MultipleRegression.R

2019-11-07

```
##Multivariate Project
##TELECOM-CHURN-ANALYSIS
##Author : Priyanshi Bajpai

##Importing Libraries

library(ggplot2)
library(dplyr)
```

```
## Warning: package 'dplyr' was built under R version 3.4.4
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library (stringr)
```

```
## Warning: package 'stringr' was built under R version 3.4.4
```

```
library(data.table)
```

```
## Warning: package 'data.table' was built under R version 3.4.4
```

```
##
## Attaching package: 'data.table'
```

```
## The following objects are masked from 'package:dplyr':
##
##     between, first, last
```

```
library(grid)
library(gridExtra)
```

```
##
## Attaching package: 'gridExtra'
```

```
## The following object is masked from 'package:dplyr':
##
##     combine
```

```
library(corrplot)

## Warning: package 'corrplot' was built under R version 3.4.4

## corrplot 0.84 loaded

library(scales)
library(qqplotr)

## Warning: package 'qqplotr' was built under R version 3.4.4

##
## Attaching package: 'qqplotr'

## The following objects are masked from 'package:ggplot2':
##
##     stat_qq_line, StatQqLine

library(MASS)

## Warning: package 'MASS' was built under R version 3.4.4

##
## Attaching package: 'MASS'

## The following object is masked from 'package:dplyr':
##
##     select

library(DMwR)

## Warning: package 'DMwR' was built under R version 3.4.4

## Loading required package: lattice

## Warning: package 'lattice' was built under R version 3.4.4

library(car)

## Warning: package 'car' was built under R version 3.4.4

## Loading required package: carData

## Warning: package 'carData' was built under R version 3.4.4

##
## Attaching package: 'car'

## The following object is masked from 'package:dplyr':
##
##     recode

library(e1071)
library(caret)
```

```
library(caTools)
library(pROC)
```

Warning: package 'pROC' was built under R version 3.4.4

Type 'citation("pROC")' for a citation.

##
Attaching package: 'pROC'

The following objects are masked from 'package:stats':
##
cov, smooth, var

```
library(tidyverse)
```

Warning: package 'tidyverse' was built under R version 3.4.4

-- Attaching packages --
-- tidyverse 1.2.1 --

v tibble 2.1.1   v readr   1.1.1
v tidyr   0.8.3   v purrr   0.3.2
v tibble 2.1.1   v forcats 0.3.0

Warning: package 'tibble' was built under R version 3.4.4

Warning: package 'tidyr' was built under R version 3.4.4

Warning: package 'readr' was built under R version 3.4.4

Warning: package 'purrr' was built under R version 3.4.4

Warning: package 'forcats' was built under R version 3.4.4

-- Conflicts ---
tidyverse_conflicts() --
x data.table::between()   masks dplyr::between()
x readr::col_factor()   masks scales::col_factor()
x gridExtra::combine()   masks dplyr::combine()
x purrr::discard()   masks scales::discard()
x dplyr::filter()   masks stats::filter()
x data.table::first()   masks dplyr::first()
x dplyr::lag()   masks stats::lag()
x data.table::last()   masks dplyr::last()
x purrr::lift()   masks caret::lift()
x car::recode()   masks dplyr::recode()
x MASS::select()   masks dplyr::select()
x purrr::some()   masks car::some()
x qqplotr::stat_qq_line() masks ggplot2::stat_qq_line()
x purrr::transpose()   masks data.table::transpose()

```
library(MVA)
```

```
## Warning: package 'MVA' was built under R version 3.4.4

## Loading required package: HSAUR2

## Warning: package 'HSAUR2' was built under R version 3.4.4

## Loading required package: tools
```

```r
library(GGally)
```

```
## Warning: package 'GGally' was built under R version 3.4.4

##
## Attaching package: 'GGally'

## The following object is masked from 'package:dplyr':
##
##      nasa
```

```r
library(gvlma)
```

```
## Warning: package 'gvlma' was built under R version 3.4.4
```

##Importing Dataset and doing preliminary analysis

#Importing CSV file from drive on my local computer and viewing it

```r
tablechurn<-read.csv("C:/Users/SHIVANSHI/Desktop/Priyanshi/MVA/Telecom Churn
Analysis Data.csv")
tablechurn <- as.data.frame(tablechurn)
View(tablechurn)
```

#Checking the Dimension of the dataset

```r
dim(tablechurn)
```

```
## [1] 7043   21
```

#Viewing the first 4 rows of the dataset to get the overview of the dataset

```r
head(tablechurn,4)
```

```
##   CustomerID Gender SeniorCitizen Partner Dependents Tenure PhoneService
## 1 7590-VHVEG Female             0     Yes         No      1           No
## 2 5575-GNVDE   Male             0      No         No     34          Yes
## 3 3668-QPYBK   Male             0      No         No      2          Yes
## 4 7795-CFOCW   Male             0      No         No     45           No
##      MultipleLines InternetService OnlineSecurity OnlineBackup
## 1 No phone service             DSL             No          Yes
## 2               No             DSL            Yes           No
## 3               No             DSL            Yes          Yes
## 4 No phone service             DSL            Yes           No
##   DeviceProtection TechSupport StreamingTV StreamingMovies      Contract
```

```
## 1               No         No         No              No Month-to-month
## 2              Yes         No         No              No        One year
## 3               No         No         No              No Month-to-month
## 4              Yes        Yes         No              No        One year
##    PaperlessBilling              PaymentMethod MonthlyCharges TotalCharges
## 1             Yes          Electronic check          29.85        29.85
## 2              No             Mailed check          56.95      1889.50
## 3             Yes             Mailed check          53.85       108.15
## 4              No Bank transfer (automatic)          42.30      1840.75
##    Churn
## 1    No
## 2    No
## 3   Yes
## 4    No
```

#Gaining more insight about the kind of data stored in each column

summary(tablechurn)

```
##        CustomerID       Gender      SeniorCitizen     Partner      Dependents
##   0002-ORFBO:   1   Female:3488    Min.   :0.0000   No :3641    No :4933
##   0003-MKNFE:   1   Male  :3555    1st Qu.:0.0000   Yes:3402    Yes:2110
##   0004-TLHLJ:   1                  Median :0.0000
##   0011-IGKFF:   1                  Mean   :0.1621
##   0013-EXCHZ:   1                  3rd Qu.:0.0000
##   0013-MHZWF:   1                  Max.   :1.0000
##   (Other)   :7037
##     Tenure        PhoneService          MultipleLines       InternetService
##   Min.   : 0.00   No : 682    No                :3390    DSL          :2421
##   1st Qu.: 9.00   Yes:6361    No phone service: 682    Fiber optic:3096
##   Median :29.00               Yes               :2971    No           :1526
##   Mean   :32.37
##   3rd Qu.:55.00
##   Max.   :72.00
##
##            OnlineSecurity               OnlineBackup
##   No                 :3498   No                 :3088
##   No internet service:1526   No internet service:1526
##   Yes                :2019   Yes                :2429
##
##
##
##
##            DeviceProtection              TechSupport
##   No                 :3095   No                 :3473
##   No internet service:1526   No internet service:1526
##   Yes                :2422   Yes                :2044
##
##
##
```

```
## 
##            StreamingTV                StreamingMovies
##  No                  :2810  No                  :2785
##  No internet service:1526  No internet service:1526
##  Yes                 :2707  Yes                 :2732
## 
## 
## 
## 
##            Contract     PaperlessBilling                PaymentMethod
##  Month-to-month:3875  No :2872      Bank transfer (automatic):1544
##  One year      :1473  Yes:4171      Credit card (automatic)  :1522
##  Two year      :1695                Electronic check         :2365
##                                     Mailed check             :1612
## 
## 
## 
##  MonthlyCharges    TotalCharges    Churn
##  Min.   : 18.25  Min.   :  18.8  No :5174
##  1st Qu.: 35.50  1st Qu.: 401.4  Yes:1869
##  Median : 70.35  Median :1397.5
##  Mean   : 64.76  Mean   :2283.3
##  3rd Qu.: 89.85  3rd Qu.:3794.7
##  Max.   :118.75  Max.   :8684.8
##                  NA's   :11
```

```r
glimpse(tablechurn)
```

```
## Observations: 7,043
## Variables: 21
## $ CustomerID       <fct> 7590-VHVEG, 5575-GNVDE, 3668-QPYBK, 7795-CFOC...
## $ Gender           <fct> Female, Male, Male, Male, Female, Female, Mal...
## $ SeniorCitizen    <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ Partner          <fct> Yes, No, No, No, No, No, No, No, Yes, No, Yes...
## $ Dependents       <fct> No, No, No, No, No, No, Yes, No, No, Yes, Yes...
## $ Tenure           <int> 1, 34, 2, 45, 2, 8, 22, 10, 28, 62, 13, 16, 5...
## $ PhoneService     <fct> No, Yes, Yes, No, Yes, Yes, Yes, No, Yes, Yes...
## $ MultipleLines    <fct> No phone service, No, No, No phone service, N...
## $ InternetService  <fct> DSL, DSL, DSL, DSL, Fiber optic, Fiber optic,...
## $ OnlineSecurity   <fct> No, Yes, Yes, Yes, No, No, No, Yes, No, Yes, ...
## $ OnlineBackup     <fct> Yes, No, Yes, No, No, No, Yes, No, No, Yes, N...
## $ DeviceProtection <fct> No, Yes, No, Yes, No, Yes, No, No, Yes, No, N...
## $ TechSupport      <fct> No, No, No, Yes, No, No, No, No, Yes, No, No,...
## $ StreamingTV      <fct> No, No, No, No, No, Yes, Yes, No, Yes, No, No...
## $ StreamingMovies  <fct> No, No, No, No, No, Yes, No, No, Yes, No, No,...
## $ Contract         <fct> Month-to-month, One year, Month-to-month, One...
## $ PaperlessBilling <fct> Yes, No, Yes, No, Yes, Yes, Yes, No, Yes, No,...
## $ PaymentMethod    <fct> Electronic check, Mailed check, Mailed check,...
## $ MonthlyCharges   <dbl> 29.85, 56.95, 53.85, 42.30, 70.70, 99.65, 89....
```

```
## $ TotalCharges      <dbl> 29.85, 1889.50, 108.15, 1840.75, 151.65, 820....
## $ Churn             <fct> No, No, Yes, No, Yes, Yes, No, No, Yes, No, N...
```

#The above results give us an insight that TotalCharges and MonthlyCharges
are numerical values
#SeniorCitizen and Tenure are stored as numerical which need to be converted
to categorical variables

Performing Data Cleaning and Formatting

#Converting SeniorCitizen numerical variable into Categorical Variable

```r
tablechurn$SeniorCitizen<-factor(tablechurn$SeniorCitizen,levels = c(0
,1),labels = c('no','yes'))
```

#Converting tenure values into ranges of 12 months

```r
tablechurn <- mutate(tablechurn,Tenure_Range = Tenure)
cut(tablechurn$Tenure_Range,6,labels = c('0-1 Years','1-2 Years','2-3
Years','4-5 Years','5-6 Years','6-7 Years'))
```

```
##     [1] 0-1 Years 2-3 Years 0-1 Years 4-5 Years 0-1 Years 0-1 Years
##     [7] 1-2 Years 0-1 Years 2-3 Years 6-7 Years 1-2 Years 1-2 Years
##    [13] 5-6 Years 5-6 Years 2-3 Years 6-7 Years 5-6 Years 6-7 Years
##    [19] 0-1 Years 1-2 Years 0-1 Years 0-1 Years 0-1 Years 5-6 Years
##    [25] 5-6 Years 2-3 Years 4-5 Years 0-1 Years 6-7 Years 1-2 Years
##    [31] 6-7 Years 0-1 Years 2-3 Years 0-1 Years 0-1 Years 6-7 Years
##    [37] 0-1 Years 4-5 Years 2-3 Years 0-1 Years 0-1 Years 6-7 Years
##    [43] 1-2 Years 6-7 Years 1-2 Years 5-6 Years 0-1 Years 0-1 Years
##    [49] 5-6 Years 6-7 Years 4-5 Years 1-2 Years 2-3 Years 0-1 Years
##    [55] 5-6 Years 1-2 Years 6-7 Years 6-7 Years 2-3 Years 6-7 Years
##    [61] 4-5 Years 5-6 Years 6-7 Years 1-2 Years 0-1 Years 0-1 Years
##    [67] 4-5 Years 2-3 Years 5-6 Years 0-1 Years 0-1 Years 5-6 Years
##    [73] 6-7 Years 6-7 Years 0-1 Years 5-6 Years 4-5 Years 0-1 Years
##    [79] 2-3 Years 4-5 Years 0-1 Years 0-1 Years 0-1 Years 4-5 Years
##    [85] 5-6 Years 0-1 Years 2-3 Years 4-5 Years 4-5 Years 2-3 Years
##    [91] 2-3 Years 0-1 Years 6-7 Years 6-7 Years 6-7 Years 0-1 Years
##    [97] 6-7 Years 0-1 Years 5-6 Years 2-3 Years 0-1 Years 0-1 Years
##   [103] 4-5 Years 6-7 Years 6-7 Years 0-1 Years 6-7 Years 2-3 Years
##   [109] 4-5 Years 6-7 Years 5-6 Years 5-6 Years 4-5 Years 4-5 Years
##   [115] 6-7 Years 0-1 Years 2-3 Years 0-1 Years 4-5 Years 2-3 Years
##   [121] 5-6 Years 0-1 Years 0-1 Years 0-1 Years 0-1 Years 2-3 Years
##   [127] 2-3 Years 6-7 Years 0-1 Years 6-7 Years 1-2 Years 2-3 Years
##   [133] 6-7 Years 0-1 Years 0-1 Years 4-5 Years 1-2 Years 6-7 Years
##   [139] 5-6 Years 0-1 Years 6-7 Years 0-1 Years 6-7 Years 6-7 Years
##   [145] 6-7 Years 6-7 Years 0-1 Years 0-1 Years 2-3 Years 1-2 Years
##   [151] 0-1 Years 0-1 Years 6-7 Years 6-7 Years 0-1 Years 1-2 Years
##   [157] 1-2 Years 1-2 Years 1-2 Years 0-1 Years 1-2 Years 1-2 Years
##   [163] 0-1 Years 5-6 Years 0-1 Years 6-7 Years 0-1 Years 6-7 Years
##   [169] 5-6 Years 1-2 Years 4-5 Years 0-1 Years 1-2 Years 5-6 Years
```

```
##   [175] 2-3 Years 2-3 Years 1-2 Years 0-1 Years 1-2 Years 6-7 Years
##   [181] 0-1 Years 0-1 Years 0-1 Years 2-3 Years 1-2 Years 0-1 Years
##   [187] 1-2 Years 0-1 Years 1-2 Years 4-5 Years 4-5 Years 0-1 Years
##   [193] 6-7 Years 6-7 Years 5-6 Years 1-2 Years 1-2 Years 5-6 Years
##   [199] 6-7 Years 0-1 Years 2-3 Years 1-2 Years 6-7 Years 1-2 Years
##   [205] 4-5 Years 2-3 Years 6-7 Years 0-1 Years 1-2 Years 6-7 Years
##   [211] 0-1 Years 0-1 Years 6-7 Years 2-3 Years 1-2 Years 5-6 Years
##   [217] 6-7 Years 6-7 Years 6-7 Years 0-1 Years 0-1 Years 6-7 Years
##   [223] 0-1 Years 0-1 Years 0-1 Years 1-2 Years 2-3 Years 0-1 Years
##   [229] 2-3 Years 4-5 Years 5-6 Years 5-6 Years 0-1 Years 6-7 Years
##   [235] 2-3 Years 0-1 Years 0-1 Years 1-2 Years 0-1 Years 1-2 Years
##   [241] 6-7 Years 6-7 Years 4-5 Years 6-7 Years 1-2 Years 0-1 Years
##   [247] 4-5 Years 1-2 Years 0-1 Years 4-5 Years 5-6 Years 0-1 Years
##   [253] 0-1 Years 2-3 Years 0-1 Years 6-7 Years 6-7 Years 5-6 Years
##   [259] 0-1 Years 2-3 Years 0-1 Years 1-2 Years 5-6 Years 2-3 Years
##   [265] 4-5 Years 6-7 Years 5-6 Years 1-2 Years 5-6 Years 6-7 Years
##   [271] 1-2 Years 5-6 Years 0-1 Years 1-2 Years 0-1 Years 0-1 Years
##   [277] 5-6 Years 1-2 Years 1-2 Years 0-1 Years 0-1 Years 0-1 Years
##   [283] 0-1 Years 6-7 Years 1-2 Years 1-2 Years 1-2 Years 0-1 Years
##   [289] 0-1 Years 0-1 Years 1-2 Years 2-3 Years 1-2 Years 0-1 Years
##   [295] 0-1 Years 0-1 Years 6-7 Years 2-3 Years 4-5 Years 0-1 Years
##   [301] 1-2 Years 0-1 Years 0-1 Years 6-7 Years 4-5 Years 5-6 Years
##   [307] 2-3 Years 2-3 Years 4-5 Years 4-5 Years 0-1 Years 1-2 Years
##   [313] 4-5 Years 0-1 Years 0-1 Years 5-6 Years 6-7 Years 4-5 Years
##   [319] 1-2 Years 2-3 Years 5-6 Years 6-7 Years 0-1 Years 0-1 Years
##   [325] 6-7 Years 5-6 Years 0-1 Years 0-1 Years 2-3 Years 1-2 Years
##   [331] 2-3 Years 0-1 Years 4-5 Years 0-1 Years 0-1 Years 6-7 Years
##   [337] 4-5 Years 6-7 Years 2-3 Years 6-7 Years 2-3 Years 6-7 Years
##   [343] 6-7 Years 6-7 Years 4-5 Years 0-1 Years 0-1 Years 6-7 Years
##   [349] 1-2 Years 6-7 Years 4-5 Years 1-2 Years 0-1 Years 0-1 Years
##   [355] 1-2 Years 0-1 Years 1-2 Years 6-7 Years 2-3 Years 4-5 Years
##   [361] 0-1 Years 4-5 Years 5-6 Years 4-5 Years 1-2 Years 0-1 Years
##   [367] 1-2 Years 0-1 Years 6-7 Years 6-7 Years 2-3 Years 0-1 Years
##   [373] 1-2 Years 5-6 Years 4-5 Years 4-5 Years 0-1 Years 2-3 Years
##   [379] 6-7 Years 1-2 Years 4-5 Years 0-1 Years 6-7 Years 0-1 Years
##   [385] 4-5 Years 0-1 Years 5-6 Years 4-5 Years 4-5 Years 0-1 Years
##   [391] 2-3 Years 2-3 Years 0-1 Years 1-2 Years 4-5 Years 6-7 Years
##   [397] 2-3 Years 2-3 Years 2-3 Years 1-2 Years 2-3 Years 0-1 Years
##   [403] 6-7 Years 6-7 Years 1-2 Years 6-7 Years 5-6 Years 2-3 Years
##   [409] 0-1 Years 0-1 Years 0-1 Years 4-5 Years 2-3 Years 5-6 Years
##   [415] 4-5 Years 1-2 Years 6-7 Years 4-5 Years 1-2 Years 0-1 Years
##   [421] 0-1 Years 0-1 Years 2-3 Years 4-5 Years 0-1 Years 5-6 Years
##   [427] 5-6 Years 0-1 Years 1-2 Years 6-7 Years 6-7 Years 6-7 Years
##   [433] 0-1 Years 0-1 Years 4-5 Years 2-3 Years 2-3 Years 6-7 Years
##   [439] 2-3 Years 0-1 Years 1-2 Years 5-6 Years 5-6 Years 1-2 Years
##   [445] 2-3 Years 5-6 Years 0-1 Years 5-6 Years 0-1 Years 6-7 Years
##   [451] 6-7 Years 1-2 Years 5-6 Years 2-3 Years 6-7 Years 1-2 Years
##   [457] 2-3 Years 2-3 Years 0-1 Years 0-1 Years 0-1 Years 1-2 Years
##   [463] 0-1 Years 0-1 Years 6-7 Years 6-7 Years 6-7 Years 6-7 Years
##   [469] 4-5 Years 1-2 Years 1-2 Years 0-1 Years 0-1 Years 1-2 Years
```

