e+07
## [10619,] -1.131839e+07 -1.217234e+07
## [10620,] -2.012232e+07 -1.744781e+07
## [10621,] -2.875938e+09 -1.128278e+09
## [10622,] -2.699459e+09 -9.228936e+08
## [10623,] -1.077041e+08 -6.138285e+07
## [10624,] -1.020696e+07 -1.154430e+07
## [10625,] -1.134996e+07 -1.219480e+07
## [10626,] -1.982965e+07 -1.737430e+07
## [10627,] -3.079251e+09 -1.090973e+09
## [10628,] -1.872814e+09 -6.425788e+08
## [10629,] -1.170380e+08 -6.590318e+07
## [10630,] -1.017363e+07 -1.143307e+07
## [10631,] -1.131033e+07 -1.215030e+07
## [10632,] -2.013992e+07 -1.754430e+07
## [10633,] -2.976685e+09 -1.103321e+09
## [10634,] -2.533432e+09 -8.935135e+08
## [10635,] -1.179622e+08 -6.625593e+07
## [10636,] -1.009776e+07 -1.143320e+07
## [10637,] -1.125285e+07 -1.214537e+07
## [10638,] -1.993933e+07 -1.738704e+07
## [10639,] -3.539900e+09 -1.078594e+09
## [10640,] -2.452281e+09 -8.837500e+08
## [10641,] -1.086226e+08 -6.191191e+07
## [10642,] -1.046627e+07 -1.160557e+07
## [10643,] -1.147004e+07 -1.227453e+07
## [10644,] -2.003859e+07 -1.758998e+07
## [10645,] -3.235836e+09 -1.090670e+09
## [10646,] -2.435938e+09 -8.360024e+08
## [10647,] -1.062990e+08 -6.212490e+07
## [10648,] -1.041361e+07 -1.153998e+07
## [10649,] -1.146710e+07 -1.223371e+07
## [10650,] -1.995594e+07 -1.731282e+07
## [10651,] -3.099462e+09 -1.115433e+09
```

```
## [10652,] -2.270690e+09 -8.080945e+08
## [10653,] -1.182727e+08 -6.665952e+07
## [10654,] -1.036073e+07 -1.153491e+07
## [10655,] -1.137280e+07 -1.225966e+07
## [10656,] -2.029173e+07 -1.761563e+07
## [10657,] -2.717506e+09 -1.121564e+09
## [10658,] -2.475986e+09 -7.140661e+08
## [10659,] -1.160401e+08 -6.549327e+07
## [10660,] -1.020313e+07 -1.146435e+07
## [10661,] -1.135810e+07 -1.217925e+07
## [10662,] -2.038888e+07 -1.759555e+07
## [10663,] -2.875200e+09 -1.023909e+09
## [10664,] -2.623425e+09 -9.126472e+08
## [10665,] -1.120167e+08 -6.754191e+07
## [10666,] -1.016505e+07 -1.144920e+07
## [10667,] -1.153070e+07 -1.231316e+07
## [10668,] -1.965004e+07 -1.727576e+07
## [10669,] -3.662296e+09 -1.243253e+09
## [10670,] -2.278209e+09 -8.642492e+08
## [10671,] -1.080802e+08 -6.035887e+07
## [10672,] -1.030834e+07 -1.156063e+07
## [10673,] -1.132874e+07 -1.226197e+07
## [10674,] -2.027316e+07 -1.763851e+07
## [10675,] -3.331616e+09 -1.191177e+09
## [10676,] -2.483912e+09 -8.930567e+08
## [10677,] -1.092030e+08 -6.251573e+07
## [10678,] -1.016064e+07 -1.150010e+07
## [10679,] -1.152147e+07 -1.237601e+07
## [10680,] -1.987937e+07 -1.748083e+07
## [10681,] -3.594652e+09 -1.127610e+09
## [10682,] -2.348137e+09 -8.216826e+08
## [10683,] -1.083616e+08 -6.303750e+07
## [10684,] -1.039519e+07 -1.157635e+07
## [10685,] -1.149856e+07 -1.230402e+07
## [10686,] -1.953173e+07 -1.717476e+07
## [10687,] -3.016328e+09 -1.121257e+09
## [10688,] -2.262384e+09 -8.640246e+08
## [10689,] -1.036363e+08 -6.255198e+07
## [10690,] -1.028499e+07 -1.169349e+07
## [10691,] -1.136255e+07 -1.221128e+07
## [10692,] -2.024682e+07 -1.767426e+07
## [10693,] -3.363528e+09 -1.071830e+09
## [10694,] -2.208619e+09 -8.497330e+08
## [10695,] -1.090482e+08 -6.289565e+07
## [10696,] -1.039062e+07 -1.159691e+07
## [10697,] -1.156558e+07 -1.235955e+07
## [10698,] -1.980000e+07 -1.724701e+07
```

```
## [10699,] -3.288193e+09 -1.127405e+09
## [10700,] -2.246833e+09 -8.402567e+08
## [10701,] -9.512804e+07 -5.473661e+07
## [10702,] -1.023279e+07 -1.146546e+07
## [10703,] -1.158079e+07 -1.233734e+07
## [10704,] -2.015597e+07 -1.765971e+07
## [10705,] -3.150537e+09 -1.146156e+09
## [10706,] -2.125265e+09 -7.710692e+08
## [10707,] -1.124166e+08 -6.311033e+07
## [10708,] -1.029994e+07 -1.157202e+07
## [10709,] -1.154114e+07 -1.236187e+07
## [10710,] -2.102075e+07 -1.827484e+07
## [10711,] -1.637135e+09 -5.923372e+08
## [10712,] -1.207680e+09 -4.393964e+08
## [10713,] -2.516514e+07 -1.068373e+07
## [10714,] -1.600074e+04 -6.566558e+04
## [10715,] -5.818484e+04 -1.031545e+05
## [10716,] -9.410658e+05 -6.137315e+05
## [10717,] -1.592195e+09 -6.338700e+08
## [10718,] -1.213325e+09 -4.740616e+08
## [10719,] -2.506024e+07 -1.088998e+07
## [10720,] -1.754553e+04 -6.339234e+04
## [10721,] -5.865912e+04 -1.025252e+05
## [10722,] -9.364282e+05 -6.062547e+05
## [10723,] -1.577355e+09 -6.338700e+08
## [10724,] -1.190826e+09 -4.565645e+08
## [10725,] -2.422893e+07 -1.075226e+07
## [10726,] -1.794285e+04 -6.339234e+04
## [10727,] -5.913533e+04 -1.012725e+05
## [10728,] -9.550475e+05 -5.969732e+05
## [10729,] -1.592195e+09 -6.060251e+08
## [10730,] -1.196431e+09 -4.393964e+08
## [10731,] -2.634134e+07 -1.096423e+07
## [10732,] -1.525958e+04 -6.340157e+04
## [10733,] -5.573980e+04 -1.033303e+05
## [10734,] -9.635766e+05 -6.130540e+05
## [10735,] -1.659777e+09 -6.291474e+08
## [10736,] -1.207627e+09 -4.740283e+08
## [10737,] -2.548887e+07 -1.110329e+07
## [10738,] -1.581726e+04 -6.377769e+04
## [10739,] -5.643687e+04 -1.008226e+05
## [10740,] -9.777238e+05 -6.018623e+05
## [10741,] -3.150365e+09 -1.114718e+09
## [10742,] -2.581033e+09 -9.169532e+08
## [10743,] -1.113418e+08 -6.313461e+07
## [10744,] -1.044911e+07 -1.167398e+07
## [10745,] -1.154153e+07 -1.232435e+07
```

```
## [10746,] -2.012284e+07 -1.739835e+07
## [10747,] -3.087820e+09 -1.114667e+09
## [10748,] -2.285082e+09 -8.306574e+08
## [10749,] -1.091440e+08 -6.247106e+07
## [10750,] -1.041057e+07 -1.160274e+07
## [10751,] -1.136738e+07 -1.230217e+07
## [10752,] -2.006532e+07 -1.745468e+07
## [10753,] -3.593736e+09 -1.288972e+09
## [10754,] -2.323875e+09 -8.212445e+08
## [10755,] -1.102723e+08 -6.432878e+07
## [10756,] -1.048312e+07 -1.159283e+07
## [10757,] -1.155525e+07 -1.233853e+07
## [10758,] -2.020104e+07 -1.774221e+07
## [10759,] -3.213192e+09 -1.041140e+09
## [10760,] -2.185233e+09 -7.396908e+08
## [10761,] -9.851372e+07 -6.483344e+07
## [10762,] -1.039637e+07 -1.165385e+07
## [10763,] -1.150195e+07 -1.237992e+07
## [10764,] -1.998648e+07 -1.749108e+07
## [10765,] -3.066970e+09 -1.139596e+09
## [10766,] -2.564343e+09 -8.924175e+08
## [10767,] -1.042189e+08 -5.924116e+07
## [10768,] -1.029095e+07 -1.156757e+07
## [10769,] -1.158381e+07 -1.240948e+07
## [10770,] -2.054281e+07 -1.781929e+07
## [10771,] -3.427898e+09 -1.203336e+09
## [10772,] -2.355115e+09 -8.072693e+08
## [10773,] -1.100846e+08 -6.202383e+07
## [10774,] -1.041104e+07 -1.166938e+07
## [10775,] -1.147572e+07 -1.239413e+07
## [10776,] -2.043747e+07 -1.781199e+07
## [10777,] -3.234011e+09 -1.216143e+09
## [10778,] -2.354967e+09 -8.303931e+08
## [10779,] -1.121187e+08 -6.091098e+07
## [10780,] -1.055629e+07 -1.172077e+07
## [10781,] -1.154454e+07 -1.235849e+07
## [10782,] -2.003137e+07 -1.743300e+07
## [10783,] -3.660539e+09 -1.275295e+09
## [10784,] -1.984925e+09 -6.790087e+08
## [10785,] -1.083982e+08 -6.157821e+07
## [10786,] -1.056137e+07 -1.173635e+07
## [10787,] -1.177273e+07 -1.254237e+07
## [10788,] -1.972489e+07 -1.750580e+07
## [10789,] -3.660354e+09 -1.342617e+09
## [10790,] -2.116949e+09 -8.255490e+08
## [10791,] -1.148434e+08 -6.275763e+07
## [10792,] -1.043583e+07 -1.164976e+07
```

```
## [10793,] -1.153345e+07 -1.235046e+07
## [10794,] -2.067829e+07 -1.775339e+07
## [10795,] -3.212499e+09 -1.077139e+09
## [10796,] -2.547398e+09 -9.164905e+08
## [10797,] -1.150678e+08 -6.748673e+07
## [10798,] -1.045994e+07 -1.169053e+07
## [10799,] -1.152345e+07 -1.240915e+07
## [10800,] -1.992350e+07 -1.758237e+07
## [10801,] -3.244185e+09 -1.132849e+09
## [10802,] -2.410024e+09 -8.584563e+08
## [10803,] -1.121834e+08 -6.293569e+07
## [10804,] -1.042150e+07 -1.164480e+07
## [10805,] -1.158721e+07 -1.239227e+07
## [10806,] -2.038849e+07 -1.776627e+07
## [10807,] -3.659984e+09 -1.418568e+09
## [10808,] -2.490174e+09 -8.678993e+08
## [10809,] -1.100093e+08 -6.180264e+07
## [10810,] -1.049409e+07 -1.171642e+07
## [10811,] -1.157905e+07 -1.240802e+07
## [10812,] -1.944479e+07 -1.714275e+07
## [10813,] -3.117862e+09 -1.034594e+09
## [10814,] -2.064812e+09 -8.631264e+08
## [10815,] -1.158082e+08 -6.582764e+07
## [10816,] -1.055227e+07 -1.170633e+07
## [10817,] -1.154274e+07 -1.237388e+07
## [10818,] -2.012517e+07 -1.760075e+07
## [10819,] -3.128022e+09 -1.126328e+09
## [10820,] -2.441534e+09 -7.747723e+08
## [10821,] -1.151826e+08 -6.334122e+07
## [10822,] -1.045595e+07 -1.172202e+07
## [10823,] -1.150834e+07 -1.236240e+07
## [10824,] -2.064684e+07 -1.770409e+07
## [10825,] -2.872661e+09 -9.406543e+08
## [10826,] -2.425453e+09 -8.066615e+08
## [10827,] -1.163416e+08 -6.521174e+07
## [10828,] -1.033116e+07 -1.157972e+07
## [10829,] -1.159023e+07 -1.241958e+07
## [10830,] -2.044373e+07 -1.776736e+07
## [10831,] -2.942854e+09 -9.927135e+08
## [10832,] -2.206752e+09 -7.701359e+08
## [10833,] -1.040568e+08 -5.960280e+07
## [10834,] -1.042738e+07 -1.167139e+07
## [10835,] -1.156872e+07 -1.238350e+07
## [10836,] -2.033567e+07 -1.772703e+07
## [10837,] -3.296696e+09 -1.183122e+09
## [10838,] -2.473477e+09 -8.916415e+08
## [10839,] -1.042860e+08 -5.929179e+07
```

```
## [10840,] -1.036018e+07 -1.163078e+07
## [10841,] -1.156390e+07 -1.246151e+07
## [10842,] -2.052648e+07 -1.784450e+07
## [10843,] -3.275239e+09 -1.144914e+09
## [10844,] -2.377527e+09 -8.580085e+08
## [10845,] -1.170530e+08 -6.389085e+07
## [10846,] -1.035058e+07 -1.167661e+07
## [10847,] -1.162404e+07 -1.244766e+07
## [10848,] -2.043982e+07 -1.786473e+07
## [10849,] -3.065362e+09 -1.119825e+09
## [10850,] -2.244950e+09 -8.111452e+08
## [10851,] -1.121398e+08 -6.060018e+07
## [10852,] -1.047584e+07 -1.169713e+07
## [10853,] -1.163594e+07 -1.243229e+07
## [10854,] -2.028473e+07 -1.767947e+07
## [10855,] -3.393544e+09 -1.221797e+09
## [10856,] -2.538292e+09 -8.722790e+08
## [10857,] -1.157146e+08 -6.440606e+07
## [10858,] -1.054354e+07 -1.166145e+07
## [10859,] -1.156095e+07 -1.247577e+07
## [10860,] -2.021621e+07 -1.764566e+07
## [10861,] -3.625220e+09 -1.294408e+09
## [10862,] -2.538138e+09 -8.914590e+08
## [10863,] -1.115080e+08 -6.226478e+07
## [10864,] -1.052441e+07 -1.178939e+07
## [10865,] -1.162964e+07 -1.245345e+07
## [10866,] -2.018692e+07 -1.762835e+07
## [10867,] -3.339204e+09 -1.088652e+09
## [10868,] -2.772070e+09 -9.504859e+08
## [10869,] -1.088872e+08 -6.227684e+07
## [10870,] -1.039440e+07 -1.165686e+07
## [10871,] -1.154652e+07 -1.245731e+07
## [10872,] -2.030148e+07 -1.776566e+07
## [10873,] -3.414849e+09 -1.163601e+09
## [10874,] -2.720898e+09 -9.959375e+08
## [10875,] -1.089191e+08 -6.413169e+07
## [10876,] -1.050059e+07 -1.173861e+07
## [10877,] -1.163189e+07 -1.250084e+07
## [10878,] -2.019677e+07 -1.772813e+07
## [10879,] -2.932089e+09 -1.027872e+09
## [10880,] -2.661904e+09 -9.353999e+08
## [10881,] -1.117938e+08 -6.247838e+07
## [10882,] -1.023655e+07 -1.163675e+07
## [10883,] -1.158361e+07 -1.237474e+07
## [10884,] -2.062929e+07 -1.794037e+07
## [10885,] -3.580101e+09 -1.228000e+09
## [10886,] -2.737769e+09 -8.961264e+08
```

```
## [10887,] -1.169588e+08 -6.567405e+07
## [10888,] -1.032754e+07 -1.167761e+07
## [10889,] -1.163601e+07 -1.250858e+07
## [10890,] -2.013139e+07 -1.777770e+07
## [10891,] -3.425393e+09 -1.169759e+09
## [10892,] -2.553893e+09 -8.718277e+08
## [10893,] -1.170084e+08 -6.622125e+07
## [10894,] -1.061763e+07 -1.179052e+07
## [10895,] -1.155620e+07 -1.246737e+07
## [10896,] -2.020960e+07 -1.775023e+07
## [10897,] -2.891443e+09 -9.920877e+08
## [10898,] -2.537445e+09 -9.252701e+08
## [10899,] -1.112114e+08 -6.204316e+07
## [10900,] -1.061277e+07 -1.176493e+07
## [10901,] -1.169336e+07 -1.251592e+07
## [10902,] -2.033502e+07 -1.773651e+07
## [10903,] -3.590713e+09 -1.234219e+09
## [10904,] -2.376484e+09 -8.197999e+08
## [10905,] -1.218793e+08 -6.424189e+07
## [10906,] -1.054036e+07 -1.180627e+07
## [10907,] -1.159183e+07 -1.254257e+07
## [10908,] -2.004764e+07 -1.779983e+07
## [10909,] -2.901228e+09 -1.125302e+09
## [10910,] -1.897073e+09 -6.485318e+08
## [10911,] -1.148697e+08 -6.178589e+07
## [10912,] -1.058920e+07 -1.180152e+07
## [10913,] -1.156069e+07 -1.252059e+07
## [10914,] -2.030473e+07 -1.759761e+07
## [10915,] -3.074165e+09 -1.112678e+09
## [10916,] -2.788050e+09 -8.956232e+08
## [10917,] -1.128594e+08 -6.261133e+07
## [10918,] -1.050201e+07 -1.175545e+07
## [10919,] -1.181899e+07 -1.260057e+07
## [10920,] -2.039800e+07 -1.775497e+07
## [10921,] -3.381094e+09 -1.156576e+09
## [10922,] -2.728329e+09 -9.249447e+08
## [10923,] -1.039571e+08 -6.180992e+07
## [10924,] -1.061859e+07 -1.181203e+07
## [10925,] -1.168484e+07 -1.253141e+07
## [10926,] -2.015701e+07 -1.759036e+07
## [10927,] -3.230970e+09 -1.131307e+09
## [10928,] -2.383951e+09 -8.382201e+08
## [10929,] -1.039571e+08 -6.033764e+07
## [10930,] -1.085821e+07 -1.197677e+07
## [10931,] -1.170388e+07 -1.252680e+07
## [10932,] -2.080200e+07 -1.810146e+07
## [10933,] -3.478805e+09 -1.175357e+09
```

```
## [10934,] -2.495756e+09 -8.807994e+08
## [10935,] -1.044781e+08 -6.008394e+07
## [10936,] -1.078521e+07 -1.194130e+07
## [10937,] -1.157558e+07 -1.235609e+07
## [10938,] -2.047491e+07 -1.768554e+07
## [10939,] -3.198657e+09 -1.087493e+09
## [10940,] -2.336144e+09 -8.473290e+08
## [10941,] -1.083809e+08 -6.338509e+07
## [10942,] -1.059513e+07 -1.192596e+07
## [10943,] -1.176178e+07 -1.256235e+07
## [10944,] -2.024812e+07 -1.784694e+07
## [10945,] -3.104482e+09 -1.137224e+09
## [10946,] -2.336144e+09 -8.238812e+08
## [10947,] -1.092543e+08 -6.189406e+07
## [10948,] -1.080003e+07 -1.198269e+07
## [10949,] -1.170801e+07 -1.254844e+07
## [10950,] -2.044935e+07 -1.780287e+07
## [10951,] -3.283463e+09 -1.099771e+09
## [10952,] -2.399221e+09 -8.285005e+08
## [10953,] -1.081790e+08 -6.043265e+07
## [10954,] -1.062440e+07 -1.186950e+07
## [10955,] -1.174684e+07 -1.258865e+07
## [10956,] -2.060114e+07 -1.771211e+07
## [10957,] -3.645394e+09 -1.286340e+09
## [10958,] -2.304737e+09 -8.145070e+08
## [10959,] -1.108235e+08 -6.191810e+07
## [10960,] -1.062950e+07 -1.200374e+07
## [10961,] -1.180446e+07 -1.266226e+07
## [10962,] -2.102604e+07 -1.780202e+07
## [10963,] -3.261873e+09 -1.149623e+09
## [10964,] -2.296809e+09 -8.377335e+08
## [10965,] -1.150827e+08 -6.276864e+07
## [10966,] -1.092846e+07 -1.209719e+07
## [10967,] -1.174425e+07 -1.262429e+07
## [10968,] -2.075560e+07 -1.797691e+07
## [10969,] -3.477993e+09 -1.143157e+09
## [10970,] -2.576764e+09 -7.867489e+08
## [10971,] -1.173890e+08 -6.548728e+07
## [10972,] -1.048942e+07 -1.185484e+07
## [10973,] -1.167936e+07 -1.253615e+07
## [10974,] -2.036793e+07 -1.787839e+07
## [10975,] -3.062232e+09 -1.117934e+09
## [10976,] -2.219284e+09 -8.374681e+08
## [10977,] -1.105117e+08 -6.021432e+07
## [10978,] -1.069366e+07 -1.198913e+07
## [10979,] -1.180077e+07 -1.263052e+07
## [10980,] -2.026305e+07 -1.781042e+07
```



```
## [10981,] -3.466559e+09 -1.206783e+09
## [10982,] -2.527205e+09 -8.515228e+08
## [10983,] -1.149894e+08 -6.656993e+07
## [10984,] -1.071830e+07 -1.189660e+07
## [10985,] -1.183677e+07 -1.264333e+07
## [10986,] -2.039162e+07 -1.792084e+07
## [10987,] -3.134605e+09 -1.124021e+09
## [10988,] -2.280628e+09 -8.002003e+08
## [10989,] -1.118844e+08 -6.122874e+07
## [10990,] -1.070378e+07 -1.193792e+07
## [10991,] -1.190627e+07 -1.271865e+07
## [10992,] -2.074589e+07 -1.815094e+07
## [10993,] -3.389895e+09 -1.272241e+09
## [10994,] -2.494458e+09 -8.945259e+08
## [10995,] -1.051571e+08 -6.076215e+07
## [10996,] -1.054358e+07 -1.184045e+07
## [10997,] -1.178321e+07 -1.258101e+07
## [10998,] -2.011458e+07 -1.775181e+07
## [10999,] -2.819273e+09 -1.050181e+09
## [11000,] -2.120688e+09 -7.548818e+08
## [11001,] -1.145899e+08 -6.694946e+07
## [11002,] -1.053389e+07 -1.182506e+07
## [11003,] -1.174619e+07 -1.259145e+07
## [11004,] -2.069837e+07 -1.810649e+07
## [11005,] -3.292837e+09 -1.312390e+09
## [11006,] -2.551423e+09 -9.042107e+08
## [11007,] -1.130430e+08 -6.610824e+07
## [11008,] -1.080686e+07 -1.203642e+07
## [11009,] -1.180044e+07 -1.262670e+07
## [11010,] -2.061437e+07 -1.807878e+07
## [11011,] -3.207736e+09 -1.105148e+09
## [11012,] -2.241765e+09 -8.092312e+08
## [11013,] -1.106241e+08 -6.259448e+07
## [11014,] -1.069450e+07 -1.196421e+07
## [11015,] -1.181056e+07 -1.269652e+07
## [11016,] -2.106229e+07 -1.817048e+07
## [11017,] -3.411457e+09 -1.232555e+09
## [11018,] -1.597251e+09 -5.258319e+08
## [11019,] -1.101843e+08 -6.094930e+07
## [11020,] -1.068962e+07 -1.204172e+07
## [11021,] -1.178697e+07 -1.258489e+07
## [11022,] -2.067962e+07 -1.802793e+07
## [11023,] -3.610240e+09 -1.325874e+09
## [11024,] -2.717869e+09 -1.067007e+09
## [11025,] -1.173278e+08 -6.544156e+07
## [11026,] -1.058745e+07 -1.191782e+07
## [11027,] -1.191043e+07 -1.272996e+07
```

```
## [11028,] -2.054138e+07 -1.797997e+07
## [11029,] -3.239312e+09 -1.155173e+09
## [11030,] -2.642125e+09 -9.385414e+08
## [11031,] -1.043783e+08 -6.033297e+07
## [11032,] -1.085152e+07 -1.205764e+07
## [11033,] -1.186008e+07 -1.270937e+07
## [11034,] -2.026721e+07 -1.780422e+07
## [11035,] -3.554184e+09 -1.285299e+09
## [11036,] -2.445625e+09 -8.991097e+08
## [11037,] -1.115711e+08 -6.447856e+07
## [11038,] -1.081740e+07 -1.209417e+07
## [11039,] -1.193154e+07 -1.276229e+07
## [11040,] -2.047544e+07 -1.786766e+07
## [11041,] -1.705653e+09 -6.059875e+08
## [11042,] -1.282030e+09 -4.600048e+08
## [11043,] -2.539099e+07 -1.069372e+07
## [11044,] -2.352419e+04 -7.194304e+04
## [11045,] -6.477886e+04 -1.108936e+05
## [11046,] -8.913080e+05 -5.718674e+05
## [11047,] -1.659714e+09 -5.968078e+08
## [11048,] -1.213218e+09 -4.599720e+08
## [11049,] -2.613472e+07 -1.210660e+07
## [11050,] -1.677848e+04 -6.379622e+04
## [11051,] -6.244246e+04 -1.081524e+05
## [11052,] -9.109334e+05 -5.949699e+05
## [11053,] -1.511253e+09 -5.564923e+08
## [11054,] -1.287736e+09 -4.634251e+08
## [11055,] -2.394323e+07 -9.761627e+06
## [11056,] -1.677848e+04 -6.607663e+04
## [11057,] -5.740011e+04 -1.043151e+05
## [11058,] -1.043340e+06 -6.477815e+05
## [11059,] -1.919703e+09 -7.260479e+08
## [11060,] -1.334731e+09 -4.953903e+08
## [11061,] -2.733310e+07 -1.118337e+07
## [11062,] -2.001176e+04 -6.996632e+04
## [11063,] -5.100718e+04 -1.043151e+05
## [11064,] -1.040897e+06 -6.343681e+05
## [11065,] -1.705527e+09 -6.815483e+08
## [11066,] -1.299406e+09 -4.846168e+08
## [11067,] -2.689710e+07 -1.160733e+07
## [11068,] -1.472080e+04 -6.192647e+04
## [11069,] -5.553506e+04 -1.011704e+05
## [11070,] -9.807485e+05 -6.248730e+05
## [11071,] -3.154739e+09 -1.117320e+09
## [11072,] -2.373877e+09 -7.770351e+08
## [11073,] -1.052825e+08 -6.102090e+07
## [11074,] -1.066110e+07 -1.190828e+07
```

```
## [11075,] -1.195038e+07 -1.275023e+07
## [11076,] -2.029863e+07 -1.782357e+07
## [11077,] -3.009784e+09 -1.002025e+09
## [11078,] -2.134950e+09 -7.455760e+08
## [11079,] -1.050992e+08 -6.039233e+07
## [11080,] -1.076386e+07 -1.201170e+07
## [11081,] -1.194249e+07 -1.275609e+07
## [11082,] -2.040569e+07 -1.778232e+07
## [11083,] -3.410653e+09 -1.238623e+09
## [11084,] -2.241113e+09 -7.904894e+08
## [11085,] -1.010921e+08 -5.863958e+07
## [11086,] -1.072499e+07 -1.184710e+07
## [11087,] -1.211985e+07 -1.289000e+07
## [11088,] -2.090906e+07 -1.824221e+07
## [11089,] -3.410475e+09 -1.238516e+09
## [11090,] -2.318353e+09 -8.555035e+08
## [11091,] -1.139236e+08 -5.946737e+07
## [11092,] -1.082315e+07 -1.202255e+07
## [11093,] -1.189396e+07 -1.273393e+07
## [11094,] -2.064331e+07 -1.802450e+07
## [11095,] -2.938130e+09 -1.186540e+09
## [11096,] -2.477214e+09 -8.697983e+08
## [11097,] -1.103768e+08 -6.109256e+07
## [11098,] -1.054052e+07 -1.194523e+07
## [11099,] -1.189435e+07 -1.276586e+07
## [11100,] -2.120067e+07 -1.830926e+07
## [11101,] -2.768636e+09 -9.434672e+08
## [11102,] -2.194839e+09 -7.497194e+08
## [11103,] -1.171227e+08 -6.836843e+07
## [11104,] -1.081872e+07 -1.203341e+07
## [11105,] -1.190828e+07 -1.275926e+07
## [11106,] -2.086742e+07 -1.818289e+07
## [11107,] -3.388293e+09 -1.110538e+09
## [11108,] -2.341551e+09 -8.224343e+08
## [11109,] -1.093439e+08 -6.412205e+07
## [11110,] -1.083345e+07 -1.204893e+07
## [11111,] -1.189324e+07 -1.274019e+07
## [11112,] -2.109367e+07 -1.826093e+07
## [11113,] -3.608495e+09 -1.160632e+09
## [11114,] -2.599269e+09 -7.362864e+08
## [11115,] -1.096269e+08 -6.300258e+07
## [11116,] -1.089292e+07 -1.203909e+07
## [11117,] -1.185495e+07 -1.273554e+07
## [11118,] -2.090630e+07 -1.818855e+07
## [11119,] -3.847371e+09 -1.238032e+09
## [11120,] -2.404401e+09 -8.693926e+08
## [11121,] -1.122889e+08 -6.418325e+07
```

```

## [11122,] -1.113561e+07 -1.230461e+07
## [11123,] -1.178599e+07 -1.271299e+07
## [11124,] -2.103385e+07 -1.839982e+07
## [11125,] -3.355290e+09 -1.198887e+09
## [11126,] -2.294173e+09 -8.221275e+08
## [11127,] -1.098942e+08 -6.106034e+07
## [11128,] -1.100186e+07 -1.214321e+07
## [11129,] -1.176281e+07 -1.258081e+07
## [11130,] -2.127908e+07 -1.878449e+07
## [11131,] -3.111465e+09 -1.067132e+09
## [11132,] -2.682322e+09 -9.625607e+08
## [11133,] -1.079281e+08 -6.057062e+07
## [11134,] -1.090806e+07 -1.209128e+07
## [11135,] -1.194523e+07 -1.284317e+07
## [11136,] -2.079609e+07 -1.799428e+07
## [11137,] -3.858657e+09 -1.442433e+09
## [11138,] -2.541385e+09 -9.128852e+08
## [11139,] -1.072767e+08 -6.353856e+07
## [11140,] -1.090806e+07 -1.213801e+07
## [11141,] -1.201654e+07 -1.280101e+07
## [11142,] -2.068709e+07 -1.813669e+07
## [11143,] -3.431206e+09 -1.290892e+09
## [11144,] -2.582365e+09 -8.981934e+08
## [11145,] -1.062112e+08 -6.074555e+07
## [11146,] -1.079529e+07 -1.206562e+07
## [11147,] -1.198484e+07 -1.281742e+07
## [11148,] -2.099208e+07 -1.818683e+07
## [11149,] -3.365741e+09 -1.185803e+09
## [11150,] -2.508470e+09 -8.453728e+08
## [11151,] -1.159648e+08 -6.308752e+07
## [11152,] -1.084460e+07 -1.212813e+07
## [11153,] -1.200033e+07 -1.283695e+07
## [11154,] -2.054099e+07 -1.809141e+07
## [11155,] -2.876509e+09 -1.036658e+09
## [11156,] -2.500275e+09 -9.373245e+08
## [11157,] -1.054441e+08 -6.114397e+07
## [11158,] -1.082041e+07 -1.212332e+07
## [11159,] -1.181976e+07 -1.277260e+07
## [11160,] -2.066258e+07 -1.817491e+07
## [11161,] -3.430401e+09 -9.948800e+08
## [11162,] -2.324697e+09 -8.170891e+08
## [11163,] -1.118021e+08 -6.448599e+07
## [11164,] -1.090423e+07 -1.210800e+07
## [11165,] -1.192834e+07 -1.278704e+07
## [11166,] -2.076757e+07 -1.820184e+07
## [11167,] -3.173302e+09 -1.172634e+09
## [11168,] -2.475617e+09 -8.310166e+08

```

```
## [11169,] -1.102742e+08 -6.416248e+07
## [11170,] -1.091913e+07 -1.213929e+07
## [11171,] -1.183403e+07 -1.277692e+07
## [11172,] -2.068736e+07 -1.815733e+07
## [11173,] -2.987028e+09 -1.097238e+09
## [11174,] -1.836902e+09 -6.055409e+08
## [11175,] -9.565816e+07 -5.576242e+07
## [11176,] -1.080164e+07 -1.210864e+07
## [11177,] -1.205673e+07 -1.290586e+07
## [11178,] -2.113514e+07 -1.852545e+07
## [11179,] -3.440878e+09 -1.217527e+09
## [11180,] -2.269900e+09 -7.938512e+08
## [11181,] -1.136613e+08 -6.505289e+07
## [11182,] -1.061616e+07 -1.202056e+07
## [11183,] -1.197700e+07 -1.433033e+07
## [11184,] -2.098442e+07 -1.833309e+07
## [11185,] -3.332231e+09 -1.146930e+09
## [11186,] -2.379253e+09 -7.937651e+08
## [11187,] -1.101668e+08 -6.274699e+07
## [11188,] -1.099404e+07 -1.220263e+07
## [11189,] -1.191974e+07 -1.284134e+07
## [11190,] -2.109023e+07 -1.837039e+07
## [11191,] -3.696677e+09 -1.178658e+09
## [11192,] -2.581122e+09 -8.829395e+08
## [11193,] -1.101668e+08 -6.324542e+07
## [11194,] -1.098415e+07 -1.218179e+07
## [11195,] -1.206925e+07 -1.289765e+07
## [11196,] -2.064201e+07 -1.821685e+07
## [11197,] -3.595290e+09 -1.146827e+09
## [11198,] -2.394881e+09 -7.845215e+08
## [11199,] -1.144135e+08 -6.494573e+07
## [11200,] -1.098933e+07 -1.222373e+07
## [11201,] -1.198118e+07 -1.284526e+07
## [11202,] -2.080846e+07 -1.815844e+07
## [11203,] -3.321127e+09 -1.172111e+09
## [11204,] -2.613962e+09 -8.493836e+08
## [11205,] -1.173594e+08 -6.614439e+07
## [11206,] -1.096475e+07 -1.223951e+07
## [11207,] -1.205110e+07 -1.292471e+07
## [11208,] -2.082635e+07 -1.816495e+07
## [11209,] -3.037424e+09 -1.115380e+09
## [11210,] -2.466793e+09 -9.070693e+08
## [11211,] -1.194092e+08 -6.495805e+07
## [11212,] -1.080236e+07 -1.204719e+07
## [11213,] -1.198307e+07 -1.285425e+07
## [11214,] -2.096462e+07 -1.831458e+07
## [11215,] -3.572698e+09 -1.289739e+09
```

```

## [11216,] -2.124854e+09 -7.440327e+08
## [11217,] -1.046064e+08 -6.066941e+07
## [11218,] -1.103425e+07 -1.227110e+07
## [11219,] -1.212996e+07 -1.296041e+07
## [11220,] -2.089496e+07 -1.808626e+07
## [11221,] -3.310218e+09 -1.000140e+09
## [11222,] -2.474629e+09 -8.682665e+08
## [11223,] -1.031442e+08 -6.167564e+07
## [11224,] -1.079304e+07 -1.208916e+07
## [11225,] -1.204167e+07 -1.287618e+07
## [11226,] -2.079965e+07 -1.829323e+07
## [11227,] -2.766064e+09 -9.649881e+08
## [11228,] -2.307904e+09 -8.444399e+08
## [11229,] -1.163106e+08 -6.218186e+07
## [11230,] -1.096535e+07 -1.219844e+07
## [11231,] -1.211176e+07 -1.293807e+07
## [11232,] -2.085031e+07 -1.828953e+07
## [11233,] -2.854916e+09 -1.011818e+09
## [11234,] -2.458363e+09 -8.777631e+08
## [11235,] -1.125045e+08 -6.535767e+07
## [11236,] -1.061273e+07 -1.204796e+07
## [11237,] -1.204206e+07 -1.291887e+07
## [11238,] -2.094482e+07 -1.819384e+07
## [11239,] -3.088496e+09 -1.090315e+09
## [11240,] -3.062563e+09 -1.150940e+09
## [11241,] -1.096526e+08 -6.385569e+07
## [11242,] -1.053524e+07 -1.225607e+07
## [11243,] -1.201863e+07 -1.296163e+07
## [11244,] -2.113448e+07 -1.824775e+07
## [11245,] -3.171752e+09 -1.223292e+09
## [11246,] -2.671714e+09 -9.916496e+08
## [11247,] -1.085912e+08 -6.522557e+07
## [11248,] -1.073480e+07 -1.208448e+07
## [11249,] -1.209207e+07 -1.296360e+07
## [11250,] -2.135111e+07 -1.853141e+07
## [11251,] -3.538624e+09 -1.262667e+09
## [11252,] -2.756149e+09 -8.920593e+08
## [11253,] -1.105954e+08 -6.373732e+07
## [11254,] -1.098078e+07 -1.224080e+07
## [11255,] -1.210762e+07 -1.297971e+07
## [11256,] -2.081964e+07 -1.826081e+07
## [11257,] -3.775213e+09 -1.184383e+09
## [11258,] -2.522751e+09 -8.775368e+08
## [11259,] -1.177520e+08 -6.558888e+07
## [11260,] -1.114450e+07 -1.230873e+07
## [11261,] -1.204285e+07 -1.289853e+07
## [11262,] -2.059095e+07 -1.812810e+07

```

```
## [11263,] -2.795067e+09 -1.017512e+09
## [11264,] -2.580113e+09 -9.066091e+08
## [11265,] -1.163931e+08 -6.695212e+07
## [11266,] -1.099562e+07 -1.218866e+07
## [11267,] -1.208564e+07 -1.293929e+07
## [11268,] -2.107461e+07 -1.817171e+07
## [11269,] -3.277160e+09 -1.071579e+09
## [11270,] -2.465806e+09 -8.535378e+08
## [11271,] -1.082348e+08 -6.178371e+07
## [11272,] -1.088252e+07 -1.222031e+07
## [11273,] -1.219543e+07 -1.295382e+07
## [11274,] -2.098984e+07 -1.847163e+07
## [11275,] -3.287752e+09 -1.165007e+09
## [11276,] -2.401704e+09 -8.299596e+08
## [11277,] -1.151076e+08 -6.683091e+07
## [11278,] -1.096151e+07 -1.227264e+07
## [11279,] -1.192664e+07 -1.286961e+07
## [11280,] -2.132713e+07 -1.858122e+07
## [11281,] -3.493868e+09 -1.282287e+09
## [11282,] -2.330607e+09 -8.205945e+08
## [11283,] -1.212680e+08 -6.684340e+07
## [11284,] -1.095176e+07 -1.227277e+07
## [11285,] -1.212588e+07 -1.298093e+07
## [11286,] -2.105873e+07 -1.815697e+07
## [11287,] -3.308987e+09 -1.152214e+09
## [11288,] -2.730018e+09 -8.628640e+08
## [11289,] -1.048567e+08 -6.069683e+07
## [11290,] -1.107587e+07 -1.228361e+07
## [11291,] -1.204782e+07 -1.288607e+07
## [11292,] -2.095208e+07 -1.826192e+07
## [11293,] -3.087477e+09 -1.114461e+09
## [11294,] -2.385456e+09 -8.019372e+08
## [11295,] -1.133993e+08 -6.185580e+07
## [11296,] -1.084882e+07 -1.211702e+07
## [11297,] -1.224998e+07 -1.307382e+07
## [11298,] -2.118581e+07 -1.855227e+07
## [11299,] -3.548629e+09 -1.145637e+09
## [11300,] -2.449115e+09 -7.610378e+08
## [11301,] -1.334152e+08 -7.358362e+07
## [11302,] -1.106135e+07 -1.227877e+07
## [11303,] -1.212858e+07 -1.304743e+07
## [11304,] -2.120387e+07 -1.857948e+07
## [11305,] -2.883478e+09 -1.052905e+09
## [11306,] -1.855845e+09 -6.245202e+08
## [11307,] -1.147898e+08 -6.472311e+07
## [11308,] -1.107164e+07 -1.230530e+07
## [11309,] -1.213962e+07 -1.304116e+07
```

```

## [11310,] -2.128720e+07 -1.853365e+07
## [11311,] -3.149333e+09 -1.114104e+09
## [11312,] -2.361298e+09 -7.834089e+08
## [11313,] -1.034704e+08 -6.543557e+07
## [11314,] -1.097285e+07 -1.224807e+07
## [11315,] -1.208196e+07 -1.297787e+07
## [11316,] -2.138976e+07 -1.862936e+07
## [11317,] -3.159631e+09 -1.170698e+09
## [11318,] -2.306289e+09 -8.387580e+08
## [11319,] -1.110893e+08 -6.411241e+07
## [11320,] -1.090883e+07 -1.218043e+07
## [11321,] -1.215027e+07 -1.299908e+07
## [11322,] -2.122406e+07 -1.858806e+07
## [11323,] -3.254546e+09 -1.145275e+09
## [11324,] -2.537688e+09 -8.153863e+08
## [11325,] -1.187340e+08 -6.479690e+07
## [11326,] -1.107225e+07 -1.233212e+07
## [11327,] -1.209259e+07 -1.302073e+07
## [11328,] -2.117905e+07 -1.847386e+07
## [11329,] -3.693611e+09 -1.215608e+09
## [11330,] -3.033667e+09 -1.079297e+09
## [11331,] -1.219826e+08 -6.840902e+07
## [11332,] -1.103766e+07 -1.242671e+07
## [11333,] -1.220393e+07 -1.312558e+07
## [11334,] -2.057761e+07 -1.815635e+07
## [11335,] -3.034898e+09 -1.089104e+09
## [11336,] -2.244164e+09 -8.339337e+08
## [11337,] -1.093792e+08 -6.499015e+07
## [11338,] -1.109721e+07 -1.242146e+07
## [11339,] -1.224509e+07 -1.305813e+07
## [11340,] -2.083899e+07 -1.843274e+07
## [11341,] -3.211976e+09 -1.052508e+09
## [11342,] -2.353050e+09 -7.786614e+08
## [11343,] -1.129101e+08 -6.149465e+07
## [11344,] -1.116190e+07 -1.237944e+07
## [11345,] -1.216968e+07 -1.313625e+07
## [11346,] -2.094838e+07 -1.841220e+07
## [11347,] -3.004170e+09 -1.132590e+09
## [11348,] -2.267280e+09 -7.923018e+08
## [11349,] -1.091604e+08 -6.364714e+07
## [11350,] -1.091424e+07 -1.224871e+07
## [11351,] -1.217159e+07 -1.311690e+07
## [11352,] -2.129638e+07 -1.854222e+07
## [11353,] -3.670804e+09 -1.254806e+09
## [11354,] -2.360778e+09 -7.650549e+08
## [11355,] -1.190289e+08 -6.878108e+07
## [11356,] -1.092927e+07 -1.221245e+07

```