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##   [475] 0-1 Years 1-2 Years 2-3 Years 0-1 Years 0-1 Years 1-2 Years
##   [481] 0-1 Years 4-5 Years 1-2 Years 6-7 Years 0-1 Years 6-7 Years
##   [487] 1-2 Years 6-7 Years 0-1 Years 0-1 Years 6-7 Years 0-1 Years
##   [493] 0-1 Years 6-7 Years 0-1 Years 1-2 Years 2-3 Years 6-7 Years
##   [499] 0-1 Years 0-1 Years 2-3 Years 6-7 Years 6-7 Years 5-6 Years
##   [505] 6-7 Years 1-2 Years 0-1 Years 0-1 Years 0-1 Years 0-1 Years
##   [511] 1-2 Years 6-7 Years 0-1 Years 5-6 Years 2-3 Years 4-5 Years
##   [517] 2-3 Years 0-1 Years 2-3 Years 0-1 Years 6-7 Years 2-3 Years
##   [523] 5-6 Years 1-2 Years 2-3 Years 5-6 Years 6-7 Years 5-6 Years
##   [529] 2-3 Years 5-6 Years 1-2 Years 6-7 Years 0-1 Years 6-7 Years
##   [535] 0-1 Years 0-1 Years 6-7 Years 2-3 Years 6-7 Years 5-6 Years
##   [541] 6-7 Years 0-1 Years 0-1 Years 0-1 Years 1-2 Years 2-3 Years
##   [547] 4-5 Years 6-7 Years 5-6 Years 1-2 Years 6-7 Years 6-7 Years
##   [553] 5-6 Years 1-2 Years 2-3 Years 5-6 Years 0-1 Years 4-5 Years
##   [559] 0-1 Years 0-1 Years 5-6 Years 0-1 Years 0-1 Years 5-6 Years
##   [565] 0-1 Years 6-7 Years 1-2 Years 6-7 Years 2-3 Years 0-1 Years
##   [571] 5-6 Years 4-5 Years 0-1 Years 5-6 Years 2-3 Years 6-7 Years
##   [577] 2-3 Years 0-1 Years 2-3 Years 0-1 Years 0-1 Years 0-1 Years
##   [583] 0-1 Years 0-1 Years 0-1 Years 0-1 Years 5-6 Years 0-1 Years
##   [589] 6-7 Years 6-7 Years 6-7 Years 4-5 Years 6-7 Years 2-3 Years
##   [595] 0-1 Years 0-1 Years 1-2 Years 0-1 Years 5-6 Years 6-7 Years
##   [601] 1-2 Years 0-1 Years 6-7 Years 4-5 Years 2-3 Years 6-7 Years
##   [607] 4-5 Years 5-6 Years 6-7 Years 6-7 Years 0-1 Years 0-1 Years
##   [613] 6-7 Years 4-5 Years 5-6 Years 1-2 Years 0-1 Years 6-7 Years
##   [619] 5-6 Years 0-1 Years 0-1 Years 6-7 Years 4-5 Years 1-2 Years
##   [625] 0-1 Years 2-3 Years 1-2 Years 6-7 Years 6-7 Years 5-6 Years
##   [631] 4-5 Years 4-5 Years 6-7 Years 0-1 Years 4-5 Years 6-7 Years
##   [637] 2-3 Years 6-7 Years 5-6 Years 0-1 Years 6-7 Years 4-5 Years
##   [643] 0-1 Years 5-6 Years 1-2 Years 1-2 Years 0-1 Years 5-6 Years
##   [649] 0-1 Years 1-2 Years 0-1 Years 0-1 Years 2-3 Years 1-2 Years
##   [655] 0-1 Years 0-1 Years 6-7 Years 4-5 Years 0-1 Years 4-5 Years
##   [661] 0-1 Years 0-1 Years 0-1 Years 6-7 Years 5-6 Years 0-1 Years
##   [667] 0-1 Years 5-6 Years 0-1 Years 6-7 Years 5-6 Years 5-6 Years
##   [673] 0-1 Years 1-2 Years 5-6 Years 6-7 Years 4-5 Years 0-1 Years
##   [679] 0-1 Years 4-5 Years 0-1 Years 6-7 Years 0-1 Years 4-5 Years
##   [685] 0-1 Years 0-1 Years 5-6 Years 0-1 Years 5-6 Years 5-6 Years
##   [691] 0-1 Years 2-3 Years 4-5 Years 0-1 Years 1-2 Years 0-1 Years
##   [697] 6-7 Years 0-1 Years 4-5 Years 6-7 Years 6-7 Years 2-3 Years
##   [703] 2-3 Years 0-1 Years 0-1 Years 2-3 Years 6-7 Years 2-3 Years
##   [709] 2-3 Years 2-3 Years 0-1 Years 1-2 Years 5-6 Years 1-2 Years
##   [715] 6-7 Years 4-5 Years 6-7 Years 2-3 Years 2-3 Years 6-7 Years
##   [721] 0-1 Years 6-7 Years 0-1 Years 0-1 Years 2-3 Years 0-1 Years
##   [727] 1-2 Years 0-1 Years 2-3 Years 6-7 Years 4-5 Years 0-1 Years
##   [733] 2-3 Years 6-7 Years 2-3 Years 2-3 Years 2-3 Years 6-7 Years
##   [739] 4-5 Years 6-7 Years 4-5 Years 0-1 Years 0-1 Years 6-7 Years
##   [745] 0-1 Years 6-7 Years 6-7 Years 0-1 Years 4-5 Years 6-7 Years
##   [751] 2-3 Years 6-7 Years 0-1 Years 0-1 Years 0-1 Years 1-2 Years
##   [757] 6-7 Years 0-1 Years 1-2 Years 6-7 Years 0-1 Years 1-2 Years
##   [763] 0-1 Years 6-7 Years 6-7 Years 0-1 Years 1-2 Years 1-2 Years
##   [769] 4-5 Years 1-2 Years 0-1 Years 1-2 Years 0-1 Years 0-1 Years
```

```
##  [775] 2-3 Years 6-7 Years 0-1 Years 0-1 Years 5-6 Years 0-1 Years
##  [781] 6-7 Years 0-1 Years 2-3 Years 0-1 Years 6-7 Years 4-5 Years
##  [787] 6-7 Years 2-3 Years 1-2 Years 6-7 Years 5-6 Years 6-7 Years
##  [793] 0-1 Years 2-3 Years 0-1 Years 0-1 Years 2-3 Years 1-2 Years
##  [799] 0-1 Years 6-7 Years 6-7 Years 0-1 Years 4-5 Years 4-5 Years
##  [805] 0-1 Years 6-7 Years 1-2 Years 6-7 Years 4-5 Years 0-1 Years
##  [811] 5-6 Years 6-7 Years 4-5 Years 2-3 Years 0-1 Years 2-3 Years
##  [817] 0-1 Years 5-6 Years 1-2 Years 6-7 Years 6-7 Years 4-5 Years
##  [823] 4-5 Years 0-1 Years 6-7 Years 1-2 Years 0-1 Years 1-2 Years
##  [829] 5-6 Years 2-3 Years 5-6 Years 4-5 Years 6-7 Years 4-5 Years
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## [5527] 5-6 Years 6-7 Years 4-5 Years 0-1 Years 6-7 Years 6-7 Years
## [5533] 2-3 Years 1-2 Years 1-2 Years 5-6 Years 0-1 Years 6-7 Years
## [5539] 0-1 Years 1-2 Years 0-1 Years 6-7 Years 6-7 Years 1-2 Years
## [5545] 5-6 Years 1-2 Years 0-1 Years 0-1 Years 6-7 Years 0-1 Years
## [5551] 1-2 Years 1-2 Years 1-2 Years 0-1 Years 6-7 Years 6-7 Years
## [5557] 1-2 Years 0-1 Years 6-7 Years 1-2 Years 6-7 Years 0-1 Years
## [5563] 5-6 Years 0-1 Years 2-3 Years 1-2 Years 6-7 Years 5-6 Years
## [5569] 4-5 Years 0-1 Years 4-5 Years 6-7 Years 6-7 Years 0-1 Years
```

```
## [5575] 4-5 Years 6-7 Years 0-1 Years 5-6 Years 4-5 Years 6-7 Years
## [5581] 4-5 Years 6-7 Years 4-5 Years 2-3 Years 0-1 Years 0-1 Years
## [5587] 2-3 Years 4-5 Years 0-1 Years 4-5 Years 2-3 Years 0-1 Years
## [5593] 1-2 Years 2-3 Years 1-2 Years 0-1 Years 6-7 Years 1-2 Years
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## [5605] 1-2 Years 0-1 Years 1-2 Years 4-5 Years 1-2 Years 2-3 Years
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## [5617] 4-5 Years 0-1 Years 0-1 Years 1-2 Years 6-7 Years 0-1 Years
## [5623] 1-2 Years 4-5 Years 6-7 Years 1-2 Years 0-1 Years 0-1 Years
## [5629] 1-2 Years 0-1 Years 4-5 Years 0-1 Years 5-6 Years 0-1 Years
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## [5647] 0-1 Years 4-5 Years 2-3 Years 2-3 Years 4-5 Years 4-5 Years
## [5653] 0-1 Years 0-1 Years 6-7 Years 6-7 Years 0-1 Years 1-2 Years
## [5659] 1-2 Years 6-7 Years 4-5 Years 0-1 Years 0-1 Years 4-5 Years
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## [5671] 1-2 Years 6-7 Years 5-6 Years 0-1 Years 6-7 Years 0-1 Years
## [5677] 0-1 Years 4-5 Years 0-1 Years 0-1 Years 0-1 Years 2-3 Years
## [5683] 0-1 Years 4-5 Years 5-6 Years 4-5 Years 0-1 Years 4-5 Years
## [5689] 4-5 Years 0-1 Years 6-7 Years 0-1 Years 0-1 Years 6-7 Years
## [5695] 2-3 Years 6-7 Years 1-2 Years 6-7 Years 1-2 Years 1-2 Years
## [5701] 2-3 Years 1-2 Years 6-7 Years 6-7 Years 1-2 Years 0-1 Years
## [5707] 0-1 Years 0-1 Years 0-1 Years 0-1 Years 6-7 Years 1-2 Years
## [5713] 1-2 Years 5-6 Years 0-1 Years 2-3 Years 0-1 Years 6-7 Years
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## [5743] 6-7 Years 4-5 Years 4-5 Years 6-7 Years 0-1 Years 2-3 Years
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## [5779] 0-1 Years 4-5 Years 5-6 Years 2-3 Years 0-1 Years 0-1 Years
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## [5797] 4-5 Years 1-2 Years 0-1 Years 1-2 Years 1-2 Years 2-3 Years
## [5803] 4-5 Years 0-1 Years 6-7 Years 1-2 Years 0-1 Years 5-6 Years
## [5809] 6-7 Years 0-1 Years 1-2 Years 6-7 Years 0-1 Years 4-5 Years
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## [5821] 5-6 Years 6-7 Years 2-3 Years 1-2 Years 6-7 Years 0-1 Years
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## [5839] 5-6 Years 0-1 Years 6-7 Years 6-7 Years 1-2 Years 2-3 Years
## [5845] 0-1 Years 0-1 Years 0-1 Years 6-7 Years 6-7 Years 6-7 Years
## [5851] 1-2 Years 2-3 Years 1-2 Years 6-7 Years 1-2 Years 5-6 Years
## [5857] 0-1 Years 1-2 Years 6-7 Years 6-7 Years 0-1 Years 2-3 Years
## [5863] 1-2 Years 1-2 Years 4-5 Years 0-1 Years 0-1 Years 4-5 Years
## [5869] 0-1 Years 4-5 Years 0-1 Years 1-2 Years 0-1 Years 1-2 Years
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## [5881] 0-1 Years 2-3 Years 1-2 Years 1-2 Years 4-5 Years 1-2 Years
## [5887] 4-5 Years 1-2 Years 5-6 Years 5-6 Years 6-7 Years 0-1 Years
## [5893] 0-1 Years 0-1 Years 4-5 Years 4-5 Years 6-7 Years 6-7 Years
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## [5905] 6-7 Years 0-1 Years 1-2 Years 0-1 Years 0-1 Years 5-6 Years
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## [5989] 0-1 Years 0-1 Years 2-3 Years 1-2 Years 6-7 Years 0-1 Years
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## [6007] 1-2 Years 4-5 Years 1-2 Years 5-6 Years 1-2 Years 4-5 Years
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## [6019] 2-3 Years 4-5 Years 2-3 Years 1-2 Years 1-2 Years 5-6 Years
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## [6151] 2-3 Years 0-1 Years 1-2 Years 5-6 Years 6-7 Years 0-1 Years
## [6157] 2-3 Years 0-1 Years 0-1 Years 0-1 Years 2-3 Years 0-1 Years
## [6163] 5-6 Years 1-2 Years 4-5 Years 0-1 Years 2-3 Years 4-5 Years
## [6169] 0-1 Years 0-1 Years 0-1 Years 5-6 Years 0-1 Years 2-3 Years
```

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## [6187] 4-5 Years 0-1 Years 1-2 Years 6-7 Years 0-1 Years 4-5 Years
## [6193] 1-2 Years 1-2 Years 6-7 Years 0-1 Years 6-7 Years 1-2 Years
## [6199] 2-3 Years 4-5 Years 5-6 Years 0-1 Years 1-2 Years 6-7 Years
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## [6301] 6-7 Years 6-7 Years 0-1 Years 6-7 Years 0-1 Years 2-3 Years
## [6307] 6-7 Years 2-3 Years 0-1 Years 6-7 Years 5-6 Years 5-6 Years
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## [6319] 0-1 Years 5-6 Years 2-3 Years 2-3 Years 0-1 Years 4-5 Years
## [6325] 0-1 Years 1-2 Years 6-7 Years 2-3 Years 6-7 Years 4-5 Years
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## [6355] 6-7 Years 6-7 Years 0-1 Years 6-7 Years 6-7 Years 5-6 Years
## [6361] 0-1 Years 0-1 Years 0-1 Years 0-1 Years 2-3 Years 0-1 Years
## [6367] 6-7 Years 6-7 Years 0-1 Years 6-7 Years 4-5 Years 1-2 Years
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## [6379] 1-2 Years 0-1 Years 6-7 Years 0-1 Years 4-5 Years 1-2 Years
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## [6409] 6-7 Years 4-5 Years 6-7 Years 0-1 Years 6-7 Years 2-3 Years
## [6415] 4-5 Years 5-6 Years 6-7 Years 5-6 Years 2-3 Years 6-7 Years
## [6421] 2-3 Years 1-2 Years 5-6 Years 6-7 Years 6-7 Years 5-6 Years
## [6427] 4-5 Years 4-5 Years 0-1 Years 6-7 Years 1-2 Years 1-2 Years
## [6433] 2-3 Years 5-6 Years 0-1 Years 5-6 Years 6-7 Years 1-2 Years
## [6439] 0-1 Years 2-3 Years 2-3 Years 1-2 Years 6-7 Years 0-1 Years
## [6445] 2-3 Years 0-1 Years 5-6 Years 5-6 Years 5-6 Years 0-1 Years
## [6451] 2-3 Years 6-7 Years 1-2 Years 4-5 Years 4-5 Years 5-6 Years
## [6457] 5-6 Years 1-2 Years 0-1 Years 5-6 Years 4-5 Years 5-6 Years
## [6463] 0-1 Years 5-6 Years 5-6 Years 5-6 Years 1-2 Years 0-1 Years
## [6469] 1-2 Years 2-3 Years 0-1 Years 1-2 Years 5-6 Years 0-1 Years
```

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## [6475] 0-1 Years 1-2 Years 5-6 Years 6-7 Years 5-6 Years 0-1 Years
## [6481] 1-2 Years 0-1 Years 0-1 Years 1-2 Years 4-5 Years 6-7 Years
## [6487] 0-1 Years 6-7 Years 0-1 Years 0-1 Years 2-3 Years 0-1 Years
## [6493] 1-2 Years 1-2 Years 2-3 Years 0-1 Years 4-5 Years 5-6 Years
## [6499] 0-1 Years 0-1 Years 1-2 Years 6-7 Years 4-5 Years 6-7 Years
## [6505] 0-1 Years 5-6 Years 1-2 Years 5-6 Years 4-5 Years 0-1 Years
## [6511] 4-5 Years 6-7 Years 0-1 Years 1-2 Years 6-7 Years 2-3 Years
## [6517] 0-1 Years 0-1 Years 0-1 Years 6-7 Years 0-1 Years 1-2 Years
## [6523] 4-5 Years 1-2 Years 0-1 Years 5-6 Years 5-6 Years 0-1 Years
## [6529] 6-7 Years 0-1 Years 6-7 Years 2-3 Years 1-2 Years 2-3 Years
## [6535] 5-6 Years 2-3 Years 0-1 Years 6-7 Years 0-1 Years 2-3 Years
## [6541] 2-3 Years 1-2 Years 1-2 Years 6-7 Years 4-5 Years 0-1 Years
## [6547] 1-2 Years 6-7 Years 2-3 Years 0-1 Years 1-2 Years 6-7 Years
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## [6601] 0-1 Years 6-7 Years 4-5 Years 1-2 Years 0-1 Years 6-7 Years
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## [6613] 0-1 Years 0-1 Years 6-7 Years 0-1 Years 4-5 Years 4-5 Years
## [6619] 2-3 Years 0-1 Years 0-1 Years 4-5 Years 0-1 Years 0-1 Years
## [6625] 6-7 Years 0-1 Years 0-1 Years 5-6 Years 0-1 Years 6-7 Years
## [6631] 1-2 Years 2-3 Years 2-3 Years 0-1 Years 0-1 Years 1-2 Years
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## [6655] 0-1 Years 6-7 Years 4-5 Years 5-6 Years 2-3 Years 6-7 Years
## [6661] 0-1 Years 6-7 Years 4-5 Years 0-1 Years 2-3 Years 4-5 Years
## [6667] 2-3 Years 0-1 Years 4-5 Years 2-3 Years 0-1 Years 5-6 Years
## [6673] 2-3 Years 0-1 Years 0-1 Years 2-3 Years 4-5 Years 1-2 Years
## [6679] 1-2 Years 5-6 Years 4-5 Years 0-1 Years 6-7 Years 4-5 Years
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## [6691] 4-5 Years 4-5 Years 4-5 Years 2-3 Years 0-1 Years 6-7 Years
## [6697] 0-1 Years 2-3 Years 4-5 Years 5-6 Years 6-7 Years 2-3 Years
## [6703] 1-2 Years 0-1 Years 5-6 Years 1-2 Years 0-1 Years 6-7 Years
## [6709] 1-2 Years 5-6 Years 4-5 Years 5-6 Years 2-3 Years 6-7 Years
## [6715] 1-2 Years 0-1 Years 0-1 Years 5-6 Years 0-1 Years 6-7 Years
## [6721] 6-7 Years 5-6 Years 6-7 Years 4-5 Years 6-7 Years 4-5 Years
## [6727] 0-1 Years 1-2 Years 6-7 Years 6-7 Years 1-2 Years 1-2 Years
## [6733] 1-2 Years 2-3 Years 0-1 Years 6-7 Years 6-7 Years 6-7 Years
## [6739] 0-1 Years 0-1 Years 4-5 Years 0-1 Years 5-6 Years 0-1 Years
## [6745] 6-7 Years 5-6 Years 0-1 Years 5-6 Years 0-1 Years 6-7 Years
## [6751] 4-5 Years 5-6 Years 0-1 Years 5-6 Years 0-1 Years 4-5 Years
## [6757] 1-2 Years 5-6 Years 2-3 Years 5-6 Years 0-1 Years 0-1 Years
## [6763] 2-3 Years 6-7 Years 0-1 Years 6-7 Years 1-2 Years 5-6 Years
## [6769] 6-7 Years 4-5 Years 0-1 Years 2-3 Years 4-5 Years 4-5 Years
```

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## [6775] 0-1 Years 5-6 Years 6-7 Years 0-1 Years 6-7 Years 2-3 Years
## [6781] 1-2 Years 0-1 Years 0-1 Years 1-2 Years 1-2 Years 6-7 Years
## [6787] 0-1 Years 2-3 Years 2-3 Years 0-1 Years 6-7 Years 1-2 Years
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## [6805] 0-1 Years 6-7 Years 4-5 Years 0-1 Years 4-5 Years 0-1 Years
## [6811] 1-2 Years 0-1 Years 4-5 Years 6-7 Years 5-6 Years 6-7 Years
## [6817] 0-1 Years 6-7 Years 0-1 Years 5-6 Years 5-6 Years 1-2 Years
## [6823] 2-3 Years 0-1 Years 6-7 Years 2-3 Years 0-1 Years 5-6 Years
## [6829] 0-1 Years 0-1 Years 2-3 Years 0-1 Years 5-6 Years 1-2 Years
## [6835] 1-2 Years 6-7 Years 0-1 Years 0-1 Years 1-2 Years 0-1 Years
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## [6883] 6-7 Years 2-3 Years 0-1 Years 0-1 Years 0-1 Years 2-3 Years
## [6889] 0-1 Years 0-1 Years 5-6 Years 0-1 Years 4-5 Years 0-1 Years
## [6895] 0-1 Years 5-6 Years 0-1 Years 6-7 Years 1-2 Years 0-1 Years
## [6901] 5-6 Years 2-3 Years 5-6 Years 2-3 Years 6-7 Years 2-3 Years
## [6907] 2-3 Years 4-5 Years 0-1 Years 0-1 Years 6-7 Years 5-6 Years
## [6913] 0-1 Years 6-7 Years 4-5 Years 6-7 Years 4-5 Years 6-7 Years
## [6919] 2-3 Years 5-6 Years 2-3 Years 5-6 Years 0-1 Years 5-6 Years
## [6925] 0-1 Years 1-2 Years 5-6 Years 0-1 Years 4-5 Years 2-3 Years
## [6931] 0-1 Years 5-6 Years 0-1 Years 0-1 Years 6-7 Years 6-7 Years
## [6937] 0-1 Years 2-3 Years 6-7 Years 2-3 Years 6-7 Years 6-7 Years
## [6943] 6-7 Years 0-1 Years 0-1 Years 6-7 Years 4-5 Years 6-7 Years
## [6949] 4-5 Years 2-3 Years 0-1 Years 5-6 Years 4-5 Years 1-2 Years
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## [6961] 4-5 Years 1-2 Years 2-3 Years 0-1 Years 5-6 Years 6-7 Years
## [6967] 5-6 Years 2-3 Years 1-2 Years 0-1 Years 0-1 Years 1-2 Years
## [6973] 5-6 Years 5-6 Years 5-6 Years 1-2 Years 6-7 Years 1-2 Years
## [6979] 6-7 Years 0-1 Years 1-2 Years 0-1 Years 6-7 Years 1-2 Years
## [6985] 2-3 Years 4-5 Years 2-3 Years 2-3 Years 1-2 Years 1-2 Years
## [6991] 2-3 Years 0-1 Years 6-7 Years 5-6 Years 4-5 Years 5-6 Years
## [6997] 4-5 Years 2-3 Years 1-2 Years 0-1 Years 6-7 Years 0-1 Years
## [7003] 6-7 Years 2-3 Years 4-5 Years 1-2 Years 4-5 Years 6-7 Years
## [7009] 0-1 Years 1-2 Years 0-1 Years 0-1 Years 6-7 Years 4-5 Years
## [7015] 4-5 Years 2-3 Years 0-1 Years 5-6 Years 0-1 Years 4-5 Years
## [7021] 0-1 Years 0-1 Years 6-7 Years 6-7 Years 4-5 Years 1-2 Years
## [7027] 0-1 Years 1-2 Years 6-7 Years 0-1 Years 0-1 Years 5-6 Years
## [7033] 0-1 Years 4-5 Years 6-7 Years 1-2 Years 0-1 Years 6-7 Years
## [7039] 1-2 Years 6-7 Years 0-1 Years 0-1 Years 6-7 Years
## Levels: 0-1 Years 1-2 Years 2-3 Years 4-5 Years 5-6 Years 6-7 Years

tablechurn$Tenure_Range <- cut(tablechurn$Tenure_Range,6,labels = c('0-1
Years','1-2 Years','2-3 Years','4-5 Years','5-6 Years','6-7 Years'))
```

```r
#Checking if there are any NULL values in any of the columns
table(is.na(tablechurn))

##
##  FALSE    TRUE
## 154935      11

str_detect(tablechurn,'NA')

## Warning in stri_detect_regex(string, pattern, negate = negate, opts_regex
=
## opts(pattern)): argument is not an atomic vector; coercing

##  [1] FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [12] FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE  TRUE FALSE FALSE

setDT(tablechurn)
tablechurn[is.na(TotalCharges),NROW(TotalCharges)]

## [1] 11
```

#There are 11 rows out of 7043 rows that have null values.Hence removing
these rows since they are only 0.15% of total so we can afford to drop them

```r
tablechurn <- tablechurn[complete.cases(tablechurn), ]
```

#Replacing 'No Internet Service' values in OnlineSecurity,OnlineBackup
DeviceProtection,TechSupport,StreamingTV and StreamingMovies columns with
'No'

```r
tablechurn$OnlineSecurity[tablechurn$OnlineSecurity=='No internet service']
<- 'No'
tablechurn$OnlineBackup[tablechurn$OnlineBackup=='No internet service'] <-
'No'
tablechurn$DeviceProtection[tablechurn$DeviceProtection=='No internet
service'] <- 'No'
tablechurn$TechSupport[tablechurn$TechSupport=='No internet service'] <- 'No'
tablechurn$StreamingTV[tablechurn$StreamingTV=='No internet service'] <- 'No'
tablechurn$StreamingMovies[tablechurn$StreamingMovies=='No internet service']
<- 'No'
```

#Deleting the unused levels from the factor variables

```r
tablechurn$OnlineSecurity <- factor(tablechurn$OnlineSecurity)
tablechurn$OnlineBackup <- factor(tablechurn$OnlineBackup)
tablechurn$DeviceProtection <- factor(tablechurn$DeviceProtection)
tablechurn$TechSupport <- factor(tablechurn$TechSupport)
tablechurn$StreamingTV <- factor(tablechurn$StreamingTV)
```

#Converting Categorical Columns into numerical values
```r
tablechurn$Partner<-ifelse(tablechurn$Partner=='Yes', 1,2)
```

```r
tablechurn$Dependents<-ifelse(tablechurn$Dependents=='Yes', 1,2)
tablechurn$PhoneService<-ifelse(tablechurn$PhoneService=='Yes', 1,2)
tablechurn$OnlineBackup<-ifelse(tablechurn$OnlineBackup=='Yes', 1,2)
tablechurn$OnlineSecurity<-ifelse(tablechurn$OnlineSecurity=='Yes', 1,2)
tablechurn$DeviceProtection<-ifelse(tablechurn$DeviceProtection=='Yes', 1,2)
tablechurn$TechSupport<-ifelse(tablechurn$TechSupport=='Yes', 1,2)
tablechurn$StreamingTV<-ifelse(tablechurn$StreamingTV=='Yes', 1,2)
tablechurn$StreamingMovies<-ifelse(tablechurn$StreamingMovies=='Yes', 1,2)
tablechurn$PaperlessBilling<-ifelse(tablechurn$PaperlessBilling=='Yes', 1,2)
tablechurn$Churn<-ifelse(tablechurn$Churn=='Yes', 1,2)

#Converting Categorical Columns into numerical values
tablechurn$Gender<-factor(tablechurn$Gender,levels =
c('Female','Male'),labels = c(1,2))
tablechurn$MultipleLines<-factor(tablechurn$MultipleLines,levels =
c('No','Yes','No phone service'),labels = c(1,2,3))
tablechurn$InternetService<-factor(tablechurn$InternetService,levels =
c('No','Fiber optic','DSL'),labels = c(1,2,3))
tablechurn$Contract<-factor(tablechurn$Contract,levels = c('Month-to-
month','One year','Two year'),labels = c(1,2,3))
tablechurn$PaymentMethod<-factor(tablechurn$PaymentMethod,levels = c('Bank
transfer (automatic)',
                                                              'Credit
card (automatic)',

'Electronic check',
                                                              'Mailed
check'),labels = c(1,2,3,4))

#Checking the dimension of the dataset again after performing above changes

dim(tablechurn)

## [1] 7032    22

str(tablechurn)

## Classes 'data.table' and 'data.frame':   7032 obs. of  22 variables:
##  $ CustomerID      : Factor w/ 7043 levels "0002-ORFBO","0003-MKNFE",..:
5376 3963 2565 5536 6512 6552 1003 4771 5605 4535 ...
##  $ Gender          : Factor w/ 2 levels "1","2": 1 2 2 2 1 1 2 1 1 2 ...
##  $ SeniorCitizen   : Factor w/ 2 levels "no","yes": 1 1 1 1 1 1 1 1 1 1
...
##  $ Partner         : num  1 2 2 2 2 2 2 2 1 2 ...
##  $ Dependents      : num  2 2 2 2 2 2 1 2 2 1 ...
##  $ Tenure          : int  1 34 2 45 2 8 22 10 28 62 ...
##  $ PhoneService    : num  2 1 1 2 1 1 1 2 1 1 ...
##  $ MultipleLines   : Factor w/ 3 levels "1","2","3": 3 1 1 3 1 2 2 3 2 1
...
##  $ InternetService : Factor w/ 3 levels "1","2","3": 3 3 3 3 2 2 2 3 2 3
```

```
...
##  $ OnlineSecurity  : num  2 1 1 1 2 2 2 1 2 1 ...
##  $ OnlineBackup    : num  1 2 1 2 2 2 1 2 2 1 ...
##  $ DeviceProtection: num  2 1 2 1 2 1 2 2 1 2 ...
##  $ TechSupport     : num  2 2 2 1 2 2 2 2 1 2 ...
##  $ StreamingTV     : num  2 2 2 2 2 1 1 2 1 2 ...
##  $ StreamingMovies : num  2 2 2 2 2 1 2 2 1 2 ...
##  $ Contract        : Factor w/ 3 levels "1","2","3": 1 2 1 2 1 1 1 1 1 2
...
##  $ PaperlessBilling: num  1 2 1 2 1 1 1 2 1 2 ...
##  $ PaymentMethod   : Factor w/ 4 levels "1","2","3","4": 3 4 4 1 3 3 2 4 3
1 ...
##  $ MonthlyCharges  : num  29.9 57 53.9 42.3 70.7 ...
##  $ TotalCharges    : num  29.9 1889.5 108.2 1840.8 151.7 ...
##  $ Churn           : num  2 2 1 2 1 1 2 2 1 2 ...
##  $ Tenure_Range    : Factor w/ 6 levels "0-1 Years","1-2 Years",..: 1 3 1
4 1 1 2 1 3 6 ...
##  - attr(*, ".internal.selfref")=<externalptr>
```

##Converting factors into numeric columns
```
tablechurn$Gender<-as.numeric(tablechurn$Gender)
tablechurn$SeniorCitizen<-as.numeric(tablechurn$SeniorCitizen)
tablechurn$Tenure<-as.numeric(tablechurn$Tenure)
tablechurn$MultipleLines<-as.numeric(tablechurn$MultipleLines)
tablechurn$InternetService<-as.numeric(tablechurn$InternetService)
tablechurn$Contract<-as.numeric(tablechurn$Contract)
tablechurn$PaymentMethod<-as.numeric(tablechurn$PaymentMethod)

tablechurn$Churn<-as.integer(tablechurn$Churn)


str(tablechurn)
```
```
## Classes 'data.table' and 'data.frame':   7032 obs. of  22 variables:
##  $ CustomerID      : Factor w/ 7043 levels "0002-ORFBO","0003-MKNFE",..:
5376 3963 2565 5536 6512 6552 1003 4771 5605 4535 ...
##  $ Gender          : num  1 2 2 2 1 1 2 1 1 2 ...
##  $ SeniorCitizen   : num  1 1 1 1 1 1 1 1 1 1 ...
##  $ Partner         : num  1 2 2 2 2 2 2 2 1 2 ...
##  $ Dependents      : num  2 2 2 2 2 2 1 2 2 1 ...
##  $ Tenure          : num  1 34 2 45 2 8 22 10 28 62 ...
##  $ PhoneService    : num  2 1 1 2 1 1 1 2 1 1 ...
##  $ MultipleLines   : num  3 1 1 3 1 2 2 3 2 1 ...
##  $ InternetService : num  3 3 3 3 2 2 2 3 2 3 ...
##  $ OnlineSecurity  : num  2 1 1 1 2 2 2 1 2 1 ...
##  $ OnlineBackup    : num  1 2 1 2 2 2 1 2 2 1 ...
##  $ DeviceProtection: num  2 1 2 1 2 1 2 2 1 2 ...
##  $ TechSupport     : num  2 2 2 1 2 2 2 2 1 2 ...
##  $ StreamingTV     : num  2 2 2 2 2 1 1 2 1 2 ...
##  $ StreamingMovies : num  2 2 2 2 2 1 2 2 1 2 ...
##  $ Contract        : num  1 2 1 2 1 1 1 1 1 2 ...
```

```
##  $ PaperlessBilling: num  1 2 1 2 1 1 1 2 1 2 ...
##  $ PaymentMethod   : num  3 4 4 1 3 3 2 4 3 1 ...
##  $ MonthlyCharges  : num  29.9 57 53.9 42.3 70.7 ...
##  $ TotalCharges    : num  29.9 1889.5 108.2 1840.8 151.7 ...
##  $ Churn           : int  2 2 1 2 1 1 2 2 1 2 ...
##  $ Tenure_Range    : Factor w/ 6 levels "0-1 Years","1-2 Years",..: 1 3 1
4 1 1 2 1 3 6 ...
##  - attr(*, ".internal.selfref")=<externalptr>
```

```r
dim(tablechurn)
```

```
## [1] 7032    22
```

#MULTIPLE Regression

##Performing regression taking all independent variables

```r
fit <- lm(Churn~Gender+SeniorCitizen+Partner+Dependents+Tenure+PhoneService
        +MultipleLines+InternetService+OnlineBackup+OnlineSecurity
        +DeviceProtection+TechSupport+StreamingTV+StreamingMovies
        +Contract+PaperlessBilling+PaymentMethod+MonthlyCharges
        +TotalCharges, data=tablechurn)
```

```r
summary(fit)
```

```
##
## Call:
## lm(formula = Churn ~ Gender + SeniorCitizen + Partner + Dependents +
##     Tenure + PhoneService + MultipleLines + InternetService +
##     OnlineBackup + OnlineSecurity + DeviceProtection + TechSupport +
##     StreamingTV + StreamingMovies + Contract + PaperlessBilling +
##     PaymentMethod + MonthlyCharges + TotalCharges, data = tablechurn)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.16590 -0.29353  0.07249  0.26751  0.80298
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)      2.714e+00  9.660e-02  28.098  < 2e-16 ***
## Gender           3.950e-03  8.991e-03   0.439 0.660414
## SeniorCitizen   -5.014e-02  1.306e-02  -3.840 0.000124 ***
## Partner          1.714e-03  1.086e-02   0.158 0.874621
## Dependents      -2.389e-02  1.153e-02  -2.072 0.038282 *
## Tenure           1.677e-03  5.009e-04   3.348 0.000818 ***
## PhoneService    -1.394e-01  2.904e-02  -4.799 1.63e-06 ***
## MultipleLines   -2.248e-02  1.131e-02  -1.987 0.046912 *
## InternetService  9.770e-03  8.449e-03   1.156 0.247568
## OnlineBackup    -5.578e-02  1.164e-02  -4.792 1.68e-06 ***
## OnlineSecurity  -9.139e-02  1.214e-02  -7.526 5.88e-14 ***
```

```
## DeviceProtection -4.199e-02  1.193e-02  -3.518 0.000437 ***
## TechSupport     -9.267e-02  1.229e-02  -7.541 5.23e-14 ***
## StreamingTV     -1.756e-02  1.286e-02  -1.366 0.172065
## StreamingMovies -1.631e-02  1.285e-02  -1.269 0.204469
## Contract         4.278e-02  8.513e-03   5.025 5.16e-07 ***
## PaperlessBilling 5.032e-02  1.002e-02   5.020 5.28e-07 ***
## PaymentMethod   -7.811e-03  4.582e-03  -1.705 0.088325 .
## MonthlyCharges  -7.487e-03  3.787e-04 -19.771  < 2e-16 ***
## TotalCharges     5.178e-05  6.456e-06   8.020 1.23e-15 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3766 on 7012 degrees of freedom
## Multiple R-squared:  0.2752, Adjusted R-squared:  0.2733
## F-statistic: 140.1 on 19 and 7012 DF,  p-value: < 2.2e-16
```

coefficients(fit)

```
##      (Intercept)          Gender    SeniorCitizen          Partner
##     2.714155e+00    3.950385e-03    -5.014032e-02    1.714374e-03
##        Dependents          Tenure     PhoneService    MultipleLines
##     -2.388902e-02    1.677144e-03    -1.393886e-01    -2.247510e-02
##   InternetService     OnlineBackup   OnlineSecurity DeviceProtection
##     9.770498e-03    -5.578451e-02    -9.139497e-02    -4.198796e-02
##       TechSupport      StreamingTV  StreamingMovies         Contract
##     -9.267124e-02    -1.756008e-02    -1.631069e-02    4.277958e-02
## PaperlessBilling    PaymentMethod   MonthlyCharges     TotalCharges
##     5.032174e-02    -7.810663e-03    -7.487043e-03    5.178225e-05
```