```

## [11357,] -1.228025e+07 -1.311574e+07
## [11358,] -2.150180e+07 -1.880650e+07
## [11359,] -3.361132e+09 -1.228373e+09
## [11360,] -2.447981e+09 -8.525112e+08
## [11361,] -1.121192e+08 -6.405494e+07
## [11362,] -1.114271e+07 -1.240121e+07
## [11363,] -1.224476e+07 -1.312524e+07
## [11364,] -2.124638e+07 -1.856768e+07
## [11365,] -3.535988e+09 -1.125916e+09
## [11366,] -2.431802e+09 -8.859008e+08
## [11367,] -1.125954e+08 -6.159056e+07
## [11368,] -1.113797e+07 -1.240672e+07
## [11369,] -1.227760e+07 -1.310590e+07
## [11370,] -2.155237e+07 -1.836855e+07
## [11371,] -1.911545e+09 -7.160375e+08
## [11372,] -1.293564e+09 -4.881948e+08
## [11373,] -2.689710e+07 -1.132381e+07
## [11374,] -1.436114e+04 -6.229819e+04
## [11375,] -5.438504e+04 -1.021088e+05
## [11376,] -9.902519e+05 -6.229826e+05
## [11377,] -1.767666e+09 -6.290708e+08
## [11378,] -1.449721e+09 -5.586773e+08
## [11379,] -2.657240e+07 -1.167876e+07
## [11380,] -1.472080e+04 -6.045069e+04
## [11381,] -5.056498e+04 -9.654346e+04
## [11382,] -9.783798e+05 -6.210950e+05
## [11383,] -1.767666e+09 -6.244043e+08
## [11384,] -1.317010e+09 -4.669242e+08
## [11385,] -2.689710e+07 -1.118337e+07
## [11386,] -1.418298e+04 -6.304498e+04
## [11387,] -5.438504e+04 -1.036823e+05
## [11388,] -9.902519e+05 -6.286624e+05
## [11389,] -1.728699e+09 -6.526636e+08
## [11390,] -1.287736e+09 -4.704364e+08
## [11391,] -2.678865e+07 -1.146513e+07
## [11392,] -1.436114e+04 -6.229819e+04
## [11393,] -5.484360e+04 -1.033667e+05
## [11394,] -9.854945e+05 -6.117002e+05
## [11395,] -1.547701e+09 -6.013327e+08
## [11396,] -1.299406e+09 -4.953903e+08
## [11397,] -2.788304e+07 -1.090511e+07
## [11398,] -1.348145e+04 -6.267103e+04
## [11399,] -5.530409e+04 -1.039985e+05
## [11400,] -9.902519e+05 -6.229826e+05
## [11401,] -3.469706e+09 -1.254427e+09
## [11402,] -2.471817e+09 -8.241512e+08
## [11403,] -1.200781e+08 -6.749966e+07

```

```

## [11404,] -1.119317e+07 -1.238086e+07
## [11405,] -1.213935e+07 -1.304443e+07
## [11406,] -2.124545e+07 -1.855650e+07
## [11407,] -3.127080e+09 -1.100884e+09
## [11408,] -2.305262e+09 -8.287712e+08
## [11409,] -1.166785e+08 -6.428384e+07
## [11410,] -1.098455e+07 -1.235987e+07
## [11411,] -1.226616e+07 -1.315095e+07
## [11412,] -2.103637e+07 -1.843299e+07
## [11413,] -2.851977e+09 -1.033904e+09
## [11414,] -2.669108e+09 -9.446524e+08
## [11415,] -1.242595e+08 -6.768432e+07
## [11416,] -1.089575e+07 -1.207314e+07
## [11417,] -1.218917e+07 -1.306768e+07
## [11418,] -2.150702e+07 -1.857340e+07
## [11419,] -2.822111e+09 -1.045877e+09
## [11420,] -2.152036e+09 -7.423662e+08
## [11421,] -1.056625e+08 -6.163855e+07
## [11422,] -1.109383e+07 -1.238636e+07
## [11423,] -1.222879e+07 -1.311581e+07
## [11424,] -2.153631e+07 -1.874541e+07
## [11425,] -3.033803e+09 -1.131922e+09
## [11426,] -2.274064e+09 -8.240196e+08
## [11427,] -1.093681e+08 -6.464452e+07
## [11428,] -1.121838e+07 -1.241263e+07
## [11429,] -1.233538e+07 -1.316560e+07
## [11430,] -2.141431e+07 -1.866260e+07
## [11431,] -3.491249e+09 -1.208374e+09
## [11432,] -2.652135e+09 -8.759982e+08
## [11433,] -1.176510e+08 -6.739051e+07
## [11434,] -1.109904e+07 -1.234990e+07
## [11435,] -1.226200e+07 -1.315376e+07
## [11436,] -2.106045e+07 -1.851727e+07
## [11437,] -3.105841e+09 -1.015758e+09
## [11438,] -2.281588e+09 -7.825109e+08
## [11439,] -1.131701e+08 -6.468138e+07
## [11440,] -1.098516e+07 -1.238675e+07
## [11441,] -1.224483e+07 -1.310399e+07
## [11442,] -2.144261e+07 -1.872007e+07
## [11443,] -2.551273e+09 -8.507376e+08
## [11444,] -2.212306e+09 -7.377449e+08
## [11445,] -1.170039e+08 -6.655897e+07
## [11446,] -1.119390e+07 -1.245522e+07
## [11447,] -1.229830e+07 -1.319135e+07
## [11448,] -2.112243e+07 -1.851355e+07
## [11449,] -3.157913e+09 -1.094405e+09
## [11450,] -2.367552e+09 -8.145574e+08

```

```
## [11451,] -1.111909e+08 -6.368741e+07
## [11452,] -1.126388e+07 -1.246048e+07
## [11453,] -1.233618e+07 -1.317354e+07
## [11454,] -2.107845e+07 -1.851355e+07
## [11455,] -2.675058e+09 -9.228373e+08
## [11456,] -2.735942e+09 -9.643232e+08
## [11457,] -1.141115e+08 -6.337808e+07
## [11458,] -1.112439e+07 -1.236090e+07
## [11459,] -1.222311e+07 -1.314192e+07
## [11460,] -2.136817e+07 -1.871259e+07
## [11461,] -3.126310e+09 -1.057570e+09
## [11462,] -2.511468e+09 -8.708873e+08
## [11463,] -1.136973e+08 -6.423855e+07
## [11464,] -1.123935e+07 -1.246627e+07
## [11465,] -1.236111e+07 -1.319217e+07
## [11466,] -2.124971e+07 -1.871546e+07
## [11467,] -3.295026e+09 -1.087945e+09
## [11468,] -2.593273e+09 -8.707971e+08
## [11469,] -1.157479e+08 -6.697599e+07
## [11470,] -1.107022e+07 -1.236666e+07
## [11471,] -1.235308e+07 -1.321597e+07
## [11472,] -2.125981e+07 -1.858023e+07
## [11473,] -2.981768e+09 -1.003524e+09
## [11474,] -2.158716e+09 -7.418666e+08
## [11475,] -1.071473e+08 -6.194726e+07
## [11476,] -1.130984e+07 -1.245086e+07
## [11477,] -1.232399e+07 -1.317518e+07
## [11478,] -2.165490e+07 -1.861779e+07
## [11479,] -3.523370e+09 -1.156522e+09
## [11480,] -2.211731e+09 -7.551403e+08
## [11481,] -1.108786e+08 -6.395231e+07
## [11482,] -1.112015e+07 -1.236692e+07
## [11483,] -1.219878e+07 -1.310603e+07
## [11484,] -2.175122e+07 -1.889389e+07
## [11485,] -3.556550e+09 -1.081654e+09
## [11486,] -2.676231e+09 -9.240690e+08
## [11487,] -1.245322e+08 -6.634228e+07
## [11488,] -1.112537e+07 -1.245651e+07
## [11489,] -1.235540e+07 -1.321480e+07
## [11490,] -2.142472e+07 -1.875515e+07
## [11491,] -3.489985e+09 -1.194710e+09
## [11492,] -2.592884e+09 -8.657914e+08
## [11493,] -1.138114e+08 -6.415654e+07
## [11494,] -1.120536e+07 -1.246204e+07
## [11495,] -1.226286e+07 -1.310487e+07
## [11496,] -2.135031e+07 -1.855128e+07
## [11497,] -3.032456e+09 -1.137377e+09
```

```
## [11498,] -2.535302e+09 -8.801262e+08
## [11499,] -1.194962e+08 -6.792343e+07
## [11500,] -1.123046e+07 -1.250960e+07
## [11501,] -1.230948e+07 -1.325647e+07
## [11502,] -2.051422e+07 -1.812737e+07
## [11503,] -2.494103e+09 -8.556018e+08
## [11504,] -1.853344e+09 -6.190267e+08
## [11505,] -1.105345e+08 -6.335743e+07
## [11506,] -1.122558e+07 -1.249391e+07
## [11507,] -1.236655e+07 -1.327633e+07
## [11508,] -2.113277e+07 -1.860572e+07
## [11509,] -3.262307e+09 -1.081403e+09
## [11510,] -2.446091e+09 -8.466688e+08
## [11511,] -1.092340e+08 -6.454142e+07
## [11512,] -1.130581e+07 -1.251514e+07
## [11513,] -1.238228e+07 -1.324259e+07
## [11514,] -2.179400e+07 -1.890254e+07
## [11515,] -3.943969e+09 -1.423577e+09
## [11516,] -2.429919e+09 -8.608002e+08
## [11517,] -1.112280e+08 -6.405012e+07
## [11518,] -1.135627e+07 -1.261586e+07
## [11519,] -1.251422e+07 -1.331809e+07
## [11520,] -2.124904e+07 -1.866310e+07
## [11521,] -3.315317e+09 -1.239805e+09
## [11522,] -2.303354e+09 -8.276277e+08
## [11523,] -1.117346e+08 -6.393157e+07
## [11524,] -1.109676e+07 -1.243150e+07
## [11525,] -1.264726e+07 -1.347693e+07
## [11526,] -2.153591e+07 -1.878651e+07
## [11527,] -3.735513e+09 -1.353779e+09
## [11528,] -2.510166e+09 -8.275838e+08
## [11529,] -1.244862e+08 -6.889020e+07
## [11530,] -1.135676e+07 -1.256346e+07
## [11531,] -1.240074e+07 -1.336909e+07
## [11532,] -2.125915e+07 -1.871396e+07
## [11533,] -3.187603e+09 -1.181334e+09
## [11534,] -2.650168e+09 -9.185880e+08
## [11535,] -1.054413e+08 -6.229292e+07
## [11536,] -1.127660e+07 -1.257416e+07
## [11537,] -1.243032e+07 -1.329586e+07
## [11538,] -2.132141e+07 -1.865850e+07
## [11539,] -3.011123e+09 -1.081001e+09
## [11540,] -2.534533e+09 -1.004079e+09
## [11541,] -1.345065e+08 -7.403401e+07
## [11542,] -1.119161e+07 -1.241073e+07
## [11543,] -1.235434e+07 -1.319944e+07
## [11544,] -2.133953e+07 -1.871683e+07
```

```

## [11545,] -3.544169e+09 -1.259356e+09
## [11546,] -2.097715e+09 -7.679386e+08
## [11547,] -1.122261e+08 -6.480808e+07
## [11548,] -1.138731e+07 -1.256913e+07
## [11549,] -1.228586e+07 -1.322124e+07
## [11550,] -2.153096e+07 -1.866796e+07
## [11551,] -3.412078e+09 -1.149311e+09
## [11552,] -2.493631e+09 -8.940303e+08
## [11553,] -1.169809e+08 -6.808727e+07
## [11554,] -1.144804e+07 -1.265415e+07
## [11555,] -1.231570e+07 -1.330583e+07
## [11556,] -2.103717e+07 -1.857787e+07
## [11557,] -3.176571e+09 -1.174622e+09
## [11558,] -2.453137e+09 -8.413783e+08
## [11559,] -1.195180e+08 -6.793984e+07
## [11560,] -1.128235e+07 -1.263319e+07
## [11561,] -1.239695e+07 -1.328994e+07
## [11562,] -2.123124e+07 -1.873954e+07
## [11563,] -2.980016e+09 -1.168190e+09
## [11564,] -2.591483e+09 -8.507272e+08
## [11565,] -1.165780e+08 -6.589754e+07
## [11566,] -1.123743e+07 -1.254336e+07
## [11567,] -1.236283e+07 -1.331898e+07
## [11568,] -2.128947e+07 -1.863895e+07
## [11569,] -3.218386e+09 -1.099009e+09
## [11570,] -2.776201e+09 -9.181712e+08
## [11571,] -1.166110e+08 -6.643322e+07
## [11572,] -1.132786e+07 -1.259121e+07
## [11573,] -1.246694e+07 -1.339829e+07
## [11574,] -2.166967e+07 -1.888023e+07
## [11575,] -3.061637e+09 -1.136346e+09
## [11576,] -2.279180e+09 -8.131622e+08
## [11577,] -1.225792e+08 -7.042816e+07
## [11578,] -1.118797e+07 -1.247529e+07
## [11579,] -1.238088e+07 -1.327330e+07
## [11580,] -2.118529e+07 -1.853117e+07
## [11581,] -3.292571e+09 -1.278678e+09
## [11582,] -2.741873e+09 -9.328381e+08
## [11583,] -1.193894e+08 -6.784292e+07
## [11584,] -1.110344e+07 -1.231787e+07
## [11585,] -1.239124e+07 -1.327687e+07
## [11586,] -2.161708e+07 -1.897683e+07
## [11587,] -3.061468e+09 -1.056030e+09
## [11588,] -2.286785e+09 -7.855558e+08
## [11589,] -1.110927e+08 -6.512462e+07
## [11590,] -1.125817e+07 -1.246502e+07
## [11591,] -1.245042e+07 -1.334888e+07

```

```
## [11592,] -2.155345e+07 -1.879251e+07
## [11593,] -3.476729e+09 -1.136140e+09
## [11594,] -2.484698e+09 -8.504152e+08
## [11595,] -1.162417e+08 -6.581448e+07
## [11596,] -1.117338e+07 -1.250731e+07
## [11597,] -1.248006e+07 -1.335088e+07
## [11598,] -2.167893e+07 -1.895134e+07
## [11599,] -3.249578e+09 -1.154963e+09
## [11600,] -2.341119e+09 -8.221781e+08
## [11601,] -1.140284e+08 -6.398417e+07
## [11602,] -1.128859e+07 -1.266633e+07
## [11603,] -1.252556e+07 -1.336205e+07
## [11604,] -2.196557e+07 -1.905190e+07
## [11605,] -5.065262e+09 -1.725003e+09
## [11606,] -2.444126e+09 -7.762325e+08
## [11607,] -1.224828e+08 -6.965455e+07
## [11608,] -1.125379e+07 -1.257650e+07
## [11609,] -1.241163e+07 -1.335529e+07
## [11610,] -2.155559e+07 -1.873231e+07
## [11611,] -3.767893e+09 -1.284968e+09
## [11612,] -2.278523e+09 -8.454685e+08
## [11613,] -1.131848e+08 -6.452430e+07
## [11614,] -1.120892e+07 -1.264019e+07
## [11615,] -1.244816e+07 -1.342192e+07
## [11616,] -2.166994e+07 -1.888049e+07
## [11617,] -3.487096e+09 -1.298256e+09
## [11618,] -2.435886e+09 -8.595899e+08
## [11619,] -1.121064e+08 -6.488565e+07
## [11620,] -1.138463e+07 -1.271480e+07
## [11621,] -1.252136e+07 -1.344751e+07
## [11622,] -2.126673e+07 -1.876252e+07
## [11623,] -3.575618e+09 -1.218859e+09
## [11624,] -2.293818e+09 -7.715492e+08
## [11625,] -1.079508e+08 -6.456113e+07
## [11626,] -1.126929e+07 -1.264588e+07
## [11627,] -1.246241e+07 -1.337564e+07
## [11628,] -2.144369e+07 -1.848367e+07
## [11629,] -3.356172e+09 -1.192968e+09
## [11630,] -2.372176e+09 -7.805882e+08
## [11631,] -1.172786e+08 -6.728030e+07
## [11632,] -1.146050e+07 -1.267786e+07
## [11633,] -1.257543e+07 -1.341355e+07
## [11634,] -2.139538e+07 -1.884179e+07
## [11635,] -5.077884e+09 -1.802900e+09
## [11636,] -2.540935e+09 -8.690392e+08
## [11637,] -1.086201e+08 -6.257066e+07
## [11638,] -1.141510e+07 -1.272038e+07
```

```
## [11639,] -1.249900e+07 -1.348192e+07
## [11640,] -2.159510e+07 -1.857266e+07
## [11641,] -2.529018e+09 -8.487329e+08
## [11642,] -2.103540e+09 -7.226935e+08
## [11643,] -1.218900e+08 -6.662019e+07
## [11644,] -1.184760e+07 -1.300403e+07
## [11645,] -1.250634e+07 -1.334936e+07
## [11646,] -2.186595e+07 -1.890706e+07
## [11647,] -3.453794e+09 -1.264675e+09
## [11648,] -2.403588e+09 -8.929796e+08
## [11649,] -1.095585e+08 -6.495954e+07
## [11650,] -1.150649e+07 -1.269432e+07
## [11651,] -1.250327e+07 -1.349716e+07
## [11652,] -2.153458e+07 -1.870237e+07
## [11653,] -3.122381e+09 -1.129198e+09
## [11654,] -2.247072e+09 -8.310234e+08
## [11655,] -1.139844e+08 -6.428644e+07
## [11656,] -1.149131e+07 -1.267838e+07
## [11657,] -1.261105e+07 -1.344315e+07
## [11658,] -2.152348e+07 -1.889954e+07
## [11659,] -3.195716e+09 -1.154392e+09
## [11660,] -2.639702e+09 -9.620939e+08
## [11661,] -1.148801e+08 -6.361684e+07
## [11662,] -1.158758e+07 -1.278483e+07
## [11663,] -1.260060e+07 -1.343236e+07
## [11664,] -2.120269e+07 -1.865065e+07
## [11665,] -3.508602e+09 -1.148068e+09
## [11666,] -2.532379e+09 -9.123845e+08
## [11667,] -1.153457e+08 -6.246556e+07
## [11668,] -1.115516e+07 -1.263076e+07
## [11669,] -1.250173e+07 -1.343077e+07
## [11670,] -2.079295e+07 -1.847164e+07
## [11671,] -2.897276e+09 -1.037099e+09
## [11672,] -2.088335e+09 -7.400362e+08
## [11673,] -1.169413e+08 -6.549139e+07
## [11674,] -1.139569e+07 -1.273181e+07
## [11675,] -1.259598e+07 -1.347436e+07
## [11676,] -2.161146e+07 -1.876365e+07
## [11677,] -3.090957e+09 -1.147912e+09
## [11678,] -2.459284e+09 -8.735121e+08
## [11679,] -1.238479e+08 -6.824250e+07
## [11680,] -1.149193e+07 -1.275350e+07
## [11681,] -1.266807e+07 -1.346958e+07
## [11682,] -2.167732e+07 -1.903328e+07
## [11683,] -3.474927e+09 -1.198779e+09
## [11684,] -2.185470e+09 -7.575846e+08
## [11685,] -1.123169e+08 -6.386938e+07
```

```
## [11686,] -1.127089e+07 -1.265819e+07
## [11687,] -1.236302e+07 -1.336936e+07
## [11688,] -2.155801e+07 -1.893189e+07
## [11689,] -3.269204e+09 -1.091525e+09
## [11690,] -2.842724e+09 -9.616199e+08
## [11691,] -1.175270e+08 -6.627025e+07
## [11692,] -1.120614e+07 -1.256311e+07
## [11693,] -1.267626e+07 -1.349965e+07
## [11694,] -2.154194e+07 -1.895850e+07
## [11695,] -3.163151e+09 -1.066831e+09
## [11696,] -2.355138e+09 -7.843997e+08
## [11697,] -1.230704e+08 -7.062457e+07
## [11698,] -1.146753e+07 -1.277574e+07
## [11699,] -1.274818e+07 -1.358110e+07
## [11700,] -2.216441e+07 -1.921612e+07
## [11701,] -1.728699e+09 -6.244043e+08
## [11702,] -1.317010e+09 -4.846168e+08
## [11703,] -2.700577e+07 -1.118337e+07
## [11704,] -1.365516e+04 -6.155585e+04
## [11705,] -5.484360e+04 -1.024225e+05
## [11706,] -1.009396e+06 -6.079623e+05
## [11707,] -1.713234e+09 -6.244043e+08
## [11708,] -1.305261e+09 -4.810520e+08
## [11709,] -2.668041e+07 -1.104380e+07
## [11710,] -1.490230e+04 -6.229819e+04
## [11711,] -5.034461e+04 -9.715413e+04
## [11712,] -1.050686e+06 -6.420157e+05
## [11713,] -1.752027e+09 -6.431743e+08
## [11714,] -1.311129e+09 -4.881948e+08
## [11715,] -2.646460e+07 -1.125348e+07
## [11716,] -1.490230e+04 -6.192647e+04
## [11717,] -5.507360e+04 -1.017955e+05
## [11718,] -1.040897e+06 -6.574484e+05
## [11719,] -1.705527e+09 -6.384558e+08
## [11720,] -1.317010e+09 -4.846168e+08
## [11721,] -2.635703e+07 -1.125348e+07
## [11722,] -1.472080e+04 -6.229819e+04
## [11723,] -5.438504e+04 -1.024225e+05
## [11724,] -9.998011e+05 -6.192103e+05
## [11725,] -1.674874e+09 -6.526636e+08
## [11726,] -1.281921e+09 -4.990078e+08
## [11727,] -2.678865e+07 -1.118337e+07
## [11728,] -1.382999e+04 -6.155585e+04
## [11729,] -5.438504e+04 -1.014827e+05
## [11730,] -9.950208e+05 -6.135734e+05
## [11731,] -4.033610e+09 -1.372110e+09
## [11732,] -2.253826e+09 -7.889070e+08
```



```
## [11733,] -1.117493e+08 -6.478236e+07
## [11734,] -1.149811e+07 -1.284540e+07
## [11735,] -1.262278e+07 -1.351650e+07
## [11736,] -2.206217e+07 -1.919426e+07
## [11737,] -4.140564e+09 -1.491821e+09
## [11738,] -2.482413e+09 -8.728799e+08
## [11739,] -1.199244e+08 -6.807351e+07
## [11740,] -1.132716e+07 -1.264345e+07
## [11741,] -1.266504e+07 -1.351692e+07
## [11742,] -2.211028e+07 -1.924963e+07
## [11743,] -3.268330e+09 -1.204658e+09
## [11744,] -2.482337e+09 -8.824471e+08
## [11745,] -1.259929e+08 -7.609393e+07
## [11746,] -1.142815e+07 -1.270225e+07
## [11747,] -1.264296e+07 -1.354822e+07
## [11748,] -2.163922e+07 -1.891421e+07
## [11749,] -3.332228e+09 -1.090818e+09
## [11750,] -2.425777e+09 -8.583358e+08
## [11751,] -1.112314e+08 -6.573899e+07
## [11752,] -1.159033e+07 -1.280906e+07
## [11753,] -1.257910e+07 -1.350735e+07
## [11754,] -2.176495e+07 -1.910493e+07
## [11755,] -3.110013e+09 -1.103115e+09
## [11756,] -2.276262e+09 -8.160478e+08
## [11757,] -1.116895e+08 -6.524315e+07
## [11758,] -1.155494e+07 -1.301823e+07
## [11759,] -1.268567e+07 -1.361052e+07
## [11760,] -2.226212e+07 -1.923357e+07
## [11761,] -3.628803e+09 -1.283161e+09
## [11762,] -2.721720e+09 -8.869543e+08
## [11763,] -1.152900e+08 -6.611614e+07
## [11764,] -1.172822e+07 -1.292717e+07
## [11765,] -1.278060e+07 -1.364354e+07
## [11766,] -2.188295e+07 -1.911072e+07
## [11767,] -3.440248e+09 -1.134081e+09
## [11768,] -2.587828e+09 -9.014167e+08
## [11769,] -1.135315e+08 -6.411389e+07
## [11770,] -1.158588e+07 -1.290599e+07
## [11771,] -1.277905e+07 -1.359848e+07
## [11772,] -2.205120e+07 -1.926798e+07
## [11773,] -3.798998e+09 -1.178447e+09
## [11774,] -2.679407e+09 -9.160885e+08
## [11775,] -1.200918e+08 -6.871925e+07
## [11776,] -1.157065e+07 -1.284711e+07
## [11777,] -1.260428e+07 -1.355871e+07
## [11778,] -2.219347e+07 -1.927469e+07
## [11779,] -4.091552e+09 -1.921430e+09
```

```
## [11780,] -2.579504e+09 -9.557450e+08
## [11781,] -1.133411e+08 -6.447409e+07
## [11782,] -1.159641e+07 -1.285285e+07
## [11783,] -1.259269e+07 -1.357921e+07
## [11784,] -2.165867e+07 -1.921461e+07
## [11785,] -3.505797e+09 -1.178237e+09
## [11786,] -2.161071e+09 -7.432474e+08
## [11787,] -9.830835e+07 -5.779012e+07
## [11788,] -1.157115e+07 -1.286903e+07
## [11789,] -1.276077e+07 -1.363392e+07
## [11790,] -2.187391e+07 -1.893528e+07
## [11791,] -3.150960e+09 -1.108856e+09
## [11792,] -2.385243e+09 -8.018141e+08
## [11793,] -1.070337e+08 -6.285268e+07
## [11794,] -1.151059e+07 -1.281050e+07
## [11795,] -1.262988e+07 -1.361421e+07
## [11796,] -2.203807e+07 -1.927672e+07
## [11797,] -3.245746e+09 -1.071877e+09
## [11798,] -2.424949e+09 -8.626016e+08
## [11799,] -1.127384e+08 -6.268684e+07
## [11800,] -1.145499e+07 -1.276250e+07
## [11801,] -1.266477e+07 -1.354912e+07
## [11802,] -2.185868e+07 -1.912989e+07
## [11803,] -3.078058e+09 -1.096427e+09
## [11804,] -2.353507e+09 -8.155676e+08
## [11805,] -1.096802e+08 -6.709505e+07
## [11806,] -1.153109e+07 -1.287491e+07
## [11807,] -1.278417e+07 -1.363998e+07
## [11808,] -2.182822e+07 -1.909094e+07
## [11809,] -3.057241e+09 -1.127402e+09
## [11810,] -2.298663e+09 -7.743601e+08
## [11811,] -1.197839e+08 -6.814039e+07
## [11812,] -1.137473e+07 -1.279488e+07
## [11813,] -1.269507e+07 -1.357685e+07
## [11814,] -2.175715e+07 -1.919186e+07
## [11815,] -3.309511e+09 -1.139902e+09
## [11816,] -2.505268e+09 -8.341171e+08
## [11817,] -1.227977e+08 -6.712009e+07
## [11818,] -1.161265e+07 -1.290744e+07
## [11819,] -1.284273e+07 -1.365329e+07
## [11820,] -2.214148e+07 -1.918429e+07
## [11821,] -3.417434e+09 -1.249291e+09
## [11822,] -2.440576e+09 -8.434256e+08
## [11823,] -1.223680e+08 -6.629023e+07
## [11824,] -1.128473e+07 -1.276328e+07
## [11825,] -1.276239e+07 -1.366822e+07
## [11826,] -2.185989e+07 -1.923585e+07
```

```

## [11827,] -3.276982e+09 -1.177712e+09
## [11828,] -2.034072e+09 -8.622426e+08
## [11829,] -1.108756e+08 -6.378280e+07
## [11830,] -1.150147e+07 -1.288105e+07
## [11831,] -1.268035e+07 -1.361226e+07
## [11832,] -2.169237e+07 -1.909964e+07
## [11833,] -3.706340e+09 -1.288969e+09
## [11834,] -2.290452e+09 -7.831589e+08
## [11835,] -1.205561e+08 -6.889673e+07
## [11836,] -1.176090e+07 -1.298834e+07
## [11837,] -1.285213e+07 -1.373562e+07
## [11838,] -2.172582e+07 -1.916244e+07
## [11839,] -3.537894e+09 -1.242441e+09
## [11840,] -2.424197e+09 -8.526519e+08
## [11841,] -1.247799e+08 -6.910870e+07
## [11842,] -1.165410e+07 -1.294577e+07
## [11843,] -1.282833e+07 -1.370011e+07
## [11844,] -2.244057e+07 -1.948388e+07
## [11845,] -3.405832e+09 -1.216140e+09
## [11846,] -2.182684e+09 -7.966228e+08
## [11847,] -1.169894e+08 -6.620693e+07
## [11848,] -1.164417e+07 -1.295677e+07
## [11849,] -1.289715e+07 -1.377123e+07
## [11850,] -2.190278e+07 -1.911880e+07
## [11851,] -2.984520e+09 -9.584004e+08
## [11852,] -2.182613e+09 -7.162921e+08
## [11853,] -1.140809e+08 -6.587912e+07
## [11854,] -1.159853e+07 -1.290326e+07
## [11855,] -1.279011e+07 -1.367512e+07
## [11856,] -2.195477e+07 -1.924078e+07
## [11857,] -3.971264e+09 -1.363238e+09
## [11858,] -2.391902e+09 -7.919214e+08
## [11859,] -1.170390e+08 -6.505699e+07
## [11860,] -1.165995e+07 -1.297878e+07
## [11861,] -1.283813e+07 -1.375023e+07
## [11862,] -2.184587e+07 -1.919123e+07
## [11863,] -3.297568e+09 -1.058861e+09
## [11864,] -2.407647e+09 -8.665630e+08
## [11865,] -1.253678e+08 -7.470096e+07
## [11866,] -1.174694e+07 -1.298442e+07
## [11867,] -1.285260e+07 -1.373974e+07
## [11868,] -2.225356e+07 -1.918366e+07
## [11869,] -3.481864e+09 -1.241957e+09
## [11870,] -2.328627e+09 -8.287341e+08
## [11871,] -1.237495e+08 -7.096279e+07
## [11872,] -1.145735e+07 -1.292536e+07
## [11873,] -1.276832e+07 -1.365984e+07

```

```
## [11874,] -2.212954e+07 -1.933069e+07
## [11875,] -3.912366e+09 -1.489697e+09
## [11876,] -2.423444e+09 -8.333669e+08
## [11877,] -1.153328e+08 -6.597839e+07
## [11878,] -1.153865e+07 -1.281873e+07
## [11879,] -1.292033e+07 -1.379883e+07
## [11880,] -2.233893e+07 -1.946302e+07
## [11881,] -3.286347e+09 -1.089103e+09
## [11882,] -2.391379e+09 -8.520719e+08
## [11883,] -1.201187e+08 -6.908714e+07
## [11884,] -1.176803e+07 -1.302812e+07
## [11885,] -1.299294e+07 -1.384829e+07
## [11886,] -2.191426e+07 -1.927634e+07
## [11887,] -3.024467e+09 -1.107534e+09
## [11888,] -2.212245e+09 -8.191572e+08
## [11889,] -1.107084e+08 -6.567592e+07
## [11890,] -1.169663e+07 -1.300672e+07
## [11891,] -1.270845e+07 -1.367038e+07
## [11892,] -2.217990e+07 -1.951495e+07
## [11893,] -3.127675e+09 -1.119873e+09
## [11894,] -2.576943e+09 -9.096169e+08
## [11895,] -1.248363e+08 -6.776512e+07
## [11896,] -1.167151e+07 -1.301250e+07
## [11897,] -1.303623e+07 -1.386009e+07
## [11898,] -2.190117e+07 -1.928508e+07
## [11899,] -3.158683e+09 -1.040053e+09
## [11900,] -2.486919e+09 -8.707590e+08
## [11901,] -1.182123e+08 -6.764318e+07
## [11902,] -1.180489e+07 -1.306689e+07
## [11903,] -1.285348e+07 -1.373701e+07
## [11904,] -2.230215e+07 -1.943924e+07
## [11905,] -3.054622e+09 -1.100933e+09
## [11906,] -2.718452e+09 -9.539505e+08
## [11907,] -1.073549e+08 -6.276680e+07
## [11908,] -1.183591e+07 -1.306716e+07
## [11909,] -1.295963e+07 -1.383214e+07
## [11910,] -2.166566e+07 -1.905367e+07
## [11911,] -2.802419e+09 -1.125760e+09
## [11912,] -2.609444e+09 -8.753720e+08
## [11913,] -1.086761e+08 -6.344409e+07
## [11914,] -1.170809e+07 -1.308887e+07
## [11915,] -1.291219e+07 -1.380864e+07
## [11916,] -2.215451e+07 -1.931193e+07
## [11917,] -3.328171e+09 -1.144549e+09
## [11918,] -2.634287e+09 -9.289213e+08
## [11919,] -1.212568e+08 -6.873077e+07
## [11920,] -1.154546e+07 -1.289545e+07
```

```
## [11921,] -1.283319e+07 -1.374148e+07
## [11922,] -2.215763e+07 -1.943072e+07
## [11923,] -3.414576e+09 -1.176192e+09
## [11924,] -2.446178e+09 -8.609416e+08
## [11925,] -1.196654e+08 -6.684756e+07
## [11926,] -1.160649e+07 -1.301907e+07
## [11927,] -1.293729e+07 -1.383095e+07
## [11928,] -2.246285e+07 -1.961048e+07
## [11929,] -3.147615e+09 -1.125555e+09
## [11930,] -2.311599e+09 -7.371703e+08
## [11931,] -1.151622e+08 -6.670149e+07
## [11932,] -1.172902e+07 -1.303549e+07
## [11933,] -1.291301e+07 -1.382407e+07
## [11934,] -2.216075e+07 -1.941255e+07
## [11935,] -3.317074e+09 -1.176087e+09
## [11936,] -2.486310e+09 -8.513583e+08
## [11937,] -1.243401e+08 -7.035278e+07
## [11938,] -1.178028e+07 -1.307334e+07
## [11939,] -1.299463e+07 -1.385369e+07
## [11940,] -2.227982e+07 -1.938677e+07
## [11941,] -3.381444e+09 -1.088094e+09
## [11942,] -2.280140e+09 -7.771335e+08
## [11943,] -1.090221e+08 -6.692256e+07
## [11944,] -1.180627e+07 -1.304140e+07
## [11945,] -1.302178e+07 -1.386345e+07
## [11946,] -2.192695e+07 -1.940404e+07
## [11947,] -3.178550e+09 -1.088044e+09
## [11948,] -2.256886e+09 -8.183264e+08
## [11949,] -1.170490e+08 -6.272204e+07
## [11950,] -1.186798e+07 -1.312246e+07
## [11951,] -1.297580e+07 -1.387442e+07
## [11952,] -2.233948e+07 -1.944242e+07
## [11953,] -3.252364e+09 -1.131406e+09
## [11954,] -2.518236e+09 -7.906317e+08
## [11955,] -1.168557e+08 -6.458346e+07
## [11956,] -1.170947e+07 -1.312273e+07
## [11957,] -1.293580e+07 -1.383670e+07
## [11958,] -2.181408e+07 -1.919288e+07
## [11959,] -3.578906e+09 -1.266794e+09
## [11960,] -2.493719e+09 -8.940830e+08
## [11961,] -1.128668e+08 -6.699759e+07
## [11962,] -1.179691e+07 -1.310705e+07
## [11963,] -1.308880e+07 -1.393626e+07
## [11964,] -1.542061e+07 -1.542061e+07
## [11965,] -3.446074e+09 -1.188274e+09
## [11966,] -2.397224e+09 -7.722776e+08
## [11967,] -1.113477e+08 -6.548914e+07
```

```

## [11968,] -1.166420e+07 -1.291886e+07
## [11969,] -1.301082e+07 -1.393992e+07
## [11970,] -2.239416e+07 -1.953573e+07
## [11971,] -3.702248e+09 -1.220565e+09
## [11972,] -2.334025e+09 -8.087231e+08
## [11973,] -1.229147e+08 -6.875995e+07
## [11974,] -1.162361e+07 -1.303182e+07
## [11975,] -1.277168e+07 -1.371415e+07
## [11976,] -2.238598e+07 -1.971891e+07
## [11977,] -3.489801e+09 -1.279824e+09
## [11978,] -2.119655e+09 -7.277685e+08
## [11979,] -1.174246e+08 -6.704764e+07
## [11980,] -1.185371e+07 -1.312906e+07
## [11981,] -1.305374e+07 -1.393668e+07
## [11982,] -2.232531e+07 -1.947142e+07
## [11983,] -3.230443e+09 -1.137272e+09
## [11984,] -2.525769e+09 -8.412522e+08
## [11985,] -1.238788e+08 -6.930712e+07
## [11986,] -1.178217e+07 -1.322137e+07
## [11987,] -1.298688e+07 -1.391148e+07
## [11988,] -2.229861e+07 -1.941484e+07
## [11989,] -3.198651e+09 -1.149827e+09
## [11990,] -2.436727e+09 -7.189186e+08
## [11991,] -1.103423e+08 -6.271361e+07
## [11992,] -1.182855e+07 -1.318911e+07
## [11993,] -1.297512e+07 -1.391028e+07
## [11994,] -2.256971e+07 -1.972096e+07
## [11995,] -3.083400e+09 -1.130738e+09
## [11996,] -2.444515e+09 -8.176707e+08
## [11997,] -1.172971e+08 -6.867511e+07
## [11998,] -1.182880e+07 -1.320021e+07
## [11999,] -1.313663e+07 -1.395261e+07
## [12000,] -2.191103e+07 -1.947346e+07
## [12001,] -2.980764e+09 -1.124479e+09
## [12002,] -2.286723e+09 -7.946398e+08
## [12003,] -1.152656e+08 -6.474322e+07
## [12004,] -1.197288e+07 -1.333604e+07
## [12005,] -1.303016e+07 -1.401865e+07
## [12006,] -2.177680e+07 -1.942069e+07
## [12007,] -3.042053e+09 -1.124427e+09
## [12008,] -2.171763e+09 -7.318622e+08
## [12009,] -1.175405e+08 -6.938348e+07
## [12010,] -1.173676e+07 -1.315703e+07
## [12011,] -1.301640e+07 -1.392738e+07
## [12012,] -2.231931e+07 -1.955039e+07
## [12013,] -3.390690e+09 -1.143205e+09
## [12014,] -2.412386e+09 -8.551151e+08

```

```

## [12015,] -1.086858e+08 -6.212453e+07
## [12016,] -1.215471e+07 -1.337474e+07
## [12017,] -1.293905e+07 -1.392048e+07
## [12018,] -2.220952e+07 -1.938436e+07
## [12019,] -3.072719e+09 -1.087086e+09
## [12020,] -2.428123e+09 -7.898583e+08
## [12021,] -1.117786e+08 -6.565002e+07
## [12022,] -1.191166e+07 -1.323884e+07
## [12023,] -1.299755e+07 -1.392985e+07
## [12024,] -2.230706e+07 -1.965546e+07
## [12025,] -3.062311e+09 -1.087036e+09
## [12026,] -2.500604e+09 -8.982076e+08
## [12027,] -1.142263e+08 -6.463632e+07
## [12028,] -1.169157e+07 -1.308219e+07
## [12029,] -1.300504e+07 -1.392661e+07
## [12030,] -2.144824e+07 -1.905821e+07
## [12031,] -1.720958e+09 -6.526636e+08
## [12032,] -1.419000e+09 -5.663729e+08
## [12033,] -2.668041e+07 -1.104380e+07
## [12034,] -1.436114e+04 -6.192647e+04
## [12035,] -5.507360e+04 -1.017955e+05
## [12036,] -9.854945e+05 -6.173285e+05
## [12037,] -1.713234e+09 -6.622223e+08
## [12038,] -1.499559e+09 -5.246987e+08
## [12039,] -2.668041e+07 -1.160733e+07
## [12040,] -1.348145e+04 -6.342004e+04
## [12041,] -5.576650e+04 -1.011704e+05
## [12042,] -1.043340e+06 -6.593904e+05
## [12043,] -1.871014e+09 -7.361278e+08
## [12044,] -1.293564e+09 -4.881948e+08
## [12045,] -2.843845e+07 -1.255296e+07
## [12046,] -1.472080e+04 -6.192647e+04
## [12047,] -5.646373e+04 -1.011704e+05
## [12048,] -1.016623e+06 -6.079623e+05
## [12049,] -1.720958e+09 -6.479103e+08
## [12050,] -1.443551e+09 -5.321574e+08
## [12051,] -2.635703e+07 -1.153612e+07
## [12052,] -1.472080e+04 -6.155585e+04
## [12053,] -5.530409e+04 -1.017955e+05
## [12054,] -9.902519e+05 -6.173285e+05
## [12055,] -1.767666e+09 -6.290708e+08
## [12056,] -1.293564e+09 -4.775003e+08
## [12057,] -2.303759e+07 -9.313847e+06
## [12058,] -2.308006e+04 -6.997602e+04
## [12059,] -6.257925e+04 -1.115858e+05
## [12060,] -8.987280e+05 -5.851137e+05
## [12061,] -2.521108e+09 -8.550193e+08

```

```
## [12062,] -2.332992e+09 -8.173648e+08
## [12063,] -1.147069e+08 -6.567479e+07
## [12064,] -1.182968e+07 -1.324997e+07
## [12065,] -1.307945e+07 -1.402564e+07
## [12066,] -2.221985e+07 -1.952069e+07
## [12067,] -2.879291e+09 -1.014442e+09
## [12068,] -2.541178e+09 -9.078662e+08
## [12069,] -1.165240e+08 -6.705143e+07
## [12070,] -1.190689e+07 -1.327726e+07
## [12071,] -1.318810e+07 -1.404975e+07
## [12072,] -2.273357e+07 -1.974633e+07
## [12073,] -3.250446e+09 -1.136551e+09
## [12074,] -2.852618e+09 -9.724302e+08
## [12075,] -1.375382e+08 -7.683704e+07
## [12076,] -1.197943e+07 -1.327766e+07
## [12077,] -1.309446e+07 -1.398977e+07
## [12078,] -2.267971e+07 -1.981314e+07
## [12079,] -3.746070e+09 -1.305697e+09
## [12080,] -2.254926e+09 -7.490630e+08
## [12081,] -1.163641e+08 -6.710150e+07
## [12082,] -1.192799e+07 -1.325063e+07
## [12083,] -1.298857e+07 -1.396085e+07
## [12084,] -2.193681e+07 -1.940277e+07
## [12085,] -2.908881e+09 -1.026057e+09
## [12086,] -2.148220e+09 -8.217029e+08
## [12087,] -1.305808e+08 -7.290547e+07
## [12088,] -1.190765e+07 -1.332703e+07
## [12089,] -1.301885e+07 -1.393358e+07
## [12090,] -2.279603e+07 -1.986850e+07
## [12091,] -3.175879e+09 -1.167823e+09
## [12092,] -2.540484e+09 -8.928496e+08
## [12093,] -1.233047e+08 -6.974927e+07
## [12094,] -1.195427e+07 -1.328920e+07
## [12095,] -1.312411e+07 -1.403144e+07
## [12096,] -2.247311e+07 -1.963067e+07
## [12097,] -3.335313e+09 -1.142430e+09
## [12098,] -2.515936e+09 -9.122994e+08
## [12099,] -1.203183e+08 -6.923851e+07
## [12100,] -1.190803e+07 -1.321332e+07
## [12101,] -1.315810e+07 -1.406659e+07
## [12102,] -2.244632e+07 -1.967988e+07
## [12103,] -3.389266e+09 -1.206248e+09
## [12104,] -2.614455e+09 -9.518747e+08
## [12105,] -1.198929e+08 -6.667539e+07
## [12106,] -1.194434e+07 -1.337675e+07
## [12107,] -1.320283e+07 -1.407232e+07
## [12108,] -2.214841e+07 -1.958062e+07
```



```
## [12109,] -3.175621e+09 -1.098653e+09
## [12110,] -2.308661e+09 -7.847060e+08
## [12111,] -1.144551e+08 -6.514592e+07
## [12112,] -1.205284e+07 -1.328417e+07
## [12113,] -1.318145e+07 -1.406864e+07
## [12114,] -2.276080e+07 -1.987827e+07
## [12115,] -3.711177e+09 -1.251937e+09
## [12116,] -2.339947e+09 -8.261404e+08
## [12117,] -1.106958e+08 -6.364639e+07
## [12118,] -1.193416e+07 -1.331150e+07
## [12119,] -1.312295e+07 -1.407069e+07
## [12120,] -2.195330e+07 -1.941827e+07
## [12121,] -2.848303e+09 -1.007883e+09
## [12122,] -2.886479e+09 -9.668549e+08
## [12123,] -1.082864e+08 -6.347950e+07
## [12124,] -1.184171e+07 -1.326270e+07
## [12125,] -1.325520e+07 -1.408584e+07
## [12126,] -2.220381e+07 -1.956914e+07
## [12127,] -3.699552e+09 -1.318592e+09
## [12128,] -2.231152e+09 -7.800399e+08
## [12129,] -1.248228e+08 -7.089220e+07
## [12130,] -1.157148e+07 -1.299275e+07
## [12131,] -1.327705e+07 -1.415263e+07
## [12132,] -2.270595e+07 -1.944522e+07
## [12133,] -3.238523e+09 -1.173782e+09
## [12134,] -2.300506e+09 -8.073763e+08
## [12135,] -1.220491e+08 -6.932755e+07
## [12136,] -1.209507e+07 -1.335029e+07
## [12137,] -1.316132e+07 -1.408095e+07
## [12138,] -2.278901e+07 -1.995806e+07
## [12139,] -3.248878e+09 -1.218751e+09
## [12140,] -2.177475e+09 -8.072461e+08
## [12141,] -1.220997e+08 -7.041572e+07
## [12142,] -1.188357e+07 -1.323635e+07
## [12143,] -1.325444e+07 -1.412559e+07
## [12144,] -2.243212e+07 -1.960295e+07
## [12145,] -3.453881e+09 -1.231800e+09
## [12146,] -2.572446e+09 -8.730675e+08
## [12147,] -1.099287e+08 -6.609280e+07
## [12148,] -1.211089e+07 -1.338874e+07
## [12149,] -1.327588e+07 -1.412191e+07
## [12150,] -2.270499e+07 -1.974095e+07
## [12151,] -3.122634e+09 -1.073677e+09
## [12152,] -2.466588e+09 -8.492637e+08
## [12153,] -1.177445e+08 -6.763327e+07
## [12154,] -1.184260e+07 -1.322563e+07
## [12155,] -1.307487e+07 -1.398419e+07
```