confint(fit,level=0.95)

```
##                         2.5 %        97.5 %
## (Intercept)       2.524795e+00  2.903514e+00
## Gender           -1.367509e-02  2.157586e-02
## SeniorCitizen    -7.573475e-02 -2.454588e-02
## Partner          -1.958311e-02  2.301186e-02
## Dependents       -4.648785e-02 -1.290193e-03
## Tenure            6.952143e-04  2.659074e-03
## PhoneService     -1.963237e-01 -8.245341e-02
## MultipleLines    -4.464321e-02 -3.069874e-04
## InternetService  -6.792601e-03  2.633360e-02
## OnlineBackup     -7.860242e-02 -3.296659e-02
## OnlineSecurity   -1.152002e-01 -6.758976e-02
## DeviceProtection -6.538174e-02 -1.859419e-02
## TechSupport      -1.167600e-01 -6.858252e-02
## StreamingTV      -4.276481e-02  7.644647e-03
## StreamingMovies  -4.150602e-02  8.884647e-03
## Contract          2.609097e-02  5.946819e-02
## PaperlessBilling  3.067289e-02  6.997059e-02
## PaymentMethod    -1.679332e-02  1.171998e-03
```

```
## MonthlyCharges    -8.229400e-03 -6.744687e-03
## TotalCharges       3.912607e-05  6.443843e-05
```

```r
# Predicted Values
fitted(fit)
```

```
##        1        2        3        4        5        6        7        8
## 1.578780 1.880416 1.678410 1.937790 1.401416 1.282747 1.476809 1.688546
##        9       10       11       12       13       14       15       16
## 1.483933 2.077254 1.717267 1.959292 1.716204 1.614848 1.574554 2.055288
##       17       18       19       20       21       22       23       24
## 1.980638 1.946143 1.775126 1.491103 1.463953 1.903086 1.808091 1.977252
##       25       26       27       28       29       30       31       32
## 2.043183 1.807653 1.593758 1.654338 2.093027 1.579966 1.968530 1.253056
##       33       34       35       36       37       38       39       40
## 1.965696 1.831151 1.614298 2.076464 1.426442 1.670198 1.477226 1.331630
##       41       42       43       44       45       46       47       48
## 1.766935 2.038720 1.912051 2.059164 1.664647 1.565201 1.671200 1.344092
##       49       50       51       52       53       54       55       56
## 1.930623 2.104153 1.515463 1.465457 1.676756 1.351189 2.021071 1.291050
##       57       58       59       60       61       62       63       64
## 1.781483 1.805298 1.969694 1.881547 1.541334 1.699777 2.046809 1.809192
##       65       66       67       68       69       70       71       72
## 1.333968 1.565537 1.674989 1.870027 2.064647 1.513946 1.705424 1.965679
##       73       74       75       76       77       78       79       80
## 1.873543 2.010794 1.700504 1.747586 1.846266 1.770401 1.664160 1.904618
##       81       82       83       84       85       86       87       88
## 1.372681 1.611991 1.450257 1.676852 1.990957 1.317690 1.803056 2.064079
##       89       90       91       92       93       94       95       96
## 1.985485 1.655493 1.678477 1.462609 2.048314 1.773511 1.885400 1.465507
##       97       98       99      100      101      102      103      104
## 2.087871 1.812913 2.052542 1.433993 1.807719 1.839330 1.701129 1.843590
##      105      106      107      108      109      110      111      112
## 1.909429 1.623075 1.862220 1.797630 1.588948 2.125687 1.703197 2.067152
##      113      114      115      116      117      118      119      120
## 1.625557 1.483028 1.910856 1.505913 1.874101 1.365834 1.995244 1.598261
##      121      122      123      124      125      126      127      128
## 1.678007 1.813203 1.360900 1.735683 1.828319 1.756831 1.460416 2.024418
##      129      130      131      132      133      134      135      136
## 1.811065 1.825419 1.354619 1.678997 2.080151 1.503333 1.659097 1.921895
##      137      138      139      140      141      142      143      144
## 1.595700 2.082281 2.024825 1.337741 2.082207 1.667438 1.741134 1.848846
##      145      146      147      148      149      150      151      152
## 2.021598 1.969717 1.860476 1.595521 1.840735 1.714669 1.607434 1.311814
##      153      154      155      156      157      158      159      160
## 1.911209 2.136435 1.842904 1.451123 1.431457 1.928965 1.833269 1.880133
##      161      162      163      164      165      166      167      168
## 1.742501 1.536136 1.408051 1.959287 1.893565 2.077412 1.425178 2.103867
##      169      170      171      172      173      174      175      176
## 1.706550 1.873010 1.830838 1.298163 1.755045 1.689753 1.952199 1.848398
```

```
##      177      178      179      180      181      182      183      184
## 1.366191 1.492174 1.383646 1.975877 1.645693 1.636684 1.398348 1.846331
##      185      186      187      188      189      190      191      192
## 1.503334 1.560543 1.679969 1.673597 1.890233 1.785555 1.882053 1.392101
##      193      194      195      196      197      198      199      200
## 2.122525 2.006352 2.095801 1.584380 1.904834 1.728209 1.945436 1.827519
##      201      202      203      204      205      206      207      208
## 1.607545 1.557549 1.938621 1.461861 1.693158 1.722184 2.084625 1.397726
##      209      210      211      212      213      214      215      216
## 1.513385 1.881538 1.604401 1.609233 2.078333 1.951910 1.406809 1.815652
##      217      218      219      220      221      222      223      224
## 2.141182 2.030928 2.012778 1.399521 1.414931 2.065977 1.830162 1.708001
##      225      226      227      228      229      230      231      232
## 1.854783 1.637301 1.822625 1.578921 1.536051 1.948968 1.848374 1.817120
##      233      234      235      236      237      238      239      240
## 1.396043 2.103744 1.834308 1.560730 1.726035 1.449440 1.324249 1.935483
##      241      242      243      244      245      246      247      248
## 2.083875 1.987960 1.894560 1.842952 1.626327 1.471787 1.767586 1.452888
##      249      250      251      252      253      254      255      256
## 1.657543 1.701082 1.792042 1.475926 1.523516 1.823266 1.784062 1.956047
##      257      258      259      260      261      262      263      264
## 1.982088 1.845230 1.609013 1.618156 1.460869 1.274606 1.599191 1.859793
##      265      266      267      268      269      270      271      272
## 1.784124 2.101678 2.002073 1.484980 2.052810 2.006205 1.393881 2.083862
##      273      274      275      276      277      278      279      280
## 1.632151 1.426340 1.442752 1.437522 1.618962 1.678835 1.569121 1.693631
##      281      282      283      284      285      286      287      288
## 1.732877 1.694655 1.766519 1.938081 1.474004 1.507899 1.678816 1.453310
##      289      290      291      292      293      294      295      296
## 1.416179 1.644598 1.410053 1.912877 1.710600 1.273771 1.836325 1.807347
##      297      298      299      300      301      302      303      304
## 1.950786 1.407030 1.673911 1.481458 1.656382 1.193380 1.422811 2.010506
##      305      306      307      308      309      310      311      312
## 1.586482 2.006671 1.461325 1.841411 1.513208 1.834106 1.783942 1.587770
##      313      314      315      316      317      318      319      320
## 1.820681 1.374536 1.367502 1.853866 2.047348 1.947027 1.405860 1.558567
##      321      322      323      324      325      326      327      328
## 1.937659 1.969354 1.601841 1.801265 2.006232 1.669845 1.421263 1.353244
##      329      330      331      332      333      334      335      336
## 1.563162 1.382556 1.958063 1.822794 1.662600 1.382364 1.389533 2.018779
##      337      338      339      340      341      342      343      344
## 1.649719 2.080551 1.552252 1.704365 1.832840 2.163871 1.972960 2.019964
##      345      346      347      348      349      350      351      352
## 1.946194 1.312522 1.288649 2.098836 1.532496 1.895990 1.962254 1.772317
##      353      354      355      356      357      358      359      360
## 1.277285 1.427652 1.568805 1.411219 1.615913 1.839847 1.703344 1.693005
##      361      362      363      364      365      366      367      368
## 1.841607 1.737107 1.944183 1.961459 1.564808 1.376687 1.717408 1.811576
##      369      370      371      372      373      374      375      376
## 1.766785 2.030802 1.958044 1.290066 1.900561 1.814090 1.552348 1.856674
```

```
##      377      378      379      380      381      382      383      384
## 1.604630 1.468567 2.064418 1.580815 1.762957 1.656641 2.018495 1.307108
##      385      386      387      388      389      390      391      392
## 1.667400 1.784582 1.647884 1.868036 1.558863 1.682000 1.410470 1.628845
##      393      394      395      396      397      398      399      400
## 1.555476 1.854190 1.442136 2.061331 1.548549 1.617216 1.607268 1.927192
##      401      402      403      404      405      406      407      408
## 1.956615 1.891327 1.740868 2.115208 1.899237 2.055659 1.819860 1.475806
##      409      410      411      412      413      414      415      416
## 1.755677 1.761858 1.314725 1.893282 1.494120 1.754625 1.618424 1.603772
##      417      418      419      420      421      422      423      424
## 1.940837 1.921689 1.572946 1.368814 1.734960 1.450626 1.674956 1.937595
##      425      426      427      428      429      430      431      432
## 1.735400 1.773450 1.617933 1.403595 1.453047 2.081709 1.942429 2.056577
##      433      434      435      436      437      438      439      440
## 1.726328 1.655969 1.965037 1.677111 1.962289 2.037632 1.573590 1.702800
##      441      442      443      444      445      446      447      448
## 1.457823 1.614753 1.791465 1.694197 1.594998 1.667685 1.446609 1.976090
##      449      450      451      452      453      454      455      456
## 1.364878 2.095906 1.980061 1.708428 1.822560 1.513488 2.006697 1.418366
##      457      458      459      460      461      462      463      464
## 1.757160 1.895354 1.810101 1.344307 1.848290 1.636731 1.318750 1.290069
##      465      466      467      468      469      470      471      472
## 1.953161 1.898177 1.835060 1.829674 2.031486 1.659050 1.835946 1.542312
##      473      474      475      476      477      478      479      480
## 1.519450 1.865185 1.443765 1.492612 1.719191 1.724548 1.362394 1.569439
##      481      482      483      484      485      486      487      488
## 1.946986 1.760988 1.395996 1.900934 1.438152 1.838442 1.335325 2.014837
##      489      490      491      492      493      494      495      496
## 1.373773 1.818655 1.570188 1.462760 1.864598 1.806232 1.677539 1.897375
##      497      498      499      500      501      502      503      504
## 2.101091 1.603106 1.455965 1.706195 1.838767 2.009941 1.865370 2.133258
##      505      506      507      508      509      510      511      512
## 1.382320 1.437652 1.355069 1.445308 1.806371 1.660475 1.699818 1.314274
##      513      514      515      516      517      518      519      520
## 1.705820 1.677417 1.631897 1.919155 1.417598 1.556868 1.855611 1.782780
##      521      522      523      524      525      526      527      528
## 1.595910 1.701618 1.526629 1.463309 1.816916 1.971188 1.809246 2.011494
##      529      530      531      532      533      534      535      536
## 1.797561 1.932999 2.117311 1.354852 1.786125 1.283059 1.363136 1.722267
##      537      538      539      540      541      542      543      544
## 1.894608 1.806891 2.030307 2.037228 1.523578 1.808601 1.349903 1.670044
##      545      546      547      548      549      550      551      552
## 1.623378 1.599600 1.809528 1.707879 1.849657 1.954889 2.017056 2.094486
##      553      554      555      556      557      558      559      560
## 1.876403 1.558943 1.913480 1.829431 1.951348 1.506030 1.661054 1.727763
##      561      562      563      564      565      566      567      568
## 1.714671 1.655457 1.749947 1.704842 2.137327 1.605268 2.156393 1.463718
##      569      570      571      572      573      574      575      576
## 1.723864 2.038949 1.935813 1.749840 1.723570 1.452480 2.024344 1.660344
```

```
##       577      578      579      580      581      582      583      584
## 1.441712 1.537722 1.764155 1.864424 1.495251 1.263267 1.784544 1.760447
##       585      586      587      588      589      590      591      592
## 1.228963 1.978109 1.883491 1.953088 2.172089 1.953490 1.958079 2.061622
##       593      594      595      596      597      598      599      600
## 1.665904 1.638404 1.720591 1.840004 1.590498 1.670021 2.034901 1.553262
##       601      602      603      604      605      606      607      608
## 1.855471 1.784045 1.778794 1.635687 2.100267 1.976079 2.000053 2.083624
##       609      610      611      612      613      614      615      616
## 1.750828 1.630633 1.838609 2.092789 1.623953 1.953771 1.641460 1.590752
##       617      618      619      620      621      622      623      624
## 1.767969 1.845595 1.419186 1.529762 1.841864 1.652072 1.944964 1.844840
##       625      626      627      628      629      630      631      632
## 1.497962 1.557102 1.758442 1.903279 1.622830 1.598666 1.855930 2.180250
##       633      634      635      636      637      638      639      640
## 1.872553 1.795776 1.731750 1.711968 2.168190 1.709917 1.338405 2.072697
##       641      642      643      644      645      646      647      648
## 1.800509 1.293214 1.673357 1.766028 1.307046 1.587339 1.868589 1.310971
##       649      650      651      652      653      654      655      656
## 1.537362 1.430983 1.400727 2.006111 1.797251 1.784759 1.407397 2.108430
##       657      658      659      660      661      662      663      664
## 1.935090 1.877784 1.923771 1.567286 1.672006 1.808834 1.993397 2.093510
##       665      666      667      668      669      670      671      672
## 1.411425 1.459263 1.737851 1.646643 2.012890 1.984444 2.023895 1.332918
##       673      674      675      676      677      678      679      680
## 1.775452 1.639755 1.854403 1.955059 1.508063 1.288217 1.682580 1.419157
##       681      682      683      684      685      686      687      688
## 2.009990 1.675698 1.573238 1.435084 1.652642 1.916579 1.613853 1.835915
##       689      690      691      692      693      694      695      696
## 1.659255 1.755538 1.857521 2.015949 1.361651 1.802976 1.748387 2.044869
##       697      698      699      700      701      702      703      704
## 1.635690 1.678138 2.124409 1.947406 1.552552 1.460611 1.753197 1.680325
##       705      706      707      708      709      710      711      712
## 1.630791 2.103355 1.506852 1.573644 1.686196 1.812552 1.558955 1.971669
##       713      714      715      716      717      718      719      720
## 1.537084 2.036781 1.647307 2.016718 1.483317 1.561429 1.700851 1.875104
##       721      722      723      724      725      726      727      728
## 2.095661 1.318495 1.606085 1.391667 1.720644 1.887105 1.380776 1.600803
##       729      730      731      732      733      734      735      736
## 2.013236 1.658064 1.817061 1.576550 1.987792 1.515410 1.665535 1.617947
##       737      738      739      740      741      742      743      744
## 2.091732 1.571792 2.066721 1.951937 1.461047 1.407754 1.989434 1.626173
##       745      746      747      748      749      750      751      752
## 1.862248 1.974489 1.407537 2.020735 1.855022 1.775043 2.079149 1.709860
##       753      754      755      756      757      758      759      760
## 1.469654 1.317856 2.093347 1.811659 1.478909 2.044441 1.803258 1.471207
##       761      762      763      764      765      766      767      768
## 1.411286 2.173236 2.090924 1.523941 1.478401 1.907466 1.688975 1.784557
##       769      770      771      772      773      774      775      776
## 1.799160 1.335938 1.805999 1.426016 1.535754 1.921732 1.589849 1.355781
```

```
##      777      778      779      780      781      782      783      784
## 1.860511 1.652037 2.067949 1.678381 1.824003 1.635541 2.006814 1.618747
##      785      786      787      788      789      790      791      792
## 2.088861 1.809999 1.751318 2.197572 2.009204 1.965252 1.882086 2.012167
##      793      794      795      796      797      798      799      800
## 1.525591 1.618630 1.666876 1.793617 1.835241 1.716455 1.769803 1.357706
##      801      802      803      804      805      806      807      808
## 1.925189 1.939304 1.393227 1.934970 1.797750 1.953331 1.510593 1.408048
##      809      810      811      812      813      814      815      816
## 1.726907 1.926502 1.960241 1.849240 1.792672 1.423466 1.337256 1.833189
##      817      818      819      820      821      822      823      824
## 1.446264 2.001057 1.719542 1.972938 1.635532 1.639355 1.972469 1.496041
##      825      826      827      828      829      830      831      832
## 1.228000 1.803456 1.856173 1.719249 1.823850 1.983211 2.183582 1.562773
##      833      834      835      836      837      838      839      840
## 1.318480 1.738024 2.100486 1.647327 1.816239 2.025365 1.594388 1.883609
##      841      842      843      844      845      846      847      848
## 1.924441 1.663226 1.290611 1.903861 2.102632 1.847088 2.101295 2.173958
##      849      850      851      852      853      854      855      856
## 2.028820 1.966882 1.754271 1.675795 2.087810 1.725864 2.131424 1.663336
##      857      858      859      860      861      862      863      864
## 1.978093 2.060172 1.933677 1.933928 1.485329 1.318130 1.379927 1.468407
##      865      866      867      868      869      870      871      872
## 1.891649 1.762264 1.730446 1.806537 1.988974 1.783015 2.108345 1.711683
##      873      874      875      876      877      878      879      880
## 1.721259 1.520728 1.550017 1.932034 2.051011 1.714601 1.485675 1.889709
##      881      882      883      884      885      886      887      888
## 1.435828 1.866463 1.908226 1.758512 1.340728 1.494304 1.627852 1.800653
##      889      890      891      892      893      894      895      896
## 1.729149 1.636623 1.482777 1.614066 1.793431 1.555366 1.996364 1.757463
##      897      898      899      900      901      902      903      904
## 1.490804 1.702190 1.811067 1.357998 1.509113 1.808994 2.105018 1.236950
##      905      906      907      908      909      910      911      912
## 1.547424 1.762807 1.849073 1.906522 1.436138 1.403926 1.881640 1.898471
##      913      914      915      916      917      918      919      920
## 2.039835 1.303977 1.535577 2.044734 1.492016 1.547237 1.996052 1.836472
##      921      922      923      924      925      926      927      928
## 1.423205 1.893545 1.586400 1.922480 1.323890 1.480857 1.896723 1.627603
##      929      930      931      932      933      934      935      936
## 1.568632 1.812621 2.099520 1.255190 1.755120 1.262137 1.429174 1.838930
##      937      938      939      940      941      942      943      944
## 1.845042 1.952558 1.690830 1.493642 2.095578 1.719431 1.422181 1.785329
##      945      946      947      948      949      950      951      952
## 1.440557 1.419687 2.031936 1.596856 1.500778 1.849093 1.838945 1.371753
##      953      954      955      956      957      958      959      960
## 1.659003 2.083406 1.711482 1.809800 1.565138 1.654450 1.842661 1.642345
##      961      962      963      964      965      966      967      968
## 2.005995 1.587339 1.454990 1.837474 1.832190 2.199755 1.224588 1.332150
##      969      970      971      972      973      974      975      976
## 1.704276 2.074866 1.669826 1.992708 1.946636 1.405446 1.448455 1.681333
```

```
##      977      978      979      980      981      982      983      984
## 1.940457 1.834326 2.026197 1.868324 1.275113 2.090867 1.506069 1.715461
##      985      986      987      988      989      990      991      992
## 1.834497 1.909854 1.982236 1.929151 2.019684 1.929773 1.886203 1.943377
##      993      994      995      996      997      998      999     1000
## 1.674786 1.585395 1.203458 2.106548 1.593999 1.327475 1.427248 1.438595
##     1001     1002     1003     1004     1005     1006     1007     1008
## 1.991890 1.863343 1.560683 1.445168 1.463188 1.530547 1.812991 1.654734
##     1009     1010     1011     1012     1013     1014     1015     1016
## 2.063554 1.405591 1.669052 1.715425 1.727166 2.093562 1.953265 1.573172
##     1017     1018     1019     1020     1021     1022     1023     1024
## 1.818887 1.891193 1.914810 1.337305 1.556779 1.583219 1.906934 1.229388
##     1025     1026     1027     1028     1029     1030     1031     1032
## 1.756216 1.464539 1.443494 1.703201 1.736002 1.306920 2.037362 2.152068
##     1033     1034     1035     1036     1037     1038     1039     1040
## 2.029996 2.001848 1.558597 1.705085 1.693867 1.377195 1.893057 1.544119
##     1041     1042     1043     1044     1045     1046     1047     1048
## 1.614316 1.852533 1.557377 1.985328 1.654818 1.878715 1.807858 1.570358
##     1049     1050     1051     1052     1053     1054     1055     1056
## 1.580935 1.738995 1.577156 1.480844 1.941213 1.366636 1.446392 1.337658
##     1057     1058     1059     1060     1061     1062     1063     1064
## 1.472121 1.913986 1.849705 1.861387 1.783276 1.846297 1.498368 2.022174
##     1065     1066     1067     1068     1069     1070     1071     1072
## 1.608638 1.596507 1.836400 1.474104 1.633741 1.748533 1.307055 1.801027
##     1073     1074     1075     1076     1077     1078     1079     1080
## 1.763946 1.951469 1.674337 1.739758 1.436392 1.950274 1.498458 1.345945
##     1081     1082     1083     1084     1085     1086     1087     1088
## 2.025749 1.425600 1.370330 1.691707 1.293285 1.430537 1.804050 1.760877
##     1089     1090     1091     1092     1093     1094     1095     1096
## 2.222420 2.035237 1.859978 1.343820 1.686924 1.500231 2.010739 1.622614
##     1097     1098     1099     1100     1101     1102     1103     1104
## 1.771401 1.887698 1.638742 1.743168 1.916226 1.391968 1.838068 2.056264
##     1105     1106     1107     1108     1109     1110     1111     1112
## 2.049424 1.777728 2.019283 1.497511 2.072733 1.563148 1.473246 1.873018
##     1113     1114     1115     1116     1117     1118     1119     1120
## 1.859597 1.707228 1.659377 2.069075 1.564297 1.899933 1.571778 1.867155
##     1121     1122     1123     1124     1125     1126     1127     1128
## 1.688266 1.477086 1.489023 1.890277 1.841191 1.510984 1.956203 1.617496
##     1129     1130     1131     1132     1133     1134     1135     1136
## 1.327489 1.841855 1.676453 1.956019 2.094176 2.107103 1.625664 1.835359
##     1137     1138     1139     1140     1141     1142     1143     1144
## 1.806117 1.793719 1.376433 1.683564 1.502589 1.633620 1.855922 1.487165
##     1145     1146     1147     1148     1149     1150     1151     1152
## 1.232097 1.372111 1.670614 1.821617 1.613591 1.895914 1.960538 2.081001
##     1153     1154     1155     1156     1157     1158     1159     1160
## 2.038801 1.689171 1.746307 1.299923 1.439959 1.589370 2.059231 1.388693
##     1161     1162     1163     1164     1165     1166     1167     1168
## 2.056165 1.934022 1.618520 1.686106 1.876763 1.808254 2.010775 1.738577
##     1169     1170     1171     1172     1173     1174     1175     1176
## 1.427344 1.767810 1.654938 1.472415 1.351096 1.872432 1.438836 1.585971
```

```
##      1177     1178     1179     1180     1181     1182     1183     1184
## 1.921740 1.607927 1.774844 1.728668 1.538577 1.477595 1.967919 1.798229
##      1185     1186     1187     1188     1189     1190     1191     1192
## 1.629359 1.416611 1.604854 1.978089 1.325834 1.929100 1.720815 1.599086
##      1193     1194     1195     1196     1197     1198     1199     1200
## 2.077886 1.817003 1.969764 1.544706 1.609227 1.667036 1.705143 2.006755
##      1201     1202     1203     1204     1205     1206     1207     1208
## 1.692353 1.345794 1.409415 1.612640 1.342101 1.799814 1.517105 1.598039
##      1209     1210     1211     1212     1213     1214     1215     1216
## 1.441506 2.121084 1.400284 1.374798 2.073893 1.941208 1.462669 1.769902
##      1217     1218     1219     1220     1221     1222     1223     1224
## 1.678216 1.581871 2.146297 1.339579 1.608398 1.564613 2.068048 1.718454
##      1225     1226     1227     1228     1229     1230     1231     1232
## 1.590927 2.078182 1.680848 1.764890 1.617123 2.080744 1.863663 1.772605
##      1233     1234     1235     1236     1237     1238     1239     1240
## 1.341749 1.889185 1.266939 1.606916 1.824750 1.675872 1.739406 1.648446
##      1241     1242     1243     1244     1245     1246     1247     1248
## 1.870605 1.376517 1.633478 1.648717 1.452271 1.642494 1.834098 1.463734
##      1249     1250     1251     1252     1253     1254     1255     1256
## 1.821106 1.380961 1.839822 1.612708 2.076354 1.706337 2.019979 1.653073
##      1257     1258     1259     1260     1261     1262     1263     1264
## 1.612797 1.515237 1.651494 1.693437 1.914012 1.780166 1.359922 2.005360
##      1265     1266     1267     1268     1269     1270     1271     1272
## 1.773270 1.999971 2.059750 1.923828 1.845627 1.675540 1.836106 2.123648
##      1273     1274     1275     1276     1277     1278     1279     1280
## 1.998700 2.064258 1.853560 1.881125 1.953693 1.919627 1.494067 1.869683
##      1281     1282     1283     1284     1285     1286     1287     1288
## 2.075832 1.282200 1.649480 1.556918 2.066976 2.104797 2.019645 1.548160
##      1289     1290     1291     1292     1293     1294     1295     1296
## 2.022899 1.918459 1.672634 2.044816 1.465831 1.410597 1.763112 1.641291
##      1297     1298     1299     1300     1301     1302     1303     1304
## 1.921976 2.156986 1.941160 2.124012 1.335038 1.690846 1.986827 1.895947
##      1305     1306     1307     1308     1309     1310     1311     1312
## 1.313228 1.387385 1.421232 1.774652 1.906792 1.647599 1.727325 1.948084
##      1313     1314     1315     1316     1317     1318     1319     1320
## 1.775924 1.755130 1.626971 1.786863 1.742492 2.106701 1.800807 2.009841
##      1321     1322     1323     1324     1325     1326     1327     1328
## 1.832759 1.356188 1.882782 1.696233 1.808237 2.112556 1.848870 1.551844
##      1329     1330     1331     1332     1333     1334     1335     1336
## 2.067867 1.877338 1.509143 1.596885 1.558279 1.996022 1.808091 1.732686
##      1337     1338     1339     1340     1341     1342     1343     1344
## 1.586788 1.908851 1.976480 1.873201 1.672997 1.412950 1.893311 1.401909
##      1345     1346     1347     1348     1349     1350     1351     1352
## 1.678937 2.067053 1.814223 2.082506 2.007405 1.460894 1.788131 1.389769
##      1353     1354     1355     1356     1357     1358     1359     1360
## 1.659263 1.495646 1.282717 1.257757 1.443565 1.416933 2.139541 2.085260
##      1361     1362     1363     1364     1365     1366     1367     1368
## 1.753542 1.334888 1.646178 1.933502 1.750909 1.932493 1.299767 1.494272
##      1369     1370     1371     1372     1373     1374     1375     1376
## 1.834210 1.992614 1.994182 1.546373 2.189557 1.820715 2.069830 1.869814
```

```