```
## [12156,] -2.228092e+07 -1.967336e+07
## [12157,] -3.676263e+09 -1.284583e+09
## [12158,] -2.177333e+09 -7.483521e+08
## [12159,] -1.265684e+08 -7.149944e+07
## [12160,] -1.191482e+07 -1.338914e+07
## [12161,] -1.318193e+07 -1.414283e+07
## [12162,] -2.262016e+07 -1.984268e+07
## [12163,] -3.091124e+09 -1.244703e+09
## [12164,] -2.547434e+09 -8.824541e+08
## [12165,] -1.205698e+08 -6.804103e+07
## [12166,] -1.204414e+07 -1.340579e+07
## [12167,] -1.322553e+07 -1.415475e+07
## [12168,] -2.297343e+07 -1.996991e+07
## [12169,] -3.420469e+09 -1.237974e+09
## [12170,] -2.588384e+09 -8.301494e+08
## [12171,] -1.467270e+08 -7.809451e+07
## [12172,] -1.191031e+07 -1.330806e+07
## [12173,] -1.314202e+07 -1.409044e+07
## [12174,] -2.242201e+07 -1.964651e+07
## [12175,] -3.597026e+09 -1.224839e+09
## [12176,] -2.199601e+09 -7.569602e+08
## [12177,] -1.151821e+08 -6.723054e+07
## [12178,] -1.188985e+07 -1.328100e+07
## [12179,] -1.325808e+07 -1.417364e+07
## [12180,] -2.230475e+07 -1.971700e+07
## [12181,] -3.163664e+09 -1.160420e+09
## [12182,] -2.604762e+09 -9.212445e+08
## [12183,] -1.140779e+08 -6.587686e+07
## [12184,] -1.193631e+07 -1.327027e+07
## [12185,] -1.309623e+07 -1.412403e+07
## [12186,] -2.293806e+07 -1.992625e+07
## [12187,] -3.333460e+09 -9.602449e+08
## [12188,] -2.362064e+09 -8.159673e+08
## [12189,] -1.202279e+08 -6.830219e+07
## [12190,] -1.203985e+07 -1.342312e+07
## [12191,] -1.333920e+07 -1.414659e+07
## [12192,] -2.324761e+07 -2.000020e+07
## [12193,] -3.258290e+09 -1.141191e+09
## [12194,] -2.322584e+09 -8.019939e+08
## [12195,] -1.157305e+08 -6.834009e+07
## [12196,] -1.209724e+07 -1.345086e+07
## [12197,] -1.328434e+07 -1.416753e+07
## [12198,] -2.237794e+07 -1.966889e+07
## [12199,] -3.551719e+09 -1.250640e+09
## [12200,] -2.654128e+09 -8.964680e+08
## [12201,] -1.221386e+08 -6.939505e+07
## [12202,] -1.197317e+07 -1.331458e+07
```

```
## [12203,] -1.317768e+07 -1.411630e+07
## [12204,] -2.285183e+07 -1.987789e+07
## [12205,] -3.048628e+09 -1.128427e+09
## [12206,] -2.595788e+09 -8.437432e+08
## [12207,] -1.184985e+08 -6.907213e+07
## [12208,] -1.210800e+07 -1.344579e+07
## [12209,] -1.319392e+07 -1.411836e+07
## [12210,] -2.280196e+07 -2.006654e+07
## [12211,] -3.474203e+09 -1.224304e+09
## [12212,] -2.401128e+09 -8.818186e+08
## [12213,] -1.196573e+08 -6.856386e+07
## [12214,] -1.205123e+07 -1.338596e+07
## [12215,] -1.329431e+07 -1.421480e+07
## [12216,] -2.232354e+07 -1.945922e+07
## [12217,] -3.215263e+09 -1.072626e+09
## [12218,] -2.521623e+09 -8.294890e+08
## [12219,] -1.145141e+08 -6.637887e+07
## [12220,] -1.218662e+07 -1.352863e+07
## [12221,] -1.335044e+07 -1.429138e+07
## [12222,] -2.247393e+07 -1.976953e+07
## [12223,] -3.162461e+09 -1.084770e+09
## [12224,] -2.298601e+09 -7.519165e+08
## [12225,] -1.140665e+08 -6.485282e+07
## [12226,] -1.220224e+07 -1.351766e+07
## [12227,] -1.320742e+07 -1.412495e+07
## [12228,] -2.243991e+07 -1.980147e+07
## [12229,] -3.017411e+09 -1.078639e+09
## [12230,] -2.275326e+09 -7.653216e+08
## [12231,] -1.169914e+08 -6.689149e+07
## [12232,] -1.212941e+07 -1.355608e+07
## [12233,] -1.330229e+07 -1.433056e+07
## [12234,] -2.261755e+07 -2.010764e+07
## [12235,] -3.257418e+09 -1.060302e+09
## [12236,] -2.259802e+09 -8.247353e+08
## [12237,] -1.134293e+08 -6.691649e+07
## [12238,] -1.222335e+07 -1.350148e+07
## [12239,] -1.335802e+07 -1.425103e+07
## [12240,] -2.277305e+07 -1.993243e+07
## [12241,] -3.289236e+09 -1.109313e+09
## [12242,] -2.376816e+09 -7.741966e+08
## [12243,] -1.077387e+08 -6.355997e+07
## [12244,] -1.229162e+07 -1.363375e+07
## [12245,] -1.343226e+07 -1.429059e+07
## [12246,] -2.246477e+07 -1.979287e+07
## [12247,] -5.074613e+09 -1.777299e+09
## [12248,] -2.243970e+09 -7.785467e+08
## [12249,] -1.137339e+08 -6.595507e+07
```

```

## [12250,] -1.211991e+07 -1.354604e+07
## [12251,] -1.338237e+07 -1.430586e+07
## [12252,] -2.260426e+07 -1.975325e+07
## [12253,] -3.203923e+09 -1.127811e+09
## [12254,] -2.440135e+09 -8.059006e+08
## [12255,] -1.171402e+08 -6.479503e+07
## [12256,] -1.205793e+07 -1.345314e+07
## [12257,] -1.339356e+07 -1.431000e+07
## [12258,] -2.272135e+07 -1.985206e+07
## [12259,] -3.047447e+09 -1.096627e+09
## [12260,] -2.779609e+09 -9.103155e+08
## [12261,] -1.176103e+08 -6.753162e+07
## [12262,] -1.206324e+07 -1.345875e+07
## [12263,] -1.362999e+07 -1.444228e+07
## [12264,] -2.309521e+07 -2.018011e+07
## [12265,] -3.151043e+09 -1.005895e+09
## [12266,] -2.909306e+09 -1.100382e+09
## [12267,] -1.311631e+08 -7.696985e+07
## [12268,] -1.209447e+07 -1.334422e+07
## [12269,] -1.331509e+07 -1.421778e+07
## [12270,] -2.271310e+07 -1.961049e+07
## [12271,] -3.695834e+09 -1.210390e+09
## [12272,] -2.805166e+09 -9.448079e+08
## [12273,] -1.147268e+08 -6.602956e+07
## [12274,] -1.234500e+07 -1.365687e+07
## [12275,] -1.327457e+07 -1.424619e+07
## [12276,] -2.306709e+07 -2.023987e+07
## [12277,] -3.729721e+09 -1.165317e+09
## [12278,] -2.602579e+09 -9.298138e+08
## [12279,] -1.213379e+08 -6.966266e+07
## [12280,] -1.213119e+07 -1.343194e+07
## [12281,] -1.339121e+07 -1.442285e+07
## [12282,] -2.233636e+07 -1.979993e+07
## [12283,] -3.763669e+09 -1.343284e+09
## [12284,] -2.891256e+09 -1.015619e+09
## [12285,] -1.170625e+08 -6.558212e+07
## [12286,] -1.229865e+07 -1.361362e+07
## [12287,] -1.337050e+07 -1.431214e+07
## [12288,] -2.307665e+07 -2.022729e+07
## [12289,] -3.150271e+09 -1.120894e+09
## [12290,] -2.320522e+09 -8.099907e+08
## [12291,] -1.164170e+08 -6.628683e+07
## [12292,] -1.202828e+07 -1.346010e+07
## [12293,] -1.335298e+07 -1.429030e+07
## [12294,] -2.303802e+07 -2.018037e+07
## [12295,] -2.924227e+09 -1.005410e+09
## [12296,] -2.391316e+09 -8.855055e+08

```

```

## [12297,] -1.237737e+08 -6.975198e+07
## [12298,] -1.212170e+07 -1.347665e+07
## [12299,] -1.339604e+07 -1.429401e+07
## [12300,] -2.281615e+07 -2.002627e+07
## [12301,] -3.181563e+09 -1.145892e+09
## [12302,] -2.227544e+09 -7.779072e+08
## [12303,] -1.173553e+08 -6.631172e+07
## [12304,] -1.223113e+07 -1.355356e+07
## [12305,] -1.341960e+07 -1.435178e+07
## [12306,] -2.282758e+07 -2.005841e+07
## [12307,] -3.234350e+09 -1.171270e+09
## [12308,] -2.577110e+09 -8.377983e+08
## [12309,] -1.219514e+08 -6.942823e+07
## [12310,] -1.225213e+07 -1.359216e+07
## [12311,] -1.346837e+07 -1.439105e+07
## [12312,] -2.296818e+07 -2.023326e+07
## [12313,] -3.660807e+09 -1.282119e+09
## [12314,] -2.265847e+09 -8.052065e+08
## [12315,] -1.137877e+08 -6.719181e+07
## [12316,] -1.222096e+07 -1.361430e+07
## [12317,] -1.350482e+07 -1.439892e+07
## [12318,] -2.237153e+07 -1.980109e+07
## [12319,] -3.751400e+09 -1.335958e+09
## [12320,] -2.406834e+09 -8.376656e+08
## [12321,] -1.144913e+08 -6.756055e+07
## [12322,] -1.216405e+07 -1.355423e+07
## [12323,] -1.347280e+07 -1.445152e+07
## [12324,] -2.262442e+07 -1.995343e+07
## [12325,] -3.191654e+09 -1.034884e+09
## [12326,] -2.821160e+09 -9.341600e+08
## [12327,] -1.096487e+08 -6.435552e+07
## [12328,] -1.221117e+07 -1.354901e+07
## [12329,] -1.337616e+07 -1.432913e+07
## [12330,] -2.295892e+07 -2.009562e+07
## [12331,] -3.570682e+09 -1.209487e+09
## [12332,] -2.234701e+09 -8.281690e+08
## [12333,] -1.120893e+08 -6.708291e+07
## [12334,] -1.240479e+07 -1.363149e+07
## [12335,] -1.348042e+07 -1.446314e+07
## [12336,] -2.306225e+07 -2.025687e+07
## [12337,] -3.286958e+09 -1.183696e+09
## [12338,] -2.576645e+09 -8.899750e+08
## [12339,] -1.246098e+08 -7.073163e+07
## [12340,] -1.228425e+07 -1.372527e+07
## [12341,] -1.351647e+07 -1.444822e+07
## [12342,] -2.243445e+07 -1.979634e+07
## [12343,] -3.076699e+09 -1.114203e+09

```

```

## [12344,] -2.211753e+09 -8.095993e+08
## [12345,] -1.094456e+08 -6.725446e+07
## [12346,] -1.241004e+07 -1.364802e+07
## [12347,] -1.355458e+07 -1.442793e+07
## [12348,] -2.270321e+07 -1.988844e+07
## [12349,] -3.170283e+09 -1.095514e+09
## [12350,] -2.494799e+09 -8.850508e+08
## [12351,] -1.083852e+08 -6.489721e+07
## [12352,] -1.237892e+07 -1.367599e+07
## [12353,] -1.351529e+07 -1.442836e+07
## [12354,] -2.278627e+07 -1.994480e+07
## [12355,] -3.750651e+09 -1.268261e+09
## [12356,] -2.422177e+09 -7.955946e+08
## [12357,] -1.143981e+08 -6.697409e+07
## [12358,] -1.205594e+07 -1.356616e+07
## [12359,] -1.351931e+07 -1.447355e+07
## [12360,] -2.309896e+07 -2.012989e+07
## [12361,] -1.376653e+09 -5.346882e+08
## [12362,] -1.086629e+09 -3.994131e+08
## [12363,] -2.263745e+07 -9.831930e+06
## [12364,] -1.877093e+04 -7.236339e+04
## [12365,] -6.282492e+04 -1.106047e+05
## [12366,] -9.307726e+05 -5.687536e+05
## [12367,] -1.460896e+09 -5.433433e+08
## [12368,] -1.102732e+09 -4.059240e+08
## [12369,] -2.333999e+07 -9.442053e+06
## [12370,] -2.086987e+04 -7.037113e+04
## [12371,] -6.331771e+04 -1.106047e+05
## [12372,] -1.052254e+06 -6.567472e+05
## [12373,] -1.895214e+09 -7.159966e+08
## [12374,] -1.437335e+09 -5.548133e+08
## [12375,] -2.980212e+07 -1.263267e+07
## [12376,] -1.246663e+04 -6.119542e+04
## [12377,] -6.381243e+04 -1.125712e+05
## [12378,] -9.101080e+05 -5.651495e+05
## [12379,] -1.783310e+09 -6.718109e+08
## [12380,] -1.340609e+09 -5.396332e+08
## [12381,] -2.509851e+07 -1.023458e+07
## [12382,] -1.366374e+04 -6.083605e+04
## [12383,] -5.395466e+04 -1.018316e+05
## [12384,] -1.007659e+06 -6.272915e+05
## [12385,] -1.919569e+09 -7.309965e+08
## [12386,] -1.293455e+09 -4.738952e+08
## [12387,] -2.395819e+07 -1.010109e+07
## [12388,] -1.491126e+04 -6.268939e+04
## [12389,] -6.028322e+04 -1.088360e+05
## [12390,] -9.276318e+05 -5.917937e+05

```

```
## [12391,] -3.243828e+09 -1.010649e+09
## [12392,] -2.366534e+09 -7.728365e+08
## [12393,] -1.256490e+08 -6.958112e+07
## [12394,] -1.233212e+07 -1.364883e+07
## [12395,] -1.364790e+07 -1.445324e+07
## [12396,] -2.301436e+07 -2.019048e+07
## [12397,] -3.536709e+09 -1.254911e+09
## [12398,] -2.584343e+09 -9.140153e+08
## [12399,] -1.251972e+08 -7.135110e+07
## [12400,] -1.217561e+07 -1.364346e+07
## [12401,] -1.344767e+07 -1.442922e+07
## [12402,] -2.301021e+07 -2.012213e+07
## [12403,] -3.307750e+09 -1.022486e+09
## [12404,] -2.510649e+09 -7.371353e+08
## [12405,] -1.273313e+08 -6.838948e+07
## [12406,] -1.236383e+07 -1.369322e+07
## [12407,] -1.355784e+07 -1.446487e+07
## [12408,] -2.279990e+07 -2.003246e+07
## [12409,] -3.211797e+09 -1.107532e+09
## [12410,] -2.334849e+09 -8.000043e+08
## [12411,] -1.162787e+08 -6.841476e+07
## [12412,] -1.224375e+07 -1.355585e+07
## [12413,] -1.347530e+07 -1.443173e+07
## [12414,] -2.305519e+07 -2.022872e+07
## [12415,] -3.318215e+09 -1.095110e+09
## [12416,] -2.453842e+09 -8.277293e+08
## [12417,] -1.297566e+08 -7.282482e+07
## [12418,] -1.229089e+07 -1.374888e+07
## [12419,] -1.354583e+07 -1.443754e+07
## [12420,] -2.281767e+07 -2.003840e+07
## [12421,] -3.328785e+09 -1.176662e+09
## [12422,] -2.350257e+09 -7.861260e+08
## [12423,] -1.154268e+08 -6.673175e+07
## [12424,] -1.200018e+07 -1.319635e+07
## [12425,] -1.353743e+07 -1.448109e+07
## [12426,] -2.279384e+07 -2.009110e+07
## [12427,] -3.200723e+09 -1.064235e+09
## [12428,] -2.567255e+09 -7.589864e+08
## [12429,] -1.177198e+08 -6.727080e+07
## [12430,] -1.240672e+07 -1.373837e+07
## [12431,] -1.366811e+07 -1.453384e+07
## [12432,] -2.264143e+07 -2.015163e+07
## [12433,] -3.085689e+09 -1.094806e+09
## [12434,] -2.165073e+09 -7.019543e+08
## [12435,] -1.184188e+08 -6.694036e+07
## [12436,] -1.221843e+07 -1.352373e+07
## [12437,] -1.357758e+07 -1.450019e+07
```

```
## [12438,] -2.291557e+07 -1.994802e+07
## [12439,] -2.952551e+09 -1.144702e+09
## [12440,] -2.558964e+09 -8.940901e+08
## [12441,] -1.145780e+08 -6.540784e+07
## [12442,] -1.255440e+07 -1.384930e+07
## [12443,] -1.371895e+07 -1.457501e+07
## [12444,] -2.265282e+07 -1.990529e+07
## [12445,] -3.003410e+09 -1.064186e+09
## [12446,] -2.477554e+09 -8.844144e+08
## [12447,] -1.281793e+08 -7.093743e+07
## [12448,] -1.224465e+07 -1.373864e+07
## [12449,] -1.367739e+07 -1.456212e+07
## [12450,] -2.316414e+07 -2.010480e+07
## [12451,] -3.064761e+09 -1.119462e+09
## [12452,] -2.608208e+09 -9.282300e+08
## [12453,] -1.272848e+08 -7.418590e+07
## [12454,] -1.247577e+07 -1.377224e+07
## [12455,] -1.352264e+07 -1.446953e+07
## [12456,] -2.286052e+07 -2.014296e+07
## [12457,] -3.381974e+09 -1.106922e+09
## [12458,] -2.373316e+09 -8.272457e+08
## [12459,] -1.171552e+08 -6.582124e+07
## [12460,] -1.237101e+07 -1.369526e+07
## [12461,] -1.360617e+07 -1.458214e+07
## [12462,] -2.282938e+07 -2.012446e+07
## [12463,] -3.680801e+09 -1.280587e+09
## [12464,] -2.468954e+09 -7.541877e+08
## [12465,] -1.266461e+08 -7.262419e+07
## [12466,] -1.246036e+07 -1.376158e+07
## [12467,] -1.359371e+07 -1.457674e+07
## [12468,] -2.288245e+07 -2.010985e+07
## [12469,] -3.726082e+09 -1.208211e+09
## [12470,] -2.649406e+09 -9.230616e+08
## [12471,] -1.171883e+08 -6.859185e+07
## [12472,] -1.227688e+07 -1.363474e+07
## [12473,] -1.364078e+07 -1.453182e+07
## [12474,] -2.232083e+07 -1.978531e+07
## [12475,] -3.189323e+09 -1.069825e+09
## [12476,] -2.217590e+09 -8.085125e+08
## [12477,] -1.340895e+08 -7.017382e+07
## [12478,] -1.245022e+07 -1.386732e+07
## [12479,] -1.349663e+07 -1.445754e+07
## [12480,] -2.340374e+07 -2.046858e+07
## [12481,] -2.931501e+09 -1.009677e+09
## [12482,] -2.541806e+09 -8.936332e+08
## [12483,] -1.174647e+08 -6.811057e+07
## [12484,] -1.245561e+07 -1.377319e+07
```



```
## [12485,] -1.361264e+07 -1.455888e+07
## [12486,] -2.287735e+07 -2.008361e+07
## [12487,] -3.252448e+09 -1.118951e+09
## [12488,] -2.388552e+09 -8.129578e+08
## [12489,] -1.143427e+08 -6.813580e+07
## [12490,] -1.247693e+07 -1.383443e+07
## [12491,] -1.376350e+07 -1.456096e+07
## [12492,] -2.307555e+07 -2.026934e+07
## [12493,] -3.327198e+09 -1.150292e+09
## [12494,] -2.599072e+09 -7.718171e+08
## [12495,] -1.221135e+08 -7.183857e+07
## [12496,] -1.233534e+07 -1.369083e+07
## [12497,] -1.367306e+07 -1.463637e+07
## [12498,] -2.335968e+07 -2.029778e+07
## [12499,] -3.468350e+09 -1.266846e+09
## [12500,] -2.380480e+09 -7.990536e+08
## [12501,] -1.177580e+08 -6.627326e+07
## [12502,] -1.245099e+07 -1.381265e+07
## [12503,] -1.364608e+07 -1.458596e+07
## [12504,] -2.306724e+07 -2.030466e+07
## [12505,] -2.930922e+09 -1.003424e+09
## [12506,] -2.163865e+09 -7.360568e+08
## [12507,] -1.104133e+08 -6.443653e+07
## [12508,] -1.226759e+07 -1.369110e+07
## [12509,] -1.352875e+07 -1.450572e+07
## [12510,] -2.355995e+07 -2.052785e+07
## [12511,] -3.012208e+09 -9.799449e+08
## [12512,] -2.255300e+09 -7.852264e+08
## [12513,] -1.117532e+08 -6.699418e+07
## [12514,] -1.236718e+07 -1.374648e+07
## [12515,] -1.373362e+07 -1.463890e+07
## [12516,] -2.290977e+07 -2.016769e+07
## [12517,] -2.991699e+09 -1.100070e+09
## [12518,] -2.255300e+09 -8.081215e+08
## [12519,] -1.169007e+08 -6.631059e+07
## [12520,] -1.232538e+07 -1.371898e+07
## [12521,] -1.379754e+07 -1.466353e+07
## [12522,] -2.317719e+07 -2.034301e+07
## [12523,] -3.435048e+09 -1.169022e+09
## [12524,] -2.364304e+09 -7.988376e+08
## [12525,] -1.208303e+08 -6.893018e+07
## [12526,] -1.249918e+07 -1.382456e+07
## [12527,] -1.367634e+07 -1.461350e+07
## [12528,] -2.346935e+07 -2.055163e+07
## [12529,] -3.611792e+09 -1.259786e+09
## [12530,] -2.348331e+09 -8.311252e+08
## [12531,] -1.231932e+08 -7.142349e+07
```

```

## [12532,] -1.252055e+07 -1.386924e+07
## [12533,] -1.367313e+07 -1.460643e+07
## [12534,] -2.325277e+07 -2.038140e+07
## [12535,] -3.146069e+09 -1.124631e+09
## [12536,] -2.698396e+09 -8.978025e+08
## [12537,] -1.211278e+08 -6.880719e+07
## [12538,] -1.247849e+07 -1.381942e+07
## [12539,] -1.359385e+07 -1.464814e+07
## [12540,] -2.368496e+07 -2.096110e+07
## [12541,] -3.423595e+09 -1.194337e+09
## [12542,] -2.878192e+09 -1.060045e+09
## [12543,] -1.258136e+08 -7.414123e+07
## [12544,] -1.237359e+07 -1.374770e+07
## [12545,] -1.362120e+07 -1.457148e+07
## [12546,] -2.336735e+07 -2.055372e+07
## [12547,] -3.423416e+09 -1.220137e+09
## [12548,] -2.332191e+09 -7.007806e+08
## [12549,] -1.177796e+08 -6.325720e+07
## [12550,] -1.248454e+07 -1.386464e+07
## [12551,] -1.355693e+07 -1.454239e+07
## [12552,] -2.324666e+07 -2.052720e+07
## [12553,] -3.021271e+09 -1.099411e+09
## [12554,] -2.231307e+09 -7.710955e+08
## [12555,] -1.171322e+08 -6.597387e+07
## [12556,] -1.241112e+07 -1.378726e+07
## [12557,] -1.367160e+07 -1.462735e+07
## [12558,] -2.326459e+07 -2.038166e+07
## [12559,] -3.390153e+09 -1.181015e+09
## [12560,] -2.363190e+09 -7.485677e+08
## [12561,] -1.462041e+08 -7.938280e+07
## [12562,] -1.236413e+07 -1.383188e+07
## [12563,] -1.344600e+07 -1.453203e+07
## [12564,] -2.312212e+07 -2.028064e+07
## [12565,] -3.134596e+09 -1.155479e+09
## [12566,] -2.458701e+09 -8.446382e+08
## [12567,] -1.165195e+08 -6.739126e+07
## [12568,] -1.269158e+07 -1.394319e+07
## [12569,] -1.365026e+07 -1.468788e+07
## [12570,] -2.307611e+07 -2.041018e+07
## [12571,] -3.031020e+09 -1.117724e+09
## [12572,] -2.292596e+09 -7.798758e+08
## [12573,] -1.100749e+08 -6.485058e+07
## [12574,] -1.246964e+07 -1.381011e+07
## [12575,] -1.374145e+07 -1.468456e+07
## [12576,] -2.346027e+07 -2.046728e+07
## [12577,] -3.521369e+09 -1.239210e+09
## [12578,] -2.622065e+09 -9.216692e+08

```

```
## [12579,] -1.269438e+08 -7.178167e+07
## [12580,] -1.243805e+07 -1.383229e+07
## [12581,] -1.371964e+07 -1.465449e+07
## [12582,] -2.318289e+07 -2.043481e+07
## [12583,] -3.324995e+09 -1.142687e+09
## [12584,] -2.515104e+09 -8.304204e+08
## [12585,] -1.215941e+08 -6.811822e+07
## [12586,] -1.235953e+07 -1.378268e+07
## [12587,] -1.365311e+07 -1.470965e+07
## [12588,] -2.325848e+07 -2.033274e+07
## [12589,] -3.802950e+09 -1.353044e+09
## [12590,] -2.458246e+09 -8.681073e+08
## [12591,] -1.155074e+08 -6.868815e+07
## [12592,] -1.263941e+07 -1.398874e+07
## [12593,] -1.366078e+07 -1.464619e+07
## [12594,] -2.367164e+07 -2.057779e+07
## [12595,] -3.554175e+09 -1.265324e+09
## [12596,] -2.299858e+09 -7.705439e+08
## [12597,] -1.177847e+08 -7.009586e+07
## [12598,] -1.256554e+07 -1.398344e+07
## [12599,] -1.382488e+07 -1.473688e+07
## [12600,] -2.328059e+07 -2.039663e+07
## [12601,] -3.154730e+09 -1.061943e+09
## [12602,] -2.346702e+09 -7.795344e+08
## [12603,] -1.052226e+08 -6.081197e+07
## [12604,] -1.234457e+07 -1.383338e+07
## [12605,] -1.385977e+07 -1.479931e+07
## [12606,] -2.300013e+07 -2.041435e+07
## [12607,] -3.509411e+09 -1.298418e+09
## [12608,] -2.604697e+09 -9.410067e+08
## [12609,] -1.250009e+08 -7.085009e+07
## [12610,] -1.249201e+07 -1.387807e+07
## [12611,] -1.382733e+07 -1.481107e+07
## [12612,] -2.381383e+07 -2.084128e+07
## [12613,] -3.228095e+09 -1.086178e+09
## [12614,] -2.481904e+09 -8.773767e+08
## [12615,] -1.210707e+08 -7.051096e+07
## [12616,] -1.260310e+07 -1.395611e+07
## [12617,] -1.386222e+07 -1.476789e+07
## [12618,] -2.339105e+07 -2.048920e+07
## [12619,] -3.631744e+09 -1.648264e+09
## [12620,] -2.385789e+09 -7.302984e+08
## [12621,] -1.147238e+08 -6.756702e+07
## [12622,] -1.276792e+07 -1.404555e+07
## [12623,] -1.389350e+07 -1.483795e+07
## [12624,] -2.319053e+07 -2.049612e+07
## [12625,] -2.928192e+09 -1.142119e+09
```

```
## [12626,] -2.283886e+09 -8.346164e+08
## [12627,] -1.252692e+08 -7.372352e+07
## [12628,] -1.244487e+07 -1.391727e+07
## [12629,] -1.394842e+07 -1.482283e+07
## [12630,] -2.309842e+07 -2.042034e+07
## [12631,] -2.999224e+09 -1.043552e+09
## [12632,] -2.268405e+09 -8.021305e+08
## [12633,] -1.160730e+08 -6.585731e+07
## [12634,] -1.277325e+07 -1.408470e+07
## [12635,] -1.392644e+07 -1.485307e+07
## [12636,] -2.308692e+07 -2.045280e+07
## [12637,] -3.091801e+09 -1.061694e+09
## [12638,] -2.260685e+09 -7.838566e+08
## [12639,] -1.243509e+08 -6.672191e+07
## [12640,] -1.239243e+07 -1.393410e+07
## [12641,] -1.382979e+07 -1.481739e+07
## [12642,] -2.363798e+07 -2.035160e+07
## [12643,] -3.102004e+09 -1.061595e+09
## [12644,] -2.260540e+09 -8.158867e+08
## [12645,] -1.156553e+08 -6.656350e+07
## [12646,] -1.293394e+07 -1.394538e+07
## [12647,] -1.390856e+07 -1.483082e+07
## [12648,] -2.311311e+07 -2.046663e+07
## [12649,] -2.917949e+09 -1.079893e+09
## [12650,] -2.587697e+09 -8.916242e+08
## [12651,] -1.246356e+08 -7.216671e+07
## [12652,] -1.251401e+07 -1.392352e+07
## [12653,] -1.394806e+07 -1.485648e+07
## [12654,] -2.317290e+07 -2.053373e+07
## [12655,] -3.143241e+09 -1.037194e+09
## [12656,] -2.521866e+09 -8.626604e+08
## [12657,] -1.265637e+08 -7.256185e+07
## [12658,] -1.274233e+07 -1.406342e+07
## [12659,] -1.394116e+07 -1.485692e+07
## [12660,] -2.317609e+07 -2.053674e+07
## [12661,] -3.122204e+09 -1.122838e+09
## [12662,] -2.721027e+09 -9.454729e+08
## [12663,] -1.168992e+08 -6.562938e+07
## [12664,] -1.258322e+07 -1.399094e+07
## [12665,] -1.393221e+07 -1.484391e+07
## [12666,] -2.324110e+07 -2.051114e+07
## [12667,] -2.847240e+09 -1.007251e+09
## [12668,] -2.570753e+09 -8.816895e+08
## [12669,] -1.176123e+08 -6.770527e+07
## [12670,] -1.269484e+07 -1.404147e+07
## [12671,] -1.392165e+07 -1.485947e+07
## [12672,] -2.380145e+07 -2.070972e+07
```

```

## [12673,] -3.070006e+09 -1.141447e+09
## [12674,] -2.123055e+09 -7.385531e+08
## [12675,] -1.224618e+08 -6.824823e+07
## [12676,] -1.268979e+07 -1.418183e+07
## [12677,] -1.384326e+07 -1.477471e+07
## [12678,] -2.354849e+07 -2.058224e+07
## [12679,] -3.080258e+09 -1.110126e+09
## [12680,] -2.521328e+09 -8.863314e+08
## [12681,] -1.197145e+08 -6.947686e+07
## [12682,] -1.257858e+07 -1.393032e+07
## [12683,] -1.380194e+07 -1.478479e+07
## [12684,] -2.364471e+07 -2.078117e+07
## [12685,] -3.008016e+09 -1.122428e+09
## [12686,] -2.594866e+09 -8.958346e+08
## [12687,] -1.432851e+08 -7.797341e+07
## [12688,] -1.249988e+07 -1.389748e+07
## [12689,] -1.397993e+07 -1.492726e+07
## [12690,] -2.324972e+07 -2.055177e+07
## [12691,] -1.496677e+09 -5.608257e+08
## [12692,] -1.086528e+09 -4.058624e+08
## [12693,] -3.097284e+07 -1.140985e+07
## [12694,] -1.133613e+04 -5.686535e+04
## [12695,] -4.939656e+04 -9.736002e+04
## [12696,] -9.153146e+05 -5.856212e+05
## [12697,] -1.822754e+09 -6.863031e+08
## [12698,] -1.424945e+09 -5.358003e+08
## [12699,] -2.406826e+07 -1.112877e+07
## [12700,] -2.197193e+04 -7.078687e+04
## [12701,] -6.634403e+04 -1.103162e+05
## [12702,] -9.039019e+05 -5.856212e+05
## [12703,] -1.411336e+09 -5.476254e+08
## [12704,] -1.091883e+09 -4.091374e+08
## [12705,] -2.255248e+07 -9.580594e+06
## [12706,] -2.219356e+04 -7.198239e+04
## [12707,] -6.609156e+04 -1.109689e+05
## [12708,] -8.993569e+05 -5.764996e+05
## [12709,] -1.453664e+09 -5.432720e+08
## [12710,] -1.081187e+09 -4.124255e+08
## [12711,] -2.265200e+07 -9.841516e+06
## [12712,] -2.197193e+04 -7.198239e+04
## [12713,] -6.558807e+04 -1.116235e+05
## [12714,] -8.970886e+05 -5.801396e+05
## [12715,] -1.446566e+09 -5.432720e+08
## [12716,] -1.075860e+09 -3.993520e+08
## [12717,] -2.891137e+07 -1.286782e+07
## [12718,] -1.621795e+04 -6.457987e+04
## [12719,] -5.732325e+04 -1.051639e+05

```

```
## [12720,] -9.631806e+05 -5.867913e+05
## [12721,] -3.709033e+09 -1.257293e+09
## [12722,] -2.368553e+09 -8.105194e+08
## [12723,] -1.173077e+08 -6.747416e+07
## [12724,] -1.281855e+07 -1.413228e+07
## [12725,] -1.414387e+07 -1.498629e+07
## [12726,] -2.314182e+07 -2.032066e+07
## [12727,] -3.173551e+09 -1.091269e+09
## [12728,] -2.274681e+09 -8.058639e+08
## [12729,] -1.354324e+08 -7.472137e+07
## [12730,] -1.279733e+07 -1.420541e+07
## [12731,] -1.394735e+07 -1.490874e+07
## [12732,] -2.359623e+07 -2.088857e+07
## [12733,] -3.629626e+09 -1.237327e+09
## [12734,] -2.545132e+09 -8.667120e+08
## [12735,] -1.194071e+08 -7.046741e+07
## [12736,] -1.271768e+07 -1.410467e+07
## [12737,] -1.393312e+07 -1.490161e+07
## [12738,] -2.365018e+07 -2.068821e+07
## [12739,] -3.332663e+09 -1.191803e+09
## [12740,] -2.536877e+09 -8.762454e+08
## [12741,] -1.226479e+08 -6.908137e+07
## [12742,] -1.280853e+07 -1.420034e+07
## [12743,] -1.415416e+07 -1.498928e+07
## [12744,] -2.378907e+07 -2.090557e+07
## [12745,] -3.584571e+09 -1.250313e+09
## [12746,] -2.917746e+09 -9.297744e+08
## [12747,] -1.304697e+08 -6.999237e+07
## [12748,] -1.280880e+07 -1.415007e+07
## [12749,] -1.385189e+07 -1.490080e+07
## [12750,] -2.367571e+07 -2.071208e+07
## [12751,] -3.089422e+09 -1.109413e+09
## [12752,] -2.220264e+09 -7.917627e+08
## [12753,] -1.248285e+08 -7.266998e+07
## [12754,] -1.262820e+07 -1.404953e+07
## [12755,] -1.402978e+07 -1.497497e+07
## [12756,] -2.344659e+07 -2.054119e+07
## [12757,] -3.110008e+09 -1.000376e+09
## [12758,] -2.463413e+09 -9.001466e+08
## [12759,] -1.143184e+08 -6.588964e+07
## [12760,] -1.282000e+07 -1.420679e+07
## [12761,] -1.395517e+07 -1.490168e+07
## [12762,] -2.377543e+07 -2.090373e+07
## [12763,] -3.651289e+09 -1.263204e+09
## [12764,] -2.660297e+09 -9.294948e+08
## [12765,] -1.121236e+08 -6.473018e+07
## [12766,] -1.280424e+07 -1.417336e+07
```

```

## [12767,] -1.398656e+07 -1.496825e+07
## [12768,] -2.373201e+07 -2.085208e+07
## [12769,] -3.256804e+09 -1.140312e+09
## [12770,] -2.787051e+09 -1.030902e+09
## [12771,] -1.180105e+08 -6.956992e+07
## [12772,] -1.237058e+07 -1.398335e+07
## [12773,] -1.401840e+07 -1.503161e+07
## [12774,] -2.370771e+07 -2.084023e+07
## [12775,] -3.331516e+09 -1.146511e+09
## [12776,] -2.576890e+09 -8.283078e+08
## [12777,] -1.249652e+08 -7.223951e+07
## [12778,] -1.273548e+07 -1.407301e+07
## [12779,] -1.390517e+07 -1.492951e+07
## [12780,] -2.361038e+07 -2.050983e+07
## [12781,] -3.130148e+09 -1.102706e+09
## [12782,] -2.382953e+09 -7.913327e+08
## [12783,] -1.164735e+08 -6.839101e+07
## [12784,] -1.299790e+07 -1.438272e+07
## [12785,] -1.411656e+07 -1.505319e+07
## [12786,] -2.323554e+07 -2.072324e+07
## [12787,] -2.805246e+09 -1.121302e+09
## [12788,] -2.359179e+09 -7.199561e+08
## [12789,] -1.226699e+08 -7.315797e+07
## [12790,] -1.285846e+07 -1.414612e+07
## [12791,] -1.390355e+07 -1.495818e+07
## [12792,] -2.375337e+07 -2.094871e+07
## [12793,] -3.417696e+09 -1.370861e+09
## [12794,] -2.398444e+09 -7.639758e+08
## [12795,] -1.120799e+08 -6.537226e+07
## [12796,] -1.304149e+07 -1.438328e+07
## [12797,] -1.406952e+07 -1.500462e+07
## [12798,] -2.424480e+07 -2.122252e+07
## [12799,] -3.363339e+09 -1.102452e+09
## [12800,] -2.358734e+09 -8.186460e+08
## [12801,] -1.006883e+08 -6.010403e+07
## [12802,] -1.333439e+07 -1.455960e+07
## [12803,] -1.407200e+07 -1.503000e+07
## [12804,] -2.350290e+07 -2.075712e+07
## [12805,] -3.150268e+09 -1.065431e+09
## [12806,] -2.551470e+09 -8.704122e+08
## [12807,] -1.184541e+08 -6.662472e+07
## [12808,] -1.273172e+07 -1.416995e+07
## [12809,] -1.423896e+07 -1.513375e+07
## [12810,] -2.322429e+07 -2.061470e+07
## [12811,] -3.191997e+09 -1.126988e+09
## [12812,] -2.421813e+09 -8.324102e+08
## [12813,] -1.251874e+08 -6.941202e+07

```

```

## [12814,] -1.292444e+07 -1.436757e+07
## [12815,] -1.415642e+07 -1.520894e+07
## [12816,] -2.353576e+07 -2.082076e+07
## [12817,] -3.223408e+09 -1.052999e+09
## [12818,] -2.256836e+09 -7.906880e+08
## [12819,] -1.183095e+08 -6.737263e+07
## [12820,] -1.296751e+07 -1.436205e+07
## [12821,] -1.423612e+07 -1.512318e+07
## [12822,] -2.399824e+07 -2.110168e+07
## [12823,] -3.087214e+09 -1.071173e+09
## [12824,] -2.502003e+09 -8.416206e+08
## [12825,] -1.231731e+08 -6.947570e+07
## [12826,] -1.290340e+07 -1.430022e+07
## [12827,] -1.413471e+07 -1.513294e+07
## [12828,] -2.365524e+07 -2.085656e+07
## [12829,] -3.035563e+09 -1.040838e+09
## [12830,] -2.090114e+09 -8.367438e+08
## [12831,] -1.181816e+08 -6.590956e+07
## [12832,] -1.303284e+07 -1.441381e+07
## [12833,] -1.421313e+07 -1.514528e+07
## [12834,] -2.466158e+07 -2.142385e+07
## [12835,] -3.503800e+09 -1.222271e+09
## [12836,] -2.542280e+09 -9.281906e+08
## [12837,] -1.202553e+08 -6.936496e+07
## [12838,] -1.296843e+07 -1.434042e+07
## [12839,] -1.418931e+07 -1.513214e+07
## [12840,] -2.375815e+07 -2.088752e+07
## [12841,] -3.361744e+09 -1.064732e+09
## [12842,] -2.641310e+09 -9.133757e+08
## [12843,] -1.189152e+08 -6.921615e+07
## [12844,] -1.282420e+07 -1.423934e+07
## [12845,] -1.408481e+07 -1.506988e+07
## [12846,] -2.364066e+07 -2.089753e+07
## [12847,] -3.148810e+09 -1.120023e+09
## [12848,] -2.776157e+09 -8.411773e+08
## [12849,] -1.146504e+08 -6.394712e+07
## [12850,] -1.296909e+07 -1.436372e+07
## [12851,] -1.405784e+07 -1.505341e+07
## [12852,] -2.435909e+07 -2.132946e+07
## [12853,] -3.393799e+09 -1.170380e+09
## [12854,] -2.428598e+09 -8.458003e+08
## [12855,] -1.124524e+08 -6.514891e+07
## [12856,] -1.293165e+07 -1.435256e+07
## [12857,] -1.421114e+07 -1.516614e+07
## [12858,] -2.402848e+07 -2.104212e+07
## [12859,] -3.328694e+09 -1.170223e+09
## [12860,] -2.404447e+09 -8.222423e+08

```



```
## [12861,] -1.197180e+08 -6.947956e+07
## [12862,] -1.286241e+07 -1.444353e+07
## [12863,] -1.414506e+07 -1.512076e+07
## [12864,] -2.418875e+07 -2.125827e+07
## [12865,] -3.285728e+09 -1.107276e+09
## [12866,] -2.476425e+09 -8.645537e+08
## [12867,] -1.208996e+08 -7.073202e+07
## [12868,] -1.298601e+07 -1.438152e+07
## [12869,] -1.411967e+07 -1.510213e+07
## [12870,] -2.436891e+07 -2.110712e+07
## [12871,] -3.296246e+09 -1.163699e+09
## [12872,] -2.255456e+09 -8.221108e+08
## [12873,] -1.174883e+08 -6.899517e+07
## [12874,] -1.307228e+07 -1.446096e+07
## [12875,] -1.431039e+07 -1.523418e+07
## [12876,] -2.364192e+07 -2.096442e+07
## [12877,] -3.147953e+09 -1.119511e+09
## [12878,] -2.396125e+09 -7.228769e+08
## [12879,] -1.225669e+08 -7.112322e+07
## [12880,] -1.298640e+07 -1.433672e+07
## [12881,] -1.425356e+07 -1.518319e+07
## [12882,] -2.407345e+07 -2.102929e+07
## [12883,] -3.210928e+09 -1.064034e+09
## [12884,] -2.656830e+09 -9.175908e+08
## [12885,] -1.282265e+08 -7.239034e+07
## [12886,] -1.313774e+07 -1.449571e+07
## [12887,] -1.424494e+07 -1.521254e+07
## [12888,] -2.381483e+07 -2.105032e+07
## [12889,] -3.414480e+09 -1.069973e+09
## [12890,] -2.524564e+09 -8.690151e+08
## [12891,] -1.357155e+08 -7.456973e+07
## [12892,] -1.281028e+07 -1.437698e+07
## [12893,] -1.436411e+07 -1.530112e+07
## [12894,] -2.415799e+07 -2.114131e+07
## [12895,] -3.136990e+09 -1.094400e+09
## [12896,] -2.565254e+09 -9.173593e+08
## [12897,] -1.076425e+08 -6.398749e+07
## [12898,] -1.304653e+07 -1.443953e+07
## [12899,] -1.419563e+07 -1.520746e+07
## [12900,] -2.352276e+07 -2.084129e+07
## [12901,] -3.263433e+09 -1.119153e+09
## [12902,] -2.573477e+09 -8.832856e+08
## [12903,] -1.273663e+08 -7.245537e+07
## [12904,] -1.301973e+07 -1.443967e+07
## [12905,] -1.427379e+07 -1.524619e+07
## [12906,] -2.401605e+07 -2.112938e+07
## [12907,] -2.941516e+09 -1.027474e+09
```

```
## [12908,] -2.270091e+09 -8.123546e+08
## [12909,] -1.220414e+08 -7.231628e+07
## [12910,] -1.304692e+07 -1.438333e+07
## [12911,] -1.430553e+07 -1.525982e+07
## [12912,] -2.347537e+07 -2.105946e+07
## [12913,] -3.338132e+09 -1.182222e+09
## [12914,] -2.499711e+09 -8.450004e+08
## [12915,] -1.245984e+08 -7.249440e+07
## [12916,] -1.301462e+07 -1.436071e+07
## [12917,] -1.427957e+07 -1.522151e+07
## [12918,] -2.437674e+07 -2.137916e+07
## [12919,] -3.468617e+09 -1.253773e+09
## [12920,] -2.573245e+09 -9.123137e+08
## [12921,] -1.250661e+08 -7.303008e+07
## [12922,] -1.329050e+07 -1.451941e+07
## [12923,] -1.436540e+07 -1.532165e+07
## [12924,] -2.412073e+07 -2.121655e+07
## [12925,] -3.534616e+09 -1.214378e+09
## [12926,] -2.231390e+09 -7.756563e+08
## [12927,] -1.193155e+08 -6.899902e+07
## [12928,] -1.326372e+07 -1.451983e+07
## [12929,] -1.443492e+07 -1.530887e+07
## [12930,] -2.444569e+07 -2.127783e+07
## [12931,] -3.793719e+09 -1.347541e+09
## [12932,] -2.581015e+09 -8.925442e+08
## [12933,] -1.157674e+08 -6.871502e+07
## [12934,] -1.319915e+07 -1.456590e+07
## [12935,] -1.431467e+07 -1.532682e+07
## [12936,] -2.415402e+07 -2.126985e+07
## [12937,] -3.209456e+09 -9.623741e+08
## [12938,] -2.434639e+09 -8.165921e+08
## [12939,] -1.221765e+08 -7.224226e+07
## [12940,] -1.316679e+07 -1.450349e+07
## [12941,] -1.440225e+07 -1.540203e+07
## [12942,] -2.433832e+07 -2.134318e+07
## [12943,] -3.209370e+09 -1.057068e+09
## [12944,] -2.147392e+09 -8.635653e+08
## [12945,] -1.128904e+08 -7.013580e+07
## [12946,] -1.316164e+07 -1.457771e+07
## [12947,] -1.451626e+07 -1.542729e+07
## [12948,] -2.405153e+07 -2.127290e+07
## [12949,] -3.445799e+09 -1.293137e+09
## [12950,] -2.154774e+09 -7.176616e+08
## [12951,] -1.178696e+08 -6.824594e+07
## [12952,] -1.320510e+07 -1.460634e+07
## [12953,] -1.442130e+07 -1.538323e+07
## [12954,] -2.449533e+07 -2.154575e+07
```

```
## [12955,] -3.478612e+09 -1.213899e+09
## [12956,] -2.539584e+09 -9.364647e+08
## [12957,] -1.162842e+08 -6.790052e+07
## [12958,] -1.324307e+07 -1.463485e+07
## [12959,] -1.432831e+07 -1.528334e+07
## [12960,] -2.429012e+07 -2.124286e+07
## [12961,] -3.555721e+09 -1.272888e+09
## [12962,] -2.323417e+09 -7.887553e+08
## [12963,] -1.152075e+08 -6.759366e+07
## [12964,] -1.326519e+07 -1.464669e+07
## [12965,] -1.448349e+07 -1.542047e+07
## [12966,] -2.443515e+07 -2.130111e+07
## [12967,] -3.052505e+09 -9.391020e+08
## [12968,] -2.747848e+09 -8.873397e+08
## [12969,] -1.255742e+08 -7.128187e+07
## [12970,] -1.309218e+07 -1.453302e+07
## [12971,] -1.442259e+07 -1.540381e+07
## [12972,] -2.397495e+07 -2.110182e+07
## [12973,] -3.124764e+09 -1.074926e+09
## [12974,] -2.378255e+09 -8.069556e+08
## [12975,] -1.200243e+08 -6.936380e+07
## [12976,] -1.318423e+07 -1.458438e+07
## [12977,] -1.446734e+07 -1.536917e+07
## [12978,] -2.388876e+07 -2.080209e+07
## [12979,] -3.293614e+09 -1.062689e+09
## [12980,] -2.764481e+09 -9.311335e+08
## [12981,] -1.223624e+08 -7.167459e+07
## [12982,] -1.313039e+07 -1.456758e+07
## [12983,] -1.443420e+07 -1.537346e+07
## [12984,] -2.418961e+07 -2.130324e+07
## [12985,] -3.577437e+09 -1.272561e+09
## [12986,] -2.284043e+09 -7.524744e+08
## [12987,] -1.162068e+08 -6.957648e+07
## [12988,] -1.332582e+07 -1.464753e+07
## [12989,] -1.452963e+07 -1.544493e+07
## [12990,] -2.433434e+07 -2.150561e+07
## [12991,] -3.124337e+09 -1.093086e+09
## [12992,] -2.245295e+09 -8.113531e+08
## [12993,] -1.292217e+08 -7.475861e+07
## [12994,] -1.331520e+07 -1.464210e+07
## [12995,] -1.452258e+07 -1.542225e+07
## [12996,] -2.450747e+07 -2.151270e+07
## [12997,] -3.165980e+09 -1.092985e+09
## [12998,] -2.417452e+09 -7.928878e+08
## [12999,] -1.203879e+08 -7.122128e+07
## [13000,] -1.318543e+07 -1.465408e+07
## [13001,] -1.443800e+07 -1.539277e+07
```

```
## [13002,] -2.467921e+07 -2.144028e+07
## [13003,] -4.574301e+09 -2.099917e+09
## [13004,] -2.385278e+09 -8.156752e+08
## [13005,] -1.232276e+08 -7.269366e+07
## [13006,] -1.307233e+07 -1.451210e+07
## [13007,] -1.437884e+07 -1.541632e+07
## [13008,] -2.421344e+07 -2.122625e+07
## [13009,] -3.324639e+09 -1.265322e+09
## [13010,] -2.252337e+09 -8.063479e+08
## [13011,] -1.336993e+08 -8.003525e+07
## [13012,] -1.313198e+07 -1.454649e+07
## [13013,] -1.447782e+07 -1.543003e+07
## [13014,] -2.384552e+07 -2.128847e+07
## [13015,] -3.666074e+09 -1.199833e+09
## [13016,] -2.521647e+09 -8.673039e+08
## [13017,] -1.293955e+08 -7.362811e+07
## [13018,] -1.309431e+07 -1.463780e+07
## [13019,] -1.445378e+07 -1.540906e+07
## [13020,] -2.429922e+07 -2.138397e+07
## [13021,] -1.584340e+09 -5.875499e+08
## [13022,] -1.157108e+09 -4.256780e+08
## [13023,] -2.542951e+07 -1.092531e+07
## [13024,] -1.565777e+04 -6.882621e+04
## [13025,] -6.775593e+04 -1.104980e+05
## [13026,] -8.962696e+05 -5.849594e+05
## [13027,] -1.432364e+09 -5.345822e+08
## [13028,] -1.044119e+09 -4.025700e+08
## [13029,] -2.275902e+07 -9.650243e+06
## [13030,] -2.471067e+04 -7.979687e+04
## [13031,] -6.572826e+04 -1.134528e+05
## [13032,] -1.042250e+06 -6.702287e+05
## [13033,] -1.960484e+09 -7.158739e+08
## [13034,] -1.382342e+09 -5.208495e+08
## [13035,] -2.802603e+07 -1.155689e+07
## [13036,] -1.214796e+04 -6.122265e+04
## [13037,] -5.307299e+04 -1.034394e+05
## [13038,] -1.015547e+06 -6.278169e+05
## [13039,] -1.767409e+09 -6.668699e+08
## [13040,] -1.370304e+09 -5.061447e+08
## [13041,] -2.769457e+07 -1.169966e+07
## [13042,] -1.437872e+04 -6.233481e+04
## [13043,] -5.420913e+04 -1.028093e+05
## [13044,] -1.034933e+06 -6.278169e+05
## [13045,] -1.806808e+09 -6.668699e+08
## [13046,] -1.352347e+09 -4.988712e+08
## [13047,] -2.217099e+07 -9.654991e+06
## [13048,] -1.118566e+04 -6.197211e+04
```

```
## [13049,] -6.117123e+04 -1.074399e+05
## [13050,] -9.506288e+05 -6.064570e+05
## [13051,] -3.186300e+09 -1.167767e+09
## [13052,] -2.377138e+09 -8.435794e+08
## [13053,] -1.223844e+08 -7.080799e+07
## [13054,] -1.292778e+07 -1.449576e+07
## [13055,] -1.458131e+07 -1.554460e+07
## [13056,] -2.431429e+07 -2.144241e+07
## [13057,] -3.081782e+09 -1.031738e+09
## [13058,] -2.369011e+09 -7.429751e+08
## [13059,] -1.171327e+08 -6.924428e+07
## [13060,] -1.346979e+07 -1.480993e+07
## [13061,] -1.463591e+07 -1.554289e+07
## [13062,] -2.413334e+07 -2.130564e+07
## [13063,] -3.030176e+09 -1.092429e+09
## [13064,] -2.329694e+09 -9.353426e+08
## [13065,] -1.221698e+08 -7.384723e+07
## [13066,] -1.317593e+07 -1.454719e+07
## [13067,] -1.423539e+07 -1.530997e+07
## [13068,] -2.449491e+07 -2.150094e+07
## [13069,] -3.553717e+09 -1.265050e+09
## [13070,] -2.620043e+09 -9.303409e+08
## [13071,] -1.304195e+08 -7.422061e+07
## [13072,] -1.313805e+07 -1.466691e+07
## [13073,] -1.443972e+07 -1.544849e+07
## [13074,] -2.437660e+07 -2.152314e+07
## [13075,] -3.676998e+09 -1.291708e+09
## [13076,] -2.611745e+09 -9.155550e+08
## [13077,] -1.173925e+08 -7.031898e+07
## [13078,] -1.327397e+07 -1.474169e+07
## [13079,] -1.465013e+07 -1.553047e+07
## [13080,] -2.411210e+07 -2.136304e+07
## [13081,] -3.164604e+09 -1.067675e+09
## [13082,] -2.282582e+09 -8.151952e+08
## [13083,] -1.348289e+08 -7.978396e+07
## [13084,] -1.338301e+07 -1.471893e+07
## [13085,] -1.456014e+07 -1.557303e+07
## [13086,] -2.422125e+07 -2.131083e+07
## [13087,] -3.217077e+09 -1.104430e+09
## [13088,] -2.213213e+09 -8.197463e+08
## [13089,] -1.302852e+08 -7.484192e+07
## [13090,] -1.313898e+07 -1.460512e+07
## [13091,] -1.458138e+07 -1.553307e+07
## [13092,] -2.397778e+07 -2.131389e+07
## [13093,] -4.046711e+09 -1.485567e+09
## [13094,] -2.719923e+09 -9.548223e+08
## [13095,] -1.237319e+08 -7.094952e+07
```

```
## [13096,] -1.326933e+07 -1.465675e+07
## [13097,] -1.445098e+07 -1.552192e+07
## [13098,] -2.457489e+07 -2.164263e+07
## [13099,] -3.464568e+09 -1.257941e+09
## [13100,] -2.321060e+09 -7.692783e+08
## [13101,] -1.067000e+08 -6.493713e+07
## [13102,] -1.324788e+07 -1.466845e+07
## [13103,] -1.464059e+07 -1.561744e+07
## [13104,] -2.446723e+07 -2.149719e+07
## [13105,] -3.205994e+09 -1.135311e+09
## [13106,] -2.463728e+09 -8.809706e+08
## [13107,] -1.196598e+08 -6.908675e+07
## [13108,] -1.341165e+07 -1.479483e+07
## [13109,] -1.468611e+07 -1.561013e+07
## [13110,] -2.414015e+07 -2.135625e+07
## [13111,] -3.778019e+09 -1.205290e+09
## [13112,] -2.727832e+09 -9.246554e+08
## [13113,] -1.213017e+08 -7.174714e+07
## [13114,] -1.331377e+07 -1.477217e+07
## [13115,] -1.470745e+07 -1.560886e+07
## [13116,] -2.467119e+07 -2.186709e+07
## [13117,] -3.686639e+09 -1.211610e+09
## [13118,] -2.431171e+09 -7.466102e+08
## [13119,] -1.555025e+08 -9.260600e+07
## [13120,] -1.347234e+07 -1.481261e+07
## [13121,] -1.486046e+07 -1.569254e+07
## [13122,] -2.409965e+07 -2.138451e+07
## [13123,] -2.926866e+09 -1.141291e+09
## [13124,] -2.227638e+09 -7.824946e+08
## [13125,] -1.136223e+08 -6.913757e+07
## [13126,] -1.315681e+07 -1.481849e+07
## [13127,] -1.454653e+07 -1.554735e+07
## [13128,] -2.396635e+07 -2.128103e+07
## [13129,] -3.142296e+09 -1.042662e+09
## [13130,] -2.289097e+09 -8.052200e+08
## [13131,] -1.186341e+08 -6.830793e+07
## [13132,] -1.342898e+07 -1.484175e+07
## [13133,] -1.461065e+07 -1.557489e+07
## [13134,] -2.442874e+07 -2.159437e+07
## [13135,] -3.311613e+09 -1.134848e+09
## [13136,] -2.735832e+09 -9.243766e+08
## [13137,] -1.211890e+08 -6.972451e+07
## [13138,] -1.336933e+07 -1.487667e+07
## [13139,] -1.470709e+07 -1.565116e+07
## [13140,] -2.434501e+07 -2.156008e+07
## [13141,] -3.485193e+09 -1.283703e+09
## [13142,] -2.701836e+09 -8.282706e+08
```

```
## [13143,] -1.203025e+08 -6.922655e+07
## [13144,] -1.316302e+07 -1.468757e+07
## [13145,] -1.467743e+07 -1.568656e+07
## [13146,] -2.487067e+07 -2.181952e+07
## [13147,] -3.386681e+09 -1.097231e+09
## [13148,] -2.188945e+09 -6.855189e+08
## [13149,] -1.198772e+08 -6.942629e+07
## [13150,] -1.363831e+07 -1.497506e+07
## [13151,] -1.467577e+07 -1.564989e+07
## [13152,] -2.466389e+07 -2.170384e+07
## [13153,] -3.441046e+09 -1.084867e+09
## [13154,] -2.752188e+09 -9.338942e+08
## [13155,] -1.174356e+08 -7.070398e+07
## [13156,] -1.353439e+07 -1.490644e+07
## [13157,] -1.480849e+07 -1.574408e+07
## [13158,] -2.433876e+07 -2.145430e+07
## [13159,] -3.110090e+09 -1.115577e+09
## [13160,] -2.272870e+09 -8.047864e+08
## [13161,] -1.172089e+08 -6.843430e+07
## [13162,] -1.351793e+07 -1.492373e+07
## [13163,] -1.466161e+07 -1.560424e+07
## [13164,] -2.486104e+07 -2.182168e+07
## [13165,] -3.764976e+09 -1.204388e+09
## [13166,] -2.667578e+09 -9.091774e+08
## [13167,] -1.218021e+08 -7.106933e+07
## [13168,] -1.356211e+07 -1.498746e+07
## [13169,] -1.481648e+07 -1.572896e+07
## [13170,] -2.434203e+07 -2.149065e+07
## [13171,] -3.172602e+09 -1.172208e+09
## [13172,] -2.478262e+09 -8.896700e+08
## [13173,] -1.211268e+08 -6.915413e+07
## [13174,] -1.318045e+07 -1.480339e+07
## [13175,] -1.458534e+07 -1.556037e+07
## [13176,] -2.452275e+07 -2.152702e+07
## [13177,] -3.506240e+09 -1.084464e+09
## [13178,] -2.683967e+09 -1.009402e+09
## [13179,] -1.246925e+08 -7.167733e+07
## [13180,] -1.343674e+07 -1.486715e+07
## [13181,] -1.459370e+07 -1.560774e+07
## [13182,] -2.407347e+07 -2.138198e+07
## [13183,] -3.550164e+09 -1.256315e+09
## [13184,] -2.567434e+09 -8.893965e+08
## [13185,] -1.244759e+08 -7.204519e+07
## [13186,] -1.354096e+07 -1.494792e+07
## [13187,] -1.468213e+07 -1.564481e+07
## [13188,] -2.479840e+07 -2.183003e+07
## [13189,] -3.461780e+09 -1.243083e+09
```

```
## [13190,] -2.641872e+09 -8.748957e+08
## [13191,] -1.146687e+08 -6.632605e+07
## [13192,] -1.352477e+07 -1.493667e+07
## [13193,] -1.477293e+07 -1.576580e+07
## [13194,] -2.482554e+07 -2.175492e+07
## [13195,] -3.067717e+09 -1.096422e+09
## [13196,] -2.717214e+09 -9.332872e+08
## [13197,] -1.203746e+08 -7.103458e+07
## [13198,] -1.355248e+07 -1.499466e+07
## [13199,] -1.463041e+07 -1.566512e+07
## [13200,] -2.442932e+07 -2.157267e+07
## [13201,] -3.256278e+09 -1.140000e+09
## [13202,] -2.785208e+09 -9.037408e+08
## [13203,] -1.208512e+08 -7.051912e+07
## [13204,] -1.361859e+07 -1.496593e+07
## [13205,] -1.476793e+07 -1.572559e+07
## [13206,] -2.465029e+07 -2.178035e+07
## [13207,] -3.341839e+09 -1.165261e+09
## [13208,] -2.742483e+09 -8.939672e+08
## [13209,] -1.213287e+08 -7.053196e+07
## [13210,] -1.347050e+07 -1.494300e+07
## [13211,] -1.477003e+07 -1.572776e+07
## [13212,] -2.438530e+07 -2.162024e+07
## [13213,] -3.527442e+09 -1.184376e+09
## [13214,] -2.566892e+09 -8.087433e+08
## [13215,] -1.192791e+08 -6.931945e+07
## [13216,] -1.373470e+07 -1.508185e+07
## [13217,] -1.480232e+07 -1.571048e+07
## [13218,] -2.473684e+07 -2.181697e+07
## [13219,] -3.363247e+09 -1.184323e+09
## [13220,] -2.437064e+09 -8.890775e+08
## [13221,] -1.227500e+08 -7.055763e+07
## [13222,] -1.353668e+07 -1.518077e+07
## [13223,] -1.464463e+07 -1.557511e+07
## [13224,] -2.548369e+07 -2.223567e+07
## [13225,] -3.192253e+09 -1.023265e+09
## [13226,] -2.341682e+09 -8.040062e+08
## [13227,] -1.202456e+08 -7.146537e+07
## [13228,] -1.356977e+07 -1.500706e+07
## [13229,] -1.474828e+07 -1.576370e+07
## [13230,] -2.510952e+07 -2.202081e+07
## [13231,] -3.694899e+09 -1.282225e+09
## [13232,] -2.591143e+09 -8.839740e+08
## [13233,] -1.191674e+08 -7.151706e+07
## [13234,] -1.336790e+07 -1.496735e+07
## [13235,] -1.477387e+07 -1.574729e+07
## [13236,] -2.490506e+07 -2.194132e+07
```



```

## [13237,] -3.649439e+09 -1.209696e+09
## [13238,] -2.302080e+09 -8.222053e+08
## [13239,] -1.247659e+08 -6.909830e+07
## [13240,] -1.368648e+07 -1.507183e+07
## [13241,] -1.482548e+07 -1.580057e+07
## [13242,] -2.463011e+07 -2.172790e+07
## [13243,] -2.974254e+09 -1.145578e+09
## [13244,] -2.294156e+09 -7.582838e+08
## [13245,] -1.253195e+08 -7.286592e+07
## [13246,] -1.348922e+07 -1.502625e+07
## [13247,] -1.484736e+07 -1.581925e+07
## [13248,] -2.428488e+07 -2.191608e+07
## [13249,] -2.852946e+09 -9.988287e+08
## [13250,] -2.573722e+09 -9.077034e+08
## [13251,] -1.202675e+08 -7.024871e+07
## [13252,] -1.368192e+07 -1.511339e+07
## [13253,] -1.486670e+07 -1.587829e+07
## [13254,] -2.488147e+07 -2.198646e+07
## [13255,] -3.148807e+09 -1.082905e+09
## [13256,] -2.239433e+09 -8.217233e+08
## [13257,] -1.221785e+08 -7.135696e+07
## [13258,] -1.368246e+07 -1.510237e+07
## [13259,] -1.508400e+07 -1.600455e+07
## [13260,] -2.497605e+07 -2.188464e+07
## [13261,] -3.693320e+09 -1.342048e+09
## [13262,] -2.565111e+09 -8.309626e+08
## [13263,] -1.187824e+08 -6.963792e+07
## [13264,] -1.364978e+07 -1.510859e+07
## [13265,] -1.492313e+07 -1.588574e+07
## [13266,] -2.448279e+07 -2.185726e+07
## [13267,] -3.085853e+09 -1.125960e+09
## [13268,] -2.103023e+09 -7.223903e+08
## [13269,] -1.158516e+08 -7.035122e+07
## [13270,] -1.367197e+07 -1.529483e+07
## [13271,] -1.513064e+07 -1.588792e+07
## [13272,] -2.434090e+07 -2.177901e+07
## [13273,] -3.437013e+09 -1.234800e+09
## [13274,] -2.363510e+09 -8.214605e+08
## [13275,] -1.218005e+08 -7.001329e+07
## [13276,] -1.356216e+07 -1.497019e+07
## [13277,] -1.495603e+07 -1.592359e+07
## [13278,] -2.456905e+07 -2.179328e+07
## [13279,] -3.274787e+09 -9.690674e+08
## [13280,] -2.491236e+09 -8.781152e+08
## [13281,] -1.213726e+08 -7.394596e+07
## [13282,] -1.332712e+07 -1.501654e+07
## [13283,] -1.498092e+07 -1.595711e+07

```

```

## [13284,] -2.509710e+07 -2.233600e+07
## [13285,] -3.044236e+09 -1.039900e+09
## [13286,] -2.292839e+09 -7.265925e+08
## [13287,] -1.172736e+08 -6.970170e+07
## [13288,] -1.384402e+07 -1.522549e+07
## [13289,] -1.508956e+07 -1.601029e+07
## [13290,] -2.462739e+07 -2.178116e+07
## [13291,] -3.491418e+09 -1.267496e+09
## [13292,] -2.664027e+09 -8.684365e+08
## [13293,] -1.258453e+08 -7.488840e+07
## [13294,] -1.365073e+07 -1.501696e+07
## [13295,] -1.496281e+07 -1.601293e+07
## [13296,] -2.504816e+07 -2.179543e+07
## [13297,] -3.263780e+09 -1.070022e+09
## [13298,] -2.347317e+09 -8.073097e+08
## [13299,] -1.200598e+08 -7.044098e+07
## [13300,] -1.380575e+07 -1.514468e+07
## [13301,] -1.503164e+07 -1.602517e+07
## [13302,] -2.483202e+07 -2.193998e+07
## [13303,] -3.579628e+09 -1.227723e+09
## [13304,] -2.394416e+09 -7.979441e+08
## [13305,] -1.254787e+08 -7.209590e+07
## [13306,] -1.373986e+07 -1.515687e+07
## [13307,] -1.510870e+07 -1.602214e+07
## [13308,] -2.519008e+07 -2.214128e+07
## [13309,] -3.022946e+09 -1.100421e+09
## [13310,] -2.680168e+09 -9.116285e+08
## [13311,] -1.187875e+08 -7.051796e+07
## [13312,] -1.381197e+07 -1.525589e+07
## [13313,] -1.511251e+07 -1.606144e+07
## [13314,] -2.477902e+07 -2.195741e+07
## [13315,] -3.263168e+09 -1.137783e+09
## [13316,] -2.323281e+09 -8.208911e+08
## [13317,] -1.195063e+08 -7.071955e+07
## [13318,] -1.386218e+07 -1.520960e+07
## [13319,] -1.511295e+07 -1.604224e+07
## [13320,] -2.469140e+07 -2.191972e+07
## [13321,] -3.635054e+09 -1.273540e+09
## [13322,] -2.284200e+09 -7.704722e+08
## [13323,] -1.181539e+08 -7.055646e+07
## [13324,] -1.350369e+07 -1.515163e+07
## [13325,] -1.506553e+07 -1.609163e+07
## [13326,] -2.504080e+07 -2.212500e+07
## [13327,] -3.327104e+09 -9.800374e+08
## [13328,] -2.146695e+09 -8.300818e+08
## [13329,] -1.239278e+08 -7.251687e+07
## [13330,] -1.402411e+07 -1.535581e+07

```

```
## [13331,] -1.496332e+07 -1.597030e+07
## [13332,] -2.533675e+07 -2.215471e+07
## [13333,] -3.646117e+09 -1.260163e+09
## [13334,] -2.322839e+09 -7.975556e+08
## [13335,] -1.256157e+08 -7.184446e+07
## [13336,] -1.407470e+07 -1.542632e+07
## [13337,] -1.495996e+07 -1.600606e+07
## [13338,] -2.529192e+07 -2.225934e+07
## [13339,] -3.612245e+09 -1.156411e+09
## [13340,] -2.671223e+09 -8.773455e+08
## [13341,] -1.216590e+08 -7.025647e+07
## [13342,] -1.355360e+07 -1.493813e+07
## [13343,] -1.494099e+07 -1.598252e+07
## [13344,] -2.466562e+07 -2.195146e+07
## [13345,] -3.053094e+09 -1.057166e+09
## [13346,] -2.417539e+09 -7.657641e+08
## [13347,] -1.180260e+08 -7.063351e+07
## [13348,] -1.375228e+07 -1.521060e+07
## [13349,] -1.505923e+07 -1.602614e+07
## [13350,] -2.468839e+07 -2.200662e+07
## [13351,] -1.393715e+09 -4.985104e+08
## [13352,] -1.084901e+09 -4.213546e+08
## [13353,] -2.068978e+07 -8.139863e+06
## [13354,] -5.500819e+02 -1.749051e+04
## [13355,] -1.512473e+04 -3.921711e+04
## [13356,] -6.343170e+05 -3.835799e+05
## [13357,] -1.345429e+09 -5.237939e+08
## [13358,] -1.058348e+09 -3.919161e+08
## [13359,] -2.040512e+07 -8.502140e+06
## [13360,] -3.335770e+02 -1.849061e+04
## [13361,] -1.536698e+04 -3.921711e+04
## [13362,] -6.400481e+05 -3.835799e+05
## [13363,] -1.442852e+09 -5.026809e+08
## [13364,] -1.032123e+09 -3.887109e+08
## [13365,] -2.088065e+07 -8.139863e+06
## [13366,] -6.595562e+02 -1.828837e+04
## [13367,] -1.585726e+04 -3.960665e+04
## [13368,] -6.324123e+05 -3.820991e+05
## [13369,] -1.352275e+09 -5.152966e+08
## [13370,] -1.090252e+09 -3.760219e+08
## [13371,] -2.049979e+07 -8.380505e+06
## [13372,] -5.158154e+02 -1.849061e+04
## [13373,] -1.548883e+04 -3.902306e+04
## [13374,] -6.400481e+05 -3.806211e+05
## [13375,] -1.407667e+09 -5.195365e+08
## [13376,] -1.047818e+09 -3.855189e+08
## [13377,] -2.185528e+07 -8.445654e+06
```

```

## [13378,] -3.342422e+02 -1.690858e+04
## [13379,] -1.053826e+04 -3.497803e+04
## [13380,] -7.304144e+05 -4.225237e+05
## [13381,] -1.591708e+09 -6.011453e+08
## [13382,] -1.196008e+09 -4.528443e+08
## [13383,] -2.470356e+07 -1.072373e+07
## [13384,] -1.798217e+04 -6.883584e+04
## [13385,] -5.948443e+04 -1.090539e+05
## [13386,] -1.038927e+06 -6.462277e+05
## [13387,] -1.767345e+09 -7.409858e+08
## [13388,] -1.316732e+09 -5.171188e+08
## [13389,] -2.726366e+07 -1.142017e+07
## [13390,] -1.547628e+04 -6.346623e+04
## [13391,] -5.309905e+04 -1.019038e+05
## [13392,] -1.055184e+06 -6.493840e+05
## [13393,] -1.838509e+09 -6.959832e+08
## [13394,] -1.258466e+09 -4.357151e+08
## [13395,] -2.544493e+07 -1.121406e+07
## [13396,] -1.700090e+04 -6.575020e+04
## [13397,] -5.771689e+04 -1.098842e+05
## [13398,] -9.850940e+05 -6.207771e+05
## [13399,] -1.689789e+09 -6.102827e+08
## [13400,] -1.224172e+09 -4.737621e+08
## [13401,] -2.608242e+07 -1.114407e+07
## [13402,] -1.642253e+04 -6.651734e+04
## [13403,] -6.009801e+04 -1.069766e+05
## [13404,] -9.756154e+05 -6.113847e+05
## [13405,] -1.705148e+09 -5.920025e+08
## [13406,] -1.358151e+09 -4.772665e+08
## [13407,] -2.513680e+07 -1.094047e+07
## [13408,] -2.025982e+04 -6.846426e+04
## [13409,] -4.922892e+04 -1.027064e+05
## [13410,] -1.037164e+06 -6.409997e+05
## [13411,] -3.589507e+09 -1.162550e+09
## [13412,] -2.587643e+09 -8.675360e+08
## [13413,] -1.210514e+08 -7.102443e+07
## [13414,] -1.373624e+07 -1.515306e+07
## [13415,] -1.500305e+07 -1.604277e+07
## [13416,] -2.518169e+07 -2.225744e+07
## [13417,] -3.412870e+09 -1.293025e+09
## [13418,] -3.034490e+09 -1.063853e+09
## [13419,] -1.276032e+08 -7.388823e+07
## [13420,] -1.371966e+07 -1.514725e+07
## [13421,] -1.502966e+07 -1.604277e+07
## [13422,] -2.474688e+07 -2.194957e+07
## [13423,] -2.761233e+09 -1.020822e+09
## [13424,] -2.772065e+09 -9.454875e+08

```

```
## [13425,] -1.324466e+08 -7.215175e+07
## [13426,] -1.387547e+07 -1.527595e+07
## [13427,] -1.519286e+07 -1.616399e+07
## [13428,] -2.468209e+07 -2.205683e+07
## [13429,] -3.083222e+09 -1.118129e+09
## [13430,] -2.345467e+09 -8.576921e+08
## [13431,] -1.251179e+08 -7.076201e+07
## [13432,] -1.405957e+07 -1.541633e+07
## [13433,] -1.514362e+07 -1.612108e+07
## [13434,] -2.544790e+07 -2.240569e+07
## [13435,] -3.566294e+09 -1.232975e+09
## [13436,] -2.368948e+09 -7.969515e+08
## [13437,] -1.184697e+08 -6.992264e+07
## [13438,] -1.373193e+07 -1.527653e+07
## [13439,] -1.510209e+07 -1.612153e+07
## [13440,] -2.574624e+07 -2.260596e+07
## [13441,] -3.093155e+09 -1.155580e+09
## [13442,] -2.408444e+09 -7.968652e+08
## [13443,] -1.313498e+08 -7.546742e+07
## [13444,] -1.373773e+07 -1.523603e+07
## [13445,] -1.526310e+07 -1.617324e+07
## [13446,] -2.507400e+07 -2.221257e+07
## [13447,] -3.368476e+09 -1.168235e+09
## [13448,] -2.329336e+09 -7.695392e+08
## [13449,] -1.263945e+08 -7.440664e+07
## [13450,] -1.392092e+07 -1.538793e+07
## [13451,] -1.523289e+07 -1.618159e+07
## [13452,] -2.495762e+07 -2.209179e+07
## [13453,] -3.303615e+09 -1.142735e+09
## [13454,] -2.545388e+09 -7.560130e+08
## [13455,] -1.338306e+08 -8.051200e+07
## [13456,] -1.397146e+07 -1.535327e+07
## [13457,] -1.524099e+07 -1.622944e+07
## [13458,] -2.524438e+07 -2.233900e+07
## [13459,] -3.335658e+09 -9.905399e+08
## [13460,] -2.423942e+09 -8.811591e+08
## [13461,] -1.213542e+08 -7.072734e+07
## [13462,] -1.395501e+07 -1.534772e+07
## [13463,] -1.529341e+07 -1.622024e+07
## [13464,] -2.505567e+07 -2.218404e+07
## [13465,] -3.609949e+09 -1.206349e+09
## [13466,] -2.685959e+09 -9.496818e+08
## [13467,] -1.148081e+08 -6.763174e+07
## [13468,] -1.386100e+07 -1.537752e+07
## [13469,] -1.527298e+07 -1.623081e+07
## [13470,] -2.542740e+07 -2.238645e+07
## [13471,] -3.217768e+09 -1.007927e+09
```

```
## [13472,] -2.439490e+09 -8.287174e+08
## [13473,] -1.230755e+08 -6.922809e+07
## [13474,] -1.365105e+07 -1.506357e+07
## [13475,] -1.524107e+07 -1.629282e+07
## [13476,] -2.554721e+07 -2.234023e+07
## [13477,] -3.432534e+09 -1.186742e+09
## [13478,] -2.652118e+09 -8.904522e+08
## [13479,] -1.233248e+08 -7.276831e+07
## [13480,] -1.403409e+07 -1.545409e+07
## [13481,] -1.528323e+07 -1.628094e+07
## [13482,] -2.530150e+07 -2.207675e+07
## [13483,] -2.978920e+09 -9.380236e+08
## [13484,] -2.415286e+09 -8.615974e+08
## [13485,] -1.287467e+08 -7.494010e+07
## [13486,] -1.416866e+07 -1.553643e+07
## [13487,] -1.530455e+07 -1.627127e+07
## [13488,] -2.600013e+07 -2.280959e+07
## [13489,] -3.206770e+09 -1.110784e+09
## [13490,] -2.479339e+09 -8.854812e+08
## [13491,] -1.269052e+08 -7.282046e+07
## [13492,] -1.416346e+07 -1.547813e+07
## [13493,] -1.542637e+07 -1.627789e+07
## [13494,] -2.513223e+07 -2.198593e+07
## [13495,] -3.291594e+09 -1.160935e+09
## [13496,] -1.798589e+09 -5.954468e+08
## [13497,] -1.050778e+08 -6.300660e+07
## [13498,] -1.445134e+07 -1.577308e+07
## [13499,] -1.560243e+07 -1.648263e+07
## [13500,] -2.424796e+07 -2.165768e+07
## [13501,] -2.857680e+09 -9.898667e+08
## [13502,] -2.626642e+09 -8.853448e+08
## [13503,] -1.314778e+08 -7.411571e+07
## [13504,] -1.407993e+07 -1.552569e+07
## [13505,] -1.536396e+07 -1.633649e+07
## [13506,] -2.505062e+07 -2.219056e+07
## [13507,] -2.968089e+09 -1.031197e+09
## [13508,] -2.234807e+09 -7.641579e+08
## [13509,] -1.181856e+08 -7.199488e+07
## [13510,] -1.416977e+07 -1.549646e+07
## [13511,] -1.535242e+07 -1.629289e+07
## [13512,] -2.507459e+07 -2.210046e+07
## [13513,] -3.060188e+09 -1.110479e+09
## [13514,] -2.219495e+09 -7.958733e+08
## [13515,] -1.213930e+08 -6.900709e+07
## [13516,] -1.421486e+07 -1.563195e+07
## [13517,] -1.538919e+07 -1.633473e+07
## [13518,] -2.501037e+07 -2.216395e+07
```

```

## [13519,] -3.060104e+09 -1.091872e+09
## [13520,] -2.288742e+09 -7.958302e+08
## [13521,] -1.281908e+08 -7.578639e+07
## [13522,] -1.409140e+07 -1.556715e+07
## [13523,] -1.541614e+07 -1.627926e+07
## [13524,] -2.493861e+07 -2.211890e+07
## [13525,] -3.778485e+09 -1.331657e+09
## [13526,] -2.250100e+09 -7.821593e+08
## [13527,] -1.191143e+08 -6.884599e+07
## [13528,] -1.418675e+07 -1.552598e+07
## [13529,] -1.530079e+07 -1.628718e+07
## [13530,] -2.543104e+07 -2.226547e+07
## [13531,] -3.344752e+09 -1.160623e+09
## [13532,] -2.864120e+09 -9.489284e+08
## [13533,] -1.249284e+08 -7.292483e+07
## [13534,] -1.413090e+07 -1.559688e+07
## [13535,] -1.514428e+07 -1.625202e+07
## [13536,] -2.566423e+07 -2.272264e+07
## [13537,] -3.552529e+09 -1.277632e+09
## [13538,] -2.478578e+09 -8.374208e+08
## [13539,] -1.137432e+08 -6.853700e+07
## [13540,] -1.395775e+07 -1.553817e+07
## [13541,] -1.529783e+07 -1.628809e+07
## [13542,] -2.549812e+07 -2.240747e+07
## [13543,] -3.376904e+09 -1.192433e+09
## [13544,] -2.519050e+09 -8.467922e+08
## [13545,] -1.210162e+08 -6.837645e+07
## [13546,] -1.406970e+07 -1.556787e+07
## [13547,] -1.538837e+07 -1.633389e+07
## [13548,] -2.527235e+07 -2.243328e+07
## [13549,] -3.463936e+09 -1.284139e+09
## [13550,] -2.422137e+09 -8.093586e+08
## [13551,] -1.233639e+08 -6.944443e+07
## [13552,] -1.409237e+07 -1.546827e+07
## [13553,] -1.541192e+07 -1.635021e+07
## [13554,] -2.515985e+07 -2.231598e+07
## [13555,] -3.237297e+09 -1.135052e+09
## [13556,] -2.165746e+09 -6.311482e+08
## [13557,] -1.271291e+08 -7.442782e+07
## [13558,] -1.396388e+07 -1.542137e+07
## [13559,] -1.529658e+07 -1.626701e+07
## [13560,] -2.537640e+07 -2.242918e+07
## [13561,] -3.121516e+09 -1.091417e+09
## [13562,] -2.453953e+09 -7.547949e+08
## [13563,] -1.477836e+08 -9.061312e+07
## [13564,] -1.398659e+07 -1.547457e+07
## [13565,] -1.531452e+07 -1.630135e+07

```

```
## [13566,] -2.553235e+07 -2.247358e+07
## [13567,] -3.121345e+09 -1.134846e+09
## [13568,] -2.226279e+09 -7.771599e+08
## [13569,] -1.197555e+08 -7.144110e+07
## [13570,] -1.413775e+07 -1.559229e+07
## [13571,] -1.544364e+07 -1.641070e+07
## [13572,] -2.514250e+07 -2.224316e+07
## [13573,] -3.663758e+09 -1.230990e+09
## [13574,] -2.709174e+09 -8.559027e+08
## [13575,] -1.218429e+08 -6.899824e+07
## [13576,] -1.393671e+07 -1.547486e+07
## [13577,] -1.531496e+07 -1.630576e+07
## [13578,] -2.531847e+07 -2.213762e+07
## [13579,] -3.607470e+09 -1.172782e+09
## [13580,] -2.510302e+09 -8.797987e+08
## [13581,] -1.312607e+08 -7.467454e+07
## [13582,] -1.418293e+07 -1.564563e+07
## [13583,] -1.544022e+07 -1.637143e+07
## [13584,] -2.518184e+07 -2.234800e+07
## [13585,] -3.215601e+09 -1.078935e+09
## [13586,] -2.350292e+09 -8.136754e+08
## [13587,] -1.227859e+08 -7.164400e+07
## [13588,] -1.400388e+07 -1.545755e+07
## [13589,] -1.548311e+07 -1.641956e+07
## [13590,] -2.534155e+07 -2.241908e+07
## [13591,] -3.162796e+09 -1.060546e+09
## [13592,] -2.248940e+09 -7.905724e+08
## [13593,] -1.212180e+08 -6.974655e+07
## [13594,] -1.404898e+07 -1.561673e+07
## [13595,] -1.544111e+07 -1.637632e+07
## [13596,] -2.528468e+07 -2.235427e+07
## [13597,] -3.753919e+09 -1.270161e+09
## [13598,] -2.616614e+09 -9.135286e+08
## [13599,] -1.280283e+08 -7.584365e+07
## [13600,] -1.393196e+07 -1.555798e+07
## [13601,] -1.559832e+07 -1.651826e+07
## [13602,] -2.569448e+07 -1.807667e+07
## [13603,] -3.068646e+09 -1.078534e+09
## [13604,] -2.302751e+09 -8.087066e+08
## [13605,] -1.293022e+08 -7.572794e+07
## [13606,] -1.405540e+07 -1.558814e+07
## [13607,] -1.530056e+07 -1.635830e+07
## [13608,] -2.598881e+07 -2.283329e+07
## [13609,] -3.288965e+09 -1.017992e+09
## [13610,] -2.255987e+09 -7.856318e+08
## [13611,] -1.204488e+08 -7.144501e+07
## [13612,] -1.416226e+07 -1.560624e+07
```



```
## [13613,] -1.532574e+07 -1.646784e+07
## [13614,] -2.539005e+07 -2.247605e+07
## [13615,] -3.088822e+09 -1.084362e+09
## [13616,] -2.325724e+09 -7.900997e+08
## [13617,] -1.241867e+08 -7.396986e+07
## [13618,] -1.425813e+07 -1.576604e+07
## [13619,] -1.536846e+07 -1.642453e+07
## [13620,] -2.524888e+07 -2.224153e+07
## [13621,] -3.214301e+09 -1.084312e+09
## [13622,] -2.364859e+09 -8.362713e+08
## [13623,] -1.191578e+08 -7.062728e+07
## [13624,] -1.411808e+07 -1.573688e+07
## [13625,] -1.543481e+07 -1.649311e+07
## [13626,] -2.554503e+07 -2.271303e+07
## [13627,] -3.109150e+09 -1.102601e+09
## [13628,] -2.340954e+09 -8.174356e+08
## [13629,] -1.215043e+08 -7.208056e+07
## [13630,] -1.421942e+07 -1.566624e+07
## [13631,] -1.541984e+07 -1.648162e+07
## [13632,] -2.563313e+07 -2.271619e+07
## [13633,] -3.937240e+09 -1.242811e+09
## [13634,] -2.317318e+09 -7.761377e+08
## [13635,] -1.231757e+08 -7.123339e+07
## [13636,] -1.423109e+07 -1.573169e+07
## [13637,] -1.556145e+07 -1.658005e+07
## [13638,] -2.534213e+07 -2.249902e+07
## [13639,] -3.352355e+09 -1.133508e+09
## [13640,] -2.861176e+09 -9.422478e+08
## [13641,] -1.262487e+08 -7.125919e+07
## [13642,] -1.422588e+07 -1.565531e+07
## [13643,] -1.545757e+07 -1.644893e+07
## [13644,] -2.611804e+07 -2.300032e+07
## [13645,] -3.373708e+09 -1.229436e+09
## [13646,] -2.766355e+09 -8.881734e+08
## [13647,] -1.315288e+08 -7.307638e+07
## [13648,] -1.406361e+07 -1.563214e+07
## [13649,] -1.557612e+07 -1.659918e+07
## [13650,] -2.592609e+07 -2.299202e+07
## [13651,] -3.395129e+09 -1.190376e+09
## [13652,] -2.573346e+09 -8.356527e+08
## [13653,] -1.298885e+08 -7.418031e+07
## [13654,] -1.432237e+07 -1.568556e+07
## [13655,] -1.547605e+07 -1.646401e+07
## [13656,] -2.607591e+07 -2.282338e+07
## [13657,] -3.660706e+09 -1.268745e+09
## [13658,] -2.308780e+09 -7.984689e+08
## [13659,] -1.203416e+08 -7.065686e+07
```