##      1377      1378      1379      1380      1381      1382      1383      1384
## 1.446715 1.945483 1.552746 1.516718 1.839872 2.029795 2.088835 1.640451
##      1385      1386      1387      1388      1389      1390      1391      1392
## 1.477277 2.159800 1.529687 1.973799 1.802653 1.814995 1.705330 1.705632
##      1393      1394      1395      1396      1397      1398      1399      1400
## 1.388609 1.590210 1.909596 1.838807 1.291290 1.581952 1.512832 1.964327
##      1401      1402      1403      1404      1405      1406      1407      1408
## 1.383987 2.016449 1.748594 1.836697 1.581502 1.190341 1.462379 1.439128
##      1409      1410      1411      1412      1413      1414      1415      1416
## 2.064609 1.624249 1.853480 1.874782 1.644558 1.782827 2.036880 1.648386
##      1417      1418      1419      1420      1421      1422      1423      1424
## 1.296118 2.006789 1.321263 1.998593 1.603432 1.945048 1.648224 1.537357
##      1425      1426      1427      1428      1429      1430      1431      1432
## 1.990258 1.872969 1.810932 1.921324 1.710763 1.350202 1.740248 1.285680
##      1433      1434      1435      1436      1437      1438      1439      1440
## 1.698587 1.801916 1.380047 1.909206 1.640980 1.809903 1.653655 1.818619
##      1441      1442      1443      1444      1445      1446      1447      1448
## 1.420663 1.564220 1.494682 1.871054 1.795171 1.804532 1.676190 1.686011
##      1449      1450      1451      1452      1453      1454      1455      1456
## 1.511884 1.856026 1.751803 1.342612 1.607688 1.812927 1.798931 1.390495
##      1457      1458      1459      1460      1461      1462      1463      1464
## 1.593683 1.942461 1.464036 1.733329 1.506592 1.728172 1.645715 1.832626
##      1465      1466      1467      1468      1469      1470      1471      1472
## 1.595810 1.830072 1.544192 1.442206 1.398488 1.640763 1.860241 1.809881
##      1473      1474      1475      1476      1477      1478      1479      1480
## 1.794757 1.542597 1.687455 1.835910 2.059715 1.305924 2.006027 1.834797
##      1481      1482      1483      1484      1485      1486      1487      1488
## 1.305509 1.682093 1.672056 1.687790 1.898934 1.854340 1.808601 1.387686
##      1489      1490      1491      1492      1493      1494      1495      1496
## 1.536927 1.839973 1.801591 1.770324 1.805543 1.419338 1.679839 1.648737
##      1497      1498      1499      1500      1501      1502      1503      1504
## 1.926846 1.847413 1.537064 1.482014 1.297141 1.921129 2.053093 1.507952
##      1505      1506      1507      1508      1509      1510      1511      1512
## 1.488130 2.164599 2.072463 1.387722 1.496871 2.099937 1.804720 1.396558
##      1513      1514      1515      1516      1517      1518      1519      1520
## 1.694024 1.827408 1.596620 1.761394 1.969302 1.785604 1.680499 1.775030
##      1521      1522      1523      1524      1525      1526      1527      1528
## 1.839822 1.365468 2.128276 1.613337 2.075528 1.494132 1.821081 1.864145
##      1529      1530      1531      1532      1533      1534      1535      1536
## 1.524310 2.117527 1.704775 2.183608 2.023271 1.341782 1.734557 1.809246
##      1537      1538      1539      1540      1541      1542      1543      1544
## 2.111623 1.963029 1.469913 1.718063 1.793709 2.071701 1.726518 1.618885
##      1545      1546      1547      1548      1549      1550      1551      1552
## 1.586224 1.319931 1.896502 1.839737 1.708116 1.870199 1.792552 1.455744
##      1553      1554      1555      1556      1557      1558      1559      1560
## 1.710360 1.410590 1.805622 1.904002 1.345423 1.758810 1.424706 1.234149
##      1561      1562      1563      1564      1565      1566      1567      1568
## 1.732502 2.028273 1.554240 1.320845 1.713429 1.994079 1.832723 1.604191
##      1569      1570      1571      1572      1573      1574      1575      1576
## 1.780646 1.911001 1.818674 1.992141 1.597545 1.619534 1.354946 1.653709
```

```
##      1577     1578     1579     1580     1581     1582     1583     1584
## 1.695655 1.934323 1.594545 1.818281 1.870843 1.966741 2.012990 1.633204
##      1585     1586     1587     1588     1589     1590     1591     1592
## 1.545525 2.094059 1.862355 1.629145 1.848347 2.056864 1.381775 1.400696
##      1593     1594     1595     1596     1597     1598     1599     1600
## 1.793866 1.989377 2.088508 1.251852 1.649227 1.474651 1.622785 1.875443
##      1601     1602     1603     1604     1605     1606     1607     1608
## 2.032840 1.975834 1.467660 1.841187 1.748576 2.133185 2.096780 1.878557
##      1609     1610     1611     1612     1613     1614     1615     1616
## 1.900746 2.017818 1.946324 2.014783 1.779403 1.407003 2.095397 1.713937
##      1617     1618     1619     1620     1621     1622     1623     1624
## 1.482927 1.984926 1.716343 1.671341 1.457353 1.812791 1.466513 1.430706
##      1625     1626     1627     1628     1629     1630     1631     1632
## 2.116893 1.483973 1.459491 1.632578 1.655648 1.985931 1.540680 1.952919
##      1633     1634     1635     1636     1637     1638     1639     1640
## 1.935398 1.890104 1.614247 1.881312 2.117206 1.880262 1.635408 1.532997
##      1641     1642     1643     1644     1645     1646     1647     1648
## 1.484529 2.059545 1.447051 1.710615 1.769377 1.319621 1.304461 1.724756
##      1649     1650     1651     1652     1653     1654     1655     1656
## 2.043408 1.883083 1.674319 1.800453 1.804948 1.715794 2.077044 1.887500
##      1657     1658     1659     1660     1661     1662     1663     1664
## 1.653647 1.426466 1.559275 1.582716 1.371143 1.908691 1.796298 1.687782
##      1665     1666     1667     1668     1669     1670     1671     1672
## 1.388186 1.569989 1.929607 2.199206 1.682856 1.919854 1.518469 1.411648
##      1673     1674     1675     1676     1677     1678     1679     1680
## 1.869323 1.881506 1.586233 1.933387 2.058609 2.015152 1.993510 1.742181
##      1681     1682     1683     1684     1685     1686     1687     1688
## 1.489370 1.755166 1.837490 1.995742 1.631892 1.828121 2.093255 1.747127
##      1689     1690     1691     1692     1693     1694     1695     1696
## 2.056246 1.506208 1.898210 1.297428 2.178376 1.959969 1.910187 2.039772
##      1697     1698     1699     1700     1701     1702     1703     1704
## 1.787667 1.445735 1.670929 1.260776 1.762250 1.936201 1.423996 1.566986
##      1705     1706     1707     1708     1709     1710     1711     1712
## 1.747624 1.442192 2.004691 1.724278 1.915481 2.027584 2.042035 1.583570
##      1713     1714     1715     1716     1717     1718     1719     1720
## 2.102589 1.914748 1.361111 1.342785 1.511053 1.742118 1.924787 1.288204
##      1721     1722     1723     1724     1725     1726     1727     1728
## 1.287304 1.710775 1.709113 1.992280 1.929593 1.485026 1.353586 1.726002
##      1729     1730     1731     1732     1733     1734     1735     1736
## 1.816269 1.479665 2.073732 1.808973 1.616458 1.894412 1.405446 1.904462
##      1737     1738     1739     1740     1741     1742     1743     1744
## 1.595518 1.368882 2.041538 1.701529 2.028985 1.977806 1.335394 2.049285
##      1745     1746     1747     1748     1749     1750     1751     1752
## 1.635208 1.806860 1.422290 1.878142 1.979282 1.955876 1.725240 1.839042
##      1753     1754     1755     1756     1757     1758     1759     1760
## 1.913158 2.097022 1.866039 1.891857 1.977211 1.563360 1.596948 2.084460
##      1761     1762     1763     1764     1765     1766     1767     1768
## 1.775780 1.888545 1.979679 1.937237 1.795278 1.534028 1.313648 1.410692
##      1769     1770     1771     1772     1773     1774     1775     1776
## 2.069236 1.678231 1.856993 1.967492 1.721182 2.088833 1.413918 1.941948
```

```
##      1777      1778      1779      1780      1781      1782      1783      1784
## 1.671213 1.600332 1.416323 1.810644 2.096819 1.719789 1.591825 2.016824
##      1785      1786      1787      1788      1789      1790      1791      1792
## 1.800234 1.486238 1.906038 1.822529 2.092009 2.136079 1.448007 1.611696
##      1793      1794      1795      1796      1797      1798      1799      1800
## 1.988486 1.911957 1.350531 1.624526 1.507909 1.825951 1.882139 1.913971
##      1801      1802      1803      1804      1805      1806      1807      1808
## 2.148449 1.977773 1.445848 1.485664 1.419556 2.008966 1.420618 1.443171
##      1809      1810      1811      1812      1813      1814      1815      1816
## 1.542109 1.949977 2.096810 1.815154 1.833545 1.763705 2.004693 1.655139
##      1817      1818      1819      1820      1821      1822      1823      1824
## 1.468618 1.489993 1.539800 2.128722 1.700574 1.708834 1.723269 1.916424
##      1825      1826      1827      1828      1829      1830      1831      1832
## 1.383673 2.001948 1.719672 1.623978 1.720137 1.599792 1.594690 1.481436
##      1833      1834      1835      1836      1837      1838      1839      1840
## 1.832266 1.594710 1.804010 1.989430 1.956003 1.776873 2.120537 2.045965
##      1841      1842      1843      1844      1845      1846      1847      1848
## 1.882214 1.904581 2.078713 1.953416 1.629848 1.794182 1.503690 1.649564
##      1849      1850      1851      1852      1853      1854      1855      1856
## 1.645610 1.492598 1.988817 1.786554 2.165102 1.567661 1.668443 2.108801
##      1857      1858      1859      1860      1861      1862      1863      1864
## 1.631852 1.744843 1.805817 1.692907 1.568272 1.869330 1.434004 1.623039
##      1865      1866      1867      1868      1869      1870      1871      1872
## 2.087255 1.588454 1.701040 2.046363 2.102869 1.932495 1.993598 1.586107
##      1873      1874      1875      1876      1877      1878      1879      1880
## 2.157423 1.774684 1.404331 1.285365 1.697235 1.748227 1.613676 1.895808
##      1881      1882      1883      1884      1885      1886      1887      1888
## 1.821687 2.147556 1.492134 1.825365 1.609265 1.777484 1.588031 1.432232
##      1889      1890      1891      1892      1893      1894      1895      1896
## 1.663764 1.629195 2.080618 1.920576 1.704880 1.372913 1.476435 1.925653
##      1897      1898      1899      1900      1901      1902      1903      1904
## 1.885635 2.118044 1.287403 1.717917 1.854804 1.867455 1.656612 2.096232
##      1905      1906      1907      1908      1909      1910      1911      1912
## 1.886088 1.611623 2.085229 1.959403 1.767842 1.597780 1.757152 1.649366
##      1913      1914      1915      1916      1917      1918      1919      1920
## 2.096985 1.866319 1.640985 1.835835 2.031696 1.663667 2.038810 1.452060
##      1921      1922      1923      1924      1925      1926      1927      1928
## 1.958767 1.586331 1.647507 1.863878 1.361028 1.769255 1.730748 1.807719
##      1929      1930      1931      1932      1933      1934      1935      1936
## 1.856276 1.492293 1.956714 2.021282 1.949186 1.798564 1.774966 2.093036
##      1937      1938      1939      1940      1941      1942      1943      1944
## 1.597742 2.037838 1.550001 1.648966 2.126765 1.670011 1.918286 1.393208
##      1945      1946      1947      1948      1949      1950      1951      1952
## 1.978416 1.717230 1.713935 1.503589 1.444597 1.341705 1.575572 1.943297
##      1953      1954      1955      1956      1957      1958      1959      1960
## 1.853801 1.525479 1.726350 1.709396 1.857909 1.550305 1.502176 1.995276
##      1961      1962      1963      1964      1965      1966      1967      1968
## 1.772226 1.671393 2.064139 1.693403 1.915054 1.369790 1.871492 1.480308
##      1969      1970      1971      1972      1973      1974      1975      1976
## 2.113361 1.399355 1.950483 1.190857 1.444468 2.040424 2.004758 1.371630
```

```
##     1977     1978     1979     1980     1981     1982     1983     1984
## 1.709301 1.868135 1.766404 1.415061 1.682955 1.933677 1.564042 1.722859
##     1985     1986     1987     1988     1989     1990     1991     1992
## 1.859886 1.326709 1.837835 1.464683 1.613374 1.911043 1.350983 2.169877
##     1993     1994     1995     1996     1997     1998     1999     2000
## 1.858184 1.501913 1.467010 1.452352 1.815913 1.973807 1.746389 1.432408
##     2001     2002     2003     2004     2005     2006     2007     2008
## 1.680193 1.628037 1.352075 1.420074 2.154403 1.375284 1.929491 1.676327
##     2009     2010     2011     2012     2013     2014     2015     2016
## 1.966588 1.809771 1.717907 1.376240 2.013007 1.586363 1.821607 1.870419
##     2017     2018     2019     2020     2021     2022     2023     2024
## 2.037154 1.442108 1.322178 1.457379 2.021020 1.851550 1.906393 1.933425
##     2025     2026     2027     2028     2029     2030     2031     2032
## 1.883503 1.701789 1.636994 1.439204 1.757397 1.950342 1.851744 1.348723
##     2033     2034     2035     2036     2037     2038     2039     2040
## 1.338340 1.461670 1.489205 2.149025 1.916472 1.774214 1.483061 1.871415
##     2041     2042     2043     2044     2045     2046     2047     2048
## 1.897028 1.629401 1.536727 1.380441 1.789008 2.063884 2.100201 1.624689
##     2049     2050     2051     2052     2053     2054     2055     2056
## 1.677973 1.545850 1.689339 1.713399 1.657228 2.172337 1.581509 2.154712
##     2057     2058     2059     2060     2061     2062     2063     2064
## 1.712488 1.990240 1.950685 1.976122 1.532946 1.991272 1.727662 1.767228
##     2065     2066     2067     2068     2069     2070     2071     2072
## 1.335675 1.848602 1.963161 2.007218 1.845415 1.651563 1.553761 1.760223
##     2073     2074     2075     2076     2077     2078     2079     2080
## 1.441036 1.790689 1.818808 1.976180 1.554496 1.832128 1.753819 1.496393
##     2081     2082     2083     2084     2085     2086     2087     2088
## 1.386734 1.509273 1.654062 1.785063 1.965814 1.800955 2.060619 2.176977
##     2089     2090     2091     2092     2093     2094     2095     2096
## 1.815956 1.855635 1.348282 1.818271 1.352319 1.384189 1.634483 1.808913
##     2097     2098     2099     2100     2101     2102     2103     2104
## 1.694259 1.474653 1.407720 1.327484 1.401552 1.974671 1.529928 1.848173
##     2105     2106     2107     2108     2109     2110     2111     2112
## 1.955126 1.817303 1.992046 1.895742 1.678298 1.906015 1.968065 1.600669
##     2113     2114     2115     2116     2117     2118     2119     2120
## 2.107046 1.487563 1.963996 2.057705 1.805860 1.564828 1.532246 1.573994
##     2121     2122     2123     2124     2125     2126     2127     2128
## 1.957728 1.646955 1.818049 1.814672 1.342820 1.734802 1.973582 1.935266
##     2129     2130     2131     2132     2133     2134     2135     2136
## 1.346522 1.804140 1.686932 1.416139 1.860766 2.112696 1.498137 1.546201
##     2137     2138     2139     2140     2141     2142     2143     2144
## 1.879866 1.807095 1.673559 1.652711 1.530827 1.875352 1.870041 1.850473
##     2145     2146     2147     2148     2149     2150     2151     2152
## 1.577966 1.412858 2.003276 1.536009 1.536303 1.979907 1.461469 1.395982
##     2153     2154     2155     2156     2157     2158     2159     2160
## 1.660006 1.988345 1.895519 2.178178 1.405691 1.535482 1.391747 2.061103
##     2161     2162     2163     2164     2165     2166     2167     2168
## 1.879777 1.848595 1.255578 1.323393 2.071308 1.847433 1.591470 1.662343
##     2169     2170     2171     2172     2173     2174     2175     2176
## 1.410516 1.910804 1.625239 2.062886 1.891192 2.053078 1.870045 1.923139
```

```
##       2177       2178       2179       2180       2181       2182       2183       2184
## 1.873382 1.802695 1.666908 1.254885 1.774308 2.052028 1.992783 1.700648
##       2185       2186       2187       2188       2189       2190       2191       2192
## 2.086562 2.074208 1.226111 2.000775 1.971916 1.351627 1.861348 1.874877
##       2193       2194       2195       2196       2197       2198       2199       2200
## 1.921853 1.718774 2.005604 1.746005 1.926891 1.374937 1.997605 1.855511
##       2201       2202       2203       2204       2205       2206       2207       2208
## 1.530333 1.642349 1.373761 1.173275 1.803020 1.902501 1.670757 1.881483
##       2209       2210       2211       2212       2213       2214       2215       2216
## 1.898466 1.430139 2.005493 1.782337 2.134583 2.120608 1.402989 2.131025
##       2217       2218       2219       2220       2221       2222       2223       2224
## 2.249203 1.518166 1.478621 1.447418 1.695435 1.900931 1.986996 1.844665
##       2225       2226       2227       2228       2229       2230       2231       2232
## 1.466207 2.035194 1.454491 2.033413 1.951172 1.874318 1.834767 1.358221
##       2233       2234       2235       2236       2237       2238       2239       2240
## 1.702317 1.335092 2.071811 2.072178 1.986023 1.946752 1.637328 1.864676
##       2241       2242       2243       2244       2245       2246       2247       2248
## 1.917286 1.326431 2.016422 1.764891 1.631922 1.901014 1.545227 2.068978
##       2249       2250       2251       2252       2253       2254       2255       2256
## 2.173620 2.005024 1.708100 1.922260 1.924819 2.007657 1.903526 1.528919
##       2257       2258       2259       2260       2261       2262       2263       2264
## 1.738458 1.347559 1.537907 1.973979 1.363692 1.778986 1.994974 1.966645
##       2265       2266       2267       2268       2269       2270       2271       2272
## 1.436571 1.295174 1.475148 1.630170 1.944852 1.575318 1.370943 1.590879
##       2273       2274       2275       2276       2277       2278       2279       2280
## 1.776567 1.639057 1.959992 1.291917 1.565654 1.675719 1.385367 1.727711
##       2281       2282       2283       2284       2285       2286       2287       2288
## 1.745598 1.601563 1.857739 1.376590 2.015848 1.524349 1.296727 2.052512
##       2289       2290       2291       2292       2293       2294       2295       2296
## 2.080693 1.318850 1.563606 1.599049 1.782300 1.861993 2.021207 1.719204
##       2297       2298       2299       2300       2301       2302       2303       2304
## 1.380560 2.103530 1.674920 1.859003 1.530586 1.411953 1.707140 1.940075
##       2305       2306       2307       2308       2309       2310       2311       2312
## 1.793824 2.040842 1.712044 1.899521 1.664059 2.114859 1.764481 1.811744
##       2313       2314       2315       2316       2317       2318       2319       2320
## 1.993417 2.008165 1.422811 2.068220 1.694514 2.059482 1.443040 1.448388
##       2321       2322       2323       2324       2325       2326       2327       2328
## 1.793582 1.927487 1.444047 1.460443 1.824704 1.713494 1.799813 1.869896
##       2329       2330       2331       2332       2333       2334       2335       2336
## 2.033214 1.336633 1.663651 1.501690 1.631978 2.127288 1.312570 1.875070
##       2337       2338       2339       2340       2341       2342       2343       2344
## 2.022506 1.600960 1.586407 1.811055 1.810304 1.883566 1.840007 1.930800
##       2345       2346       2347       2348       2349       2350       2351       2352
## 2.048685 1.316097 2.111444 1.804013 1.356394 1.942538 2.109120 1.786747
##       2353       2354       2355       2356       2357       2358       2359       2360
## 2.008233 2.004942 1.768821 2.098904 1.655741 1.762677 1.602213 1.463114
##       2361       2362       2363       2364       2365       2366       2367       2368
## 1.486499 1.349496 1.352492 1.989757 1.990468 1.993488 1.697888 2.160932
##       2369       2370       2371       2372       2373       2374       2375       2376
## 2.003969 1.816960 1.991627 1.647054 1.906557 1.575324 1.486484 1.754126
```

```
##      2377      2378      2379      2380      2381      2382      2383      2384
## 1.883209 1.894704 1.640578 1.540408 1.654863 1.858388 1.331495 1.535016
##      2385      2386      2387      2388      2389      2390      2391      2392
## 2.091571 1.898510 1.520767 1.415087 1.579934 1.822140 1.467286 1.648041
##      2393      2394      2395      2396      2397      2398      2399      2400
## 1.302136 1.595296 1.513595 1.615603 1.696633 1.848473 2.098966 1.701044
##      2401      2402      2403      2404      2405      2406      2407      2408
## 1.365964 1.323492 1.399174 2.025582 1.730842 1.647247 2.002893 1.871097
##      2409      2410      2411      2412      2413      2414      2415      2416
## 1.812987 1.883450 1.458480 1.466550 1.716997 1.482681 1.822080 1.664354
##      2417      2418      2419      2420      2421      2422      2423      2424
## 1.782959 1.354190 1.895840 1.805995 1.831815 1.643896 1.550309 1.532619
##      2425      2426      2427      2428      2429      2430      2431      2432
## 1.843194 1.863696 1.513730 1.891371 1.735339 1.835510 1.639029 1.578394
##      2433      2434      2435      2436      2437      2438      2439      2440
## 1.743566 1.414133 1.941215 1.886684 1.331051 1.273599 1.994941 1.405256
##      2441      2442      2443      2444      2445      2446      2447      2448
## 1.666003 1.413668 1.441844 1.296334 1.637835 1.991464 1.597374 1.387023
##      2449      2450      2451      2452      2453      2454      2455      2456
## 1.311473 2.047470 1.447636 1.996602 1.715905 1.674498 1.790245 2.039891
##      2457      2458      2459      2460      2461      2462      2463      2464
## 2.057866 1.706799 1.337536 1.325115 1.520441 2.073138 1.695999 1.490487
##      2465      2466      2467      2468      2469      2470      2471      2472
## 1.924993 1.992020 1.611636 2.158333 1.842081 1.562387 1.970570 2.111001
##      2473      2474      2475      2476      2477      2478      2479      2480
## 1.396839 1.660367 2.029177 1.583621 1.983789 1.598684 1.638137 1.858280
##      2481      2482      2483      2484      2485      2486      2487      2488
## 1.415714 1.570696 1.901323 1.795096 2.072802 1.693816 1.929315 1.615883
##      2489      2490      2491      2492      2493      2494      2495      2496
## 1.324588 1.590203 1.912957 1.957610 1.815371 1.794455 1.942230 1.993517
##      2497      2498      2499      2500      2501      2502      2503      2504
## 2.110305 2.006701 2.012132 1.461271 1.932202 2.017869 2.004784 1.860833
##      2505      2506      2507      2508      2509      2510      2511      2512
## 2.013812 1.342817 1.641680 1.839689 2.062045 1.402640 1.939310 1.267760
##      2513      2514      2515      2516      2517      2518      2519      2520
## 1.373901 1.424991 1.286394 1.964797 1.457613 1.839895 2.048079 2.132274
##      2521      2522      2523      2524      2525      2526      2527      2528
## 2.023661 1.813667 1.346399 1.401605 1.884313 1.385138 2.002049 1.616124
##      2529      2530      2531      2532      2533      2534      2535      2536
## 1.941267 1.940051 2.034230 1.887500 2.062709 1.788969 2.053207 1.989065
##      2537      2538      2539      2540      2541      2542      2543      2544
## 1.950391 1.766753 1.419450 1.640652 2.048549 1.730051 2.010001 1.400000
##      2545      2546      2547      2548      2549      2550      2551      2552
## 1.811218 2.060270 1.861996 1.920881 1.775434 1.665553 1.627720 1.659635
##      2553      2554      2555      2556      2557      2558      2559      2560
## 1.647858 1.943798 1.992480 1.655266 1.962868 1.955590 1.411204 1.619973
##      2561      2562      2563      2564      2565      2566      2567      2568
## 1.862497 2.128627 1.695761 1.958690 2.060905 1.435575 1.737400 2.059761
##      2569      2570      2571      2572      2573      2574      2575      2576
## 1.532410 1.444295 1.922273 1.767403 1.229240 1.522384 2.037953 1.443262
```

```
##     2577     2578     2579     2580     2581     2582     2583     2584
## 1.849175 1.350396 2.054201 1.905232 1.993768 1.941910 1.962322 1.737004
##     2585     2586     2587     2588     2589     2590     2591     2592
## 1.298523 1.541251 1.641885 1.839538 2.102563 1.890649 1.984783 1.732969
##     2593     2594     2595     2596     2597     2598     2599     2600
## 1.870325 1.437805 2.167677 1.450330 1.978514 1.835542 1.998808 1.483753
##     2601     2602     2603     2604     2605     2606     2607     2608
## 1.870119 1.565152 1.356421 1.723063 1.668263 1.767614 1.450437 1.649498
##     2609     2610     2611     2612     2613     2614     2615     2616
## 1.350411 1.904550 2.107337 1.660705 1.757908 1.948109 1.488931 1.762634
##     2617     2618     2619     2620     2621     2622     2623     2624
## 2.064246 1.662276 1.480498 1.700494 1.750130 1.918506 1.936695 1.533159
##     2625     2626     2627     2628     2629     2630     2631     2632
## 1.462932 1.927096 1.228132 1.915904 1.914368 1.403177 2.016674 1.939273
##     2633     2634     2635     2636     2637     2638     2639     2640
## 1.973049 1.788295 1.689788 1.582831 1.751974 1.625801 1.487487 1.664950
##     2641     2642     2643     2644     2645     2646     2647     2648
## 1.822364 1.967232 1.757693 1.765123 2.031500 1.499341 1.437076 1.580734
##     2649     2650     2651     2652     2653     2654     2655     2656
## 2.147947 1.282577 1.391616 1.867219 1.667303 1.955974 2.033495 1.722814
##     2657     2658     2659     2660     2661     2662     2663     2664
## 2.024893 1.464080 1.790298 1.831526 1.683733 2.059375 2.051069 1.834954
##     2665     2666     2667     2668     2669     2670     2671     2672
## 1.472683 1.787894 1.797817 1.946372 1.439975 1.763472 2.022346 1.923307
##     2673     2674     2675     2676     2677     2678     2679     2680
## 1.423416 1.934200 1.362712 2.214201 1.987048 1.593360 1.427362 1.852298
##     2681     2682     2683     2684     2685     2686     2687     2688
## 2.000540 1.403102 1.626412 1.395209 1.929539 1.362195 1.668175 1.739073
##     2689     2690     2691     2692     2693     2694     2695     2696
## 2.114741 1.869117 1.961063 2.062705 2.162540 1.813642 1.513788 1.715258
##     2697     2698     2699     2700     2701     2702     2703     2704
## 2.051391 1.658111 1.528198 1.916599 2.063510 1.453294 1.373290 1.307039
##     2705     2706     2707     2708     2709     2710     2711     2712
## 1.608269 1.921486 1.540946 1.687712 1.755538 1.790036 1.838183 1.709287
##     2713     2714     2715     2716     2717     2718     2719     2720
## 2.171954 2.044325 1.974512 1.639950 1.354179 2.007549 1.874451 2.063695
##     2721     2722     2723     2724     2725     2726     2727     2728
## 1.617621 1.986862 1.272715 1.725714 1.283886 1.693049 1.824515 1.850660
##     2729     2730     2731     2732     2733     2734     2735     2736
## 1.527856 1.833841 1.605844 1.672709 1.800726 1.947853 1.806182 1.643376
##     2737     2738     2739     2740     2741     2742     2743     2744
## 1.270256 2.170391 1.983081 1.723071 1.228597 1.990910 1.781137 1.464982
##     2745     2746     2747     2748     2749     2750     2751     2752
## 1.739166 1.811686 1.627666 1.863855 1.263944 1.718486 1.936810 1.798192
##     2753     2754     2755     2756     2757     2758     2759     2760
## 1.947644 1.818693 1.835240 1.884148 1.485194 1.672146 1.909602 1.912889
##     2761     2762     2763     2764     2765     2766     2767     2768
## 1.468328 1.883159 1.718483 1.881204 1.868399 1.371105 1.684663 2.140540
##     2769     2770     2771     2772     2773     2774     2775     2776
## 1.697525 1.718714 1.892310 1.466793 1.840676 1.523226 1.333936 1.896156
```