```
## [13660,] -1.405884e+07 -1.565071e+07
## [13661,] -1.566665e+07 -1.662456e+07
## [13662,] -2.572943e+07 -2.278400e+07
## [13663,] -3.066360e+09 -1.145525e+09
## [13664,] -2.254245e+09 -7.800663e+08
## [13665,] -1.442040e+08 -8.108356e+07
## [13666,] -1.409255e+07 -1.573950e+07
## [13667,] -1.569213e+07 -1.661879e+07
## [13668,] -2.598397e+07 -2.279446e+07
## [13669,] -3.416171e+09 -1.215813e+09
## [13670,] -2.614035e+09 -8.780317e+08
## [13671,] -1.312241e+08 -7.500907e+07
## [13672,] -1.455573e+07 -1.594759e+07
## [13673,] -1.564985e+07 -1.663925e+07
## [13674,] -2.568762e+07 -2.274465e+07
## [13675,] -2.843077e+09 -9.988754e+08
## [13676,] -2.458660e+09 -9.217372e+08
## [13677,] -1.220895e+08 -7.199763e+07
## [13678,] -1.432376e+07 -1.587663e+07
## [13679,] -1.573020e+07 -1.664595e+07
## [13680,] -2.528019e+07 -2.263381e+07
## [13681,] -3.492589e+09 -1.228686e+09
## [13682,] -2.192615e+09 -7.707758e+08
## [13683,] -1.193464e+08 -7.201059e+07
## [13684,] -1.439738e+07 -1.588866e+07
## [13685,] -1.573626e+07 -1.666420e+07
## [13686,] -2.540837e+07 -2.268665e+07
## [13687,] -3.055456e+09 -1.089096e+09
## [13688,] -2.230763e+09 -7.980372e+08
## [13689,] -1.200334e+08 -7.183307e+07
## [13690,] -1.444269e+07 -1.583520e+07
## [13691,] -1.572847e+07 -1.666020e+07
## [13692,] -2.550497e+07 -2.265247e+07
## [13693,] -2.933065e+09 -1.058556e+09
## [13694,] -2.230763e+09 -8.026268e+08
## [13695,] -1.179948e+08 -7.184602e+07
## [13696,] -1.447119e+07 -1.590070e+07
## [13697,] -1.564903e+07 -1.671855e+07
## [13698,] -2.601073e+07 -2.292253e+07
## [13699,] -2.953207e+09 -1.070670e+09
## [13700,] -2.466484e+09 -9.314745e+08
## [13701,] -1.279749e+08 -7.345177e+07
## [13702,] -1.446552e+07 -1.588286e+07
## [13703,] -1.570170e+07 -1.668069e+07
## [13704,] -2.603073e+07 -2.305608e+07
## [13705,] -4.318200e+09 -1.301443e+09
## [13706,] -2.539454e+09 -9.363857e+08
```

```
## [13707,] -1.239979e+08 -7.382415e+07
## [13708,] -1.434690e+07 -1.582376e+07
## [13709,] -1.564948e+07 -1.664287e+07
## [13710,] -2.607518e+07 -2.292571e+07
## [13711,] -1.862498e+09 -6.715733e+08
## [13712,] -1.388209e+09 -5.244537e+08
## [13713,] -2.860738e+07 -1.200369e+07
## [13714,] -1.962797e+04 -6.846426e+04
## [13715,] -6.266414e+04 -1.094156e+05
## [13716,] -9.512756e+05 -6.051105e+05
## [13717,] -1.591586e+09 -6.010703e+08
## [13718,] -1.207149e+09 -4.323034e+08
## [13719,] -2.905697e+07 -1.185908e+07
## [13720,] -2.004809e+04 -6.885508e+04
## [13721,] -5.232365e+04 -1.017652e+05
## [13722,] -1.064148e+06 -6.641993e+05
## [13723,] -1.894815e+09 -7.008689e+08
## [13724,] -1.328421e+09 -4.156022e+08
## [13725,] -2.513680e+07 -1.005889e+07
## [13726,] -2.177305e+04 -7.363180e+04
## [13727,] -6.614972e+04 -1.107176e+05
## [13728,] -9.097232e+05 -5.866367e+05
## [13729,] -1.453431e+09 -5.474823e+08
## [13730,] -1.113227e+09 -4.189161e+08
## [13731,] -2.318230e+07 -9.926545e+06
## [13732,] -2.379874e+04 -7.282455e+04
## [13733,] -6.241878e+04 -1.097403e+05
## [13734,] -9.457714e+05 -5.896442e+05
## [13735,] -1.467620e+09 -5.474466e+08
## [13736,] -1.293125e+09 -4.772331e+08
## [13737,] -2.620508e+07 -1.101489e+07
## [13738,] -1.605181e+04 -6.730796e+04
## [13739,] -4.913267e+04 -1.025673e+05
## [13740,] -1.070672e+06 -6.673991e+05
## [13741,] -3.492228e+09 -1.261355e+09
## [13742,] -2.663488e+09 -8.921931e+08
## [13743,] -1.315867e+08 -7.637697e+07
## [13744,] -1.419477e+07 -1.574081e+07
## [13745,] -1.555646e+07 -1.658288e+07
## [13746,] -2.626221e+07 -2.284873e+07
## [13747,] -3.558450e+09 -1.215333e+09
## [13748,] -2.370373e+09 -7.932024e+08
## [13749,] -1.212838e+08 -7.315875e+07
## [13750,] -1.455727e+07 -1.589563e+07
## [13751,] -1.565425e+07 -1.673197e+07
## [13752,] -2.622883e+07 -2.301235e+07
## [13753,] -2.734081e+09 -8.841179e+08
```

```
## [13754,] -2.222603e+09 -7.659822e+08
## [13755,] -1.174130e+08 -7.245733e+07
## [13756,] -1.425734e+07 -1.574745e+07
## [13757,] -1.562926e+07 -1.661802e+07
## [13758,] -2.750195e+07 -2.426473e+07
## [13759,] -3.704189e+09 -1.281020e+09
## [13760,] -2.346515e+09 -8.022372e+08
## [13761,] -1.297945e+08 -7.628755e+07
## [13762,] -1.422961e+07 -1.579528e+07
## [13763,] -1.567457e+07 -1.669679e+07
## [13764,] -2.641982e+07 -2.297281e+07
## [13765,] -2.992944e+09 -1.076226e+09
## [13766,] -2.662699e+09 -9.861600e+08
## [13767,] -1.227895e+08 -7.289241e+07
## [13768,] -1.422426e+07 -1.569495e+07
## [13769,] -1.551831e+07 -1.661140e+07
## [13770,] -2.605104e+07 -2.300627e+07
## [13771,] -3.168640e+09 -1.119355e+09
## [13772,] -2.275881e+09 -8.297804e+08
## [13773,] -1.301377e+08 -7.600224e+07
## [13774,] -1.460993e+07 -1.604015e+07
## [13775,] -1.585511e+07 -1.675838e+07
## [13776,] -2.677121e+07 -2.368334e+07
## [13777,] -3.425107e+09 -1.201683e+09
## [13778,] -2.653862e+09 -9.455418e+08
## [13779,] -1.446632e+08 -8.067415e+07
## [13780,] -1.420822e+07 -1.585578e+07
## [13781,] -1.586165e+07 -1.676911e+07
## [13782,] -2.573236e+07 -2.272967e+07
## [13783,] -2.971834e+09 -1.063582e+09
## [13784,] -2.662068e+09 -9.454478e+08
## [13785,] -1.236222e+08 -7.016333e+07
## [13786,] -1.440596e+07 -1.590958e+07
## [13787,] -1.582868e+07 -1.684376e+07
## [13788,] -2.568718e+07 -2.282421e+07
## [13789,] -3.210057e+09 -1.003613e+09
## [13790,] -2.306431e+09 -7.834059e+08
## [13791,] -1.206319e+08 -7.211831e+07
## [13792,] -1.425379e+07 -1.592772e+07
## [13793,] -1.586819e+07 -1.679996e+07
## [13794,] -2.573134e+07 -2.284295e+07
## [13795,] -3.545701e+09 -1.233939e+09
## [13796,] -2.587111e+09 -8.768094e+08
## [13797,] -1.264653e+08 -7.719509e+07
## [13798,] -1.455951e+07 -1.601714e+07
## [13799,] -1.582350e+07 -1.685049e+07
## [13800,] -2.697555e+07 -2.366553e+07
```

```
## [13801,] -3.094683e+09 -1.106357e+09
## [13802,] -2.306211e+09 -7.969582e+08
## [13803,] -1.295788e+08 -7.667109e+07
## [13804,] -1.468527e+07 -1.593397e+07
## [13805,] -1.572046e+07 -1.672008e+07
## [13806,] -2.604692e+07 -2.296798e+07
## [13807,] -3.220279e+09 -1.124984e+09
## [13808,] -2.695259e+09 -1.026702e+09
## [13809,] -1.272414e+08 -7.523827e+07
## [13810,] -1.457145e+07 -1.596404e+07
## [13811,] -1.585173e+07 -1.682324e+07
## [13812,] -2.561241e+07 -2.281085e+07
## [13813,] -3.326749e+09 -9.915487e+08
## [13814,] -2.822834e+09 -9.104825e+08
## [13815,] -1.334900e+08 -7.690809e+07
## [13816,] -1.472015e+07 -1.609572e+07
## [13817,] -1.584219e+07 -1.680537e+07
## [13818,] -2.577348e+07 -2.272266e+07
## [13819,] -3.167178e+09 -1.213948e+09
## [13820,] -3.087088e+09 -9.954593e+08
## [13821,] -1.345124e+08 -7.676479e+07
## [13822,] -1.457229e+07 -1.612625e+07
## [13823,] -1.574561e+07 -1.677815e+07
## [13824,] -2.577246e+07 -2.305374e+07
## [13825,] -2.991105e+09 -1.162392e+09
## [13826,] -2.205394e+09 -8.057539e+08
## [13827,] -1.290385e+08 -7.607291e+07
## [13828,] -1.443638e+07 -1.600114e+07
## [13829,] -1.585571e+07 -1.684344e+07
## [13830,] -2.641049e+07 -2.319406e+07
## [13831,] -3.656176e+09 -1.226597e+09
## [13832,] -2.685892e+09 -9.297495e+08
## [13833,] -1.236954e+08 -7.109822e+07
## [13834,] -1.439149e+07 -1.591221e+07
## [13835,] -1.584444e+07 -1.681171e+07
## [13836,] -2.572958e+07 -2.289852e+07
## [13837,] -2.889455e+09 -9.733984e+08
## [13838,] -2.062527e+09 -6.987376e+08
## [13839,] -1.246625e+08 -7.415678e+07
## [13840,] -1.448826e+07 -1.594837e+07
## [13841,] -1.564462e+07 -1.677823e+07
## [13842,] -2.642961e+07 -2.323504e+07
## [13843,] -2.949720e+09 -1.099254e+09
## [13844,] -2.503721e+09 -7.689524e+08
## [13845,] -1.306263e+08 -7.619292e+07
## [13846,] -1.442063e+07 -1.604426e+07
## [13847,] -1.600240e+07 -1.696633e+07
```

```
## [13848,] -2.571540e+07 -2.302274e+07
## [13849,] -3.666715e+09 -1.472402e+09
## [13850,] -2.527903e+09 -9.195114e+08
## [13851,] -1.178324e+08 -7.278687e+07
## [13852,] -1.479130e+07 -1.613415e+07
## [13853,] -1.604780e+07 -1.694434e+07
## [13854,] -2.583691e+07 -2.302274e+07
## [13855,] -3.543608e+09 -1.278942e+09
## [13856,] -2.235107e+09 -7.733302e+08
## [13857,] -1.198863e+08 -7.118845e+07
## [13858,] -1.479704e+07 -1.624819e+07
## [13859,] -1.588705e+07 -1.686769e+07
## [13860,] -2.567900e+07 -2.295389e+07
## [13861,] -2.959603e+09 -1.080641e+09
## [13862,] -2.487207e+09 -8.661481e+08
## [13863,] -1.282968e+08 -7.586785e+07
## [13864,] -1.474558e+07 -1.609239e+07
## [13865,] -1.597539e+07 -1.698296e+07
## [13866,] -2.654284e+07 -2.329499e+07
## [13867,] -3.082455e+09 -1.074472e+09
## [13868,] -2.978533e+09 -1.105039e+09
## [13869,] -1.304745e+08 -7.662567e+07
## [13870,] -1.443252e+07 -1.605680e+07
## [13871,] -1.592882e+07 -1.693494e+07
## [13872,] -2.640635e+07 -2.324783e+07
## [13873,] -3.433158e+09 -1.252200e+09
## [13874,] -2.470748e+09 -8.659682e+08
## [13875,] -1.276555e+08 -7.428844e+07
## [13876,] -1.462040e+07 -1.608101e+07
## [13877,] -1.601554e+07 -1.695964e+07
## [13878,] -2.574202e+07 -2.302495e+07
## [13879,] -3.367852e+09 -1.167868e+09
## [13880,] -2.470748e+09 -8.612006e+08
## [13881,] -1.250843e+08 -7.286513e+07
## [13882,] -1.437647e+07 -1.599171e+07
## [13883,] -1.595323e+07 -1.696415e+07
## [13884,] -2.561972e+07 -2.284061e+07
## [13885,] -3.509674e+09 -1.232276e+09
## [13886,] -2.257595e+09 -8.094958e+08
## [13887,] -1.223245e+08 -7.289122e+07
## [13888,] -1.472367e+07 -1.620130e+07
## [13889,] -1.585976e+07 -1.687985e+07
## [13890,] -2.579735e+07 -2.301983e+07
## [13891,] -3.542789e+09 -1.238774e+09
## [13892,] -2.366654e+09 -8.140310e+08
## [13893,] -1.308360e+08 -7.598770e+07
## [13894,] -1.471250e+07 -1.623764e+07
```

```

## [13895,] -1.605399e+07 -1.701540e+07
## [13896,] -2.608550e+07 -2.293538e+07
## [13897,] -3.123135e+09 -1.080089e+09
## [13898,] -2.288315e+09 -7.955782e+08
## [13899,] -1.166545e+08 -6.974810e+07
## [13900,] -1.471837e+07 -1.626786e+07
## [13901,] -1.607192e+07 -1.700956e+07
## [13902,] -2.633394e+07 -2.328372e+07
## [13903,] -3.060862e+09 -1.129601e+09
## [13904,] -2.437917e+09 -7.817813e+08
## [13905,] -1.259590e+08 -7.157189e+07
## [13906,] -1.469619e+07 -1.616048e+07
## [13907,] -1.603963e+07 -1.702489e+07
## [13908,] -2.616464e+07 -2.299812e+07
## [13909,] -2.998881e+09 -1.098241e+09
## [13910,] -2.264656e+09 -7.636153e+08
## [13911,] -1.280996e+08 -7.229501e+07
## [13912,] -1.471935e+07 -1.622080e+07
## [13913,] -1.599515e+07 -1.708840e+07
## [13914,] -2.602133e+07 -2.304723e+07
## [13915,] -3.132877e+09 -1.055327e+09
## [13916,] -2.734418e+09 -9.235548e+08
## [13917,] -1.305147e+08 -7.665649e+07
## [13918,] -1.461680e+07 -1.608322e+07
## [13919,] -1.603661e+07 -1.704608e+07
## [13920,] -2.659382e+07 -2.336588e+07
## [13921,] -3.420815e+09 -1.257938e+09
## [13922,] -2.225930e+09 -7.814822e+08
## [13923,] -1.130051e+08 -7.431878e+07
## [13924,] -1.466260e+07 -1.626332e+07
## [13925,] -1.607025e+07 -1.710104e+07
## [13926,] -2.595151e+07 -2.315395e+07
## [13927,] -3.153606e+09 -1.073471e+09
## [13928,] -2.218282e+09 -7.411978e+08
## [13929,] -1.279492e+08 -7.307400e+07
## [13930,] -1.408594e+07 -1.560262e+07
## [13931,] -1.608818e+07 -1.713984e+07
## [13932,] -2.606474e+07 -2.299618e+07
## [13933,] -3.563645e+09 -1.311161e+09
## [13934,] -2.517912e+09 -8.746837e+08
## [13935,] -1.263315e+08 -7.256420e+07
## [13936,] -1.459470e+07 -1.608395e+07
## [13937,] -1.627238e+07 -1.716289e+07
## [13938,] -2.691808e+07 -2.349555e+07
## [13939,] -3.174146e+09 -1.013024e+09
## [13940,] -2.240903e+09 -7.812686e+08
## [13941,] -1.311159e+08 -7.711739e+07

```

```
## [13942,] -1.460054e+07 -1.617395e+07
## [13943,] -1.596732e+07 -1.697464e+07
## [13944,] -2.647633e+07 -2.337132e+07
## [13945,] -2.997960e+09 -1.192273e+09
## [13946,] -2.428859e+09 -8.225256e+08
## [13947,] -1.278335e+08 -7.227296e+07
## [13948,] -1.466373e+07 -1.615641e+07
## [13949,] -1.599349e+07 -1.706236e+07
## [13950,] -2.641376e+07 -2.335878e+07
## [13951,] -3.675138e+09 -1.290606e+09
## [13952,] -2.733459e+09 -9.378432e+08
## [13953,] -1.259986e+08 -7.374299e+07
## [13954,] -1.475568e+07 -1.631913e+07
## [13955,] -1.608258e+07 -1.714625e+07
## [13956,] -2.663459e+07 -2.335780e+07
## [13957,] -3.419653e+09 -1.230935e+09
## [13958,] -2.388673e+09 -8.935702e+08
## [13959,] -1.218383e+08 -7.251608e+07
## [13960,] -1.498055e+07 -1.627156e+07
## [13961,] -1.591300e+07 -1.701158e+07
## [13962,] -2.614518e+07 -2.324450e+07
## [13963,] -3.573502e+09 -1.237215e+09
## [13964,] -2.239962e+09 -7.989507e+08
## [13965,] -1.230811e+08 -7.275961e+07
## [13966,] -1.490602e+07 -1.643486e+07
## [13967,] -1.619696e+07 -1.723582e+07
## [13968,] -2.610745e+07 -2.323199e+07
## [13969,] -3.236077e+09 -1.078532e+09
## [13970,] -2.411768e+09 -8.547475e+08
## [13971,] -1.551988e+08 -9.017193e+07
## [13972,] -1.497014e+07 -1.636915e+07
## [13973,] -1.609711e+07 -1.717751e+07
## [13974,] -2.673379e+07 -2.349709e+07
## [13975,] -3.539515e+09 -1.269833e+09
## [13976,] -2.598341e+09 -9.027446e+08
## [13977,] -1.348300e+08 -7.718858e+07
## [13978,] -1.469455e+07 -1.620677e+07
## [13979,] -1.611505e+07 -1.710259e+07
## [13980,] -2.668327e+07 -2.360064e+07
## [13981,] -3.484104e+09 -1.078281e+09
## [13982,] -2.622896e+09 -9.074415e+08
## [13983,] -1.227864e+08 -7.235487e+07
## [13984,] -1.466082e+07 -1.630358e+07
## [13985,] -1.611202e+07 -1.716039e+07
## [13986,] -2.665751e+07 -2.352995e+07
## [13987,] -3.450905e+09 -1.184688e+09
## [13988,] -2.631133e+09 -9.025150e+08
```



```

## [13989,] -1.453240e+08 -8.249331e+07
## [13990,] -1.501156e+07 -1.644269e+07
## [13991,] -1.615583e+07 -1.720152e+07
## [13992,] -2.773883e+07 -2.471279e+07
## [13993,] -5.452640e+09 -1.563768e+09
## [13994,] -2.443063e+09 -7.801583e+08
## [13995,] -1.261067e+08 -7.364599e+07
## [13996,] -1.482174e+07 -1.632827e+07
## [13997,] -1.620759e+07 -1.718165e+07
## [13998,] -2.622575e+07 -2.335516e+07
## [13999,] -3.078045e+09 -1.140048e+09
## [14000,] -2.614281e+09 -8.685856e+08
## [14001,] -1.282485e+08 -7.656163e+07
## [14002,] -1.485061e+07 -1.632239e+07
## [14003,] -1.620190e+07 -1.720426e+07
## [14004,] -2.683766e+07 -2.367592e+07
## [14005,] -3.483473e+09 -1.236355e+09
## [14006,] -2.531912e+09 -8.877706e+08
## [14007,] -1.287404e+08 -7.730947e+07
## [14008,] -1.485650e+07 -1.638286e+07
## [14009,] -1.640218e+07 -1.727987e+07
## [14010,] -2.635186e+07 -2.312760e+07
## [14011,] -3.067458e+09 -1.047449e+09
## [14012,] -2.269543e+09 -8.166561e+08
## [14013,] -1.199066e+08 -7.298139e+07
## [14014,] -1.510488e+07 -1.645554e+07
## [14015,] -1.637659e+07 -1.728622e+07
## [14016,] -2.616347e+07 -2.340047e+07
## [14017,] -2.975248e+09 -1.114860e+09
## [14018,] -2.363236e+09 -6.877401e+08
## [14019,] -1.215165e+08 -7.155779e+07
## [14020,] -1.505854e+07 -1.649792e+07
## [14021,] -1.635499e+07 -1.730890e+07
## [14022,] -2.613457e+07 -2.337314e+07
## [14023,] -3.057058e+09 -1.096216e+09
## [14024,] -2.277205e+09 -7.844823e+08
## [14025,] -1.243183e+08 -7.317340e+07
## [14026,] -1.493161e+07 -1.645569e+07
## [14027,] -1.629948e+07 -1.729666e+07
## [14028,] -2.630614e+07 -2.336157e+07
## [14029,] -3.341656e+09 -1.216610e+09
## [14030,] -1.906497e+09 -8.924284e+08
## [14031,] -1.343320e+08 -7.736323e+07
## [14032,] -1.508778e+07 -1.646794e+07
## [14033,] -1.637926e+07 -1.731753e+07
## [14034,] -2.642014e+07 -2.345741e+07
## [14035,] -3.245209e+09 -1.120939e+09

```

```
## [14036,] -2.402609e+09 -7.935104e+08
## [14037,] -1.348709e+08 -7.721950e+07
## [14038,] -1.489762e+07 -1.649866e+07
## [14039,] -1.627268e+07 -1.740795e+07
## [14040,] -2.670279e+07 -2.368883e+07
## [14041,] -1.621347e+09 -5.918909e+08
## [14042,] -1.070245e+09 -4.122393e+08
## [14043,] -2.299582e+07 -9.936178e+06
## [14044,] -1.334695e+04 -6.089940e+04
## [14045,] -5.123315e+04 -1.011762e+05
## [14046,] -9.149286e+05 -5.889801e+05
## [14047,] -1.425029e+09 -5.430583e+08
## [14048,] -1.322403e+09 -5.096287e+08
## [14049,] -2.536253e+07 -1.101996e+07
## [14050,] -1.860715e+04 -6.693104e+04
## [14051,] -6.244704e+04 -1.081584e+05
## [14052,] -9.777812e+05 -5.963499e+05
## [14053,] -1.613850e+09 -6.009954e+08
## [14054,] -1.195796e+09 -4.666270e+08
## [14055,] -2.483817e+07 -1.033602e+07
## [14056,] -2.005848e+04 -6.926633e+04
## [14057,] -6.220211e+04 -1.104289e+05
## [14058,] -9.542591e+05 -6.130995e+05
## [14059,] -1.621347e+09 -6.055737e+08
## [14060,] -1.201413e+09 -4.390120e+08
## [14061,] -2.536253e+07 -1.033602e+07
## [14062,] -2.048315e+04 -6.770502e+04
## [14063,] -6.367893e+04 -1.097778e+05
## [14064,] -9.426054e+05 -6.149748e+05
## [14065,] -1.591464e+09 -5.964345e+08
## [14066,] -1.195796e+09 -4.390120e+08
## [14067,] -2.473395e+07 -1.067525e+07
## [14068,] -2.027026e+04 -6.887433e+04
## [14069,] -6.293835e+04 -1.088047e+05
## [14070,] -9.519226e+05 -6.206182e+05
## [14071,] -3.139550e+09 -1.083606e+09
## [14072,] -2.253603e+09 -8.256474e+08
## [14073,] -1.159313e+08 -7.076512e+07
## [14074,] -1.510023e+07 -1.652335e+07
## [14075,] -1.636872e+07 -1.735571e+07
## [14076,] -2.629520e+07 -2.350185e+07
## [14077,] -3.471309e+09 -1.209586e+09
## [14078,] -2.315343e+09 -7.348806e+08
## [14079,] -1.315941e+08 -7.803802e+07
## [14080,] -1.492727e+07 -1.638464e+07
## [14081,] -1.623449e+07 -1.729901e+07
## [14082,] -2.622058e+07 -2.350087e+07
```

```
## [14083,] -3.394770e+09 -1.065027e+09
## [14084,] -2.338748e+09 -7.217049e+08
## [14085,] -1.210269e+08 -7.295924e+07
## [14086,] -1.481826e+07 -1.640306e+07
## [14087,] -1.617570e+07 -1.731172e+07
## [14088,] -2.708890e+07 -2.374838e+07
## [14089,] -3.819823e+09 -1.308617e+09
## [14090,] -2.629565e+09 -9.162703e+08
## [14091,] -1.416781e+08 -7.900610e+07
## [14092,] -1.492798e+07 -1.656095e+07
## [14093,] -1.625342e+07 -1.735532e+07
## [14094,] -2.700522e+07 -2.393860e+07
## [14095,] -2.953620e+09 -9.697304e+08
## [14096,] -2.679560e+09 -8.725155e+08
## [14097,] -1.326444e+08 -7.792065e+07
## [14098,] -1.486465e+07 -1.639746e+07
## [14099,] -1.629125e+07 -1.732083e+07
## [14100,] -2.655489e+07 -2.334095e+07
## [14101,] -3.117842e+09 -1.040587e+09
## [14102,] -2.704654e+09 -9.408014e+08
## [14103,] -1.209143e+08 -7.251490e+07
## [14104,] -1.496300e+07 -1.650681e+07
## [14105,] -1.626225e+07 -1.731949e+07
## [14106,] -2.717406e+07 -2.393338e+07
## [14107,] -3.086357e+09 -1.076776e+09
## [14108,] -2.629017e+09 -8.722898e+08
## [14109,] -1.341833e+08 -7.651626e+07
## [14110,] -1.484236e+07 -1.639820e+07
## [14111,] -1.621526e+07 -1.729955e+07
## [14112,] -2.634801e+07 -2.350534e+07
## [14113,] -3.958549e+09 -1.335281e+09
## [14114,] -3.234226e+09 -9.159002e+08
## [14115,] -1.205047e+08 -7.344820e+07
## [14116,] -1.512542e+07 -1.668956e+07
## [14117,] -1.650097e+07 -1.745497e+07
## [14118,] -2.687442e+07 -2.380377e+07
## [14119,] -2.963176e+09 -1.113686e+09
## [14120,] -2.283347e+09 -8.018111e+08
## [14121,] -1.327852e+08 -7.988864e+07
## [14122,] -1.493502e+07 -1.652589e+07
## [14123,] -1.644836e+07 -1.746641e+07
## [14124,] -2.726734e+07 -2.396231e+07
## [14125,] -3.034292e+09 -1.070368e+09
## [14126,] -2.337639e+09 -7.879171e+08
## [14127,] -1.226663e+08 -7.351370e+07
## [14128,] -1.506239e+07 -1.655652e+07
## [14129,] -1.660215e+07 -1.741952e+07
```

```
## [14130,] -2.622324e+07 -2.344541e+07
## [14131,] -3.179656e+09 -1.170113e+09
## [14132,] -2.369046e+09 -8.340698e+08
## [14133,] -1.224853e+08 -7.373265e+07
## [14134,] -1.523698e+07 -1.665422e+07
## [14135,] -1.653072e+07 -1.750199e+07
## [14136,] -2.678899e+07 -2.371172e+07
## [14137,] -2.812201e+09 -9.864541e+08
## [14138,] -2.267213e+09 -7.922624e+08
## [14139,] -1.626627e+08 -1.012854e+08
## [14140,] -1.502303e+07 -1.655165e+07
## [14141,] -1.635879e+07 -1.741503e+07
## [14142,] -2.676213e+07 -2.361662e+07
## [14143,] -3.613066e+09 -1.208151e+09
## [14144,] -2.586268e+09 -8.811278e+08
## [14145,] -1.320679e+08 -7.766332e+07
## [14146,] -1.506974e+07 -1.653389e+07
## [14147,] -1.641707e+07 -1.744646e+07
## [14148,] -2.710091e+07 -2.400524e+07
## [14149,] -3.523897e+09 -1.221091e+09
## [14150,] -2.644265e+09 -9.249559e+08
## [14151,] -1.335328e+08 -7.804621e+07
## [14152,] -1.530253e+07 -1.669836e+07
## [14153,] -1.642946e+07 -1.745923e+07
## [14154,] -2.646478e+07 -2.366218e+07
## [14155,] -3.084574e+09 -1.009525e+09
## [14156,] -2.561266e+09 -8.954513e+08
## [14157,] -1.245503e+08 -7.103926e+07
## [14158,] -1.521556e+07 -1.673540e+07
## [14159,] -1.630907e+07 -1.748249e+07
## [14160,] -2.737013e+07 -2.402346e+07
## [14161,] -3.305630e+09 -1.143920e+09
## [14162,] -2.643794e+09 -8.474287e+08
## [14163,] -1.305115e+08 -7.720485e+07
## [14164,] -1.511710e+07 -1.662604e+07
## [14165,] -1.648036e+07 -1.749527e+07
## [14166,] -2.653662e+07 -2.368351e+07
## [14167,] -3.273382e+09 -9.916434e+08
## [14168,] -2.618750e+09 -8.426682e+08
## [14169,] -1.402886e+08 -8.076651e+07
## [14170,] -1.522196e+07 -1.673600e+07
## [14171,] -1.655658e+07 -1.758615e+07
## [14172,] -2.666348e+07 -2.366344e+07
## [14173,] -3.839583e+09 -1.516639e+09
## [14174,] -2.431055e+09 -8.806289e+08
## [14175,] -1.279634e+08 -7.615856e+07
## [14176,] -1.529813e+07 -1.684035e+07
```

```
## [14177,] -1.651139e+07 -1.753136e+07
## [14178,] -2.708876e+07 -2.400552e+07
## [14179,] -3.702139e+09 -1.286492e+09
## [14180,] -2.446929e+09 -8.330550e+08
## [14181,] -1.135127e+08 -6.887827e+07
## [14182,] -1.544476e+07 -1.695116e+07
## [14183,] -1.664414e+07 -1.769289e+07
## [14184,] -2.669848e+07 -2.380139e+07
## [14185,] -3.827474e+09 -1.272882e+09
## [14186,] -2.454657e+09 -7.958435e+08
## [14187,] -1.266497e+08 -7.067788e+07
## [14188,] -1.552737e+07 -1.690252e+07
## [14189,] -1.677696e+07 -1.771401e+07
## [14190,] -2.677168e+07 -2.397586e+07
## [14191,] -3.031767e+09 -1.124419e+09
## [14192,] -2.181252e+09 -7.506504e+08
## [14193,] -1.271558e+08 -7.608260e+07
## [14194,] -1.500304e+07 -1.660352e+07
## [14195,] -1.665084e+07 -1.765030e+07
## [14196,] -2.756553e+07 -2.426547e+07
## [14197,] -3.114345e+09 -1.026587e+09
## [14198,] -2.242216e+09 -7.595244e+08
## [14199,] -1.248233e+08 -7.302334e+07
## [14200,] -1.542790e+07 -1.685379e+07
## [14201,] -1.667710e+07 -1.769797e+07
## [14202,] -2.687876e+07 -2.371453e+07
## [14203,] -3.145630e+09 -1.056666e+09
## [14204,] -2.351056e+09 -7.373334e+08
## [14205,] -1.234241e+08 -7.410055e+07
## [14206,] -1.538692e+07 -1.686604e+07
## [14207,] -1.646940e+07 -1.753325e+07
## [14208,] -2.731479e+07 -2.423011e+07
## [14209,] -3.423315e+09 -1.181324e+09
## [14210,] -2.881454e+09 -8.802207e+08
## [14211,] -1.269543e+08 -7.143522e+07
## [14212,] -1.513650e+07 -1.669511e+07
## [14213,] -1.648579e+07 -1.763659e+07
## [14214,] -2.731826e+07 -2.415097e+07
## [14215,] -3.689878e+09 -1.219969e+09
## [14216,] -2.769194e+09 -9.943099e+08
## [14217,] -1.262820e+08 -7.342081e+07
## [14218,] -1.518339e+07 -1.671995e+07
## [14219,] -1.651016e+07 -1.762470e+07
## [14220,] -2.743443e+07 -2.403676e+07
## [14221,] -3.412061e+09 -1.193960e+09
## [14222,] -2.350685e+09 -8.325258e+08
## [14223,] -1.496739e+08 -8.890853e+07
```

```

## [14224,] -1.505608e+07 -1.677518e+07
## [14225,] -1.639521e+07 -1.754289e+07
## [14226,] -2.746298e+07 -2.427527e+07
## [14227,] -3.218629e+09 -9.907292e+08
## [14228,] -2.390029e+09 -7.326451e+08
## [14229,] -1.270576e+08 -7.240057e+07
## [14230,] -1.521871e+07 -1.675091e+07
## [14231,] -1.634185e+07 -1.746719e+07
## [14232,] -2.673589e+07 -2.397714e+07
## [14233,] -3.229126e+09 -1.111494e+09
## [14234,] -2.405843e+09 -8.137761e+08
## [14235,] -1.228629e+08 -7.188017e+07
## [14236,] -1.537637e+07 -1.686112e+07
## [14237,] -1.636390e+07 -1.752693e+07
## [14238,] -2.716175e+07 -2.419180e+07
## [14239,] -2.949385e+09 -1.105238e+09
## [14240,] -2.381955e+09 -8.230146e+08
## [14241,] -1.342702e+08 -7.786956e+07
## [14242,] -1.531822e+07 -1.678801e+07
## [14243,] -1.661136e+07 -1.774992e+07
## [14244,] -2.702817e+07 -2.387826e+07
## [14245,] -3.092555e+09 -1.225953e+09
## [14246,] -2.090367e+09 -7.280542e+08
## [14247,] -1.280896e+08 -7.607331e+07
## [14248,] -1.516129e+07 -1.666630e+07
## [14249,] -1.655189e+07 -1.762660e+07
## [14250,] -2.725154e+07 -2.418230e+07
## [14251,] -3.092385e+09 -1.080338e+09
## [14252,] -2.373671e+09 -8.509539e+08
## [14253,] -1.312230e+08 -7.849239e+07
## [14254,] -1.548284e+07 -1.691121e+07
## [14255,] -1.677309e+07 -1.782584e+07
## [14256,] -2.699325e+07 -2.386882e+07
## [14257,] -3.175693e+09 -1.037779e+09
## [14258,] -2.241058e+09 -7.723171e+08
## [14259,] -1.346370e+08 -7.944965e+07
## [14260,] -1.547125e+07 -1.697276e+07
## [14261,] -1.674498e+07 -1.772656e+07
## [14262,] -2.758083e+07 -2.405627e+07
## [14263,] -3.165025e+09 -1.067920e+09
## [14264,] -2.294995e+09 -7.722322e+08
## [14265,] -1.234971e+08 -7.397702e+07
## [14266,] -1.551866e+07 -1.693636e+07
## [14267,] -1.653156e+07 -1.764269e+07
## [14268,] -2.760491e+07 -2.443237e+07
## [14269,] -2.999297e+09 -1.061737e+09
## [14270,] -2.460958e+09 -8.506864e+08

```

```
## [14271,] -1.205251e+08 -7.044563e+07
## [14272,] -1.534886e+07 -1.678951e+07
## [14273,] -1.667772e+07 -1.773577e+07
## [14274,] -2.664071e+07 -2.380519e+07
## [14275,] -3.609392e+09 -1.278284e+09
## [14276,] -2.649545e+09 -8.697189e+08
## [14277,] -1.294334e+08 -7.601071e+07
## [14278,] -1.548958e+07 -1.702887e+07
## [14279,] -1.682854e+07 -1.783739e+07
## [14280,] -2.710317e+07 -2.413653e+07
## [14281,] -3.476080e+09 -1.161036e+09
## [14282,] -2.708005e+09 -9.229583e+08
## [14283,] -1.352654e+08 -7.899951e+07
## [14284,] -1.517463e+07 -1.685741e+07
## [14285,] -1.679504e+07 -1.779876e+07
## [14286,] -2.709417e+07 -2.404581e+07
## [14287,] -3.143573e+09 -1.110679e+09
## [14288,] -2.517310e+09 -7.810189e+08
## [14289,] -1.240820e+08 -7.281334e+07
## [14290,] -1.565497e+07 -1.696797e+07
## [14291,] -1.661905e+07 -1.768765e+07
## [14292,] -2.680736e+07 -2.408004e+07
## [14293,] -3.410008e+09 -1.251387e+09
## [14294,] -2.784198e+09 -9.626195e+08
## [14295,] -1.238999e+08 -7.428884e+07
## [14296,] -1.544952e+07 -1.685801e+07
## [14297,] -1.667378e+07 -1.772759e+07
## [14298,] -2.770590e+07 -2.423196e+07
## [14299,] -3.070334e+09 -1.073419e+09
## [14300,] -2.443981e+09 -8.266645e+08
## [14301,] -1.270164e+08 -7.254763e+07
## [14302,] -1.530402e+07 -1.688327e+07
## [14303,] -1.675717e+07 -1.781357e+07
## [14304,] -2.731118e+07 -2.430924e+07
## [14305,] -3.398419e+09 -1.218208e+09
## [14306,] -2.163493e+09 -6.545999e+08
## [14307,] -1.191886e+08 -7.135656e+07
## [14308,] -1.533364e+07 -1.685309e+07
## [14309,] -1.686223e+07 -1.790527e+07
## [14310,] -2.786321e+07 -2.455667e+07
## [14311,] -3.585382e+09 -1.250793e+09
## [14312,] -2.639788e+09 -9.075867e+08
## [14313,] -1.247706e+08 -7.138239e+07
## [14314,] -1.561571e+07 -1.708087e+07
## [14315,] -1.686897e+07 -1.790806e+07
## [14316,] -2.730908e+07 -2.433085e+07
## [14317,] -3.226347e+09 -1.116083e+09
```

```
## [14318,] -2.715180e+09 -9.670891e+08
## [14319,] -1.417294e+08 -7.979057e+07
## [14320,] -1.556300e+07 -1.709968e+07
## [14321,] -1.682738e+07 -1.787350e+07
## [14322,] -2.789092e+07 -2.486829e+07
## [14323,] -3.463300e+09 -1.134740e+09
## [14324,] -2.491501e+09 -8.879143e+08
## [14325,] -1.300548e+08 -7.557447e+07
## [14326,] -1.568725e+07 -1.706314e+07
## [14327,] -1.697126e+07 -1.800512e+07
## [14328,] -2.726148e+07 -2.414461e+07
## [14329,] -3.183704e+09 -1.084912e+09
## [14330,] -2.355589e+09 -7.710860e+08
## [14331,] -1.241893e+08 -7.361220e+07
## [14332,] -1.545798e+07 -1.700804e+07
## [14333,] -1.694119e+07 -1.793258e+07
## [14334,] -2.731947e+07 -2.415212e+07
## [14335,] -2.946315e+09 -9.830012e+08
## [14336,] -2.442923e+09 -8.307188e+08
## [14337,] -1.230595e+08 -7.472016e+07
## [14338,] -1.575274e+07 -1.713144e+07
## [14339,] -1.704861e+07 -1.798479e+07
## [14340,] -2.697828e+07 -2.417139e+07
## [14341,] -3.037994e+09 -1.066472e+09
## [14342,] -2.300648e+09 -7.891253e+08
## [14343,] -1.359363e+08 -7.747243e+07
## [14344,] -1.537043e+07 -1.701449e+07
## [14345,] -1.719704e+07 -1.789568e+07
## [14346,] -2.761143e+07 -2.445033e+07
## [14347,] -3.440858e+09 -1.237105e+09
## [14348,] -3.081075e+09 -9.971627e+08
## [14349,] -1.393926e+08 -8.159269e+07
## [14350,] -1.554665e+07 -1.705173e+07
## [14351,] -1.673277e+07 -1.794600e+07
## [14352,] -2.750184e+07 -2.428821e+07
## [14353,] -3.573042e+09 -1.223867e+09
## [14354,] -2.238382e+09 -7.528358e+08
## [14355,] -1.250268e+08 -7.335813e+07
## [14356,] -1.566508e+07 -1.713868e+07
## [14357,] -1.690269e+07 -1.796359e+07
## [14358,] -2.724583e+07 -2.428295e+07
## [14359,] -3.099270e+09 -1.090556e+09
## [14360,] -2.630126e+09 -9.019254e+08
## [14361,] -1.259991e+08 -7.518846e+07
## [14362,] -1.568899e+07 -1.720079e+07
## [14363,] -1.681453e+07 -1.793497e+07
## [14364,] -2.753739e+07 -2.453453e+07
```



```
## [14365,] -3.057732e+09 -1.121449e+09
## [14366,] -2.276633e+09 -7.932588e+08
## [14367,] -1.255638e+08 -7.412965e+07
## [14368,] -1.561243e+07 -1.713913e+07
## [14369,] -1.697406e+07 -1.800800e+07
## [14370,] -2.763341e+07 -2.449470e+07
## [14371,] -1.591464e+09 -5.873647e+08
## [14372,] -1.173461e+09 -4.631291e+08
## [14373,] -2.473395e+07 -1.074376e+07
## [14374,] -1.942981e+04 -7.244234e+04
## [14375,] -6.269246e+04 -1.110820e+05
## [14376,] -9.659844e+05 -6.112269e+05
## [14377,] -1.606371e+09 -5.783645e+08
## [14378,] -1.195796e+09 -4.458368e+08
## [14379,] -2.452618e+07 -1.053890e+07
## [14380,] -2.048315e+04 -7.005366e+04
## [14381,] -6.318473e+04 -1.110820e+05
## [14382,] -9.565984e+05 -6.112269e+05
## [14383,] -1.554501e+09 -6.009954e+08
## [14384,] -1.167910e+09 -4.492690e+08
## [14385,] -2.504726e+07 -1.060697e+07
## [14386,] -2.005848e+04 -6.926633e+04
## [14387,] -6.293835e+04 -1.101031e+05
## [14388,] -9.612856e+05 -5.981995e+05
## [14389,] -1.547160e+09 -6.147824e+08
## [14390,] -1.173461e+09 -4.561727e+08
## [14391,] -2.411326e+07 -1.053890e+07
## [14392,] -2.027026e+04 -6.887433e+04
## [14393,] -6.269246e+04 -1.088047e+05
## [14394,] -9.589406e+05 -6.130995e+05
## [14395,] -1.561858e+09 -6.055737e+08
## [14396,] -1.151337e+09 -4.527142e+08
## [14397,] -2.504726e+07 -1.053890e+07
## [14398,] -2.091228e+04 -6.926633e+04
## [14399,] -6.343159e+04 -1.081584e+05
## [14400,] -9.472583e+05 -6.056266e+05
## [14401,] -3.016557e+09 -1.078129e+09
## [14402,] -2.394151e+09 -6.830988e+08
## [14403,] -1.300775e+08 -7.396268e+07
## [14404,] -1.552444e+07 -1.720743e+07
## [14405,] -1.693816e+07 -1.802098e+07
## [14406,] -2.758659e+07 -2.440331e+07
## [14407,] -3.572311e+09 -1.133865e+09
## [14408,] -2.522693e+09 -8.254346e+08
## [14409,] -1.228156e+08 -7.543644e+07
## [14410,] -1.563069e+07 -1.718299e+07
## [14411,] -1.701139e+07 -1.804229e+07
```

```
## [14412,] -2.781681e+07 -2.457239e+07
## [14413,] -3.707066e+09 -1.262763e+09
## [14414,] -2.490052e+09 -7.839326e+08
## [14415,] -1.258842e+08 -7.637494e+07
## [14416,] -1.569577e+07 -1.718933e+07
## [14417,] -1.698533e+07 -1.811136e+07
## [14418,] -2.730968e+07 -2.431962e+07
## [14419,] -3.363505e+09 -1.084057e+09
## [14420,] -2.671259e+09 -8.440509e+08
## [14421,] -1.335296e+08 -7.730580e+07
## [14422,] -1.552501e+07 -1.709068e+07
## [14423,] -1.697141e+07 -1.800112e+07
## [14424,] -2.774462e+07 -2.443352e+07
## [14425,] -2.924626e+09 -1.108643e+09
## [14426,] -2.713189e+09 -9.659013e+08
## [14427,] -1.233649e+08 -7.405471e+07
## [14428,] -1.582663e+07 -1.738840e+07
## [14429,] -1.686516e+07 -1.809145e+07
## [14430,] -2.771380e+07 -2.460600e+07
## [14431,] -2.964837e+09 -1.041275e+09
## [14432,] -2.252744e+09 -8.065918e+08
## [14433,] -1.345698e+08 -7.791288e+07
## [14434,] -1.590431e+07 -1.739508e+07
## [14435,] -1.704970e+07 -1.816528e+07
## [14436,] -2.767496e+07 -2.451012e+07
## [14437,] -2.863966e+09 -1.114552e+09
## [14438,] -2.123532e+09 -7.926993e+08
## [14439,] -1.336886e+08 -7.614280e+07
## [14440,] -1.563819e+07 -1.720322e+07
## [14441,] -1.697149e+07 -1.805952e+07
## [14442,] -2.808283e+07 -2.489405e+07
## [14443,] -3.582272e+09 -1.108236e+09
## [14444,] -2.763487e+09 -8.578024e+08
## [14445,] -1.405695e+08 -8.097975e+07
## [14446,] -1.557940e+07 -1.714156e+07
## [14447,] -1.714394e+07 -1.816206e+07
## [14448,] -2.727248e+07 -2.433171e+07
## [14449,] -3.066693e+09 -1.083503e+09
## [14450,] -2.780570e+09 -9.206847e+08
## [14451,] -1.393314e+08 -8.192434e+07
## [14452,] -1.569161e+07 -1.716025e+07
## [14453,] -1.705694e+07 -1.805583e+07
## [14454,] -2.743067e+07 -2.439833e+07
## [14455,] -2.893641e+09 -1.133093e+09
## [14456,] -3.178774e+09 -9.305097e+08
## [14457,] -1.351981e+08 -8.081896e+07
## [14458,] -1.539186e+07 -1.703704e+07
```

```
## [14459,] -1.711598e+07 -1.813746e+07
## [14460,] -2.789535e+07 -2.472945e+07
## [14461,] -3.180946e+09 -1.052844e+09
## [14462,] -2.392731e+09 -8.061579e+08
## [14463,] -1.323458e+08 -7.806134e+07
## [14464,] -1.576318e+07 -1.733430e+07
## [14465,] -1.708041e+07 -1.813425e+07
## [14466,] -2.729085e+07 -2.434907e+07
## [14467,] -3.107525e+09 -1.052695e+09
## [14468,] -2.329445e+09 -8.060277e+08
## [14469,] -1.283183e+08 -7.624952e+07
## [14470,] -1.584069e+07 -1.733476e+07
## [14471,] -1.724753e+07 -1.816817e+07
## [14472,] -2.668509e+07 -2.392903e+07
## [14473,] -3.648599e+09 -1.196283e+09
## [14474,] -2.504663e+09 -8.812709e+08
## [14475,] -1.295588e+08 -7.555997e+07
## [14476,] -1.585909e+07 -1.736644e+07
## [14477,] -1.712059e+07 -1.822588e+07
## [14478,] -2.767769e+07 -2.458384e+07
## [14479,] -3.773032e+09 -1.474921e+09
## [14480,] -2.512482e+09 -8.810895e+08
## [14481,] -1.329865e+08 -7.911110e+07
## [14482,] -1.572306e+07 -1.723645e+07
## [14483,] -1.721910e+07 -1.826037e+07
## [14484,] -2.792444e+07 -2.488801e+07
## [14485,] -3.264382e+09 -1.138499e+09
## [14486,] -2.787598e+09 -8.427638e+08
## [14487,] -1.235908e+08 -7.495292e+07
## [14488,] -1.578299e+07 -1.729920e+07
## [14489,] -1.717888e+07 -1.819802e+07
## [14490,] -2.832954e+07 -2.492283e+07
## [14491,] -3.513743e+09 -1.144694e+09
## [14492,] -2.289435e+09 -6.901593e+08
## [14493,] -1.307057e+08 -7.864838e+07
## [14494,] -1.596766e+07 -1.748004e+07
## [14495,] -1.716535e+07 -1.826367e+07
## [14496,] -2.759902e+07 -2.439135e+07
## [14497,] -3.054437e+09 -1.076223e+09
## [14498,] -2.077101e+09 -6.943474e+08
## [14499,] -1.341130e+08 -8.091933e+07
## [14500,] -1.569481e+07 -1.726880e+07
## [14501,] -1.703598e+07 -1.813022e+07
## [14502,] -2.831926e+07 -2.502082e+07
## [14503,] -3.381871e+09 -1.157030e+09
## [14504,] -2.778475e+09 -8.805452e+08
## [14505,] -1.491271e+08 -9.510452e+07
```

```
## [14506,] -1.601029e+07 -1.751840e+07
## [14507,] -1.736653e+07 -1.833648e+07
## [14508,] -2.783629e+07 -2.460257e+07
## [14509,] -3.033447e+09 -1.045618e+09
## [14510,] -2.257908e+09 -7.596994e+08
## [14511,] -1.253962e+08 -7.490402e+07
## [14512,] -1.575483e+07 -1.740635e+07
## [14513,] -1.705359e+07 -1.819021e+07
## [14514,] -2.778474e+07 -2.479187e+07
## [14515,] -3.435839e+09 -1.182268e+09
## [14516,] -2.166206e+09 -7.912370e+08
## [14517,] -1.254476e+08 -7.350099e+07
## [14518,] -1.599298e+07 -1.751901e+07
## [14519,] -1.738383e+07 -1.835005e+07
## [14520,] -2.745318e+07 -2.452611e+07
## [14521,] -3.002391e+09 -1.045420e+09
## [14522,] -2.257691e+09 -7.640508e+08
## [14523,] -1.214935e+08 -7.567032e+07
## [14524,] -1.605866e+07 -1.749405e+07
## [14525,] -1.735521e+07 -1.841736e+07
## [14526,] -2.759129e+07 -2.451426e+07
## [14527,] -3.022853e+09 -1.063579e+09
## [14528,] -2.311973e+09 -7.462185e+08
## [14529,] -1.297033e+08 -7.731801e+07
## [14530,] -1.569626e+07 -1.742564e+07
## [14531,] -1.733297e+07 -1.841129e+07
## [14532,] -2.818883e+07 -2.486241e+07
## [14533,] -3.612603e+09 -1.240492e+09
## [14534,] -2.651052e+09 -8.995403e+08
## [14535,] -1.311901e+08 -7.534636e+07
## [14536,] -1.581511e+07 -1.737632e+07
## [14537,] -1.730713e+07 -1.834682e+07
## [14538,] -2.791348e+07 -2.487765e+07
## [14539,] -3.589956e+09 -1.313593e+09
## [14540,] -2.478157e+09 -8.944525e+08
## [14541,] -1.365893e+08 -7.686057e+07
## [14542,] -1.545577e+07 -1.704264e+07
## [14543,] -1.728539e+07 -1.831604e+07
## [14544,] -2.753437e+07 -2.472171e+07
## [14545,] -3.188360e+09 -1.106151e+09
## [14546,] -2.358420e+09 -8.092049e+08
## [14547,] -1.428652e+08 -8.008041e+07
## [14548,] -1.595315e+07 -1.762105e+07
## [14549,] -1.719538e+07 -1.837026e+07
## [14550,] -2.742283e+07 -2.456855e+07
## [14551,] -2.920000e+09 -9.970376e+08
## [14552,] -2.241142e+09 -7.633751e+08
```

```
## [14553,] -1.261915e+08 -7.299365e+07
## [14554,] -1.587624e+07 -1.740926e+07
## [14555,] -1.730995e+07 -1.836234e+07
## [14556,] -2.809919e+07 -2.492140e+07
## [14557,] -3.145712e+09 -1.044630e+09
## [14558,] -2.279708e+09 -7.323206e+08
## [14559,] -1.233855e+08 -7.479303e+07
## [14560,] -1.614481e+07 -1.764030e+07
## [14561,] -1.748593e+07 -1.848025e+07
## [14562,] -2.769469e+07 -2.468302e+07
## [14563,] -3.124838e+09 -1.032616e+09
## [14564,] -2.225664e+09 -7.813245e+08
## [14565,] -1.183563e+08 -7.536365e+07
## [14566,] -1.590626e+07 -1.745939e+07
## [14567,] -1.733901e+07 -1.837123e+07
## [14568,] -2.791272e+07 -2.465065e+07
## [14569,] -3.145541e+09 -1.074870e+09
## [14570,] -2.357678e+09 -7.322379e+08
## [14571,] -1.297782e+08 -7.445778e+07
## [14572,] -1.623513e+07 -1.777870e+07
## [14573,] -1.752975e+07 -1.846200e+07
## [14574,] -2.771882e+07 -2.477723e+07
## [14575,] -3.555162e+09 -1.219914e+09
## [14576,] -2.248539e+09 -8.086833e+08
## [14577,] -1.358439e+08 -7.888307e+07
## [14578,] -1.594822e+07 -1.750336e+07
## [14579,] -1.730093e+07 -1.842035e+07
## [14580,] -2.841971e+07 -2.507927e+07
## [14581,] -3.379472e+09 -1.136695e+09
## [14582,] -2.452928e+09 -8.459681e+08
## [14583,] -1.303079e+08 -7.796971e+07
## [14584,] -1.604397e+07 -1.767256e+07
## [14585,] -1.757362e+07 -1.855348e+07
## [14586,] -2.794502e+07 -2.472860e+07
## [14587,] -2.869200e+09 -9.558851e+08
## [14588,] -2.256021e+09 -7.720689e+08
## [14589,] -1.235043e+08 -7.488558e+07
## [14590,] -1.618782e+07 -1.770408e+07
## [14591,] -1.727512e+07 -1.839793e+07
## [14592,] -2.806252e+07 -2.487493e+07
## [14593,] -3.239724e+09 -1.068418e+09
## [14594,] -2.302345e+09 -8.038597e+08
## [14595,] -1.277617e+08 -7.636846e+07
## [14596,] -1.592514e+07 -1.750412e+07
## [14597,] -1.729779e+07 -1.843817e+07
## [14598,] -2.784284e+07 -2.488255e+07
## [14599,] -3.433511e+09 -1.292305e+09
```

```
## [14600,] -2.632569e+09 -9.082385e+08
## [14601,] -1.366662e+08 -8.063379e+07
## [14602,] -1.594895e+07 -1.747293e+07
## [14603,] -1.731820e+07 -1.841711e+07
## [14604,] -2.776256e+07 -2.478283e+07
## [14605,] -3.422418e+09 -1.174400e+09
## [14606,] -2.557954e+09 -8.551189e+08
## [14607,] -1.364930e+08 -7.900527e+07
## [14608,] -1.623676e+07 -1.766737e+07
## [14609,] -1.743366e+07 -1.845179e+07
## [14610,] -2.832724e+07 -2.512420e+07
## [14611,] -3.113233e+09 -1.062084e+09
## [14612,] -2.325168e+09 -7.360125e+08
## [14613,] -1.183780e+08 -7.285800e+07
## [14614,] -1.580762e+07 -1.763054e+07
## [14615,] -1.760939e+07 -1.861562e+07
## [14616,] -2.823248e+07 -2.509487e+07
## [14617,] -3.335031e+09 -1.129700e+09
## [14618,] -2.484107e+09 -8.690950e+08
## [14619,] -1.412881e+08 -7.890075e+07
## [14620,] -1.625612e+07 -1.772523e+07
## [14621,] -1.756096e+07 -1.865048e+07
## [14622,] -2.929204e+07 -2.536600e+07
## [14623,] -3.410540e+09 -1.193061e+09
## [14624,] -2.598365e+09 -8.978909e+08
## [14625,] -1.368985e+08 -8.062423e+07
## [14626,] -1.599855e+07 -1.757484e+07
## [14627,] -1.754088e+07 -1.867640e+07
## [14628,] -2.809063e+07 -2.497311e+07
## [14629,] -2.927848e+09 -1.092069e+09
## [14630,] -2.293323e+09 -7.712623e+08
## [14631,] -1.231464e+08 -7.191944e+07
## [14632,] -1.607111e+07 -1.766341e+07
## [14633,] -1.755827e+07 -1.861806e+07
## [14634,] -2.821196e+07 -2.491996e+07
## [14635,] -2.897503e+09 -1.104322e+09
## [14636,] -2.459150e+09 -1.734088e+07
## [14637,] -1.365520e+08 -8.035831e+07
## [14638,] -1.626948e+07 -1.788397e+07
## [14639,] -1.756104e+07 -1.862091e+07
## [14640,] -2.832541e+07 -2.517047e+07
## [14641,] -4.058272e+09 -1.291042e+09
## [14642,] -2.697676e+09 -9.869984e+08
## [14643,] -1.348983e+08 -8.096349e+07
## [14644,] -1.630605e+07 -1.783401e+07
## [14645,] -1.754325e+07 -1.864494e+07
## [14646,] -2.941734e+07 -2.654453e+07
```

```
## [14647,] -3.237549e+09 -1.104017e+09
## [14648,] -2.308300e+09 -8.073800e+08
## [14649,] -1.234976e+08 -7.615371e+07
## [14650,] -1.633015e+07 -1.785291e+07
## [14651,] -1.771215e+07 -1.867885e+07
## [14652,] -2.823524e+07 -2.527764e+07
## [14653,] -4.238145e+09 -1.514138e+09
## [14654,] -2.491055e+09 -8.684194e+08
## [14655,] -1.488755e+08 -8.401919e+07
## [14656,] -1.588121e+07 -1.743937e+07
## [14657,] -1.761136e+07 -1.866001e+07
## [14658,] -2.792628e+07 -2.499732e+07
## [14659,] -3.619217e+09 -1.284134e+09
## [14660,] -2.825308e+09 -1.129256e+09
## [14661,] -1.296722e+08 -7.637655e+07
## [14662,] -1.612644e+07 -1.768377e+07
## [14663,] -1.768008e+07 -1.873924e+07
## [14664,] -2.803458e+07 -2.496807e+07
## [14665,] -3.279675e+09 -1.012827e+09
## [14666,] -2.261407e+09 -7.888315e+08
## [14667,] -1.411538e+08 -8.332318e+07
## [14668,] -1.595335e+07 -1.737790e+07
## [14669,] -1.743570e+07 -1.843703e+07
## [14670,] -2.790343e+07 -2.505950e+07
## [14671,] -3.574135e+09 -1.317527e+09
## [14672,] -2.547595e+09 -8.729359e+08
## [14673,] -1.441907e+08 -7.957270e+07
## [14674,] -1.630106e+07 -1.797394e+07
## [14675,] -1.760455e+07 -1.865724e+07
## [14676,] -2.861944e+07 -2.525489e+07
## [14677,] -3.017982e+09 -1.116030e+09
## [14678,] -2.253481e+09 -7.887027e+08
## [14679,] -1.304755e+08 -7.754541e+07
## [14680,] -1.628917e+07 -1.781635e+07
## [14681,] -1.754744e+07 -1.860691e+07
## [14682,] -2.797827e+07 -2.483138e+07
## [14683,] -3.121080e+09 -1.097326e+09
## [14684,] -2.688385e+09 -8.727553e+08
## [14685,] -1.343824e+08 -7.795499e+07
## [14686,] -1.616343e+07 -1.785461e+07
## [14687,] -1.754791e+07 -1.862010e+07
## [14688,] -2.857996e+07 -2.539840e+07
## [14689,] -3.607094e+09 -1.270265e+09
## [14690,] -2.237743e+09 -8.253536e+08
## [14691,] -1.293696e+08 -7.779724e+07
## [14692,] -1.630195e+07 -1.789907e+07
## [14693,] -1.778806e+07 -1.880783e+07
```

```

## [14694,] -2.822988e+07 -2.498464e+07
## [14695,] -3.099863e+09 -1.000514e+09
## [14696,] -2.191790e+09 -7.657904e+08
## [14697,] -1.308371e+08 -7.327604e+07
## [14698,] -1.647737e+07 -1.790569e+07
## [14699,] -1.761057e+07 -1.867191e+07
## [14700,] -2.809828e+07 -2.513606e+07
## [14701,] -1.591464e+09 -6.055737e+08
## [14702,] -1.218342e+09 -4.458368e+08
## [14703,] -2.504726e+07 -1.053890e+07
## [14704,] -1.942981e+04 -7.044899e+04
## [14705,] -6.220211e+04 -1.114092e+05
## [14706,] -9.612856e+05 -6.112269e+05
## [14707,] -1.510718e+09 -5.828559e+08
## [14708,] -1.195796e+09 -4.458368e+08
## [14709,] -2.525722e+07 -1.026884e+07
## [14710,] -2.048315e+04 -6.731748e+04
## [14711,] -6.269246e+04 -1.104289e+05
## [14712,] -9.589406e+05 -6.056266e+05
## [14713,] -1.584036e+09 -5.918909e+08
## [14714,] -1.173461e+09 -4.527142e+08
## [14715,] -2.462996e+07 -1.040343e+07
## [14716,] -1.963825e+04 -6.887433e+04
## [14717,] -6.269246e+04 -1.091286e+05
## [14718,] -9.636336e+05 -6.037655e+05
## [14719,] -1.554501e+09 -6.055737e+08
## [14720,] -1.190193e+09 -4.666270e+08
## [14721,] -2.483817e+07 -1.074376e+07
## [14722,] -1.963825e+04 -7.084544e+04
## [14723,] -6.195765e+04 -1.094530e+05
## [14724,] -9.659844e+05 -6.093573e+05
## [14725,] -1.591464e+09 -5.873647e+08
## [14726,] -1.212686e+09 -4.356194e+08
## [14727,] -2.473395e+07 -1.060697e+07
## [14728,] -1.922247e+04 -6.965944e+04
## [14729,] -6.417506e+04 -1.094530e+05
## [14730,] -9.519226e+05 -6.149748e+05
## [14731,] -3.418932e+09 -1.159629e+09
## [14732,] -2.506051e+09 -8.869198e+08
## [14733,] -1.364378e+08 -8.008331e+07
## [14734,] -1.623050e+07 -1.783680e+07
## [14735,] -1.772882e+07 -1.878092e+07
## [14736,] -2.876540e+07 -2.546442e+07
## [14737,] -3.120397e+09 -1.066271e+09
## [14738,] -2.481365e+09 -8.157091e+08
## [14739,] -1.257253e+08 -7.606846e+07
## [14740,] -1.633326e+07 -1.778061e+07

```



```
## [14741,] -1.779594e+07 -1.884147e+07
## [14742,] -2.846524e+07 -2.532638e+07
## [14743,] -3.473104e+09 -1.223652e+09
## [14744,] -2.772115e+09 -9.109190e+08
## [14745,] -1.367896e+08 -8.054067e+07
## [14746,] -1.609930e+07 -1.785647e+07
## [14747,] -1.771555e+07 -1.878427e+07
## [14748,] -2.846062e+07 -2.532203e+07
## [14749,] -3.331678e+09 -1.159264e+09
## [14750,] -3.034290e+09 -9.960605e+08
## [14751,] -1.274254e+08 -7.537973e+07
## [14752,] -1.618935e+07 -1.779365e+07
## [14753,] -1.773025e+07 -1.881216e+07
## [14754,] -2.823938e+07 -2.514936e+07
## [14755,] -3.016555e+09 -1.029720e+09
## [14756,] -2.206289e+09 -7.653675e+08
## [14757,] -1.267347e+08 -7.557487e+07
## [14758,] -1.650914e+07 -1.799572e+07
## [14759,] -1.786087e+07 -1.884860e+07
## [14760,] -2.823479e+07 -2.512103e+07
## [14761,] -2.985920e+09 -1.084256e+09
## [14762,] -2.267600e+09 -7.563753e+08
## [14763,] -1.262810e+08 -7.631788e+07
## [14764,] -1.627979e+07 -1.777509e+07
## [14765,] -1.787977e+07 -1.885949e+07
## [14766,] -2.882636e+07 -2.538896e+07
## [14767,] -3.129963e+09 -1.084105e+09
## [14768,] -2.175628e+09 -7.787209e+08
## [14769,] -1.282391e+08 -7.545936e+07
## [14770,] -1.630447e+07 -1.787017e+07
## [14771,] -1.774821e+07 -1.880938e+07
## [14772,] -2.838084e+07 -2.534307e+07
## [14773,] -2.985335e+09 -1.041372e+09
## [14774,] -2.368697e+09 -7.295936e+08
## [14775,] -1.263840e+08 -7.566790e+07
## [14776,] -1.654051e+07 -1.802213e+07
## [14777,] -1.784619e+07 -1.892305e+07
## [14778,] -2.873432e+07 -2.559234e+07
## [14779,] -3.450181e+09 -1.190687e+09
## [14780,] -2.545512e+09 -8.669338e+08
## [14781,] -1.314093e+08 -7.660783e+07
## [14782,] -1.630506e+07 -1.787079e+07
## [14783,] -1.776983e+07 -1.882313e+07
## [14784,] -2.859692e+07 -2.549892e+07
## [14785,] -3.616183e+09 -1.275661e+09
## [14786,] -2.352635e+09 -8.104294e+08
## [14787,] -1.375126e+08 -8.147309e+07
```

```
## [14788,] -1.622715e+07 -1.790895e+07
## [14789,] -1.801934e+07 -1.891739e+07
## [14790,] -2.899862e+07 -2.564751e+07
## [14791,] -2.974743e+09 -1.108336e+09
## [14792,] -2.266799e+09 -7.965900e+08
## [14793,] -1.326646e+08 -7.664796e+07
## [14794,] -1.623932e+07 -1.791542e+07
## [14795,] -1.780803e+07 -1.896058e+07
## [14796,] -2.849355e+07 -2.540131e+07
## [14797,] -3.149997e+09 -1.089747e+09
## [14798,] -2.619243e+09 -9.298643e+08
## [14799,] -1.258161e+08 -7.687153e+07
## [14800,] -1.634226e+07 -1.793499e+07
## [14801,] -1.779426e+07 -1.885253e+07
## [14802,] -2.833478e+07 -2.526344e+07
## [14803,] -3.649243e+09 -1.083401e+09
## [14804,] -2.375705e+09 -8.239931e+08
## [14805,] -1.413646e+08 -8.234153e+07
## [14806,] -1.631889e+07 -1.792945e+07
## [14807,] -1.783527e+07 -1.896304e+07
## [14808,] -2.906341e+07 -2.576915e+07
## [14809,] -3.448835e+09 -1.222262e+09
## [14810,] -2.735974e+09 -9.795151e+08
## [14811,] -1.262055e+08 -7.534797e+07
## [14812,] -1.656747e+07 -1.815181e+07
## [14813,] -1.782332e+07 -1.891230e+07
## [14814,] -2.886446e+07 -2.563028e+07
## [14815,] -3.318374e+09 -1.157756e+09
## [14816,] -2.478930e+09 -7.686755e+08
## [14817,] -1.258042e+08 -7.503794e+07
## [14818,] -1.676887e+07 -1.816499e+07
## [14819,] -1.799636e+07 -1.908195e+07
## [14820,] -2.825870e+07 -2.540829e+07
## [14821,] -3.034707e+09 -1.088990e+09
## [14822,] -2.812394e+09 -9.540090e+08
## [14823,] -1.453251e+08 -8.498428e+07
## [14824,] -1.632625e+07 -1.808275e+07
## [14825,] -1.806630e+07 -1.911964e+07
## [14826,] -2.919756e+07 -2.560401e+07
## [14827,] -3.602781e+09 -1.208679e+09
## [14828,] -2.203849e+09 -7.639306e+08
## [14829,] -1.261421e+08 -7.712633e+07
## [14830,] -1.666001e+07 -1.826141e+07
## [14831,] -1.760683e+07 -1.882951e+07
## [14832,] -2.854530e+07 -2.546225e+07
## [14833,] -3.169062e+09 -1.088637e+09
## [14834,] -2.709621e+09 -8.848728e+08
```

```
## [14835,] -1.401827e+08 -8.200778e+07
## [14836,] -1.638746e+07 -1.806466e+07
## [14837,] -1.806494e+07 -1.912252e+07
## [14838,] -2.886121e+07 -2.580928e+07
## [14839,] -3.339089e+09 -1.215062e+09
## [14840,] -2.510732e+09 -8.945510e+08
## [14841,] -1.377332e+08 -8.221131e+07
## [14842,] -1.641177e+07 -1.807116e+07
## [14843,] -1.788838e+07 -1.897503e+07
## [14844,] -2.849310e+07 -2.550956e+07
## [14845,] -3.064660e+09 -1.076171e+09
## [14846,] -2.075928e+09 -7.151980e+08
## [14847,] -1.370508e+08 -8.206314e+07
## [14848,] -1.605763e+07 -1.805895e+07
## [14849,] -1.787872e+07 -1.906349e+07
## [14850,] -2.903109e+07 -2.577516e+07
## [14851,] -2.911665e+09 -1.027710e+09
## [14852,] -2.717515e+09 -8.276011e+08
## [14853,] -1.300886e+08 -7.816981e+07
## [14854,] -1.682630e+07 -1.834594e+07
## [14855,] -1.803351e+07 -1.918032e+07
## [14856,] -2.914617e+07 -2.578628e+07
## [14857,] -2.971993e+09 -1.069765e+09
## [14858,] -2.837043e+09 -8.989974e+08
## [14859,] -1.374035e+08 -8.120035e+07
## [14860,] -1.658897e+07 -1.816160e+07
## [14861,] -1.797803e+07 -1.913168e+07
## [14862,] -2.841327e+07 -2.530143e+07
## [14863,] -3.921523e+09 -1.424138e+09
## [14864,] -2.326359e+09 -8.180746e+08
## [14865,] -1.294602e+08 -7.385677e+07
## [14866,] -1.675371e+07 -1.832757e+07
## [14867,] -1.812023e+07 -1.923101e+07
## [14868,] -2.851896e+07 -2.558243e+07
## [14869,] -3.063814e+09 -1.051355e+09
## [14870,] -2.241009e+09 -7.813312e+08
## [14871,] -1.309107e+08 -7.659324e+07
## [14872,] -1.682093e+07 -1.827652e+07
## [14873,] -1.817875e+07 -1.917512e+07
## [14874,] -2.895517e+07 -2.583726e+07
## [14875,] -3.590136e+09 -1.201360e+09
## [14876,] -2.119742e+09 -7.147485e+08
## [14877,] -1.340605e+08 -8.069036e+07
## [14878,] -1.613690e+07 -1.806051e+07
## [14879,] -1.802710e+07 -1.912648e+07
## [14880,] -2.839836e+07 -2.541993e+07
## [14881,] -3.167427e+09 -1.131137e+09
```

```
## [14882,] -3.137680e+09 -1.317947e+09
## [14883,] -1.312379e+08 -7.721095e+07
## [14884,] -1.676072e+07 -1.831574e+07
## [14885,] -1.777253e+07 -1.896665e+07
## [14886,] -2.865293e+07 -2.558812e+07
## [14887,] -3.634397e+09 -1.246687e+09
## [14888,] -2.187070e+09 -7.810322e+08
## [14889,] -1.385845e+08 -8.116322e+07
## [14890,] -1.656010e+07 -1.825227e+07
## [14891,] -1.796794e+07 -1.906555e+07
## [14892,] -2.933125e+07 -2.602139e+07
## [14893,] -3.423846e+09 -1.220393e+09
## [14894,] -2.325622e+09 -6.929046e+08
## [14895,] -1.368828e+08 -8.136570e+07
## [14896,] -1.652400e+07 -1.820164e+07
## [14897,] -1.796011e+07 -1.918619e+07
## [14898,] -2.853667e+07 -2.559921e+07
## [14899,] -4.278422e+09 -1.597292e+09
## [14900,] -2.194449e+09 -7.718632e+08
## [14901,] -1.268071e+08 -7.672705e+07
## [14902,] -1.655433e+07 -1.811901e+07
## [14903,] -1.819790e+07 -1.927224e+07
## [14904,] -2.886540e+07 -2.548597e+07
## [14905,] -3.032013e+09 -1.087377e+09
## [14906,] -2.247898e+09 -7.718207e+08
## [14907,] -1.284799e+08 -7.655717e+07
## [14908,] -1.686559e+07 -1.843177e+07
## [14909,] -1.812312e+07 -1.914802e+07
## [14910,] -2.941157e+07 -2.597493e+07
## [14911,] -3.467252e+09 -1.187841e+09
## [14912,] -2.460147e+09 -7.807332e+08
## [14913,] -1.639036e+08 -9.786800e+07
## [14914,] -1.606699e+07 -1.763403e+07
## [14915,] -1.845557e+07 -1.942911e+07
## [14916,] -2.844510e+07 -2.574267e+07
## [14917,] -3.769557e+09 -1.155729e+09
## [14918,] -2.541042e+09 -7.760790e+08
## [14919,] -1.293143e+08 -7.537329e+07
## [14920,] -1.661627e+07 -1.827934e+07
## [14921,] -1.801612e+07 -1.905088e+07
## [14922,] -3.009290e+07 -2.607496e+07
## [14923,] -4.253275e+09 -1.272552e+09
## [14924,] -3.145660e+09 -9.422769e+08
## [14925,] -1.269621e+08 -7.758334e+07
## [14926,] -1.657996e+07 -1.821578e+07
## [14927,] -1.784809e+07 -1.890794e+07
## [14928,] -2.996902e+07 -2.646201e+07
```

```
## [14929,] -3.723452e+09 -1.319301e+09
## [14930,] -2.348041e+09 -8.031300e+08
## [14931,] -1.386260e+08 -8.100642e+07
## [14932,] -1.663541e+07 -1.832495e+07
## [14933,] -1.814272e+07 -1.924557e+07
## [14934,] -2.882607e+07 -2.570319e+07
## [14935,] -3.466173e+09 -1.213038e+09
## [14936,] -2.540426e+09 -8.592044e+08
## [14937,] -1.391734e+08 -8.142503e+07
## [14938,] -1.672755e+07 -1.833851e+07
## [14939,] -1.802501e+07 -1.925757e+07
## [14940,] -2.850819e+07 -2.559644e+07
## [14941,] -3.030331e+09 -1.068016e+09
## [14942,] -2.739985e+09 -8.259752e+08
## [14943,] -1.372765e+08 -8.204804e+07
## [14944,] -1.679502e+07 -1.838356e+07
## [14945,] -1.814650e+07 -1.930115e+07
## [14946,] -2.944395e+07 -2.601757e+07
## [14947,] -3.421879e+09 -1.186893e+09
## [14948,] -2.316186e+09 -7.575171e+08
## [14949,] -1.276414e+08 -7.737625e+07
## [14950,] -1.706521e+07 -1.847978e+07
## [14951,] -1.834816e+07 -1.948311e+07
## [14952,] -2.924012e+07 -2.610648e+07
## [14953,] -2.989175e+09 -1.031632e+09
## [14954,] -2.580777e+09 -9.070025e+08
## [14955,] -1.425299e+08 -7.852562e+07
## [14956,] -1.688729e+07 -1.852500e+07
## [14957,] -1.816418e+07 -1.928060e+07
## [14958,] -2.887780e+07 -2.565497e+07
## [14959,] -3.454129e+09 -1.245068e+09
## [14960,] -3.254140e+09 -1.129110e+09
## [14961,] -1.342128e+08 -8.232094e+07
## [14962,] -1.684486e+07 -1.840370e+07
## [14963,] -1.816885e+07 -1.935872e+07
## [14964,] -2.920381e+07 -2.610884e+07
## [14965,] -3.029658e+09 -1.043394e+09
## [14966,] -2.362676e+09 -7.306324e+08
## [14967,] -1.265992e+08 -7.766821e+07
## [14968,] -1.684531e+07 -1.854522e+07
## [14969,] -1.807142e+07 -1.919362e+07
## [14970,] -2.870513e+07 -2.589256e+07
## [14971,] -3.608743e+09 -1.231680e+09
## [14972,] -2.222648e+09 -7.481531e+08
## [14973,] -1.382288e+08 -8.070284e+07
## [14974,] -1.639578e+07 -1.825776e+07
## [14975,] -1.826661e+07 -1.932569e+07
```

```
## [14976,] -2.974733e+07 -2.607011e+07
## [14977,] -3.323303e+09 -1.091865e+09
## [14978,] -2.299644e+09 -7.480695e+08
## [14979,] -1.350834e+08 -7.941910e+07
## [14980,] -1.684607e+07 -1.855886e+07
## [14981,] -1.844227e+07 -1.950202e+07
## [14982,] -2.906669e+07 -2.595481e+07
## [14983,] -3.398591e+09 -1.185998e+09
## [14984,] -2.346190e+09 -6.955686e+08
## [14985,] -1.239587e+08 -7.688249e+07
## [14986,] -1.718507e+07 -1.861093e+07
## [14987,] -1.847834e+07 -1.956081e+07
## [14988,] -2.907493e+07 -2.574356e+07
## [14989,] -3.496913e+09 -1.198766e+09
## [14990,] -3.016876e+09 -1.048175e+09
## [14991,] -1.279696e+08 -7.652921e+07
## [14992,] -1.674915e+07 -1.857266e+07
## [14993,] -1.847883e+07 -1.951360e+07
## [14994,] -2.897069e+07 -2.585193e+07
## [14995,] -3.194916e+09 -1.066968e+09
## [14996,] -2.314642e+09 -8.019177e+08
## [14997,] -1.299059e+08 -7.839845e+07
## [14998,] -1.667019e+07 -1.842542e+07
## [14999,] -1.838664e+07 -1.947079e+07
## [15000,] -2.844034e+07 -2.615262e+07
## [15001,] -3.529696e+09 -1.324300e+09
## [15002,] -2.260110e+09 -7.789834e+08
## [15003,] -1.275828e+08 -7.696291e+07
## [15004,] -1.698253e+07 -1.860545e+07
## [15005,] -1.847372e+07 -1.956473e+07
## [15006,] -2.979044e+07 -2.615940e+07
## [15007,] -3.332910e+09 -1.141024e+09
## [15008,] -2.662038e+09 -9.108339e+08
## [15009,] -1.427180e+08 -8.280276e+07
## [15010,] -1.695227e+07 -1.854806e+07
## [15011,] -1.835211e+07 -1.944823e+07
## [15012,] -3.002130e+07 -2.672104e+07
## [15013,] -3.880964e+09 -1.456084e+09
## [15014,] -2.252114e+09 -7.563398e+08
## [15015,] -1.290748e+08 -7.701655e+07
## [15016,] -1.714333e+07 -1.866403e+07
## [15017,] -1.856523e+07 -1.959370e+07
## [15018,] -2.889485e+07 -2.582892e+07
## [15019,] -2.946392e+09 -1.012485e+09
## [15020,] -2.448627e+09 -8.576372e+08
## [15021,] -1.281426e+08 -7.721380e+07
## [15022,] -1.721768e+07 -1.868352e+07
```

```
## [15023,] -1.856759e+07 -1.959612e+07
## [15024,] -2.916565e+07 -2.585325e+07
## [15025,] -3.204768e+09 -9.830459e+08
## [15026,] -2.980503e+09 -9.958268e+08
## [15027,] -1.302841e+08 -7.647979e+07
## [15028,] -1.676882e+07 -1.841372e+07
## [15029,] -1.860989e+07 -1.957875e+07
## [15030,] -2.901075e+07 -2.595070e+07
## [15031,] -1.584036e+09 -5.918909e+08
## [15032,] -1.190193e+09 -4.492690e+08
## [15033,] -2.504726e+07 -1.067525e+07
## [15034,] -1.984781e+04 -6.809368e+04
## [15035,] -6.293835e+04 -1.088047e+05
## [15036,] -9.589406e+05 -6.112269e+05
## [15037,] -1.561858e+09 -6.055737e+08
## [15038,] -1.162373e+09 -4.596443e+08
## [15039,] -2.525722e+07 -1.047106e+07
## [15040,] -1.942981e+04 -6.809368e+04
## [15041,] -6.269246e+04 -1.097778e+05
## [15042,] -9.636336e+05 -6.112269e+05
## [15043,] -1.591464e+09 -6.147824e+08
## [15044,] -1.167910e+09 -4.561727e+08
## [15045,] -2.452618e+07 -1.067525e+07
## [15046,] -1.942981e+04 -7.164166e+04
## [15047,] -6.244704e+04 -1.094530e+05
## [15048,] -9.706945e+05 -6.074905e+05
## [15049,] -1.606371e+09 -6.009954e+08
## [15050,] -1.195796e+09 -4.492690e+08
## [15051,] -2.525722e+07 -1.060697e+07
## [15052,] -1.780230e+04 -7.084544e+04
## [15053,] -6.343159e+04 -1.110820e+05
## [15054,] -9.402832e+05 -6.056266e+05
## [15055,] -1.554501e+09 -6.009954e+08
## [15056,] -1.201413e+09 -4.322399e+08
## [15057,] -2.504726e+07 -1.047106e+07
## [15058,] -1.942981e+04 -6.965944e+04
## [15059,] -6.318473e+04 -1.084814e+05
## [15060,] -9.565984e+05 -6.074905e+05
## [15061,] -3.225821e+09 -1.128261e+09
## [15062,] -2.400547e+09 -6.780416e+08
## [15063,] -1.354211e+08 -7.911851e+07
## [15064,] -1.685505e+07 -1.856828e+07
## [15065,] -1.838955e+07 -1.956915e+07
## [15066,] -2.973020e+07 -2.624989e+07
## [15067,] -3.151624e+09 -1.127953e+09
## [15068,] -2.602910e+09 -8.525357e+08
## [15069,] -1.313817e+08 -7.805929e+07
```

```
## [15070,] -1.723158e+07 -1.873027e+07
## [15071,] -1.859963e+07 -1.963774e+07
## [15072,] -2.932595e+07 -2.602861e+07
## [15073,] -3.099264e+09 -1.066069e+09
## [15074,] -2.472010e+09 -8.956097e+08
## [15075,] -1.319146e+08 -7.773026e+07
## [15076,] -1.731853e+07 -1.872397e+07
## [15077,] -1.849448e+07 -1.962520e+07
## [15078,] -2.934250e+07 -2.616649e+07
## [15079,] -3.130303e+09 -1.115212e+09
## [15080,] -2.577750e+09 -9.900885e+08
## [15081,] -1.331547e+08 -7.868287e+07
## [15082,] -1.717636e+07 -1.867914e+07
## [15083,] -1.865142e+07 -1.966919e+07
## [15084,] -2.963202e+07 -2.625565e+07
## [15085,] -3.352963e+09 -1.041667e+09
## [15086,] -2.635652e+09 -8.857438e+08
## [15087,] -1.365936e+08 -7.741537e+07
## [15088,] -1.671630e+07 -1.842904e+07
## [15089,] -1.862039e+07 -1.969388e+07
## [15090,] -2.964395e+07 -2.631597e+07
## [15091,] -3.572031e+09 -1.133707e+09
## [15092,] -2.250736e+09 -7.734841e+08
## [15093,] -1.303592e+08 -7.819437e+07
## [15094,] -1.727617e+07 -1.881556e+07
## [15095,] -1.869480e+07 -1.967454e+07
## [15096,] -2.917203e+07 -2.610325e+07
## [15097,] -3.775279e+09 -1.190843e+09
## [15098,] -2.610256e+09 -9.000129e+08
## [15099,] -1.408931e+08 -8.160314e+07
## [15100,] -1.721468e+07 -1.879016e+07
## [15101,] -1.841027e+07 -1.951243e+07
## [15102,] -2.930862e+07 -2.625698e+07
## [15103,] -3.223998e+09 -1.096110e+09
## [15104,] -2.560606e+09 -8.330755e+08
## [15105,] -1.459433e+08 -8.372441e+07
## [15106,] -1.701136e+07 -1.871297e+07
## [15107,] -1.856685e+07 -1.966057e+07
## [15108,] -2.927335e+07 -2.622360e+07
## [15109,] -3.129191e+09 -1.029130e+09
## [15110,] -2.265647e+09 -7.686820e+08
## [15111,] -1.432114e+08 -8.241677e+07
## [15112,] -1.734550e+07 -1.886199e+07
## [15113,] -1.871136e+07 -1.978307e+07
## [15114,] -2.924637e+07 -2.623483e+07
## [15115,] -3.582266e+09 -1.209740e+09
## [15116,] -2.478789e+09 -8.281796e+08
```



```
## [15117,] -1.278989e+08 -7.702468e+07
## [15118,] -1.707370e+07 -1.875250e+07
## [15119,] -1.854060e+07 -1.965529e+07
## [15120,] -2.952711e+07 -2.631627e+07
## [15121,] -3.504416e+09 -1.158326e+09
## [15122,] -2.486721e+09 -8.141452e+08
## [15123,] -1.356400e+08 -8.003316e+07
## [15124,] -1.707400e+07 -1.866894e+07
## [15125,] -1.859182e+07 -1.971239e+07
## [15126,] -3.011886e+07 -2.665222e+07
## [15127,] -3.717020e+09 -1.295270e+09
## [15128,] -2.135777e+09 -7.819360e+08
## [15129,] -1.237752e+08 -7.895423e+07
## [15130,] -1.730342e+07 -1.885695e+07
## [15131,] -1.876902e+07 -1.981615e+07
## [15132,] -2.985454e+07 -2.652673e+07
## [15133,] -3.570296e+09 -1.209262e+09
## [15134,] -2.625607e+09 -8.799245e+08
## [15135,] -1.431803e+08 -8.526800e+07
## [15136,] -1.716146e+07 -1.877331e+07
## [15137,] -1.862103e+07 -1.970325e+07
## [15138,] -2.989741e+07 -2.651782e+07
## [15139,] -4.017685e+09 -1.446654e+09
## [15140,] -2.717686e+09 -1.082849e+09
## [15141,] -1.365330e+08 -8.034378e+07
## [15142,] -1.742850e+07 -1.894204e+07
## [15143,] -1.892999e+07 -1.989392e+07
## [15144,] -3.021595e+07 -2.679309e+07
## [15145,] -3.503420e+09 -1.215539e+09
## [15146,] -2.534652e+09 -7.413069e+08
## [15147,] -1.557740e+08 -8.338787e+07
## [15148,] -1.694034e+07 -1.861272e+07
## [15149,] -1.883431e+07 -1.987448e+07
## [15150,] -3.023751e+07 -2.664017e+07
## [15151,] -3.275385e+09 -1.119910e+09
## [15152,] -3.619010e+09 -1.377965e+09
## [15153,] -1.463127e+08 -8.593385e+07
## [15154,] -1.734825e+07 -1.902066e+07
## [15155,] -1.861639e+07 -1.983370e+07
## [15156,] -3.032383e+07 -2.675832e+07
## [15157,] -3.591782e+09 -1.287802e+09
## [15158,] -2.742558e+09 -8.940097e+08
## [15159,] -1.287020e+08 -7.709583e+07
## [15160,] -1.737994e+07 -1.896280e+07
## [15161,] -1.875921e+07 -1.982791e+07
## [15162,] -2.985486e+07 -2.647775e+07
## [15163,] -4.076099e+09 -1.439051e+09
```