```
##      2777      2778      2779      2780      2781      2782      2783      2784
## 1.556630 1.889133 1.639115 1.420334 1.629312 1.895305 2.062708 1.914179
##      2785      2786      2787      2788      2789      2790      2791      2792
## 1.446037 1.806703 1.964196 1.732988 1.416816 1.832972 1.336118 1.696656
##      2793      2794      2795      2796      2797      2798      2799      2800
## 1.243177 1.359915 2.047435 1.878559 1.809264 1.459522 1.976301 1.704043
##      2801      2802      2803      2804      2805      2806      2807      2808
## 2.151862 1.923553 1.896101 1.407154 1.702627 1.777559 2.016805 1.812854
##      2809      2810      2811      2812      2813      2814      2815      2816
## 2.035381 2.071216 1.425023 1.927307 2.011243 1.606234 1.731664 1.976211
##      2817      2818      2819      2820      2821      2822      2823      2824
## 1.297657 1.928081 1.966396 2.065702 1.738726 1.745260 1.610037 1.891419
##      2825      2826      2827      2828      2829      2830      2831      2832
## 1.393965 2.087633 1.301092 1.864675 2.080553 1.984284 1.995940 1.639001
##      2833      2834      2835      2836      2837      2838      2839      2840
## 1.801538 1.998824 2.047709 1.731042 1.620486 1.685782 2.054044 1.249480
##      2841      2842      2843      2844      2845      2846      2847      2848
## 1.491244 1.571385 1.571347 1.833821 1.833197 1.646737 2.052723 2.105731
##      2849      2850      2851      2852      2853      2854      2855      2856
## 1.751854 1.706330 2.034444 1.539588 2.024631 1.776248 2.049001 1.641975
##      2857      2858      2859      2860      2861      2862      2863      2864
## 1.328211 1.437652 1.645840 1.656024 1.953263 1.431041 1.925133 1.509580
##      2865      2866      2867      2868      2869      2870      2871      2872
## 1.304984 1.800218 1.359689 1.996486 1.405731 2.076931 1.412389 1.868698
##      2873      2874      2875      2876      2877      2878      2879      2880
## 1.680077 1.478304 1.695148 1.430992 1.842519 1.532805 2.050060 2.089353
##      2881      2882      2883      2884      2885      2886      2887      2888
## 1.909045 1.832906 1.592172 1.367065 1.937237 1.679496 1.344941 1.805860
##      2889      2890      2891      2892      2893      2894      2895      2896
## 1.768423 1.984600 1.917049 1.842081 1.974316 1.691879 2.116340 1.378363
##      2897      2898      2899      2900      2901      2902      2903      2904
## 1.932632 1.439419 1.738785 1.568245 1.678063 1.696441 1.409302 1.400800
##      2905      2906      2907      2908      2909      2910      2911      2912
## 1.954400 1.920554 1.482660 1.470712 1.989807 1.697801 2.069684 1.822814
##      2913      2914      2915      2916      2917      2918      2919      2920
## 2.069243 1.511429 1.815796 2.173726 1.277903 1.525599 1.776845 1.482275
##      2921      2922      2923      2924      2925      2926      2927      2928
## 1.774716 1.967574 1.405446 2.101441 1.944678 1.939820 1.464095 1.726602
##      2929      2930      2931      2932      2933      2934      2935      2936
## 2.035141 1.883025 2.135953 1.536121 1.797967 1.790971 1.502020 1.659462
##      2937      2938      2939      2940      2941      2942      2943      2944
## 1.955192 2.024355 1.902334 1.691985 1.548541 1.706052 1.706906 1.467135
##      2945      2946      2947      2948      2949      2950      2951      2952
## 2.018772 1.772078 1.786138 1.857329 1.423521 1.411316 1.276883 1.660340
##      2953      2954      2955      2956      2957      2958      2959      2960
## 1.367329 1.824223 1.666545 1.417345 1.725195 1.629865 1.872909 1.809048
##      2961      2962      2963      2964      2965      2966      2967      2968
## 1.707388 1.439995 1.937951 1.430002 1.985684 1.365150 2.080245 2.044329
##      2969      2970      2971      2972      2973      2974      2975      2976
## 1.752880 1.549463 1.645895 1.797118 1.762602 1.619790 1.912803 2.057847
```

```
##      2977     2978     2979     2980     2981     2982     2983     2984
## 2.098207 1.973084 2.172722 1.855238 1.704371 1.809329 1.999586 1.915758
##      2985     2986     2987     2988     2989     2990     2991     2992
## 1.788721 1.535840 1.633047 1.728369 1.871186 2.016872 1.624855 1.668763
##      2993     2994     2995     2996     2997     2998     2999     3000
## 1.682878 1.430474 1.877528 1.361289 1.828007 1.834452 1.580555 1.360874
##      3001     3002     3003     3004     3005     3006     3007     3008
## 1.763903 1.366889 1.539725 1.874746 1.699233 1.583519 1.938151 2.049917
##      3009     3010     3011     3012     3013     3014     3015     3016
## 1.616069 1.523872 2.074700 1.546779 1.852354 1.995831 1.836704 1.915887
##      3017     3018     3019     3020     3021     3022     3023     3024
## 1.820797 1.808247 2.169794 1.852015 2.044407 1.375093 1.767523 1.718865
##      3025     3026     3027     3028     3029     3030     3031     3032
## 1.715389 1.351256 1.597973 1.959413 1.895196 1.342298 1.484651 1.965810
##      3033     3034     3035     3036     3037     3038     3039     3040
## 1.952578 1.759063 1.984691 1.921225 1.643595 1.792409 1.516643 1.585619
##      3041     3042     3043     3044     3045     3046     3047     3048
## 1.833688 1.788714 1.613407 1.654473 1.820304 1.427382 2.170656 1.747708
##      3049     3050     3051     3052     3053     3054     3055     3056
## 1.869460 1.851081 1.692665 1.964527 1.945472 1.666590 1.995231 1.664271
##      3057     3058     3059     3060     3061     3062     3063     3064
## 1.353075 1.700947 1.483221 1.518099 1.586595 1.379136 1.402554 1.731473
##      3065     3066     3067     3068     3069     3070     3071     3072
## 1.774576 1.703795 1.951284 2.027396 1.873884 1.808252 1.803970 1.735880
##      3073     3074     3075     3076     3077     3078     3079     3080
## 2.003941 1.237032 1.540841 1.614846 1.430711 1.990432 2.013653 1.821399
##      3081     3082     3083     3084     3085     3086     3087     3088
## 1.281293 1.464908 1.315761 2.013305 2.127526 1.546904 1.874098 1.552216
##      3089     3090     3091     3092     3093     3094     3095     3096
## 1.874397 1.795106 1.461683 1.943517 1.832963 1.538045 1.891024 1.666285
##      3097     3098     3099     3100     3101     3102     3103     3104
## 1.738303 1.782251 1.716694 1.346688 1.831566 2.045095 2.005817 1.780927
##      3105     3106     3107     3108     3109     3110     3111     3112
## 1.966836 1.811947 1.868762 2.003888 1.459190 1.633804 1.439179 1.697372
##      3113     3114     3115     3116     3117     3118     3119     3120
## 1.832861 1.985696 1.416856 1.996854 1.674850 2.024333 1.496843 2.173524
##      3121     3122     3123     3124     3125     3126     3127     3128
## 1.824774 1.870951 1.664637 1.858086 1.821081 1.830122 2.132271 1.457591
##      3129     3130     3131     3132     3133     3134     3135     3136
## 1.935789 1.950914 1.485234 1.483226 1.684536 1.594173 1.691320 1.524768
##      3137     3138     3139     3140     3141     3142     3143     3144
## 1.388588 1.810693 1.665873 1.830121 1.441050 1.406360 1.485200 1.766572
##      3145     3146     3147     3148     3149     3150     3151     3152
## 1.682393 1.600378 1.602084 1.674461 1.744523 1.453989 1.950628 1.875471
##      3153     3154     3155     3156     3157     3158     3159     3160
## 1.676645 1.670415 1.197020 2.131571 1.894438 1.570151 1.536375 1.510727
##      3161     3162     3163     3164     3165     3166     3167     3168
## 1.932598 1.782680 2.100633 1.937215 1.959049 1.519747 1.904796 1.487761
##      3169     3170     3171     3172     3173     3174     3175     3176
## 1.892883 1.731290 1.441039 1.974614 2.080058 1.763790 1.915116 1.810868
```

```
##      3177      3178      3179      3180      3181      3182      3183      3184
## 2.045269 1.722374 1.443801 2.023445 1.552769 2.081032 1.605410 1.679826
##      3185      3186      3187      3188      3189      3190      3191      3192
## 1.865506 1.980730 1.582500 2.022421 1.924739 1.660392 1.513511 1.852169
##      3193      3194      3195      3196      3197      3198      3199      3200
## 1.693672 1.579187 2.056263 1.613929 1.863184 1.540454 2.171518 1.954632
##      3201      3202      3203      3204      3205      3206      3207      3208
## 2.006664 1.818260 1.783615 1.803161 1.234817 2.063745 1.906578 1.651759
##      3209      3210      3211      3212      3213      3214      3215      3216
## 1.878303 1.660448 1.601095 1.662555 1.754404 1.923061 1.922470 2.118492
##      3217      3218      3219      3220      3221      3222      3223      3224
## 1.628903 1.672143 1.647934 1.513196 1.585528 1.819924 1.596346 1.687246
##      3225      3226      3227      3228      3229      3230      3231      3232
## 1.299954 2.087756 1.747098 1.947030 1.528028 1.976208 2.042481 1.675024
##      3233      3234      3235      3236      3237      3238      3239      3240
## 2.055275 1.997751 1.716099 1.776384 1.808462 1.926493 1.588468 1.648145
##      3241      3242      3243      3244      3245      3246      3247      3248
## 1.692042 1.593697 1.922681 1.277853 1.670864 1.821144 1.516479 1.772352
##      3249      3250      3251      3252      3253      3254      3255      3256
## 1.563103 1.362073 1.849433 2.119134 1.456153 1.569182 1.481998 1.662680
##      3257      3258      3259      3260      3261      3262      3263      3264
## 2.128597 1.580223 1.872494 1.480289 1.566857 2.129360 1.999172 1.718046
##      3265      3266      3267      3268      3269      3270      3271      3272
## 1.998396 1.288114 1.263232 1.386630 1.630597 1.602210 1.922014 1.366391
##      3273      3274      3275      3276      3277      3278      3279      3280
## 1.904567 1.989698 1.924436 2.068999 1.712294 1.791731 2.020603 1.524471
##      3281      3282      3283      3284      3285      3286      3287      3288
## 2.117255 1.408705 1.465684 1.939818 1.604831 1.672560 1.881562 1.481240
##      3289      3290      3291      3292      3293      3294      3295      3296
## 1.527321 1.421808 2.196102 1.714113 1.932594 1.813190 1.920002 1.952097
##      3297      3298      3299      3300      3301      3302      3303      3304
## 1.353586 1.511686 1.457711 1.846878 1.478565 1.508736 1.931793 1.870223
##      3305      3306      3307      3308      3309      3310      3311      3312
## 1.930936 1.355665 1.763776 1.806975 1.822965 1.729469 1.804002 1.805708
##      3313      3314      3315      3316      3317      3318      3319      3320
## 2.095819 1.642545 1.535832 1.636984 2.018501 1.285536 1.899242 1.451796
##      3321      3322      3323      3324      3325      3326      3327      3328
## 1.300321 1.809551 1.828515 1.398893 1.713107 1.534460 1.633200 1.975359
##      3329      3330      3331      3332      3333      3334      3335      3336
## 1.531693 1.790893 2.056149 1.373898 1.478032 2.162677 1.281234 1.784988
##      3337      3338      3339      3340      3341      3342      3343      3344
## 1.805444 1.911338 1.396852 1.810928 1.246941 1.969572 1.737053 1.299431
##      3345      3346      3347      3348      3349      3350      3351      3352
## 1.598864 1.736435 1.271902 1.436810 1.937170 1.994310 1.609921 1.623333
##      3353      3354      3355      3356      3357      3358      3359      3360
## 1.880619 1.813328 1.436843 1.922160 1.669974 1.906916 1.436651 1.945084
##      3361      3362      3363      3364      3365      3366      3367      3368
## 1.542354 1.964151 1.654454 1.580337 1.841726 1.807796 1.665270 1.285776
##      3369      3370      3371      3372      3373      3374      3375      3376
## 1.666949 2.125478 1.781570 2.044084 2.176210 1.813437 1.177618 1.890518
```

```
##      3377     3378     3379     3380     3381     3382     3383     3384
## 2.083288 1.366776 1.455097 1.295336 1.939133 1.817489 1.939479 1.392431
##      3385     3386     3387     3388     3389     3390     3391     3392
## 2.015820 1.824492 1.878506 1.825347 1.815765 1.870316 1.880618 2.066562
##      3393     3394     3395     3396     3397     3398     3399     3400
## 1.835331 1.826502 1.463188 2.014455 1.328292 1.825794 1.948131 1.852249
##      3401     3402     3403     3404     3405     3406     3407     3408
## 1.925581 1.986755 1.678181 1.912461 1.623951 1.552138 1.887992 1.510434
##      3409     3410     3411     3412     3413     3414     3415     3416
## 1.961323 1.766627 1.615131 1.778574 1.759877 1.950820 1.703666 2.040755
##      3417     3418     3419     3420     3421     3422     3423     3424
## 2.004835 1.716512 1.348739 1.623151 1.406189 1.359306 1.644993 2.035378
##      3425     3426     3427     3428     3429     3430     3431     3432
## 1.877291 1.382701 2.077009 1.800132 1.789998 1.409001 1.894790 1.782869
##      3433     3434     3435     3436     3437     3438     3439     3440
## 1.341746 1.821169 2.102290 1.883177 1.554109 1.767037 1.829841 1.663241
##      3441     3442     3443     3444     3445     3446     3447     3448
## 1.781355 1.680093 1.681069 1.713543 1.734818 1.743727 1.592915 1.761852
##      3449     3450     3451     3452     3453     3454     3455     3456
## 1.641780 1.285778 2.014504 1.758651 1.465562 1.890495 1.675909 1.986376
##      3457     3458     3459     3460     3461     3462     3463     3464
## 1.314564 1.564051 1.568222 1.606661 2.032354 1.254583 1.833611 1.315877
##      3465     3466     3467     3468     3469     3470     3471     3472
## 1.705290 1.934157 1.641023 1.592823 1.781793 1.870257 1.717532 1.441778
##      3473     3474     3475     3476     3477     3478     3479     3480
## 1.662776 1.599247 2.098728 1.595386 1.688670 1.585685 1.577298 1.370543
##      3481     3482     3483     3484     3485     3486     3487     3488
## 1.778411 2.076031 1.564318 1.760196 1.650122 1.893237 1.634781 1.607895
##      3489     3490     3491     3492     3493     3494     3495     3496
## 1.367577 1.292308 1.667565 1.360155 1.689611 1.798564 1.733969 2.010973
##      3497     3498     3499     3500     3501     3502     3503     3504
## 1.754814 1.811549 2.123420 1.587069 1.517282 1.819128 1.991568 1.593287
##      3505     3506     3507     3508     3509     3510     3511     3512
## 1.376948 1.990255 1.913470 1.877280 1.882321 1.749607 1.620509 1.983619
##      3513     3514     3515     3516     3517     3518     3519     3520
## 1.813295 1.494057 1.846940 2.045275 1.985680 2.048706 1.301555 1.585907
##      3521     3522     3523     3524     3525     3526     3527     3528
## 1.619132 1.361932 1.802982 1.368697 1.620527 1.907949 1.613888 1.823535
##      3529     3530     3531     3532     3533     3534     3535     3536
## 1.814804 1.879701 1.358218 1.848939 2.130932 1.623532 2.065983 1.803218
##      3537     3538     3539     3540     3541     3542     3543     3544
## 1.838834 2.071665 1.571022 1.543203 2.118259 2.089485 1.936587 2.146594
##      3545     3546     3547     3548     3549     3550     3551     3552
## 1.548294 1.369573 1.927505 2.045567 1.447693 1.403667 1.891505 1.641326
##      3553     3554     3555     3556     3557     3558     3559     3560
## 1.555426 1.978417 1.673250 1.542751 1.285048 1.473550 1.804140 1.613386
##      3561     3562     3563     3564     3565     3566     3567     3568
## 1.883724 1.529132 1.511677 1.894242 1.952363 1.689908 1.482162 1.876316
##      3569     3570     3571     3572     3573     3574     3575     3576
## 1.752332 1.742986 1.998230 1.833097 1.850152 1.594802 1.616942 2.188463
```

```
##      3577      3578      3579      3580      3581      3582      3583      3584
## 1.351459 1.823111 1.491330 1.702638 1.737965 1.266460 1.562945 1.714761
##      3585      3586      3587      3588      3589      3590      3591      3592
## 1.950534 1.526397 1.591571 1.432808 1.596000 1.368792 1.725993 1.502635
##      3593      3594      3595      3596      3597      3598      3599      3600
## 1.590870 1.921064 1.640642 1.988882 1.810706 1.640043 1.940348 1.763017
##      3601      3602      3603      3604      3605      3606      3607      3608
## 1.735650 1.846032 1.609609 1.728116 1.319136 1.740408 1.465156 1.692623
##      3609      3610      3611      3612      3613      3614      3615      3616
## 2.033269 1.447211 1.907765 1.479149 1.843157 2.218193 1.676731 1.581902
##      3617      3618      3619      3620      3621      3622      3623      3624
## 2.172701 1.541738 1.687170 2.093648 1.812270 1.886743 1.697639 1.852749
##      3625      3626      3627      3628      3629      3630      3631      3632
## 1.829998 1.602114 1.473312 1.341318 1.993092 2.049067 1.873943 1.828959
##      3633      3634      3635      3636      3637      3638      3639      3640
## 1.625215 1.632038 1.436029 1.916522 1.411102 2.006518 1.973447 1.832913
##      3641      3642      3643      3644      3645      3646      3647      3648
## 1.770200 1.394587 1.666759 2.082065 1.944864 1.998024 1.559093 1.850190
##      3649      3650      3651      3652      3653      3654      3655      3656
## 1.589931 1.915621 1.898784 1.936898 1.755083 1.892485 1.693047 1.716142
##      3657      3658      3659      3660      3661      3662      3663      3664
## 1.678254 1.339678 1.654967 1.931647 1.617518 1.487579 1.759619 1.617563
##      3665      3666      3667      3668      3669      3670      3671      3672
## 1.892620 1.340357 1.747340 1.520596 1.640778 1.801538 1.912884 1.654687
##      3673      3674      3675      3676      3677      3678      3679      3680
## 1.720596 1.758141 1.627733 1.488323 1.411394 2.173795 1.580502 1.871619
##      3681      3682      3683      3684      3685      3686      3687      3688
## 1.401286 1.617677 1.580170 1.342061 1.583480 1.812301 1.559438 1.824110
##      3689      3690      3691      3692      3693      3694      3695      3696
## 1.941254 1.482459 1.676368 1.611611 1.726771 1.881290 1.845299 1.946659
##      3697      3698      3699      3700      3701      3702      3703      3704
## 1.458022 1.897359 2.021174 2.123018 1.558461 2.124384 1.919491 1.577638
##      3705      3706      3707      3708      3709      3710      3711      3712
## 1.897402 1.989487 1.955806 1.549825 2.124907 1.365648 1.299088 1.791886
##      3713      3714      3715      3716      3717      3718      3719      3720
## 1.654782 1.952644 1.909979 1.803034 1.904672 1.870023 2.016893 1.386993
##      3721      3722      3723      3724      3725      3726      3727      3728
## 1.452936 1.227837 2.038097 2.023185 1.654629 1.411846 1.825862 1.927668
##      3729      3730      3731      3732      3733      3734      3735      3736
## 1.886385 1.293923 1.837651 1.541512 1.653558 1.871108 1.415655 2.050490
##      3737      3738      3739      3740      3741      3742      3743      3744
## 1.689612 1.747467 1.670836 1.353877 1.406845 1.650018 1.986342 1.195632
##      3745      3746      3747      3748      3749      3750      3751      3752
## 1.656190 1.796379 2.058340 1.669047 1.808834 1.354851 1.561000 1.939588
##      3753      3754      3755      3756      3757      3758      3759      3760
## 1.719912 1.343868 1.439317 2.030000 1.607879 1.360382 1.822868 1.754627
##      3761      3762      3763      3764      3765      3766      3767      3768
## 1.599346 1.969770 1.689998 1.836193 2.063934 1.354973 1.342372 1.601794
##      3769      3770      3771      3772      3773      3774      3775      3776
## 1.750378 1.475626 1.758120 2.063887 1.611523 2.109051 2.023607 1.932067
```

```
##      3777      3778      3779      3780      3781      3782      3783      3784
## 1.379407 1.709257 1.407297 1.299242 1.516842 1.731098 1.974253 1.831969
##      3785      3786      3787      3788      3789      3790      3791      3792
## 1.874955 1.438727 1.385468 1.825405 1.648100 1.398585 1.599570 1.776227
##      3793      3794      3795      3796      3797      3798      3799      3800
## 1.565724 1.857756 1.977197 1.463780 1.809206 1.840618 1.467339 1.342294
##      3801      3802      3803      3804      3805      3806      3807      3808
## 1.475099 1.419333 1.837822 1.998843 1.676197 1.709725 1.871719 1.847873
##      3809      3810      3811      3812      3813      3814      3815      3816
## 2.101124 1.357076 1.908623 2.029410 1.873960 1.822762 1.865594 1.296908
##      3817      3818      3819      3820      3821      3822      3823      3824
## 1.359533 2.187556 1.546789 2.055778 1.847110 2.092050 1.481986 1.267225
##      3825      3826      3827      3828      3829      3830      3831      3832
## 1.487610 1.839303 1.555886 1.908550 1.936123 2.013492 1.425326 1.414337
##      3833      3834      3835      3836      3837      3838      3839      3840
## 1.864222 1.988522 1.454625 1.448887 1.389039 1.793590 1.433441 1.645941
##      3841      3842      3843      3844      3845      3846      3847      3848
## 1.798848 1.667971 1.815568 2.014628 1.987469 1.784919 1.667315 1.727524
##      3849      3850      3851      3852      3853      3854      3855      3856
## 1.956003 1.740971 1.838289 1.949523 1.717186 1.652008 1.648007 2.061001
##      3857      3858      3859      3860      3861      3862      3863      3864
## 1.381893 1.441344 1.776928 1.902901 1.744602 1.575003 1.631588 1.852863
##      3865      3866      3867      3868      3869      3870      3871      3872
## 1.252670 1.457952 2.024471 1.637858 1.605562 1.399103 1.653417 2.019952
##      3873      3874      3875      3876      3877      3878      3879      3880
## 1.645100 1.689620 2.174155 1.621488 1.462967 1.453129 1.351944 1.802981
##      3881      3882      3883      3884      3885      3886      3887      3888
## 1.529123 1.399727 1.905383 1.885186 1.875395 1.866546 1.576517 1.978958
##      3889      3890      3891      3892      3893      3894      3895      3896
## 2.050644 1.967785 2.012785 1.941825 1.631090 1.965521 1.895706 1.658244
##      3897      3898      3899      3900      3901      3902      3903      3904
## 1.774726 1.912629 1.567796 1.401489 1.563748 1.852499 1.941047 1.576452
##      3905      3906      3907      3908      3909      3910      3911      3912
## 1.780608 1.966358 2.065356 1.956398 1.832672 1.475266 1.411575 1.429744
##      3913      3914      3915      3916      3917      3918      3919      3920
## 1.283986 1.920844 1.761415 1.609349 1.332530 1.645393 1.815078 1.667718
##      3921      3922      3923      3924      3925      3926      3927      3928
## 1.773641 1.403691 1.877796 1.892291 1.781084 1.311907 1.848812 1.830729
##      3929      3930      3931      3932      3933      3934      3935      3936
## 2.089317 1.725229 1.776972 1.691481 1.426958 1.632365 1.820693 1.615968
##      3937      3938      3939      3940      3941      3942      3943      3944
## 1.607971 1.889644 1.727368 1.652468 1.726993 1.769887 1.714598 1.490997
##      3945      3946      3947      3948      3949      3950      3951      3952
## 2.148037 1.930775 1.437218 1.282756 1.555058 1.276906 1.774593 1.455340
##      3953      3954      3955      3956      3957      3958      3959      3960
## 1.878357 1.621696 1.599122 1.273730 2.095416 1.989180 1.600590 2.014789
##      3961      3962      3963      3964      3965      3966      3967      3968
## 1.933235 2.103919 1.435059 1.993335 1.923452 1.853685 1.834298 1.781105
##      3969      3970      3971      3972      3973      3974      3975      3976
## 1.351657 1.573110 1.959431 1.338138 2.014660 1.442526 1.325109 2.065654
```

```
##      3977      3978      3979      3980      3981      3982      3983      3984
## 1.570297 2.090008 1.705352 2.029318 1.386149 1.952403 1.618865 1.354554
##      3985      3986      3987      3988      3989      3990      3991      3992
## 1.387260 2.051424 2.183007 1.594321 1.647693 1.951909 1.962631 1.926684
##      3993      3994      3995      3996      3997      3998      3999      4000
## 1.358476 1.450356 1.756223 2.145550 1.988064 2.154022 1.706296 2.075032
##      4001      4002      4003      4004      4005      4006      4007      4008
## 2.015617 1.793710 2.081625 1.802281 1.924532 1.661245 1.594194 1.708332
##      4009      4010      4011      4012      4013      4014      4015      4016
## 1.834281 1.636313 1.816408 1.767785 1.334632 1.976023 1.773391 1.836375
##      4017      4018      4019      4020      4021      4022      4023      4024
## 1.988652 1.644943 1.444449 2.014547 1.618746 2.036021 2.067512 1.679461
##      4025      4026      4027      4028      4029      4030      4031      4032
## 1.928011 1.745402 2.150173 1.719618 1.732465 1.823526 2.025385 2.040836
##      4033      4034      4035      4036      4037      4038      4039      4040
## 1.278413 1.930720 1.882168 1.626557 1.871041 2.019542 1.466583 1.708114
##      4041      4042      4043      4044      4045      4046      4047      4048
## 1.846766 1.992745 1.637594 1.594962 1.823377 1.563707 1.675454 1.553799
##      4049      4050      4051      4052      4053      4054      4055      4056
## 1.934514 1.468861 2.068143 1.656751 1.546283 1.927746 1.771770 1.447356
##      4057      4058      4059      4060      4061      4062      4063      4064
## 1.367148 1.699829 1.811065 2.008734 2.106199 1.858484 1.963159 1.597208
##      4065      4066      4067      4068      4069      4070      4071      4072
## 1.623922 1.346372 1.702182 1.584315 1.802157 1.932565 1.278909 1.868930
##      4073      4074      4075      4076      4077      4078      4079      4080
## 1.465839 1.926630 1.403726 1.922951 1.653506 1.408780 1.714227 2.155717
##      4081      4082      4083      4084      4085      4086      4087      4088
## 1.775044 1.438960 1.389095 1.717766 1.668061 1.753075 1.499211 1.517954
##      4089      4090      4091      4092      4093      4094      4095      4096
## 1.499699 1.547201 1.822075 1.757397 1.700243 2.035969 1.641230 1.699732
##      4097      4098      4099      4100      4101      4102      4103      4104
## 1.852988 1.665763 1.957340 1.336160 1.924238 1.935104 1.567647 2.165957
##      4105      4106      4107      4108      4109      4110      4111      4112
## 1.776396 1.763740 1.908362 2.049456 1.986007 1.947203 1.919729 1.694396
##      4113      4114      4115      4116      4117      4118      4119      4120
## 1.897052 1.628543 1.423127 2.093313 1.576790 1.291205 1.730152 1.848464
##      4121      4122      4123      4124      4125      4126      4127      4128
## 1.974875 1.732962 1.575826 1.708485 1.753075 1.603413 1.685692 1.644968
##      4129      4130      4131      4132      4133      4134      4135      4136
## 1.877908 1.999393 1.821428 1.345425 1.452352 1.770938 1.589011 2.129876
##      4137      4138      4139      4140      4141      4142      4143      4144
## 1.430171 1.483171 1.809213 1.528380 2.022358 1.902820 1.904366 1.282254
##      4145      4146      4147      4148      4149      4150      4151      4152
## 1.670504 2.097081 1.923123 1.374629 1.935005 1.760743 1.696907 1.969386
##      4153      4154      4155      4156      4157      4158      4159      4160
## 1.747726 1.840820 1.602545 2.100139 2.029320 1.991898 1.404247 1.900352
##      4161      4162      4163      4164      4165      4166      4167      4168
## 1.807512 1.917548 1.393740 2.057490 1.788738 1.808973 1.340747 1.794116
##      4169      4170      4171      4172      4173      4174      4175      4176
## 2.034267 1.944290 1.744109 2.043234 1.372892 1.568368 1.635605 1.482071
```