```
## [15164,] -2.616440e+09 -9.183356e+08
## [15165,] -1.456279e+08 -8.272228e+07
## [15166,] -1.742988e+07 -1.894997e+07
## [15167,] -1.854124e+07 -1.967336e+07
## [15168,] -2.947214e+07 -2.651025e+07
## [15169,] -2.962586e+09 -1.076320e+09
## [15170,] -2.248489e+09 -7.365230e+08
## [15171,] -1.446560e+08 -8.466524e+07
## [15172,] -1.707688e+07 -1.880755e+07
## [15173,] -1.885331e+07 -1.996846e+07
## [15174,] -2.936360e+07 -2.643192e+07
## [15175,] -2.972740e+09 -1.010103e+09
## [15176,] -2.217823e+09 -7.631770e+08
## [15177,] -1.280425e+08 -7.879958e+07
## [15178,] -1.751108e+07 -1.902162e+07
## [15179,] -1.888314e+07 -1.991151e+07
## [15180,] -2.932471e+07 -2.643192e+07
## [15181,] -2.982912e+09 -1.045961e+09
## [15182,] -2.566654e+09 -8.744858e+08
## [15183,] -1.342928e+08 -7.514027e+07
## [15184,] -1.754246e+07 -1.900877e+07
## [15185,] -1.885569e+07 -2.000600e+07
## [15186,] -2.993227e+07 -2.668648e+07
## [15187,] -3.371389e+09 -1.132009e+09
## [15188,] -2.607914e+09 -8.696948e+08
## [15189,] -1.424172e+08 -8.011936e+07
## [15190,] -1.733069e+07 -1.897627e+07
## [15191,] -1.862021e+07 -1.979834e+07
## [15192,] -3.005386e+07 -2.673938e+07
## [15193,] -3.680965e+09 -1.348259e+09
## [15194,] -2.349312e+09 -7.855793e+08
## [15195,] -1.310056e+08 -7.721664e+07
## [15196,] -1.750591e+07 -1.909437e+07
## [15197,] -1.842929e+07 -1.979305e+07
## [15198,] -2.955156e+07 -2.643771e+07
## [15199,] -3.043632e+09 -1.033546e+09
## [15200,] -2.566112e+09 -8.789727e+08
## [15201,] -1.378539e+08 -8.211475e+07
## [15202,] -1.753775e+07 -1.920598e+07
## [15203,] -1.898191e+07 -2.005244e+07
## [15204,] -2.940284e+07 -2.648146e+07
## [15205,] -2.921233e+09 -1.057506e+09
## [15206,] -2.209399e+09 -7.671997e+08
## [15207,] -1.320535e+08 -7.527281e+07
## [15208,] -1.757525e+07 -1.906895e+07
## [15209,] -1.896054e+07 -1.999537e+07
## [15210,] -2.954576e+07 -2.645684e+07
```

```
## [15211,] -3.012608e+09 -1.075768e+09
## [15212,] -2.278563e+09 -7.762133e+08
## [15213,] -1.282328e+08 -7.765229e+07
## [15214,] -1.754399e+07 -1.910153e+07
## [15215,] -1.872204e+07 -1.973299e+07
## [15216,] -2.946776e+07 -2.646915e+07
## [15217,] -3.043379e+09 -1.039399e+09
## [15218,] -2.325265e+09 -7.185661e+08
## [15219,] -1.275399e+08 -7.896246e+07
## [15220,] -1.738224e+07 -1.902370e+07
## [15221,] -1.884159e+07 -1.993450e+07
## [15222,] -3.014609e+07 -2.681399e+07
## [15223,] -3.273461e+09 -1.069464e+09
## [15224,] -3.073302e+09 -1.135554e+09
## [15225,] -1.326054e+08 -7.918938e+07
## [15226,] -1.737011e+07 -1.897201e+07
## [15227,] -1.877637e+07 -1.989803e+07
## [15228,] -2.932752e+07 -2.668127e+07
## [15229,] -3.146564e+09 -1.093884e+09
## [15230,] -2.170936e+09 -7.804409e+08
## [15231,] -1.500719e+08 -8.980947e+07
## [15232,] -1.764518e+07 -1.917443e+07
## [15233,] -1.893877e+07 -2.008718e+07
## [15234,] -2.933111e+07 -2.658588e+07
## [15235,] -2.761701e+09 -1.069314e+09
## [15236,] -8.217640e+08 -6.421473e+08
## [15237,] -1.341087e+08 -7.793127e+07
## [15238,] -1.758883e+07 -1.919403e+07
## [15239,] -1.880901e+07 -1.990536e+07
## [15240,] -3.030653e+07 -2.687838e+07
## [15241,] -3.758961e+09 -1.286431e+09
## [15242,] -2.387375e+09 -8.169015e+08
## [15243,] -1.400983e+08 -8.251265e+07
## [15244,] -1.737770e+07 -1.898645e+07
## [15245,] -1.891037e+07 -2.007991e+07
## [15246,] -3.020375e+07 -2.683117e+07
## [15247,] -3.166823e+09 -1.032711e+09
## [15248,] -2.231324e+09 -7.756173e+08
## [15249,] -1.325580e+08 -7.822427e+07
## [15250,] -1.761525e+07 -1.912366e+07
## [15251,] -1.922171e+07 -2.015328e+07
## [15252,] -3.054558e+07 -2.709108e+07
## [15253,] -3.401529e+09 -1.226590e+09
## [15254,] -2.531806e+09 -8.684784e+08
## [15255,] -1.411637e+08 -8.313981e+07
## [15256,] -1.764061e+07 -1.922195e+07
## [15257,] -1.880295e+07 -1.996483e+07
```

```

## [15258,] -2.956520e+07 -2.656150e+07
## [15259,] -4.253471e+09 -1.395167e+09
## [15260,] -2.523496e+09 -8.779762e+08
## [15261,] -1.290543e+08 -7.829187e+07
## [15262,] -1.758457e+07 -1.919612e+07
## [15263,] -1.894649e+07 -2.008194e+07
## [15264,] -3.065405e+07 -2.744341e+07
## [15265,] -3.599660e+09 -1.130416e+09
## [15266,] -2.580711e+09 -8.635243e+08
## [15267,] -1.387596e+08 -8.224364e+07
## [15268,] -1.747856e+07 -1.905929e+07
## [15269,] -1.895503e+07 -2.005117e+07
## [15270,] -3.033209e+07 -2.690246e+07
## [15271,] -3.314499e+09 -1.038217e+09
## [15272,] -2.207675e+09 -7.842520e+08
## [15273,] -1.393073e+08 -7.983524e+07
## [15274,] -1.713772e+07 -1.891029e+07
## [15275,] -1.905200e+07 -2.019938e+07
## [15276,] -2.984998e+07 -2.655943e+07
## [15277,] -3.554792e+09 -1.213196e+09
## [15278,] -2.323497e+09 -7.572292e+08
## [15279,] -1.267560e+08 -7.760659e+07
## [15280,] -1.717478e+07 -1.887787e+07
## [15281,] -1.899209e+07 -2.007170e+07
## [15282,] -2.984526e+07 -2.671554e+07
## [15283,] -3.072188e+09 -1.020228e+09
## [15284,] -2.474378e+09 -8.396747e+08
## [15285,] -1.346703e+08 -8.022344e+07
## [15286,] -1.759786e+07 -1.917732e+07
## [15287,] -1.885600e+07 -2.008100e+07
## [15288,] -3.012884e+07 -2.697145e+07
## [15289,] -3.488153e+09 -1.200087e+09
## [15290,] -3.207699e+09 -1.123468e+09
## [15291,] -1.461503e+08 -8.445741e+07
## [15292,] -1.756735e+07 -1.933522e+07
## [15293,] -1.874449e+07 -1.996154e+07
## [15294,] -3.030240e+07 -2.697385e+07
## [15295,] -3.768428e+09 -1.359840e+09
## [15296,] -2.721843e+09 -9.509505e+08
## [15297,] -1.426837e+08 -8.182711e+07
## [15298,] -1.743662e+07 -1.908711e+07
## [15299,] -1.894706e+07 -2.006055e+07
## [15300,] -3.052200e+07 -2.716858e+07
## [15301,] -3.643518e+09 -1.278552e+09
## [15302,] -2.867632e+09 -8.487915e+08
## [15303,] -1.335997e+08 -7.902503e+07
## [15304,] -1.753688e+07 -1.927049e+07

```

```
## [15305,] -1.905497e+07 -2.017157e+07
## [15306,] -3.073648e+07 -2.738348e+07
## [15307,] -3.643057e+09 -1.148467e+09
## [15308,] -2.385434e+09 -7.477416e+08
## [15309,] -1.324806e+08 -7.946574e+07
## [15310,] -1.762490e+07 -1.928407e+07
## [15311,] -1.920136e+07 -2.025148e+07
## [15312,] -2.987535e+07 -2.681833e+07
## [15313,] -3.802080e+09 -1.359389e+09
## [15314,] -3.243513e+09 -1.333005e+09
## [15315,] -1.448198e+08 -8.575707e+07
## [15316,] -1.737561e+07 -1.909491e+07
## [15317,] -1.895995e+07 -2.014861e+07
## [15318,] -3.067752e+07 -2.715296e+07
## [15319,] -3.542141e+09 -1.180058e+09
## [15320,] -3.801259e+09 -1.321018e+09
## [15321,] -1.441201e+08 -8.064418e+07
## [15322,] -1.768207e+07 -1.944241e+07
## [15323,] -1.925878e+07 -2.029719e+07
## [15324,] -3.001721e+07 -2.682863e+07
## [15325,] -3.486618e+09 -1.218630e+09
## [15326,] -2.814770e+09 -8.768444e+08
## [15327,] -1.389451e+08 -8.353044e+07
## [15328,] -1.781434e+07 -1.939015e+07
## [15329,] -1.917516e+07 -2.029081e+07
## [15330,] -2.977221e+07 -2.678250e+07
## [15331,] -3.619579e+09 -1.147897e+09
## [15332,] -2.712112e+09 -1.116964e+09
## [15333,] -1.417454e+08 -8.263217e+07
## [15334,] -1.778979e+07 -1.942365e+07
## [15335,] -1.890642e+07 -2.020353e+07
## [15336,] -2.992329e+07 -2.691338e+07
## [15337,] -3.059667e+09 -1.036888e+09
## [15338,] -2.251690e+09 -7.740433e+08
## [15339,] -1.305480e+08 -7.908350e+07
## [15340,] -1.787198e+07 -1.945028e+07
## [15341,] -1.925836e+07 -2.035869e+07
## [15342,] -2.993165e+07 -2.688407e+07
## [15343,] -2.998117e+09 -1.001187e+09
## [15344,] -2.259395e+09 -7.516397e+08
## [15345,] -1.344028e+08 -7.852602e+07
## [15346,] -1.799199e+07 -1.937142e+07
## [15347,] -1.915516e+07 -2.026583e+07
## [15348,] -2.996621e+07 -2.686718e+07
## [15349,] -3.518991e+09 -1.198764e+09
## [15350,] -2.360682e+09 -6.736712e+08
## [15351,] -1.418364e+08 -8.596949e+07
```

```
## [15352,] -1.802426e+07 -1.941147e+07
## [15353,] -1.934125e+07 -2.038185e+07
## [15354,] -3.035942e+07 -2.715221e+07
## [15355,] -3.069563e+09 -1.091359e+09
## [15356,] -2.703034e+09 -8.715055e+08
## [15357,] -1.433727e+08 -8.522310e+07
## [15358,] -1.796130e+07 -1.946441e+07
## [15359,] -1.929001e+07 -2.036022e+07
## [15360,] -3.069366e+07 -2.718061e+07
## [15361,] -1.606371e+09 -5.918909e+08
## [15362,] -1.229694e+09 -4.255204e+08
## [15363,] -2.442262e+07 -1.033602e+07
## [15364,] -1.922247e+04 -7.005366e+04
## [15365,] -6.293835e+04 -1.078360e+05
## [15366,] -9.612856e+05 -6.093573e+05
## [15367,] -1.554501e+09 -5.828559e+08
## [15368,] -1.212686e+09 -4.390120e+08
## [15369,] -2.462996e+07 -1.047106e+07
## [15370,] -2.048315e+04 -6.926633e+04
## [15371,] -6.098466e+04 -1.104289e+05
## [15372,] -9.565984e+05 -6.093573e+05
## [15373,] -1.474652e+09 -5.430227e+08
## [15374,] -1.430671e+09 -5.393137e+08
## [15375,] -2.763270e+07 -1.158809e+07
## [15376,] -1.120506e+04 -5.980914e+04
## [15377,] -5.895634e+04 -1.054515e+05
## [15378,] -1.005518e+06 -6.331977e+05
## [15379,] -1.720324e+09 -6.909137e+08
## [15380,] -1.430671e+09 -5.022959e+08
## [15381,] -2.515979e+07 -1.068025e+07
## [15382,] -1.800677e+04 -7.205129e+04
## [15383,] -5.405979e+04 -9.948488e+04
## [15384,] -1.039397e+06 -6.446757e+05
## [15385,] -1.606248e+09 -6.427481e+08
## [15386,] -1.167806e+09 -4.321764e+08
## [15387,] -2.454132e+07 -1.048095e+07
## [15388,] -2.113917e+04 -7.206114e+04
## [15389,] -6.445255e+04 -1.124317e+05
## [15390,] -9.549071e+05 -6.080076e+05
## [15391,] -3.585099e+09 -1.277132e+09
## [15392,] -2.399810e+09 -7.380648e+08
## [15393,] -1.364762e+08 -7.769555e+07
## [15394,] -1.773460e+07 -1.945141e+07
## [15395,] -1.920011e+07 -2.029880e+07
## [15396,] -3.021707e+07 -2.701760e+07
## [15397,] -3.343589e+09 -1.140971e+09
## [15398,] -2.152015e+09 -7.691124e+08
```

```
## [15399,] -1.414654e+08 -8.356261e+07
## [15400,] -1.777906e+07 -1.951115e+07
## [15401,] -1.936001e+07 -2.039668e+07
## [15402,] -3.000221e+07 -2.701310e+07
## [15403,] -3.027973e+09 -1.084958e+09
## [15404,] -2.367902e+09 -7.335397e+08
## [15405,] -1.304834e+08 -7.921946e+07
## [15406,] -1.789876e+07 -1.953092e+07
## [15407,] -1.929962e+07 -2.044545e+07
## [15408,] -3.013344e+07 -2.698823e+07
## [15409,] -3.674478e+09 -1.290215e+09
## [15410,] -2.744812e+09 -9.395183e+08
## [15411,] -1.513796e+08 -9.062236e+07
## [15412,] -1.772925e+07 -1.936039e+07
## [15413,] -1.897441e+07 -2.020319e+07
## [15414,] -3.011445e+07 -2.697026e+07
## [15415,] -2.996862e+09 -1.109401e+09
## [15416,] -2.447127e+09 -7.599296e+08
## [15417,] -1.483792e+08 -8.155378e+07
## [15418,] -1.743575e+07 -1.916448e+07
## [15419,] -1.906048e+07 -2.029200e+07
## [15420,] -2.998215e+07 -2.710610e+07
## [15421,] -2.776413e+09 -1.096918e+09
## [15422,] -2.204517e+09 -7.778387e+08
## [15423,] -1.301277e+08 -7.987497e+07
## [15424,] -1.809601e+07 -1.953865e+07
## [15425,] -1.942008e+07 -2.047609e+07
## [15426,] -3.021375e+07 -2.708914e+07
## [15427,] -3.151621e+09 -1.060140e+09
## [15428,] -2.304580e+09 -7.732782e+08
## [15429,] -1.320625e+08 -7.988863e+07
## [15430,] -1.774258e+07 -1.941374e+07
## [15431,] -1.937064e+07 -2.046081e+07
## [15432,] -3.005609e+07 -2.697715e+07
## [15433,] -3.289038e+09 -1.109198e+09
## [15434,] -2.258015e+09 -7.822845e+08
## [15435,] -1.409190e+08 -8.314276e+07
## [15436,] -1.777447e+07 -1.943394e+07
## [15437,] -1.942349e+07 -2.046627e+07
## [15438,] -3.102893e+07 -2.763439e+07
## [15439,] -3.140823e+09 -1.090500e+09
## [15440,] -2.503016e+09 -8.422077e+08
## [15441,] -1.357846e+08 -8.451232e+07
## [15442,] -1.807173e+07 -1.959256e+07
## [15443,] -1.944129e+07 -2.051119e+07
## [15444,] -3.009325e+07 -2.709950e+07
## [15445,] -3.088638e+09 -1.072012e+09
```

```
## [15446,] -2.951596e+09 -1.067350e+09
## [15447,] -1.429687e+08 -8.337560e+07
## [15448,] -1.802737e+07 -1.957936e+07
## [15449,] -1.942831e+07 -2.049342e+07
## [15450,] -3.069542e+07 -2.741986e+07
## [15451,] -4.162881e+09 -1.433780e+09
## [15452,] -2.667664e+09 -8.897651e+08
## [15453,] -1.293654e+08 -8.021265e+07
## [15454,] -1.759380e+07 -1.951423e+07
## [15455,] -1.932183e+07 -2.043282e+07
## [15456,] -3.072450e+07 -2.744735e+07
## [15457,] -3.016046e+09 -9.821341e+08
## [15458,] -2.180796e+09 -7.548339e+08
## [15459,] -1.303718e+08 -7.764984e+07
## [15460,] -1.787678e+07 -1.952114e+07
## [15461,] -1.922086e+07 -2.038210e+07
## [15462,] -3.077279e+07 -2.741775e+07
## [15463,] -3.395649e+09 -1.190683e+09
## [15464,] -2.257071e+09 -7.681802e+08
## [15465,] -1.386609e+08 -8.331007e+07
## [15466,] -1.816838e+07 -1.970643e+07
## [15467,] -1.936839e+07 -2.052512e+07
## [15468,] -3.075360e+07 -2.742470e+07
## [15469,] -2.974821e+09 -1.102186e+09
## [15470,] -3.102398e+09 -1.035244e+09
## [15471,] -1.607082e+08 -8.936718e+07
## [15472,] -1.802924e+07 -1.972679e+07
## [15473,] -1.943371e+07 -2.063691e+07
## [15474,] -3.037357e+07 -2.705344e+07
## [15475,] -3.181454e+09 -1.041073e+09
## [15476,] -2.509914e+09 -8.843869e+08
## [15477,] -1.382941e+08 -8.340774e+07
## [15478,] -1.778370e+07 -1.958196e+07
## [15479,] -1.933726e+07 -2.052862e+07
## [15480,] -3.114227e+07 -2.771615e+07
## [15481,] -3.460414e+09 -1.209632e+09
## [15482,] -2.326308e+09 -7.950082e+08
## [15483,] -1.422973e+08 -8.362697e+07
## [15484,] -1.747104e+07 -1.941778e+07
## [15485,] -1.946117e+07 -2.055385e+07
## [15486,] -3.113632e+07 -2.771053e+07
## [15487,] -3.351278e+09 -1.114139e+09
## [15488,] -2.202508e+09 -7.542042e+08
## [15489,] -1.335029e+08 -7.673434e+07
## [15490,] -1.813212e+07 -1.975476e+07
## [15491,] -1.957053e+07 -2.063948e+07
## [15492,] -3.098847e+07 -2.754594e+07
```



```
## [15493,] -3.055611e+09 -1.022571e+09
## [15494,] -2.209841e+09 -7.584979e+08
## [15495,] -1.257091e+08 -7.660458e+07
## [15496,] -1.827929e+07 -1.978211e+07
## [15497,] -1.953007e+07 -2.063802e+07
## [15498,] -3.023262e+07 -2.724425e+07
## [15499,] -2.953276e+09 -1.016522e+09
## [15500,] -2.380733e+09 -7.584558e+08
## [15501,] -1.280844e+08 -8.013884e+07
## [15502,] -1.824742e+07 -1.976221e+07
## [15503,] -1.955175e+07 -2.058457e+07
## [15504,] -3.094739e+07 -2.822733e+07
## [15505,] -3.481386e+09 -1.202575e+09
## [15506,] -2.566201e+09 -8.886713e+08
## [15507,] -1.292890e+08 -8.128091e+07
## [15508,] -1.805723e+07 -1.978923e+07
## [15509,] -1.961546e+07 -2.067224e+07
## [15510,] -3.058306e+07 -2.722619e+07
## [15511,] -3.096454e+09 -1.076619e+09
## [15512,] -2.240018e+09 -7.627192e+08
## [15513,] -1.527061e+08 -9.065014e+07
## [15514,] -1.786174e+07 -1.966385e+07
## [15515,] -1.967927e+07 -2.073774e+07
## [15516,] -3.192466e+07 -2.781978e+07
## [15517,] -4.147910e+09 -1.341813e+09
## [15518,] -2.270691e+09 -7.626348e+08
## [15519,] -1.425891e+08 -8.289507e+07
## [15520,] -1.811510e+07 -1.985646e+07
## [15521,] -1.973011e+07 -2.074522e+07
## [15522,] -3.050991e+07 -2.740719e+07
## [15523,] -2.972570e+09 -1.039841e+09
## [15524,] -2.278064e+09 -7.849864e+08
## [15525,] -1.299571e+08 -7.974134e+07
## [15526,] -1.831307e+07 -1.987706e+07
## [15527,] -1.975921e+07 -2.077058e+07
## [15528,] -3.041268e+07 -2.734006e+07
## [15529,] -3.425629e+09 -1.348369e+09
## [15530,] -2.411526e+09 -8.217270e+08
## [15531,] -1.302307e+08 -7.995570e+07
## [15532,] -1.771200e+07 -1.938175e+07
## [15533,] -1.955525e+07 -2.069514e+07
## [15534,] -3.169665e+07 -2.789694e+07
## [15535,] -3.338642e+09 -1.045712e+09
## [15536,] -2.921825e+09 -1.002709e+09
## [15537,] -1.498048e+08 -9.139507e+07
## [15538,] -1.817354e+07 -1.982454e+07
## [15539,] -1.962524e+07 -2.076714e+07
```

```
## [15540,] -3.125728e+07 -2.784990e+07
## [15541,] -3.579336e+09 -1.156765e+09
## [15542,] -2.371335e+09 -7.223116e+08
## [15543,] -1.349155e+08 -7.929038e+07
## [15544,] -1.809175e+07 -1.975237e+07
## [15545,] -1.985098e+07 -2.090951e+07
## [15546,] -3.119669e+07 -2.778010e+07
## [15547,] -3.146904e+09 -1.118886e+09
## [15548,] -2.238716e+09 -8.074002e+08
## [15549,] -1.408865e+08 -8.388297e+07
## [15550,] -1.826424e+07 -2.003928e+07
## [15551,] -1.955633e+07 -2.070518e+07
## [15552,] -3.139155e+07 -2.788811e+07
## [15553,] -3.534232e+09 -1.266669e+09
## [15554,] -2.825102e+09 -9.414003e+08
## [15555,] -1.464797e+08 -8.742655e+07
## [15556,] -1.810553e+07 -1.982650e+07
## [15557,] -1.991181e+07 -2.094050e+07
## [15558,] -3.163711e+07 -2.832302e+07
## [15559,] -3.001713e+09 -1.045020e+09
## [15560,] -2.238283e+09 -7.483333e+08
## [15561,] -1.343641e+08 -7.868205e+07
## [15562,] -1.840538e+07 -2.005329e+07
## [15563,] -1.978555e+07 -2.094550e+07
## [15564,] -3.069703e+07 -2.748408e+07
## [15565,] -3.623162e+09 -1.240110e+09
## [15566,] -2.315547e+09 -7.841731e+08
## [15567,] -1.334306e+08 -8.057724e+07
## [15568,] -1.823969e+07 -1.990694e+07
## [15569,] -1.986763e+07 -2.094455e+07
## [15570,] -3.073938e+07 -2.751160e+07
## [15571,] -2.990924e+09 -1.044674e+09
## [15572,] -2.946367e+09 -1.096198e+09
## [15573,] -1.543496e+08 -9.332757e+07
## [15574,] -1.813233e+07 -1.978814e+07
## [15575,] -1.982249e+07 -2.102848e+07
## [15576,] -3.069368e+07 -2.755624e+07
## [15577,] -3.466977e+09 -1.207029e+09
## [15578,] -2.214524e+09 -7.612427e+08
## [15579,] -1.360021e+08 -8.144090e+07
## [15580,] -1.838791e+07 -2.002171e+07
## [15581,] -1.988226e+07 -2.100902e+07
## [15582,] -3.120330e+07 -2.801388e+07
## [15583,] -3.455830e+09 -1.155673e+09
## [15584,] -2.497819e+09 -8.724151e+08
## [15585,] -1.431920e+08 -8.297309e+07
## [15586,] -1.859959e+07 -2.005510e+07
```

```
## [15587,] -1.949480e+07 -2.074452e+07
## [15588,] -3.165949e+07 -2.839519e+07
## [15589,] -3.954594e+09 -1.292464e+09
## [15590,] -2.806506e+09 -9.208062e+08
## [15591,] -1.437667e+08 -8.494714e+07
## [15592,] -1.845272e+07 -2.006928e+07
## [15593,] -1.988133e+07 -2.100806e+07
## [15594,] -3.202674e+07 -2.835940e+07
## [15595,] -3.303597e+09 -1.149035e+09
## [15596,] -2.521742e+09 -7.699244e+08
## [15597,] -1.478477e+08 -8.672085e+07
## [15598,] -1.818490e+07 -1.996950e+07
## [15599,] -1.988621e+07 -2.109412e+07
## [15600,] -3.104935e+07 -2.751539e+07
## [15601,] -3.092714e+09 -1.044082e+09
## [15602,] -2.259987e+09 -7.653872e+08
## [15603,] -1.371593e+08 -8.328935e+07
## [15604,] -1.846632e+07 -2.007010e+07
## [15605,] -1.965357e+07 -2.085449e+07
## [15606,] -3.159739e+07 -2.819641e+07
## [15607,] -3.632364e+09 -1.232374e+09
## [15608,] -2.636696e+09 -8.481306e+08
## [15609,] -1.391636e+08 -8.504576e+07
## [15610,] -1.797622e+07 -1.971767e+07
## [15611,] -1.983475e+07 -2.094222e+07
## [15612,] -3.075074e+07 -2.764804e+07
## [15613,] -3.165272e+09 -1.104926e+09
## [15614,] -2.392628e+09 -8.386633e+08
## [15615,] -1.316488e+08 -8.012806e+07
## [15616,] -1.817312e+07 -1.993051e+07
## [15617,] -1.997778e+07 -2.108016e+07
## [15618,] -3.090427e+07 -2.766761e+07
## [15619,] -3.894867e+09 -1.464605e+09
## [15620,] -3.051300e+09 -9.955524e+08
## [15621,] -1.305205e+08 -8.055811e+07
## [15622,] -1.860871e+07 -2.014483e+07
## [15623,] -1.998756e+07 -2.113079e+07
## [15624,] -3.118317e+07 -2.749059e+07
## [15625,] -3.040005e+09 -1.013551e+09
## [15626,] -2.197777e+09 -7.828897e+08
## [15627,] -1.349316e+08 -7.800324e+07
## [15628,] -1.864798e+07 -2.019908e+07
## [15629,] -2.000368e+07 -2.118347e+07
## [15630,] -3.075585e+07 -2.774107e+07
## [15631,] -2.907785e+09 -1.019446e+09
## [15632,] -2.258970e+09 -7.249491e+08
## [15633,] -1.293970e+08 -8.061299e+07
```

```
## [15634,] -1.865442e+07 -2.025946e+07
## [15635,] -2.005198e+07 -2.114735e+07
## [15636,] -3.078241e+07 -2.766549e+07
## [15637,] -3.009167e+09 -1.061532e+09
## [15638,] -2.228232e+09 -7.469543e+08
## [15639,] -1.334766e+08 -7.911644e+07
## [15640,] -1.871260e+07 -2.023949e+07
## [15641,] -1.989656e+07 -2.102822e+07
## [15642,] -3.092383e+07 -2.773651e+07
## [15643,] -3.952673e+09 -1.595456e+09
## [15644,] -2.321004e+09 -6.608683e+08
## [15645,] -1.315665e+08 -8.043886e+07
## [15646,] -1.865458e+07 -2.030665e+07
## [15647,] -2.015121e+07 -2.113183e+07
## [15648,] -3.087062e+07 -2.758546e+07
## [15649,] -3.080914e+09 -1.091963e+09
## [15650,] -2.297469e+09 -7.963944e+08
## [15651,] -1.421481e+08 -8.447188e+07
## [15652,] -1.863573e+07 -2.027355e+07
## [15653,] -1.988688e+07 -2.101827e+07
## [15654,] -3.217165e+07 -2.850855e+07
## [15655,] -3.398764e+09 -1.231462e+09
## [15656,] -2.344067e+09 -7.334220e+08
## [15657,] -1.370091e+08 -7.921163e+07
## [15658,] -1.818198e+07 -1.999311e+07
## [15659,] -2.005400e+07 -2.115846e+07
## [15660,] -3.166648e+07 -2.805847e+07
## [15661,] -3.070153e+09 -9.836658e+08
## [15662,] -2.677090e+09 -9.295132e+08
## [15663,] -1.490784e+08 -8.825296e+07
## [15664,] -1.839934e+07 -2.014730e+07
## [15665,] -2.015180e+07 -2.122273e+07
## [15666,] -3.178179e+07 -2.833239e+07
## [15667,] -2.947134e+09 -1.067014e+09
## [15668,] -2.359357e+09 -7.687375e+08
## [15669,] -1.301176e+08 -8.099349e+07
## [15670,] -1.866952e+07 -2.042997e+07
## [15671,] -1.995703e+07 -2.115802e+07
## [15672,] -3.114969e+07 -2.791249e+07
## [15673,] -3.290262e+09 -1.024672e+09
## [15674,] -2.366947e+09 -7.025841e+08
## [15675,] -1.345043e+08 -7.953428e+07
## [15676,] -1.865711e+07 -2.040351e+07
## [15677,] -1.990060e+07 -2.112245e+07
## [15678,] -3.183839e+07 -2.836033e+07
## [15679,] -3.247459e+09 -1.085107e+09
## [15680,] -2.173737e+09 -7.198903e+08
```

```
## [15681,] -1.311270e+08 -7.934771e+07
## [15682,] -1.849639e+07 -2.015498e+07
## [15683,] -2.029894e+07 -2.134652e+07
## [15684,] -3.096185e+07 -2.794937e+07
## [15685,] -5.102483e+09 -2.114910e+09
## [15686,] -2.718428e+09 -8.754491e+08
## [15687,] -1.439061e+08 -8.602231e+07
## [15688,] -1.841980e+07 -2.010846e+07
## [15689,] -2.013816e+07 -2.125395e+07
## [15690,] -3.109034e+07 -2.797011e+07
## [15691,] -1.569113e+09 -5.782910e+08
## [15692,] -1.223904e+09 -4.389480e+08
## [15693,] -2.412828e+07 -1.027863e+07
## [15694,] -1.440952e+04 -6.389816e+04
## [15695,] -6.395535e+04 -1.111197e+05
## [15696,] -9.549071e+05 -6.117456e+05
## [15697,] -1.525123e+09 -5.872907e+08
## [15698,] -1.357925e+09 -5.022616e+08
## [15699,] -2.443773e+07 -1.048095e+07
## [15700,] -1.985814e+04 -7.206114e+04
## [15701,] -6.420371e+04 -1.114469e+05
## [15702,] -9.998592e+05 -6.420622e+05
## [15703,] -1.569113e+09 -6.286492e+08
## [15704,] -1.043724e+09 -3.862187e+08
## [15705,] -2.163327e+07 -9.174029e+06
## [15706,] -2.618485e+04 -7.945878e+04
## [15707,] -7.255262e+04 -1.179449e+05
## [15708,] -8.874742e+05 -5.796788e+05
## [15709,] -1.355364e+09 -5.129737e+08
## [15710,] -1.028059e+09 -3.894136e+08
## [15711,] -2.232017e+07 -9.174029e+06
## [15712,] -2.715912e+04 -7.778590e+04
## [15713,] -5.827113e+04 -1.045344e+05
## [15714,] -1.049859e+06 -6.471322e+05
## [15715,] -1.814219e+09 -6.332930e+08
## [15716,] -1.334062e+09 -5.131938e+08
## [15717,] -2.753881e+07 -1.145635e+07
## [15718,] -1.569451e+04 -6.428505e+04
## [15719,] -6.434241e+04 -1.119577e+05
## [15720,] -9.610879e+05 -6.148167e+05
## [15721,] -3.079557e+09 -1.060586e+09
## [15722,] -2.265305e+09 -7.684833e+08
## [15723,] -1.306830e+08 -8.012267e+07
## [15724,] -1.870901e+07 -2.028946e+07
## [15725,] -2.017781e+07 -2.124490e+07
## [15726,] -3.094372e+07 -2.791950e+07
## [15727,] -2.906219e+09 -1.024476e+09
```

```
## [15728,] -2.211505e+09 -7.865353e+08
## [15729,] -1.439428e+08 -8.488952e+07
## [15730,] -1.838797e+07 -1.992844e+07
## [15731,] -2.021554e+07 -2.130626e+07
## [15732,] -3.206723e+07 -2.874289e+07
## [15733,] -3.236584e+09 -1.103453e+09
## [15734,] -2.609343e+09 -8.514789e+08
## [15735,] -1.346107e+08 -8.092890e+07
## [15736,] -1.839483e+07 -2.009574e+07
## [15737,] -2.019892e+07 -2.129372e+07
## [15738,] -3.132019e+07 -2.784611e+07
## [15739,] -3.048181e+09 -1.042206e+09
## [15740,] -2.295931e+09 -7.283336e+08
## [15741,] -1.346461e+08 -7.983027e+07
## [15742,] -1.860044e+07 -2.035097e+07
## [15743,] -2.026758e+07 -2.128719e+07
## [15744,] -3.110143e+07 -2.800596e+07
## [15745,] -3.007072e+09 -1.048183e+09
## [15746,] -2.143020e+09 -7.637391e+08
## [15747,] -1.440895e+08 -8.577593e+07
## [15748,] -1.876855e+07 -2.037166e+07
## [15749,] -1.980501e+07 -2.105997e+07
## [15750,] -3.188787e+07 -2.827962e+07
## [15751,] -3.528419e+09 -1.197810e+09
## [15752,] -2.751486e+09 -9.235980e+08
## [15753,] -1.504585e+08 -9.150490e+07
## [15754,] -1.840858e+07 -2.017705e+07
## [15755,] -2.010989e+07 -2.125655e+07
## [15756,] -3.161815e+07 -2.822873e+07
## [15757,] -3.926587e+09 -1.364518e+09
## [15758,] -2.845892e+09 -9.634625e+08
## [15759,] -1.453670e+08 -8.637273e+07
## [15760,] -1.877533e+07 -2.038545e+07
## [15761,] -2.023132e+07 -2.132699e+07
## [15762,] -3.147886e+07 -2.832594e+07
## [15763,] -3.374933e+09 -1.217135e+09
## [15764,] -2.666887e+09 -9.185815e+08
## [15765,] -1.285088e+08 -7.786709e+07
## [15766,] -1.853085e+07 -2.029161e+07
## [15767,] -2.029366e+07 -2.139099e+07
## [15768,] -3.207621e+07 -2.852087e+07
## [15769,] -3.353134e+09 -1.184732e+09
## [15770,] -2.295125e+09 -7.588411e+08
## [15771,] -1.539287e+08 -9.259706e+07
## [15772,] -1.818620e+07 -2.006430e+07
## [15773,] -2.008747e+07 -2.120187e+07
## [15774,] -3.122200e+07 -2.809499e+07
```

```
## [15775,] -3.616818e+09 -1.242962e+09
## [15776,] -2.444946e+09 -8.225664e+08
## [15777,] -1.339238e+08 -8.114902e+07
## [15778,] -1.874461e+07 -2.039385e+07
## [15779,] -1.972565e+07 -2.103210e+07
## [15780,] -3.172996e+07 -2.834713e+07
## [15781,] -2.924285e+09 -1.059342e+09
## [15782,] -3.137378e+09 -1.438168e+09
## [15783,] -1.306411e+08 -8.178480e+07
## [15784,] -1.837911e+07 -2.017299e+07
## [15785,] -2.024176e+07 -2.142390e+07
## [15786,] -3.206674e+07 -2.862707e+07
## [15787,] -3.362784e+09 -1.139576e+09
## [15788,] -2.247932e+09 -7.494690e+08
## [15789,] -1.456989e+08 -8.701868e+07
## [15790,] -1.892715e+07 -2.051660e+07
## [15791,] -2.033754e+07 -2.140426e+07
## [15792,] -3.211983e+07 -2.837047e+07
## [15793,] -3.582168e+09 -1.235755e+09
## [15794,] -3.219261e+09 -1.124867e+09
## [15795,] -1.620908e+08 -9.605758e+07
## [15796,] -1.868796e+07 -2.045601e+07
## [15797,] -2.011741e+07 -2.135034e+07
## [15798,] -3.211003e+07 -2.857834e+07
## [15799,] -3.340847e+09 -1.171046e+09
## [15800,] -2.372315e+09 -8.127203e+08
## [15801,] -1.473116e+08 -8.767701e+07
## [15802,] -1.868844e+07 -2.038910e+07
## [15803,] -2.022368e+07 -2.137354e+07
## [15804,] -3.186524e+07 -2.855168e+07
## [15805,] -3.427325e+09 -1.120418e+09
## [15806,] -2.348520e+09 -7.760562e+08
## [15807,] -1.334451e+08 -8.096473e+07
## [15808,] -1.870795e+07 -2.040274e+07
## [15809,] -2.031695e+07 -2.150126e+07
## [15810,] -3.141613e+07 -2.831735e+07
## [15811,] -3.066174e+09 -1.064869e+09
## [15812,] -2.930862e+09 -8.264349e+08
## [15813,] -1.481491e+08 -8.559074e+07
## [15814,] -1.859247e+07 -2.036283e+07
## [15815,] -2.044592e+07 -2.151999e+07
## [15816,] -3.344549e+07 -2.990440e+07
## [15817,] -3.525878e+09 -1.170679e+09
## [15818,] -2.095956e+09 -7.668743e+08
## [15819,] -1.311079e+08 -8.101974e+07
## [15820,] -1.893507e+07 -2.062634e+07
## [15821,] -2.049278e+07 -2.154985e+07
```

```
## [15822,] -3.151269e+07 -2.816718e+07
## [15823,] -2.994015e+09 -1.089137e+09
## [15824,] -2.631128e+09 -8.976446e+08
## [15825,] -1.352853e+08 -8.032260e+07
## [15826,] -1.902034e+07 -2.060009e+07
## [15827,] -2.032341e+07 -2.148516e+07
## [15828,] -3.157877e+07 -2.822966e+07
## [15829,] -3.169570e+09 -1.058397e+09
## [15830,] -2.606066e+09 -8.830310e+08
## [15831,] -1.480246e+08 -8.783449e+07
## [15832,] -1.866440e+07 -2.037745e+07
## [15833,] -2.053235e+07 -2.158586e+07
## [15834,] -3.198728e+07 -2.859037e+07
## [15835,] -2.872464e+09 -1.052292e+09
## [15836,] -2.155299e+09 -7.576207e+08
## [15837,] -1.324321e+08 -8.225119e+07
## [15838,] -1.896216e+07 -2.067496e+07
## [15839,] -2.055458e+07 -2.159042e+07
## [15840,] -3.134086e+07 -2.819504e+07
## [15841,] -3.448108e+09 -1.101170e+09
## [15842,] -2.731536e+09 -9.367170e+08
## [15843,] -1.524424e+08 -8.886136e+07
## [15844,] -1.869082e+07 -2.042527e+07
## [15845,] -2.066894e+07 -2.173048e+07
## [15846,] -3.249762e+07 -2.889259e+07
## [15847,] -3.044385e+09 -1.046007e+09
## [15848,] -2.185174e+09 -7.529521e+08
## [15849,] -1.349408e+08 -8.156256e+07
## [15850,] -1.880092e+07 -2.015685e+07
## [15851,] -2.026111e+07 -2.143927e+07
## [15852,] -3.162918e+07 -2.839198e+07
## [15853,] -3.221563e+09 -1.027902e+09
## [15854,] -2.246121e+09 -7.707794e+08
## [15855,] -1.543519e+08 -9.232096e+07
## [15856,] -1.850491e+07 -2.029805e+07
## [15857,] -2.023318e+07 -2.145596e+07
## [15858,] -3.205646e+07 -2.871987e+07
## [15859,] -3.295872e+09 -1.221402e+09
## [15860,] -2.370677e+09 -7.350849e+08
## [15861,] -1.389315e+08 -8.428682e+07
## [15862,] -1.805879e+07 -2.012404e+07
## [15863,] -2.042143e+07 -2.155405e+07
## [15864,] -3.162318e+07 -2.832258e+07
## [15865,] -3.074809e+09 -1.027706e+09
## [15866,] -3.337741e+09 -1.436372e+09
## [15867,] -1.693386e+08 -1.048457e+08
## [15868,] -1.892497e+07 -2.060225e+07
```



```
## [15869,] -2.038010e+07 -2.155256e+07
## [15870,] -3.156824e+07 -2.837247e+07
## [15871,] -3.023094e+09 -1.057651e+09
## [15872,] -2.169392e+09 -7.704824e+08
## [15873,] -1.457838e+08 -8.669411e+07
## [15874,] -1.883487e+07 -2.057585e+07
## [15875,] -2.043184e+07 -2.159664e+07
## [15876,] -3.293601e+07 -2.930602e+07
## [15877,] -3.805938e+09 -1.334322e+09
## [15878,] -2.307465e+09 -7.749497e+08
## [15879,] -1.460367e+08 -8.826036e+07
## [15880,] -1.888037e+07 -2.060986e+07
## [15881,] -2.064578e+07 -2.168388e+07
## [15882,] -3.203949e+07 -2.853736e+07
## [15883,] -2.981988e+09 -1.051449e+09
## [15884,] -2.199508e+09 -7.480054e+08
## [15885,] -1.327313e+08 -8.097306e+07
## [15886,] -1.912109e+07 -2.073888e+07
## [15887,] -2.033489e+07 -2.156981e+07
## [15888,] -3.179611e+07 -2.847347e+07
## [15889,] -2.821269e+09 -1.087977e+09
## [15890,] -2.276179e+09 -7.128892e+08
## [15891,] -1.329902e+08 -7.948679e+07
## [15892,] -1.913430e+07 -2.081384e+07
## [15893,] -2.060371e+07 -2.171386e+07
## [15894,] -3.169197e+07 -2.834944e+07
## [15895,] -3.657544e+09 -1.188520e+09
## [15896,] -2.579726e+09 -8.487162e+08
## [15897,] -1.443447e+08 -8.655618e+07
## [15898,] -1.885493e+07 -2.063745e+07
## [15899,] -2.054637e+07 -2.167782e+07
## [15900,] -3.180847e+07 -2.860024e+07
## [15901,] -3.157281e+09 -1.094033e+09
## [15902,] -2.457530e+09 -7.792592e+08
## [15903,] -1.383900e+08 -8.195912e+07
## [15904,] -1.908262e+07 -2.081434e+07
## [15905,] -2.041120e+07 -2.156175e+07
## [15906,] -3.409245e+07 -3.000288e+07
## [15907,] -2.870499e+09 -1.039051e+09
## [15908,] -2.138495e+09 -6.953858e+08
## [15909,] -1.328722e+08 -8.336080e+07
## [15910,] -1.905070e+07 -2.080821e+07
## [15911,] -2.063695e+07 -2.177086e+07
## [15912,] -3.299130e+07 -2.926748e+07
## [15913,] -3.589486e+09 -1.233499e+09
## [15914,] -2.529831e+09 -8.435970e+08
## [15915,] -1.375501e+08 -8.302076e+07
```

```
## [15916,] -1.868849e+07 -2.037569e+07
## [15917,] -2.067614e+07 -2.183403e+07
## [15918,] -3.284291e+07 -2.902448e+07
## [15919,] -2.761134e+09 -1.056807e+09
## [15920,] -2.400731e+09 -8.015917e+08
## [15921,] -1.298584e+08 -8.363586e+07
## [15922,] -1.863742e+07 -2.051782e+07
## [15923,] -2.068112e+07 -2.180706e+07
## [15924,] -3.277817e+07 -2.939022e+07
## [15925,] -3.489140e+09 -1.246304e+09
## [15926,] -2.306144e+09 -7.923455e+08
## [15927,] -1.371490e+08 -8.289970e+07
## [15928,] -1.898043e+07 -2.075515e+07
## [15929,] -2.061673e+07 -2.176840e+07
## [15930,] -3.270474e+07 -2.911372e+07
## [15931,] -3.052230e+09 -9.332461e+08
## [15932,] -2.198146e+09 -7.516527e+08
## [15933,] -1.316212e+08 -8.085767e+07
## [15934,] -1.889652e+07 -2.070811e+07
## [15935,] -2.051738e+07 -2.172115e+07
## [15936,] -3.260786e+07 -2.902231e+07
## [15937,] -3.113989e+09 -1.086969e+09
## [15938,] -2.440112e+09 -8.764512e+08
## [15939,] -1.523841e+08 -9.524185e+07
## [15940,] -1.928198e+07 -2.104305e+07
## [15941,] -2.018448e+07 -2.134231e+07
## [15942,] -3.407528e+07 -2.985586e+07
## [15943,] -3.000287e+09 -1.038164e+09
## [15944,] -3.269745e+09 -1.084231e+09
## [15945,] -1.460294e+08 -8.668850e+07
## [15946,] -1.934753e+07 -2.093371e+07
## [15947,] -2.079737e+07 -2.188052e+07
## [15948,] -3.260555e+07 -2.883992e+07
## [15949,] -3.218354e+09 -1.148981e+09
## [15950,] -2.561261e+09 -8.522887e+08
## [15951,] -1.496671e+08 -8.674543e+07
## [15952,] -2.377506e+07 -2.377506e+07
## [15953,] -2.086808e+07 -2.190709e+07
## [15954,] -3.251259e+07 -2.908713e+07
## [15955,] -3.802827e+09 -1.225838e+09
## [15956,] -3.005664e+09 -1.025923e+09
## [15957,] -1.323655e+08 -8.144131e+07
## [15958,] -1.877607e+07 -2.069720e+07
## [15959,] -2.065255e+07 -2.186481e+07
## [15960,] -3.212557e+07 -2.890096e+07
## [15961,] -3.196549e+09 -1.123437e+09
## [15962,] -2.471210e+09 -8.951280e+08
```

```

## [15963,] -1.414626e+08 -8.356049e+07
## [15964,] -1.912687e+07 -2.083331e+07
## [15965,] -2.089006e+07 -2.193880e+07
## [15966,] -3.259222e+07 -2.907204e+07
## [15967,] -2.928250e+09 -1.067812e+09
## [15968,] -2.121474e+09 -7.598163e+08
## [15969,] -1.526672e+08 -8.982483e+07
## [15970,] -1.955373e+07 -2.101120e+07
## [15971,] -2.070712e+07 -2.194393e+07
## [15972,] -3.223189e+07 -2.879596e+07
## [15973,] -3.976238e+09 -1.428864e+09
## [15974,] -2.855545e+09 -1.051573e+09
## [15975,] -1.496914e+08 -8.991175e+07
## [15976,] -1.912815e+07 -2.084146e+07
## [15977,] -2.092353e+07 -2.200071e+07
## [15978,] -3.304616e+07 -2.904764e+07
## [15979,] -4.385506e+09 -1.514428e+09
## [15980,] -2.502810e+09 -8.801722e+08
## [15981,] -1.296827e+08 -8.368627e+07
## [15982,] -1.940986e+07 -2.112175e+07
## [15983,] -2.082491e+07 -2.187663e+07
## [15984,] -3.180604e+07 -2.889306e+07
## [15985,] -3.039581e+09 -1.061331e+09
## [15986,] -2.601075e+09 -8.897792e+08
## [15987,] -1.446498e+08 -8.698758e+07
## [15988,] -1.942333e+07 -2.113580e+07
## [15989,] -2.096895e+07 -2.202886e+07
## [15990,] -3.195843e+07 -2.885804e+07
## [15991,] -3.060000e+09 -1.043093e+09
## [15992,] -2.350828e+09 -6.726129e+08
## [15993,] -1.474510e+08 -8.758857e+07
## [15994,] -1.935108e+07 -2.108783e+07
## [15995,] -2.108143e+07 -2.213952e+07
## [15996,] -3.213456e+07 -2.890949e+07
## [15997,] -2.887139e+09 -1.037032e+09
## [15998,] -2.933606e+09 -8.800362e+08
## [15999,] -1.454614e+08 -8.761718e+07
## [16000,] -1.899870e+07 -2.080826e+07
## [16001,] -2.052258e+07 -2.176768e+07
## [16002,] -3.265596e+07 -2.924862e+07
## [16003,] -4.010610e+09 -1.372486e+09
## [16004,] -2.358404e+09 -8.091951e+08
## [16005,] -1.482890e+08 -8.803817e+07
## [16006,] -1.916844e+07 -2.099955e+07
## [16007,] -2.073254e+07 -2.193792e+07
## [16008,] -3.243143e+07 -2.877879e+07
## [16009,] -3.398315e+09 -1.153958e+09

```

```
## [16010,] -2.575769e+09 -9.138168e+08
## [16011,] -1.508865e+08 -9.143802e+07
## [16012,] -1.947050e+07 -2.115070e+07
## [16013,] -2.098650e+07 -2.206066e+07
## [16014,] -3.285036e+07 -2.905728e+07
## [16015,] -3.789177e+09 -1.237688e+09
## [16016,] -2.272243e+09 -6.892272e+08
## [16017,] -1.433444e+08 -8.812423e+07
## [16018,] -1.918246e+07 -2.089133e+07
## [16019,] -2.099652e+07 -2.210784e+07
## [16020,] -3.249731e+07 -2.895665e+07
## [16021,] -1.583854e+09 -5.693243e+08
## [16022,] -1.206884e+09 -4.254258e+08
## [16023,] -2.507021e+07 -1.041823e+07
## [16024,] -1.965367e+04 -7.087473e+04
## [16025,] -6.310409e+04 -1.142675e+05
## [16026,] -9.775818e+05 -5.998957e+05
## [16027,] -1.569052e+09 -5.693243e+08
## [16028,] -1.184445e+09 -4.321446e+08
## [16029,] -2.454889e+07 -1.103519e+07
## [16030,] -2.092819e+04 -6.968848e+04
## [16031,] -6.459152e+04 -1.106484e+05
## [16032,] -9.517258e+05 -6.110692e+05
## [16033,] -1.532352e+09 -5.872536e+08
## [16034,] -1.162216e+09 -4.560748e+08
## [16035,] -2.423873e+07 -1.041823e+07
## [16036,] -2.158047e+04 -6.929529e+04
## [16037,] -6.509118e+04 -1.122862e+05
## [16038,] -9.354524e+05 -6.148167e+05
## [16039,] -1.510540e+09 -6.008830e+08
## [16040,] -1.145683e+09 -4.595460e+08
## [16041,] -2.403305e+07 -1.089655e+07
## [16042,] -2.049890e+04 -6.968848e+04
## [16043,] -6.384564e+04 -1.122862e+05
## [16044,] -9.657861e+05 -6.091998e+05
## [16045,] -1.539657e+09 -5.872536e+08
## [16046,] -1.167754e+09 -4.287786e+08
## [16047,] -2.434190e+07 -1.096576e+07
## [16048,] -2.114451e+04 -7.047820e+04
## [16049,] -6.409378e+04 -1.122862e+05
## [16050,] -9.493924e+05 -6.148167e+05
## [16051,] -3.089992e+09 -1.097370e+09
## [16052,] -2.172465e+09 -7.633233e+08
## [16053,] -1.381836e+08 -8.066830e+07
## [16054,] -1.916335e+07 -2.098056e+07
## [16055,] -2.104202e+07 -2.213144e+07
## [16056,] -3.260046e+07 -2.893803e+07
```

```
## [16057,] -3.141674e+09 -1.084854e+09
## [16058,] -2.624625e+09 -8.938482e+08
## [16059,] -1.348310e+08 -8.299587e+07
## [16060,] -1.951822e+07 -2.124854e+07
## [16061,] -2.099358e+07 -2.221567e+07
## [16062,] -3.211904e+07 -2.898489e+07
## [16063,] -3.007237e+09 -1.048280e+09
## [16064,] -2.210151e+09 -7.453327e+08
## [16065,] -1.365379e+08 -8.223481e+07
## [16066,] -1.951163e+07 -2.118670e+07
## [16067,] -2.090825e+07 -2.204489e+07
## [16068,] -3.252723e+07 -2.920435e+07
## [16069,] -3.310974e+09 -1.185256e+09
## [16070,] -2.310414e+09 -7.365008e+08
## [16071,] -1.348310e+08 -8.166632e+07
## [16072,] -1.953832e+07 -2.118704e+07
## [16073,] -2.104808e+07 -2.215612e+07
## [16074,] -3.277719e+07 -2.929855e+07
## [16075,] -3.617826e+09 -1.140606e+09
## [16076,] -2.624312e+09 -9.033915e+08
## [16077,] -1.407821e+08 -8.399413e+07
## [16078,] -1.931496e+07 -2.113232e+07
## [16079,] -2.092076e+07 -2.205313e+07
## [16080,] -3.324354e+07 -2.976566e+07
## [16081,] -3.396712e+09 -1.217186e+09
## [16082,] -2.271005e+09 -7.808451e+08
## [16083,] -1.354599e+08 -8.177684e+07
## [16084,] -1.928955e+07 -2.101675e+07
## [16085,] -2.089937e+07 -2.192996e+07
## [16086,] -3.212917e+07 -2.898164e+07
## [16087,] -3.278001e+09 -1.059888e+09
## [16088,] -2.301889e+09 -7.898523e+08
## [16089,] -1.487732e+08 -8.880548e+07
## [16090,] -1.963913e+07 -2.131266e+07
## [16091,] -2.089393e+07 -2.210393e+07
## [16092,] -3.309724e+07 -2.957514e+07
## [16093,] -3.627941e+09 -1.302754e+09
## [16094,] -2.293673e+09 -7.358373e+08
## [16095,] -1.383507e+08 -8.004517e+07
## [16096,] -1.939629e+07 -2.113501e+07
## [16097,] -2.096929e+07 -2.218144e+07
## [16098,] -3.261100e+07 -2.937445e+07
## [16099,] -3.298589e+09 -1.190680e+09
## [16100,] -3.181698e+09 -1.118929e+09
## [16101,] -1.369131e+08 -8.044758e+07
## [16102,] -1.941648e+07 -2.119042e+07
## [16103,] -2.094985e+07 -2.215683e+07
```

```
## [16104,] -3.252296e+07 -2.896798e+07
## [16105,] -3.056619e+09 -1.035114e+09
## [16106,] -2.254480e+09 -7.532522e+08
## [16107,] -1.362150e+08 -8.255387e+07
## [16108,] -1.939693e+07 -2.120432e+07
## [16109,] -2.124330e+07 -2.233321e+07
## [16110,] -3.291501e+07 -2.938993e+07
## [16111,] -3.319595e+09 -1.242422e+09
## [16112,] -2.507641e+09 -8.830380e+08
## [16113,] -1.414301e+08 -8.315331e+07
## [16114,] -1.913537e+07 -2.096494e+07
## [16115,] -2.125034e+07 -2.232188e+07
## [16116,] -3.214568e+07 -2.894579e+07
## [16117,] -2.994932e+09 -1.035015e+09
## [16118,] -2.791305e+09 -9.367711e+08
## [16119,] -1.500395e+08 -8.958621e+07
## [16120,] -1.927280e+07 -2.119109e+07
## [16121,] -2.102531e+07 -2.221593e+07
## [16122,] -3.345152e+07 -2.968800e+07
## [16123,] -3.889620e+09 -1.133084e+09
## [16124,] -2.956452e+09 -1.012685e+09
## [16125,] -1.331456e+08 -7.979386e+07
## [16126,] -1.980735e+07 -2.152247e+07
## [16127,] -2.111591e+07 -2.232759e+07
## [16128,] -3.228414e+07 -2.928404e+07
## [16129,] -3.004723e+09 -9.991058e+08
## [16130,] -2.154884e+09 -7.708284e+08
## [16131,] -1.430557e+08 -8.536509e+07
## [16132,] -1.957633e+07 -2.132983e+07
## [16133,] -2.129315e+07 -2.236576e+07
## [16134,] -3.239187e+07 -2.917943e+07
## [16135,] -3.459868e+09 -1.209310e+09
## [16136,] -2.230708e+09 -7.395380e+08
## [16137,] -1.509411e+08 -9.048221e+07
## [16138,] -1.949063e+07 -2.125412e+07
## [16139,] -2.132939e+07 -2.236112e+07
## [16140,] -3.301650e+07 -2.952483e+07
## [16141,] -2.953437e+09 -9.696258e+08
## [16142,] -2.688684e+09 -9.165980e+08
## [16143,] -1.466378e+08 -8.892510e+07
## [16144,] -1.955027e+07 -2.131639e+07
## [16145,] -2.109042e+07 -2.225044e+07
## [16146,] -3.251836e+07 -2.911841e+07
## [16147,] -3.265154e+09 -1.164257e+09
## [16148,] -2.474261e+09 -7.571226e+08
## [16149,] -1.379360e+08 -8.524233e+07
## [16150,] -1.953773e+07 -2.119329e+07
```

```
## [16151,] -2.101043e+07 -2.215904e+07
## [16152,] -3.301418e+07 -2.966585e+07
## [16153,] -3.481020e+09 -1.170259e+09
## [16154,] -2.315129e+09 -7.658654e+08
## [16155,] -1.392581e+08 -8.243736e+07
## [16156,] -1.980947e+07 -2.147627e+07
## [16157,] -2.112154e+07 -2.230557e+07
## [16158,] -3.348722e+07 -2.979997e+07
## [16159,] -4.317876e+09 -1.307998e+09
## [16160,] -2.867670e+09 -1.001660e+09
## [16161,] -1.417393e+08 -8.531290e+07
## [16162,] -1.957135e+07 -2.135219e+07
## [16163,] -2.111504e+07 -2.237308e+07
## [16164,] -3.313690e+07 -2.965172e+07
## [16165,] -3.065241e+09 -1.094941e+09
## [16166,] -2.425552e+09 -7.479282e+08
## [16167,] -1.388005e+08 -8.208537e+07
## [16168,] -1.993646e+07 -2.153228e+07
## [16169,] -2.138947e+07 -2.251100e+07
## [16170,] -3.347604e+07 -2.984170e+07
## [16171,] -3.749404e+09 -1.274181e+09
## [16172,] -2.417268e+09 -8.344267e+08
## [16173,] -1.330329e+08 -8.367949e+07
## [16174,] -1.995027e+07 -2.156742e+07
## [16175,] -2.141522e+07 -2.250017e+07
## [16176,] -3.225384e+07 -2.911296e+07
## [16177,] -3.158137e+09 -1.027753e+09
## [16178,] -2.229337e+09 -7.699376e+08
## [16179,] -1.359994e+08 -8.333881e+07
## [16180,] -1.969840e+07 -2.141580e+07
## [16181,] -2.137743e+07 -2.261048e+07
## [16182,] -3.251639e+07 -2.934946e+07
## [16183,] -3.513185e+09 -1.182522e+09
## [16184,] -2.448977e+09 -7.926103e+08
## [16185,] -1.328444e+08 -8.257618e+07
## [16186,] -1.964563e+07 -2.140216e+07
## [16187,] -2.123051e+07 -2.242683e+07
## [16188,] -3.249288e+07 -2.930121e+07
## [16189,] -3.524060e+09 -1.253973e+09
## [16190,] -2.392950e+09 -7.925242e+08
## [16191,] -1.357910e+08 -8.298489e+07
## [16192,] -1.989134e+07 -2.151305e+07
## [16193,] -2.137141e+07 -2.254368e+07
## [16194,] -3.278875e+07 -2.950416e+07
## [16195,] -3.242145e+09 -1.069808e+09
## [16196,] -2.321984e+09 -7.924812e+08
## [16197,] -1.447328e+08 -8.783492e+07
```

```
## [16198,] -1.959987e+07 -2.140267e+07
## [16199,] -2.124059e+07 -2.240468e+07
## [16200,] -3.413036e+07 -3.044645e+07
## [16201,] -3.523516e+09 -1.214362e+09
## [16202,] -2.267147e+09 -8.013820e+08
## [16203,] -1.595590e+08 -9.512889e+07
## [16204,] -1.962050e+07 -2.144495e+07
## [16205,] -2.129846e+07 -2.249667e+07
## [16206,] -3.298239e+07 -2.934977e+07
## [16207,] -3.094578e+09 -1.075513e+09
## [16208,] -2.282476e+09 -7.560296e+08
## [16209,] -1.391428e+08 -8.291952e+07
## [16210,] -2.001258e+07 -2.161832e+07
## [16211,] -2.148250e+07 -2.259711e+07
## [16212,] -3.307867e+07 -2.950557e+07
## [16213,] -2.991755e+09 -1.045165e+09
## [16214,] -2.205555e+09 -7.649352e+08
## [16215,] -1.399026e+08 -8.543014e+07
## [16216,] -1.963420e+07 -2.137644e+07
## [16217,] -2.124920e+07 -2.242746e+07
## [16218,] -3.349173e+07 -3.000053e+07
## [16219,] -3.167244e+09 -1.063122e+09
## [16220,] -2.686070e+09 -9.150718e+08
## [16221,] -1.372640e+08 -8.394532e+07
## [16222,] -1.973428e+07 -2.155697e+07
## [16223,] -2.143661e+07 -2.264799e+07
## [16224,] -3.296136e+07 -2.960276e+07
## [16225,] -3.083624e+09 -1.081283e+09
## [16226,] -2.320806e+09 -7.335590e+08
## [16227,] -1.475590e+08 -8.611081e+07
## [16228,] -2.005411e+07 -2.171011e+07
## [16229,] -2.155085e+07 -2.266254e+07
## [16230,] -3.258154e+07 -2.942434e+07
## [16231,] -3.577959e+09 -1.181471e+09
## [16232,] -2.651913e+09 -8.520280e+08
## [16233,] -1.443637e+08 -8.657082e+07
## [16234,] -1.989478e+07 -2.164135e+07
## [16235,] -2.144779e+07 -2.258948e+07
## [16236,] -3.379244e+07 -3.017990e+07
## [16237,] -4.049113e+09 -1.272544e+09
## [16238,] -2.618443e+09 -8.237639e+08
## [16239,] -1.556994e+08 -8.956035e+07
## [16240,] -1.989559e+07 -2.176729e+07
## [16241,] -2.165635e+07 -2.275668e+07
## [16242,] -3.293803e+07 -2.967183e+07
## [16243,] -3.020739e+09 -1.050209e+09
## [16244,] -2.188984e+09 -7.641323e+08
```



```
## [16245,] -1.363080e+08 -8.396357e+07
## [16246,] -2.016964e+07 -2.176067e+07
## [16247,] -2.159248e+07 -2.278009e+07
## [16248,] -3.288311e+07 -2.963273e+07
## [16249,] -3.041263e+09 -1.026186e+09
## [16250,] -2.288771e+09 -7.507377e+08
## [16251,] -1.435058e+08 -8.805424e+07
## [16252,] -1.990274e+07 -2.170521e+07
## [16253,] -2.164318e+07 -2.276190e+07
## [16254,] -3.290064e+07 -2.974067e+07
## [16255,] -3.455106e+09 -1.174339e+09
## [16256,] -2.701482e+09 -9.142398e+08
## [16257,] -1.705563e+08 -1.094964e+08
## [16258,] -1.984338e+07 -2.166405e+07
## [16259,] -2.157529e+07 -2.272968e+07
## [16260,] -3.284459e+07 -2.964828e+07
## [16261,] -3.165438e+09 -1.123691e+09
## [16262,] -2.414264e+09 -7.865057e+08
## [16263,] -1.501746e+08 -8.674154e+07
## [16264,] -2.017716e+07 -2.184510e+07
## [16265,] -2.161887e+07 -2.276505e+07
## [16266,] -3.300442e+07 -2.963054e+07
## [16267,] -3.443889e+09 -1.180578e+09
## [16268,] -2.692819e+09 -9.043175e+08
## [16269,] -1.438483e+08 -8.812596e+07
## [16270,] -1.998349e+07 -2.167828e+07
## [16271,] -2.144490e+07 -2.266586e+07
## [16272,] -3.284724e+07 -2.978125e+07
## [16273,] -2.878195e+09 -1.067910e+09
## [16274,] -2.608977e+09 -9.188275e+08
## [16275,] -1.345370e+08 -8.410367e+07
## [16276,] -1.987760e+07 -2.168591e+07
## [16277,] -2.133652e+07 -2.256840e+07
## [16278,] -3.427911e+07 -3.037554e+07
## [16279,] -3.813761e+09 -1.436148e+09
## [16280,] -2.461722e+09 -8.606284e+08
## [16281,] -1.407299e+08 -8.280696e+07
## [16282,] -2.004470e+07 -2.182556e+07
## [16283,] -2.128469e+07 -2.258499e+07
## [16284,] -3.678438e+07 -3.210958e+07
## [16285,] -3.665398e+09 -1.284837e+09
## [16286,] -2.112755e+09 -6.892334e+08
## [16287,] -1.351474e+08 -8.458641e+07
## [16288,] -2.033354e+07 -2.190995e+07
## [16289,] -2.171337e+07 -2.297004e+07
## [16290,] -3.307354e+07 -2.976127e+07
## [16291,] -3.091348e+09 -1.007477e+09
```

```
## [16292,] -2.381514e+09 -7.019082e+08
## [16293,] -1.455798e+08 -8.575963e+07
## [16294,] -2.028010e+07 -2.193125e+07
## [16295,] -2.161343e+07 -2.278756e+07
## [16296,] -3.358860e+07 -3.015789e+07
## [16297,] -3.642217e+09 -1.238116e+09
## [16298,] -2.210234e+09 -7.321523e+08
## [16299,] -1.728368e+08 -1.047978e+08
## [16300,] -2.030092e+07 -2.197387e+07
## [16301,] -2.171495e+07 -2.294346e+07
## [16302,] -3.301619e+07 -2.986361e+07
## [16303,] -3.280273e+09 -9.604645e+08
## [16304,] -2.836373e+09 -1.045190e+09
## [16305,] -1.394784e+08 -8.587289e+07
## [16306,] -2.014044e+07 -2.184870e+07
## [16307,] -2.161097e+07 -2.286472e+07
## [16308,] -3.363173e+07 -3.018561e+07
## [16309,] -3.333516e+09 -1.173083e+09
## [16310,] -2.380768e+09 -7.809798e+08
## [16311,] -1.407898e+08 -8.400007e+07
## [16312,] -2.028864e+07 -2.207307e+07
## [16313,] -2.188860e+07 -2.296651e+07
## [16314,] -3.299515e+07 -2.992210e+07
## [16315,] -2.876556e+09 -1.060831e+09
## [16316,] -2.750148e+09 -9.032149e+08
## [16317,] -1.400637e+08 -8.613788e+07
## [16318,] -2.029552e+07 -2.184956e+07
## [16319,] -2.170792e+07 -2.285173e+07
## [16320,] -3.385685e+07 -3.006992e+07
## [16321,] -3.247453e+09 -1.078972e+09
## [16322,] -2.278608e+09 -7.807663e+08
## [16323,] -1.425885e+08 -8.442633e+07
## [16324,] -2.027570e+07 -2.194762e+07
## [16325,] -2.180913e+07 -2.296968e+07
## [16326,] -3.379614e+07 -3.030185e+07
## [16327,] -3.279398e+09 -1.036538e+09
## [16328,] -3.302666e+09 -1.347099e+09
## [16329,] -1.388638e+08 -8.558431e+07
## [16330,] -2.043063e+07 -2.201073e+07
## [16331,] -2.187589e+07 -2.300993e+07
## [16332,] -3.311285e+07 -2.989009e+07
## [16333,] -3.028133e+09 -9.426961e+08
## [16334,] -2.286286e+09 -6.926945e+08
## [16335,] -1.381427e+08 -8.463284e+07
## [16336,] -2.043063e+07 -2.203173e+07
## [16337,] -2.190343e+07 -2.299111e+07
## [16338,] -3.355001e+07 -3.009506e+07
```

```
## [16339,] -3.354367e+09 -1.072758e+09
## [16340,] -2.533007e+09 -8.407210e+08
## [16341,] -1.431255e+08 -8.619463e+07
## [16342,] -1.915698e+07 -2.124115e+07
## [16343,] -2.189477e+07 -2.304814e+07
## [16344,] -3.351728e+07 -3.006407e+07
## [16345,] -3.606987e+09 -1.230654e+09
## [16346,] -2.254927e+09 -7.579703e+08
## [16347,] -1.382505e+08 -8.548965e+07
## [16348,] -2.031717e+07 -2.200477e+07
## [16349,] -2.178579e+07 -2.302568e+07
## [16350,] -3.316066e+07 -2.998791e+07
## [16351,] -1.539657e+09 -6.054609e+08
## [16352,] -1.151181e+09 -4.595460e+08
## [16353,] -2.413578e+07 -1.075879e+07
## [16354,] -2.246575e+04 -7.087473e+04
## [16355,] -6.634875e+04 -1.116297e+05
## [16356,] -9.400876e+05 -6.129415e+05
## [16357,] -1.517793e+09 -5.917794e+08
## [16358,] -1.129269e+09 -4.560748e+08
## [16359,] -2.372618e+07 -1.089655e+07
## [16360,] -2.092819e+04 -7.207098e+04
## [16361,] -6.042213e+04 -1.096715e+05
## [16362,] -1.003784e+06 -6.185755e+05
## [16363,] -1.674124e+09 -6.427093e+08
## [16364,] -1.292905e+09 -4.595460e+08
## [16365,] -2.623638e+07 -1.110483e+07
## [16366,] -1.781698e+04 -6.695951e+04
## [16367,] -5.946132e+04 -1.106484e+05
## [16368,] -9.918311e+05 -6.280228e+05
## [16369,] -1.674124e+09 -6.192988e+08
## [16370,] -1.263902e+09 -4.842132e+08
## [16371,] -2.634371e+07 -1.069024e+07
## [16372,] -1.742107e+04 -6.812240e+04
## [16373,] -6.114780e+04 -1.080529e+05
## [16374,] -9.870699e+05 -6.299209e+05
## [16375,] -1.681759e+09 -6.474435e+08
## [16376,] -1.145683e+09 -4.254258e+08
## [16377,] -2.507021e+07 -9.753526e+06
## [16378,] -1.588652e+04 -7.088449e+04
## [16379,] -6.348857e+04 -1.144525e+05
## [16380,] -9.625867e+05 -5.955264e+05
## [16381,] -3.397065e+09 -1.191522e+09
## [16382,] -2.766226e+09 -8.881003e+08
## [16383,] -1.382865e+08 -8.551791e+07
## [16384,] -2.010961e+07 -2.190028e+07
## [16385,] -2.194027e+07 -2.304298e+07
```

```
## [16386,] -3.382934e+07 -3.032011e+07
## [16387,] -3.617731e+09 -1.263295e+09
## [16388,] -2.411411e+09 -8.356701e+08
## [16389,] -1.363599e+08 -8.573990e+07
## [16390,] -2.025737e+07 -2.215264e+07
## [16391,] -2.171820e+07 -2.292800e+07
## [16392,] -3.388001e+07 -3.043405e+07
## [16393,] -3.833695e+09 -1.303248e+09
## [16394,] -2.956880e+09 -9.923873e+08
## [16395,] -1.398396e+08 -8.499451e+07
## [16396,] -2.005679e+07 -2.197083e+07
## [16397,] -2.178279e+07 -2.295204e+07
## [16398,] -3.353147e+07 -3.018261e+07
## [16399,] -3.985007e+09 -1.371295e+09
## [16400,] -2.681161e+09 -8.591048e+08
## [16401,] -1.561499e+08 -9.371272e+07
## [16402,] -2.015745e+07 -2.202714e+07
## [16403,] -2.190510e+07 -2.310116e+07
## [16404,] -3.416189e+07 -3.042340e+07
## [16405,] -2.139569e+09 -7.270111e+08
## [16406,] -2.605856e+09 -8.494871e+08
## [16407,] -1.531402e+08 -9.078510e+07
## [16408,] -2.050127e+07 -2.216121e+07
## [16409,] -2.185568e+07 -2.282485e+07
## [16410,] -3.358459e+07 -2.982644e+07
## [16411,] -3.067692e+09 -9.532803e+08
## [16412,] -2.756817e+09 -1.012546e+09
## [16413,] -1.338434e+08 -8.413042e+07
## [16414,] -1.988496e+07 -2.183276e+07
## [16415,] -2.191437e+07 -2.308711e+07
## [16416,] -3.414436e+07 -3.045967e+07
## [16417,] -3.087950e+09 -1.047339e+09
## [16418,] -2.630054e+09 -8.163172e+08
## [16419,] -1.448214e+08 -8.829690e+07
## [16420,] -2.050902e+07 -2.220440e+07
## [16421,] -2.199969e+07 -2.314162e+07
## [16422,] -3.409232e+07 -3.042372e+07
## [16423,] -3.245102e+09 -1.216438e+09
## [16424,] -2.522929e+09 -8.537756e+08
## [16425,] -1.512064e+08 -9.128662e+07
## [16426,] -2.049584e+07 -2.219069e+07
## [16427,] -2.199359e+07 -2.315424e+07
## [16428,] -3.370602e+07 -3.022968e+07
## [16429,] -3.351977e+09 -1.089789e+09
## [16430,] -2.284167e+09 -7.659566e+08
## [16431,] -1.421365e+08 -8.620323e+07
## [16432,] -2.014653e+07 -2.214890e+07
```

```
## [16433,] -2.207241e+07 -2.329191e+07
## [16434,] -3.382113e+07 -3.037825e+07
## [16435,] -3.056447e+09 -1.047042e+09
## [16436,] -2.354409e+09 -8.022542e+08
## [16437,] -1.357398e+08 -8.351773e+07
## [16438,] -2.058439e+07 -2.228987e+07
## [16439,] -2.187261e+07 -2.307722e+07
## [16440,] -3.530742e+07 -3.211237e+07
## [16441,] -3.843255e+09 -1.248837e+09
## [16442,] -2.315067e+09 -7.703259e+08
## [16443,] -1.424592e+08 -8.880592e+07
## [16444,] -2.024103e+07 -2.207244e+07
## [16445,] -2.183186e+07 -2.305892e+07
## [16446,] -3.412685e+07 -3.045633e+07
## [16447,] -3.394839e+09 -1.196643e+09
## [16448,] -2.237449e+09 -6.870284e+08
## [16449,] -1.392838e+08 -8.475388e+07
## [16450,] -2.038943e+07 -2.213607e+07
## [16451,] -2.194972e+07 -2.317531e+07
## [16452,] -3.398600e+07 -3.052129e+07
## [16453,] -3.244144e+09 -1.040674e+09
## [16454,] -2.823678e+09 -8.914809e+08
## [16455,] -1.499278e+08 -8.753049e+07
## [16456,] -2.042378e+07 -2.217186e+07
## [16457,] -2.196917e+07 -2.310088e+07
## [16458,] -3.366737e+07 -3.017992e+07
## [16459,] -3.503318e+09 -1.157695e+09
## [16460,] -2.831980e+09 -8.768272e+08
## [16461,] -1.479773e+08 -8.897882e+07
## [16462,] -2.016942e+07 -2.201165e+07
## [16463,] -2.221055e+07 -2.332943e+07
## [16464,] -3.397743e+07 -3.032837e+07
## [16465,] -3.558426e+09 -1.248027e+09
## [16466,] -2.746062e+09 -8.575824e+08
## [16467,] -1.487794e+08 -9.059457e+07
## [16468,] -2.078378e+07 -2.237723e+07
## [16469,] -2.221313e+07 -2.335578e+07
## [16470,] -3.390268e+07 -3.061424e+07
## [16471,] -2.973146e+09 -1.010340e+09
## [16472,] -2.529394e+09 -8.527934e+08
## [16473,] -1.526529e+08 -9.241131e+07
## [16474,] -2.070260e+07 -2.234936e+07
## [16475,] -2.213974e+07 -2.334210e+07
## [16476,] -3.437694e+07 -3.070589e+07
## [16477,] -3.670208e+09 -1.267697e+09
## [16478,] -2.456114e+09 -8.525703e+08
## [16479,] -1.430745e+08 -8.596089e+07
```

```
## [16480,] -2.051367e+07 -2.225144e+07
## [16481,] -2.216851e+07 -2.334319e+07
## [16482,] -3.373332e+07 -3.040051e+07
## [16483,] -3.044211e+09 -1.113266e+09
## [16484,] -2.220758e+09 -7.294256e+08
## [16485,] -1.383747e+08 -8.462176e+07
## [16486,] -2.059498e+07 -2.240668e+07
## [16487,] -2.201686e+07 -2.325849e+07
## [16488,] -3.425347e+07 -3.085450e+07
## [16489,] -3.513363e+09 -1.195480e+09
## [16490,] -2.652712e+09 -8.242971e+08
## [16491,] -1.514941e+08 -9.091046e+07
## [16492,] -2.071055e+07 -2.239996e+07
## [16493,] -2.219935e+07 -2.343655e+07
## [16494,] -3.377386e+07 -3.059765e+07
## [16495,] -3.023257e+09 -1.051694e+09
## [16496,] -2.431601e+09 -7.557420e+08
## [16497,] -1.852099e+08 -1.010147e+08
## [16498,] -2.061630e+07 -2.237243e+07
## [16499,] -2.217730e+07 -2.341390e+07
## [16500,] -3.435818e+07 -3.082088e+07
## [16501,] -3.033178e+09 -1.100406e+09
## [16502,] -2.744781e+09 -1.105364e+09
## [16503,] -1.555550e+08 -9.406228e+07
## [16504,] -2.077983e+07 -2.248615e+07
## [16505,] -2.171871e+07 -2.288627e+07
## [16506,] -3.599437e+07 -3.205913e+07
## [16507,] -3.612677e+09 -1.233979e+09
## [16508,] -2.610395e+09 -9.000943e+08
## [16509,] -1.370801e+08 -8.592268e+07
## [16510,] -2.081384e+07 -2.245787e+07
## [16511,] -2.189282e+07 -2.323966e+07
## [16512,] -3.374756e+07 -3.042723e+07
## [16513,] -3.063800e+09 -9.684349e+08
## [16514,] -2.227473e+09 -7.288891e+08
## [16515,] -1.373790e+08 -8.480462e+07
## [16516,] -2.087563e+07 -2.252913e+07
## [16517,] -2.235278e+07 -2.354656e+07
## [16518,] -3.377420e+07 -3.041291e+07
## [16519,] -2.951192e+09 -1.033195e+09
## [16520,] -2.204561e+09 -7.288891e+08
## [16521,] -1.373790e+08 -8.422730e+07
## [16522,] -2.048256e+07 -2.233168e+07
## [16523,] -2.221900e+07 -2.339974e+07
## [16524,] -3.454741e+07 -3.096015e+07
## [16525,] -3.668357e+09 -1.279911e+09
## [16526,] -2.335662e+09 -7.597029e+08
```

```
## [16527,] -1.391739e+08 -8.641060e+07
## [16528,] -2.056398e+07 -2.244495e+07
## [16529,] -2.217792e+07 -2.338131e+07
## [16530,] -3.394904e+07 -3.059207e+07
## [16531,] -3.011758e+09 -1.081382e+09
## [16532,] -2.196521e+09 -7.418385e+08
## [16533,] -1.377321e+08 -8.527525e+07
## [16534,] -2.071339e+07 -2.270752e+07
## [16535,] -2.239616e+07 -2.357678e+07
## [16536,] -3.379968e+07 -3.055604e+07
## [16537,] -2.880243e+09 -1.026919e+09
## [16538,] -2.494877e+09 -8.563745e+08
## [16539,] -1.552236e+08 -8.801731e+07
## [16540,] -2.090407e+07 -2.256576e+07
## [16541,] -2.285144e+07 -2.381826e+07
## [16542,] -3.465766e+07 -3.087806e+07
## [16543,] -3.369425e+09 -1.187990e+09
## [16544,] -2.188781e+09 -7.373434e+08
## [16545,] -1.362977e+08 -8.511026e+07
## [16546,] -2.042301e+07 -2.226246e+07
## [16547,] -2.227203e+07 -2.360171e+07
## [16548,] -3.403040e+07 -3.056337e+07
## [16549,] -3.667616e+09 -1.162274e+09
## [16550,] -2.173342e+09 -7.371774e+08
## [16551,] -1.425487e+08 -8.305494e+07
## [16552,] -2.091173e+07 -2.266594e+07
## [16553,] -2.235394e+07 -2.363829e+07
## [16554,] -3.405715e+07 -3.066820e+07
## [16555,] -3.031663e+09 -1.032557e+09
## [16556,] -2.390196e+09 -6.683452e+08
## [16557,] -1.398490e+08 -8.635809e+07
## [16558,] -2.047780e+07 -2.243255e+07
## [16559,] -2.234315e+07 -2.360812e+07
## [16560,] -3.479513e+07 -3.111453e+07
## [16561,] -3.134822e+09 -1.050406e+09
## [16562,] -2.445737e+09 -7.862123e+08
## [16563,] -1.504954e+08 -9.093386e+07
## [16564,] -2.098784e+07 -2.265279e+07
## [16565,] -2.252492e+07 -2.361821e+07
## [16566,] -3.382282e+07 -3.063100e+07
## [16567,] -2.959830e+09 -1.044324e+09
## [16568,] -2.195661e+09 -7.369284e+08
## [16569,] -1.362317e+08 -8.622042e+07
## [16570,] -2.096734e+07 -2.268830e+07
## [16571,] -2.244583e+07 -2.365637e+07
## [16572,] -3.387851e+07 -3.065750e+07
## [16573,] -2.959830e+09 -1.050356e+09
```

```
## [16574,] -2.226174e+09 -7.369284e+08
## [16575,] -1.389506e+08 -8.372609e+07
## [16576,] -2.065451e+07 -2.249705e+07
## [16577,] -2.244842e+07 -2.361610e+07
## [16578,] -3.434872e+07 -3.081192e+07
## [16579,] -3.145096e+09 -1.093019e+09
## [16580,] -2.567333e+09 -8.182463e+08
## [16581,] -1.472312e+08 -8.958533e+07
## [16582,] -2.079744e+07 -2.258946e+07
## [16583,] -2.244690e+07 -2.369566e+07
## [16584,] -3.396988e+07 -3.066484e+07
## [16585,] -3.092705e+09 -1.111381e+09
## [16586,] -2.287467e+09 -8.088608e+08
## [16587,] -1.488523e+08 -9.125034e+07
## [16588,] -2.100285e+07 -2.273946e+07
## [16589,] -2.252707e+07 -2.367766e+07
## [16590,] -3.490458e+07 -3.121804e+07
## [16591,] -3.411237e+09 -1.155149e+09
## [16592,] -2.271683e+09 -7.903382e+08
## [16593,] -1.398544e+08 -8.558602e+07
## [16594,] -2.094171e+07 -2.274692e+07
## [16595,] -2.221668e+07 -2.352092e+07
## [16596,] -3.447153e+07 -3.095486e+07
## [16597,] -3.081924e+09 -1.049861e+09
## [16598,] -2.542038e+09 -8.553908e+08
## [16599,] -1.673455e+08 -9.596726e+07
## [16600,] -2.056154e+07 -2.236474e+07
## [16601,] -2.257940e+07 -2.373131e+07
## [16602,] -3.436309e+07 -3.086540e+07
## [16603,] -4.448354e+09 -1.717180e+09
## [16604,] -2.349295e+09 -7.231999e+08
## [16605,] -1.362371e+08 -8.661392e+07
## [16606,] -2.096970e+07 -2.274051e+07
## [16607,] -2.228975e+07 -2.353419e+07
## [16608,] -3.480210e+07 -3.116119e+07
## [16609,] -3.964679e+09 -1.421938e+09
## [16610,] -3.256401e+09 -1.108728e+09
## [16611,] -1.495691e+08 -8.882774e+07
## [16612,] -2.105275e+07 -2.277002e+07
## [16613,] -2.241660e+07 -2.365499e+07
## [16614,] -3.466887e+07 -3.114188e+07
## [16615,] -4.154297e+09 -1.291306e+09
## [16616,] -2.975397e+09 -1.028983e+09
## [16617,] -1.506699e+08 -8.888536e+07
## [16618,] -2.115587e+07 -2.284160e+07
## [16619,] -2.266142e+07 -2.382976e+07
## [16620,] -3.413427e+07 -3.083434e+07
```



```

## [16621,] -3.269691e+09 -1.091806e+09
## [16622,] -2.387881e+09 -8.311699e+08
## [16623,] -1.408882e+08 -8.756646e+07
## [16624,] -2.108800e+07 -2.277107e+07
## [16625,] -2.267444e+07 -2.380480e+07
## [16626,] -3.511375e+07 -3.142929e+07
## [16627,] -3.059572e+09 -1.054916e+09
## [16628,] -2.285640e+09 -7.489446e+08
## [16629,] -1.432064e+08 -8.762367e+07
## [16630,] -2.108199e+07 -2.290025e+07
## [16631,] -2.255940e+07 -2.388791e+07
## [16632,] -3.432677e+07 -3.097733e+07
## [16633,] -3.279570e+09 -1.116122e+09
## [16634,] -2.499547e+09 -8.638735e+08
## [16635,] -1.400407e+08 -8.611983e+07
## [16636,] -2.135733e+07 -2.300082e+07
## [16637,] -2.254130e+07 -2.380222e+07
## [16638,] -3.645184e+07 -3.284661e+07
## [16639,] -3.300866e+09 -1.066810e+09
## [16640,] -2.748718e+09 -8.830067e+08
## [16641,] -1.486083e+08 -8.749930e+07
## [16642,] -2.121986e+07 -2.281537e+07
## [16643,] -2.265791e+07 -2.386449e+07
## [16644,] -3.471031e+07 -3.119452e+07
## [16645,] -3.184116e+09 -1.109853e+09
## [16646,] -2.427006e+09 -7.621124e+08
## [16647,] -1.501621e+08 -9.047560e+07
## [16648,] -2.095290e+07 -2.269459e+07
## [16649,] -2.254910e+07 -2.380066e+07
## [16650,] -3.497242e+07 -3.132237e+07
## [16651,] -2.986906e+09 -1.054370e+09
## [16652,] -2.215576e+09 -7.753524e+08
## [16653,] -1.394248e+08 -8.621913e+07
## [16654,] -2.070187e+07 -2.246157e+07
## [16655,] -2.258486e+07 -2.384219e+07
## [16656,] -3.499050e+07 -3.120564e+07
## [16657,] -3.120722e+09 -1.072556e+09
## [16658,] -2.714244e+09 -8.826888e+08
## [16659,] -1.515791e+08 -9.157623e+07
## [16660,] -2.104978e+07 -2.277405e+07
## [16661,] -2.265539e+07 -2.383316e+07
## [16662,] -3.442533e+07 -3.101762e+07
## [16663,] -4.140030e+09 -1.399385e+09
## [16664,] -3.053716e+09 -1.033112e+09
## [16665,] -1.472480e+08 -9.019389e+07
## [16666,] -2.131769e+07 -2.291681e+07
## [ reached getOption("max.print") -- omitted 37274 rows ]

```

- Utilicen la función `optim` de R para numericamente el máximo de la función de verosimilitud. Si lo hacen correctamente, su solución debe coincidir con la del método `lm`.

```
#res <- optim(par = c(beta,sigma), fn = funcVerosim, method = c("L-BFGS-B"), lower =  
c(-Inf, 0), upper = c(Inf, Inf))
```