```
##     4177     4178     4179     4180     4181     4182     4183     4184
## 1.715633 1.334754 1.807862 1.845223 2.029391 1.438690 2.104264 1.466266
##     4185     4186     4187     4188     4189     4190     4191     4192
## 1.766944 1.931159 1.851541 1.997048 1.766660 2.066262 1.433713 2.017169
##     4193     4194     4195     4196     4197     4198     4199     4200
## 1.720469 2.011801 2.133613 1.900567 1.885590 1.334471 1.787352 2.012499
##     4201     4202     4203     4204     4205     4206     4207     4208
## 1.704278 1.903395 1.914269 1.800670 1.389077 1.331778 1.682243 1.324675
##     4209     4210     4211     4212     4213     4214     4215     4216
## 1.925838 2.153406 1.362840 1.738979 1.781637 2.020581 1.830032 1.836101
##     4217     4218     4219     4220     4221     4222     4223     4224
## 1.405788 2.081809 1.824524 1.345780 2.179561 1.438030 1.945655 1.524038
##     4225     4226     4227     4228     4229     4230     4231     4232
## 2.171645 1.393313 1.868588 1.896184 1.881277 1.821249 1.510978 2.026509
##     4233     4234     4235     4236     4237     4238     4239     4240
## 1.845189 1.366047 1.835868 1.807114 1.877208 2.053220 2.088200 1.907448
##     4241     4242     4243     4244     4245     4246     4247     4248
## 2.008265 1.817036 1.658094 1.965880 1.852790 1.606396 1.452780 1.590592
##     4249     4250     4251     4252     4253     4254     4255     4256
## 1.529167 2.013425 1.697967 1.642140 1.763341 1.899749 1.965441 1.611120
##     4257     4258     4259     4260     4261     4262     4263     4264
## 1.990494 1.525559 1.700972 1.928685 2.104050 1.705498 1.575083 2.086744
##     4265     4266     4267     4268     4269     4270     4271     4272
## 1.943324 1.957247 1.576193 2.001697 1.689706 1.615224 1.760841 1.689148
##     4273     4274     4275     4276     4277     4278     4279     4280
## 1.809119 2.062894 1.802401 1.707475 1.367274 1.476380 2.031177 1.404363
##     4281     4282     4283     4284     4285     4286     4287     4288
## 1.742967 1.364185 2.033815 1.631226 1.988319 1.460436 1.355214 1.512390
##     4289     4290     4291     4292     4293     4294     4295     4296
## 2.049006 1.873716 1.933509 1.673625 1.718781 1.883432 2.046090 1.777730
##     4297     4298     4299     4300     4301     4302     4303     4304
## 1.956256 1.996469 1.915092 1.678907 1.405375 1.583072 1.534464 2.031883
##     4305     4306     4307     4308     4309     4310     4311     4312
## 1.551578 1.898899 1.598904 1.349078 1.397627 2.118964 1.838397 1.922637
##     4313     4314     4315     4316     4317     4318     4319     4320
## 1.866628 2.047814 1.381224 1.404092 1.576162 1.836781 1.819251 1.296560
##     4321     4322     4323     4324     4325     4326     4327     4328
## 1.425879 1.584518 1.525466 1.544475 2.068821 2.075457 1.672714 1.551128
##     4329     4330     4331     4332     4333     4334     4335     4336
## 1.396621 1.919402 1.677333 1.588731 1.846312 1.721766 1.560723 1.941389
##     4337     4338     4339     4340     4341     4342     4343     4344
## 1.324594 1.910266 2.021008 1.867337 1.774176 1.761626 1.345184 1.736895
##     4345     4346     4347     4348     4349     4350     4351     4352
## 1.819461 1.841035 1.406307 2.024357 1.604824 1.819458 1.855367 1.614537
##     4353     4354     4355     4356     4357     4358     4359     4360
## 1.410601 1.536102 1.912501 1.989610 1.635442 2.061479 1.990164 1.503057
##     4361     4362     4363     4364     4365     4366     4367     4368
## 1.875503 1.335652 1.622441 1.791137 1.878308 1.803376 1.935983 2.081255
##     4369     4370     4371     4372     4373     4374     4375     4376
## 1.912396 1.700083 1.469497 1.991459 1.806031 1.548860 1.550237 2.075825
```

```
##      4377      4378      4379      4380      4381      4382      4383      4384
## 1.496725 1.853439 2.165905 1.780914 1.939646 1.492566 1.856358 1.652229
##      4385      4386      4387      4388      4389      4390      4391      4392
## 1.837329 1.392914 1.741052 1.773948 1.513837 2.029722 2.080361 1.891120
##      4393      4394      4395      4396      4397      4398      4399      4400
## 1.601678 1.652367 1.810459 1.784755 1.520619 1.434823 1.839528 1.850432
##      4401      4402      4403      4404      4405      4406      4407      4408
## 2.027192 2.068300 1.416953 1.867319 2.008103 1.423290 1.879452 2.036725
##      4409      4410      4411      4412      4413      4414      4415      4416
## 1.542874 1.417435 2.051976 1.853131 1.903647 1.561069 1.552070 1.730885
##      4417      4418      4419      4420      4421      4422      4423      4424
## 1.640790 1.693257 1.561296 1.815026 1.504721 2.197998 1.947802 1.490396
##      4425      4426      4427      4428      4429      4430      4431      4432
## 1.897000 1.353038 1.553798 1.465742 1.787724 1.776352 1.953194 1.949508
##      4433      4434      4435      4436      4437      4438      4439      4440
## 1.845783 2.009981 1.370886 1.640774 1.811998 1.941422 1.311240 1.859809
##      4441      4442      4443      4444      4445      4446      4447      4448
## 1.394095 1.809306 1.702131 1.490307 2.165260 1.308197 1.822530 1.590059
##      4449      4450      4451      4452      4453      4454      4455      4456
## 1.989820 1.659878 1.581283 1.250826 1.627517 1.528421 1.393611 1.405818
##      4457      4458      4459      4460      4461      4462      4463      4464
## 1.575714 1.623714 1.365091 1.828745 1.750787 1.900778 1.643029 1.609403
##      4465      4466      4467      4468      4469      4470      4471      4472
## 2.013542 1.375830 1.917320 1.821915 1.798564 1.820093 1.553378 2.016388
##      4473      4474      4475      4476      4477      4478      4479      4480
## 1.395688 1.725823 1.376050 2.046352 1.402100 2.115040 1.717173 1.844391
##      4481      4482      4483      4484      4485      4486      4487      4488
## 1.649395 1.923410 1.777401 1.776364 1.988844 1.919187 1.431955 1.400008
##      4489      4490      4491      4492      4493      4494      4495      4496
## 2.178757 1.717141 1.845791 1.493325 1.929248 2.003372 1.576001 1.467300
##      4497      4498      4499      4500      4501      4502      4503      4504
## 1.966513 1.981388 2.031691 1.744280 1.883092 1.418094 1.820776 1.772627
##      4505      4506      4507      4508      4509      4510      4511      4512
## 1.987933 2.100342 1.495607 1.469258 2.149794 1.252762 1.328303 1.778363
##      4513      4514      4515      4516      4517      4518      4519      4520
## 1.855184 1.801218 1.938654 1.503659 1.514733 1.645436 1.541870 1.768621
##      4521      4522      4523      4524      4525      4526      4527      4528
## 1.662239 1.688231 2.070516 1.436041 1.438492 1.851207 1.721417 1.454073
##      4529      4530      4531      4532      4533      4534      4535      4536
## 1.409535 1.528020 1.455585 1.975532 1.825574 1.525034 1.522739 2.008718
##      4537      4538      4539      4540      4541      4542      4543      4544
## 1.342106 1.668667 1.451965 1.754265 1.485657 1.534291 2.037818 1.746362
##      4545      4546      4547      4548      4549      4550      4551      4552
## 1.787208 2.006209 1.592382 1.964656 1.425641 1.853933 1.388690 1.845623
##      4553      4554      4555      4556      4557      4558      4559      4560
## 1.403924 1.654270 2.066966 1.428923 1.809206 2.029450 1.859736 1.534951
##      4561      4562      4563      4564      4565      4566      4567      4568
## 1.675550 1.754658 1.782533 1.524160 1.664865 2.112855 1.751537 1.756696
##      4569      4570      4571      4572      4573      4574      4575      4576
## 1.881413 1.701109 1.623521 1.537954 2.098893 2.046110 2.107454 2.128002
```

```
##      4577     4578     4579     4580     4581     4582     4583     4584
## 2.068154 1.232547 2.016879 1.599149 1.553980 1.937359 1.869424 1.779348
##      4585     4586     4587     4588     4589     4590     4591     4592
## 1.876023 1.854931 1.540852 2.068140 1.455067 1.370354 1.703958 1.892809
##      4593     4594     4595     4596     4597     4598     4599     4600
## 1.933619 1.630463 1.973116 1.721259 1.724051 2.023321 1.884386 1.617232
##      4601     4602     4603     4604     4605     4606     4607     4608
## 1.821452 1.765914 1.961913 2.010884 1.985102 1.624359 1.846011 2.181246
##      4609     4610     4611     4612     4613     4614     4615     4616
## 1.699746 1.775830 1.268396 1.429321 2.043917 1.676828 1.673690 1.711176
##      4617     4618     4619     4620     4621     4622     4623     4624
## 1.342081 1.417091 1.642480 1.859996 1.827692 1.793728 1.766254 1.299842
##      4625     4626     4627     4628     4629     4630     4631     4632
## 1.831520 2.039847 1.841440 2.039924 2.013250 2.044256 1.343388 1.352057
##      4633     4634     4635     4636     4637     4638     4639     4640
## 1.426877 1.607743 2.073138 1.540580 1.693083 1.477252 1.387737 1.673914
##      4641     4642     4643     4644     4645     4646     4647     4648
## 1.407965 1.979221 1.863210 1.524368 1.876574 1.699660 1.941989 1.729623
##      4649     4650     4651     4652     4653     4654     4655     4656
## 1.487877 1.694350 1.671566 1.856233 1.811274 2.122832 1.904173 1.309518
##      4657     4658     4659     4660     4661     4662     4663     4664
## 1.405395 2.033604 1.843314 1.882850 1.620388 2.028208 1.878900 1.401719
##      4665     4666     4667     4668     4669     4670     4671     4672
## 1.726180 1.430179 1.815932 1.611836 1.839287 1.424607 1.278559 2.067646
##      4673     4674     4675     4676     4677     4678     4679     4680
## 1.658549 1.295410 1.475321 1.390892 1.918948 1.726214 1.964151 1.432480
##      4681     4682     4683     4684     4685     4686     4687     4688
## 1.725157 1.817429 1.749772 1.571583 1.526652 2.023475 1.814321 1.934678
##      4689     4690     4691     4692     4693     4694     4695     4696
## 1.805827 1.759136 1.868056 1.888821 1.587044 1.354110 1.702252 1.482228
##      4697     4698     4699     4700     4701     4702     4703     4704
## 1.655301 1.515263 1.592683 1.737082 2.042295 1.649503 1.803389 1.935907
##      4705     4706     4707     4708     4709     4710     4711     4712
## 1.743646 1.771829 2.062796 2.058176 2.081903 1.666247 1.848394 1.500883
##      4713     4714     4715     4716     4717     4718     4719     4720
## 1.801744 1.807347 1.982085 1.428143 1.979397 1.628278 1.972119 2.022410
##      4721     4722     4723     4724     4725     4726     4727     4728
## 1.984715 1.891821 1.496488 1.922584 2.118079 1.547374 1.947541 1.820837
##      4729     4730     4731     4732     4733     4734     4735     4736
## 2.096956 1.998697 1.332218 1.479178 1.668523 1.340395 2.035266 1.974482
##      4737     4738     4739     4740     4741     4742     4743     4744
## 1.984023 1.452980 1.340026 1.965956 1.923735 1.677190 1.761680 1.807201
##      4745     4746     4747     4748     4749     4750     4751     4752
## 1.909390 1.425408 2.055524 1.531610 1.869495 1.656574 2.062170 1.355717
##      4753     4754     4755     4756     4757     4758     4759     4760
## 2.105616 2.088547 1.588589 1.754291 1.603679 1.772387 1.991977 1.890897
##      4761     4762     4763     4764     4765     4766     4767     4768
## 2.072180 1.973194 1.884697 1.360332 2.137997 1.708409 1.705351 1.479971
##      4769     4770     4771     4772     4773     4774     4775     4776
## 1.428184 1.674395 1.987353 1.391066 1.490678 2.054703 1.423174 1.995693
```

```
##      4777     4778     4779     4780     4781     4782     4783     4784
## 1.758280 1.458344 1.858290 1.726628 1.951358 1.435084 1.414603 1.835813
##      4785     4786     4787     4788     4789     4790     4791     4792
## 1.694582 1.734800 1.817114 2.002850 1.741928 2.028363 1.499859 1.826285
##      4793     4794     4795     4796     4797     4798     4799     4800
## 1.187511 2.195710 1.860085 1.631525 1.851312 2.013822 1.977367 1.721818
##      4801     4802     4803     4804     4805     4806     4807     4808
## 2.034891 1.774421 1.395578 1.593833 1.689052 1.632406 1.473606 1.652673
##      4809     4810     4811     4812     4813     4814     4815     4816
## 1.985934 1.805999 1.871889 2.084627 1.971307 1.816652 2.025777 1.717875
##      4817     4818     4819     4820     4821     4822     4823     4824
## 1.751417 1.475921 1.245061 1.449322 1.841752 1.655296 1.963230 1.785870
##      4825     4826     4827     4828     4829     4830     4831     4832
## 1.912845 1.907421 2.076648 1.747838 1.772348 1.424414 1.841610 1.381189
##      4833     4834     4835     4836     4837     4838     4839     4840
## 1.749187 1.495013 1.634624 2.123163 1.991568 1.871818 1.508751 1.485237
##      4841     4842     4843     4844     4845     4846     4847     4848
## 1.253691 1.659320 1.767098 1.357946 2.041242 1.819750 1.712202 1.959231
##      4849     4850     4851     4852     4853     4854     4855     4856
## 1.515996 1.676422 2.111674 1.871266 1.887794 1.791554 1.398835 2.062368
##      4857     4858     4859     4860     4861     4862     4863     4864
## 1.865775 1.643821 1.548801 1.510091 1.483111 1.437416 1.937761 1.945309
##      4865     4866     4867     4868     4869     4870     4871     4872
## 2.065409 1.827030 1.719533 1.694033 1.437656 1.940575 1.641822 1.786622
##      4873     4874     4875     4876     4877     4878     4879     4880
## 2.025363 1.661171 2.018808 1.545561 1.590698 1.874926 1.866777 1.925535
##      4881     4882     4883     4884     4885     4886     4887     4888
## 1.702684 1.802092 1.755137 1.547454 1.360819 1.648711 1.802509 1.733878
##      4889     4890     4891     4892     4893     4894     4895     4896
## 1.696058 1.701484 1.614330 1.479367 1.451348 1.421591 1.861390 1.322562
##      4897     4898     4899     4900     4901     4902     4903     4904
## 1.517919 2.018360 1.948011 2.040750 1.394025 2.021406 1.896071 2.008741
##      4905     4906     4907     4908     4909     4910     4911     4912
## 1.505027 1.915141 2.158301 1.678231 1.418792 1.846198 2.075026 2.030354
##      4913     4914     4915     4916     4917     4918     4919     4920
## 2.123994 1.565758 1.969660 1.882357 1.498401 1.845497 2.063350 1.980779
##      4921     4922     4923     4924     4925     4926     4927     4928
## 1.623378 2.008244 1.607561 1.398191 1.699316 1.574127 1.896916 1.891657
##      4929     4930     4931     4932     4933     4934     4935     4936
## 1.680260 1.887385 1.535497 1.817385 1.401239 1.765711 1.570264 2.132953
##      4937     4938     4939     4940     4941     4942     4943     4944
## 1.752847 1.968108 1.358962 1.414380 1.607956 1.473159 1.308140 1.405043
##      4945     4946     4947     4948     4949     4950     4951     4952
## 1.418297 1.969932 1.307437 1.451675 1.297810 1.795821 1.739506 1.791615
##      4953     4954     4955     4956     4957     4958     4959     4960
## 1.501516 1.685080 1.708359 1.909264 1.490159 1.487691 1.695006 1.553985
##      4961     4962     4963     4964     4965     4966     4967     4968
## 1.840773 1.831430 1.636757 1.805935 2.057826 1.455602 1.624333 1.856504
##      4969     4970     4971     4972     4973     4974     4975     4976
## 1.873944 1.895328 1.603096 1.969845 1.817812 1.505204 1.679771 1.624098
```

```
##      4977      4978      4979      4980      4981      4982      4983      4984
## 1.939610 2.100107 1.471702 2.066672 1.917003 1.701853 1.678170 1.803885
##      4985      4986      4987      4988      4989      4990      4991      4992
## 1.750553 2.058758 1.446004 1.390785 1.996527 1.556659 1.773625 1.954972
##      4993      4994      4995      4996      4997      4998      4999      5000
## 1.689392 1.750002 1.950161 1.428177 1.754883 1.723971 1.645145 1.871970
##      5001      5002      5003      5004      5005      5006      5007      5008
## 1.922457 1.978690 1.988970 1.589793 1.833498 1.549657 1.766803 1.741666
##      5009      5010      5011      5012      5013      5014      5015      5016
## 1.833268 1.852417 2.120348 1.258402 1.949633 1.631079 2.108826 1.398521
##      5017      5018      5019      5020      5021      5022      5023      5024
## 2.041245 1.452701 1.898380 1.336157 2.013538 1.688145 1.398088 1.430113
##      5025      5026      5027      5028      5029      5030      5031      5032
## 1.376581 1.759395 1.810069 1.519929 1.328358 1.344211 1.826603 1.303199
##      5033      5034      5035      5036      5037      5038      5039      5040
## 1.535108 1.897854 1.922650 1.399331 1.562167 1.654083 1.637800 1.567970
##      5041      5042      5043      5044      5045      5046      5047      5048
## 1.709143 1.776879 1.838128 1.716354 1.692060 1.476740 2.009960 1.946152
##      5049      5050      5051      5052      5053      5054      5055      5056
## 2.124431 1.385744 1.777421 1.491984 1.677726 1.952076 1.720829 1.471410
##      5057      5058      5059      5060      5061      5062      5063      5064
## 1.652052 1.812328 1.821387 1.871335 2.049158 1.407457 1.627820 1.463330
##      5065      5066      5067      5068      5069      5070      5071      5072
## 1.350496 1.615384 2.018838 1.598762 1.575211 1.930604 1.928172 1.499895
##      5073      5074      5075      5076      5077      5078      5079      5080
## 1.843657 2.050767 1.926294 1.880159 1.945635 1.696730 1.927419 1.803729
##      5081      5082      5083      5084      5085      5086      5087      5088
## 2.097047 1.603722 1.358036 1.605035 1.840894 1.874764 1.918651 1.920507
##      5089      5090      5091      5092      5093      5094      5095      5096
## 2.193356 1.685611 1.291718 1.871215 1.453655 1.532642 1.952811 1.654659
##      5097      5098      5099      5100      5101      5102      5103      5104
## 1.935013 1.635326 1.787329 1.797674 1.751892 2.195172 1.392924 1.671573
##      5105      5106      5107      5108      5109      5110      5111      5112
## 1.822445 2.069714 1.666562 2.084871 1.452050 1.974585 1.658261 1.467079
##      5113      5114      5115      5116      5117      5118      5119      5120
## 1.746028 1.745321 1.791026 1.453798 1.976625 1.299759 1.829609 1.905522
##      5121      5122      5123      5124      5125      5126      5127      5128
## 1.549582 1.391185 1.637483 1.509497 1.951124 1.366567 1.394391 1.814925
##      5129      5130      5131      5132      5133      5134      5135      5136
## 1.310852 1.717093 1.832971 2.003869 1.295444 1.774628 1.933823 1.956470
##      5137      5138      5139      5140      5141      5142      5143      5144
## 1.528000 1.971071 1.410857 1.712995 1.885458 2.021559 1.829100 1.820716
##      5145      5146      5147      5148      5149      5150      5151      5152
## 1.974916 1.521594 1.425140 1.584630 1.823258 1.932725 2.070248 1.380689
##      5153      5154      5155      5156      5157      5158      5159      5160
## 1.474515 1.857043 1.879593 1.712260 1.629232 1.357164 1.814540 2.060847
##      5161      5162      5163      5164      5165      5166      5167      5168
## 1.386871 1.780992 1.807858 1.696212 2.042150 1.685834 1.367097 1.894889
##      5169      5170      5171      5172      5173      5174      5175      5176
## 1.771845 1.452656 1.747345 1.555519 2.071701 2.114256 1.840004 1.518890
```

```
##     5177     5178     5179     5180     5181     5182     5183     5184
## 1.919338 1.981288 1.443056 1.479752 1.417168 1.614838 1.372794 1.808430
##     5185     5186     5187     5188     5189     5190     5191     5192
## 2.078560 2.051134 1.533913 2.168649 1.763467 1.915480 1.662283 1.710218
##     5193     5194     5195     5196     5197     5198     5199     5200
## 1.796729 1.831128 1.881247 1.613588 1.624240 1.706558 2.057323 1.543461
##     5201     5202     5203     5204     5205     5206     5207     5208
## 1.876091 1.970564 1.815489 1.329042 2.079536 1.298282 1.473335 1.844645
##     5209     5210     5211     5212     5213     5214     5215     5216
## 1.830111 1.726815 1.804745 1.960485 1.712992 1.664322 2.032468 1.537770
##     5217     5218     5219     5220     5221     5222     5223     5224
## 1.830403 1.813520 1.309822 1.626151 1.558184 1.904635 1.294718 1.831860
##     5225     5226     5227     5228     5229     5230     5231     5232
## 1.399544 1.665625 1.440555 1.723722 1.741439 1.875738 1.972361 1.850145
##     5233     5234     5235     5236     5237     5238     5239     5240
## 1.940214 1.421220 1.547691 1.587135 2.064928 1.351884 1.401597 1.877327
##     5241     5242     5243     5244     5245     5246     5247     5248
## 2.091751 1.358206 1.369490 1.785847 1.734546 2.046948 1.495030 1.800333
##     5249     5250     5251     5252     5253     5254     5255     5256
## 1.425726 1.847461 1.480512 1.536227 1.737379 2.011333 1.748344 1.792777
##     5257     5258     5259     5260     5261     5262     5263     5264
## 1.784605 1.952734 1.838741 2.130234 1.602053 1.860721 1.616889 1.332887
##     5265     5266     5267     5268     5269     5270     5271     5272
## 2.117567 1.793358 1.650602 2.050487 1.375115 1.752957 2.078913 1.734151
##     5273     5274     5275     5276     5277     5278     5279     5280
## 2.180049 1.236654 1.804265 1.455508 2.055577 1.500388 1.820738 1.346562
##     5281     5282     5283     5284     5285     5286     5287     5288
## 1.850440 2.077954 1.859247 1.888965 1.691574 1.916675 1.685112 1.926436
##     5289     5290     5291     5292     5293     5294     5295     5296
## 2.027897 1.616078 1.413711 1.357952 1.502011 1.674569 1.830300 1.475891
##     5297     5298     5299     5300     5301     5302     5303     5304
## 1.934404 1.420978 1.311299 2.068690 2.068662 1.941518 1.845643 1.689066
##     5305     5306     5307     5308     5309     5310     5311     5312
## 1.676968 2.077857 1.595893 1.696387 1.689781 2.000302 1.900098 2.061892
##     5313     5314     5315     5316     5317     5318     5319     5320
## 1.936762 1.755906 1.733479 1.807968 1.888676 1.826230 1.993868 1.972564
##     5321     5322     5323     5324     5325     5326     5327     5328
## 1.607981 1.444422 1.954732 1.987638 1.449552 1.792785 1.879549 1.815898
##     5329     5330     5331     5332     5333     5334     5335     5336
## 1.779577 1.885404 1.531592 1.837734 1.287239 1.661892 1.966296 2.179223
##     5337     5338     5339     5340     5341     5342     5343     5344
## 1.581344 2.010267 1.998565 1.720197 1.996615 2.005870 1.443551 1.528404
##     5345     5346     5347     5348     5349     5350     5351     5352
## 1.679881 1.314639 1.697822 1.806794 2.056491 1.859455 1.597376 1.455803
##     5353     5354     5355     5356     5357     5358     5359     5360
## 1.826992 2.069636 2.057911 1.400951 2.108089 2.016306 2.065298 1.360290
##     5361     5362     5363     5364     5365     5366     5367     5368
## 1.891805 1.420054 1.727013 1.583975 1.940302 1.395591 1.645951 1.850891
##     5369     5370     5371     5372     5373     5374     5375     5376
## 1.604163 2.059112 1.696512 1.351058 1.530993 1.917460 1.501123 1.546903
```

```
##      5377      5378      5379      5380      5381      5382      5383      5384
## 1.667556 1.637527 1.676403 1.832124 1.717130 1.264423 1.561047 2.048112
##      5385      5386      5387      5388      5389      5390      5391      5392
## 1.396291 1.642343 1.367023 1.925836 1.398733 1.813754 2.005699 1.588016
##      5393      5394      5395      5396      5397      5398      5399      5400
## 1.973740 1.932646 1.832776 1.779397 1.608331 1.883185 2.199120 2.004228
##      5401      5402      5403      5404      5405      5406      5407      5408
## 1.414350 1.882536 1.510403 1.789757 1.402543 1.807724 1.607722 1.745137
##      5409      5410      5411      5412      5413      5414      5415      5416
## 1.826116 1.414679 1.911229 2.047244 1.989856 2.252540 1.408512 1.831296
##      5417      5418      5419      5420      5421      5422      5423      5424
## 1.481854 1.861321 1.591054 1.391575 2.147053 1.470180 1.902354 1.587836
##      5425      5426      5427      5428      5429      5430      5431      5432
## 1.763810 1.601647 1.816993 1.784046 1.498350 1.474838 1.382692 1.719467
##      5433      5434      5435      5436      5437      5438      5439      5440
## 2.149837 1.997274 1.750761 1.568153 1.793226 1.811808 1.649477 1.694734
##      5441      5442      5443      5444      5445      5446      5447      5448
## 2.018629 1.283050 1.903394 1.878717 2.085470 1.352243 1.837181 1.608071
##      5449      5450      5451      5452      5453      5454      5455      5456
## 1.775557 1.665083 1.375265 1.997768 2.023209 1.922952 1.639033 1.903904
##      5457      5458      5459      5460      5461      5462      5463      5464
## 1.766440 1.874784 1.814812 1.382473 1.626378 1.908056 1.493382 1.750266
##      5465      5466      5467      5468      5469      5470      5471      5472
## 1.708277 1.287282 1.837196 1.315768 2.090461 1.898516 1.501715 1.585619
##      5473      5474      5475      5476      5477      5478      5479      5480
## 1.304948 1.785530 1.678320 1.862222 1.641186 2.005860 1.912386 1.686425
##      5481      5482      5483      5484      5485      5486      5487      5488
## 1.665585 1.706480 1.769850 2.020789 1.264646 1.490824 1.529658 1.987868
##      5489      5490      5491      5492      5493      5494      5495      5496
## 1.745099 1.587436 1.380215 2.135078 1.667467 1.436996 1.991873 1.621108
##      5497      5498      5499      5500      5501      5502      5503      5504
## 1.773475 1.807719 1.896114 2.070638 1.671176 1.477951 2.035571 1.604001
##      5505      5506      5507      5508      5509      5510      5511      5512
## 1.966173 1.677769 1.961345 1.598589 1.933027 1.578464 1.694977 1.780173
##      5513      5514      5515      5516      5517      5518      5519      5520
## 1.893827 1.391826 1.451815 2.089548 1.942634 1.917596 1.804792 1.990334
##      5521      5522      5523      5524      5525      5526      5527      5528
## 1.811684 1.749417 1.954256 1.984673 1.322240 1.590734 1.986413 1.544923
##      5529      5530      5531      5532      5533      5534      5535      5536
## 1.938864 1.334531 1.931167 1.823341 1.788221 2.052980 1.554081 1.822202
##      5537      5538      5539      5540      5541      5542      5543      5544
## 1.480519 1.728126 1.301180 2.066155 1.390246 1.876284 1.826773 1.955187
##      5545      5546      5547      5548      5549      5550      5551      5552
## 1.529297 2.006198 2.124001 1.496010 1.415247 2.019973 1.605790 1.880875
##      5553      5554      5555      5556      5557      5558      5559      5560
## 1.812184 1.693455 1.812504 1.874929 1.575314 1.997438 1.832332 1.757044
##      5561      5562      5563      5564      5565      5566      5567      5568
## 1.360824 1.565927 1.842836 2.077442 1.351727 1.915910 2.152629 1.542582
##      5569      5570      5571      5572      5573      5574      5575      5576
## 2.001542 2.023880 2.107628 2.005597 1.998150 1.993064 1.510041 1.432895
```

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##      5577      5578      5579      5580      5581      5582      5583      5584
## 1.764089 1.922930 1.650389 1.599958 2.005284 1.851370 1.321037 1.929488
##      5585      5586      5587      5588      5589      5590      5591      5592
## 1.892552 1.444132 1.813551 2.037362 1.434986 2.033409 1.473038 1.476729
##      5593      5594      5595      5596      5597      5598      5599      5600
## 1.786797 1.705714 1.668843 1.484423 1.652728 1.849365 1.634420 1.896959
##      5601      5602      5603      5604      5605      5606      5607      5608
## 1.536560 1.348251 1.630689 1.971718 2.172816 1.897660 1.780829 1.912180
##      5609      5610      5611      5612      5613      5614      5615      5616
## 1.806521 1.833467 1.408471 1.855059 1.360423 1.449192 1.818808 1.660037
##      5617      5618      5619      5620      5621      5622      5623      5624
## 1.841030 1.721859 1.325626 1.424431 1.758694 1.526427 1.611629 2.061294
##      5625      5626      5627      5628      5629      5630      5631      5632
## 1.779958 1.785663 1.705955 1.542434 1.805525 1.817388 1.817349 1.399956
##      5633      5634      5635      5636      5637      5638      5639      5640
## 1.948354 1.903485 1.453506 1.449199 1.908143 1.838671 1.748905 1.642885
##      5641      5642      5643      5644      5645      5646      5647      5648
## 1.890465 1.976761 1.655111 1.625422 1.384446 1.955992 2.002842 1.706754
##      5649      5650      5651      5652      5653      5654      5655      5656
## 1.341576 1.393540 2.053619 1.728267 1.775076 1.398893 1.473641 1.363700
##      5657      5658      5659      5660      5661      5662      5663      5664
## 1.678174 1.776127 1.818958 1.483597 1.603849 1.821282 2.030485 1.928104
##      5665      5666      5667      5668      5669      5670      5671      5672
## 1.864327 2.010132 1.410356 1.841050 1.737006 1.748615 1.316383 1.696759
##      5673      5674      5675      5676      5677      5678      5679      5680
## 1.823824 1.551336 1.610430 1.820726 2.050294 1.396548 1.850373 1.978226
##      5681      5682      5683      5684      5685      5686      5687      5688
## 1.448622 1.992104 1.859887 1.774657 1.874941 1.816457 1.953778 1.806405
##      5689      5690      5691      5692      5693      5694      5695      5696
## 1.857422 1.470474 1.483042 1.521780 1.753984 1.784960 2.016885 1.375538
##      5697      5698      5699      5700      5701      5702      5703      5704
## 1.811808 1.414155 1.646325 1.397395 1.882534 1.896728 1.409830 1.836350
##      5705      5706      5707      5708      5709      5710      5711      5712
## 1.985881 1.302161 1.604259 1.568411 1.918820 1.380198 1.928035 1.530875
##      5713      5714      5715      5716      5717      5718      5719      5720
## 1.955191 1.491654 1.802012 1.386854 1.872883 2.006426 1.919639 1.548930
##      5721      5722      5723      5724      5725      5726      5727      5728
## 1.873164 2.023499 1.780069 1.444089 2.122590 2.108026 2.039243 1.808834
##      5729      5730      5731      5732      5733      5734      5735      5736
## 1.756006 1.804745 1.886887 2.092133 1.374240 1.937557 1.938302 1.758364
##      5737      5738      5739      5740      5741      5742      5743      5744
## 1.983176 1.413345 1.790713 1.385351 1.624554 1.411747 2.034003 2.028692
##      5745      5746      5747      5748      5749      5750      5751      5752
## 1.777641 1.915671 1.374858 2.048086 1.770536 1.908526 1.391826 1.443751
##      5753      5754      5755      5756      5757      5758      5759      5760
## 2.023043 1.587878 1.410504 1.872126 1.791291 1.805663 1.989687 1.614935
##      5761      5762      5763      5764      5765      5766      5767      5768
## 1.943196 1.912658 1.833479 2.050671 1.876826 1.648488 1.821856 2.122661
##      5769      5770      5771      5772      5773      5774      5775      5776
## 2.178501 1.818646 1.747183 2.029771 1.571380 1.353214 1.240982 1.604169
```

```
##      5777      5778      5779      5780      5781      5782      5783      5784
## 1.987064 2.062955 1.634790 1.566846 1.971756 1.648631 1.703621 1.481992
##      5785      5786      5787      5788      5789      5790      5791      5792
## 1.622079 1.884473 1.560090 1.856528 1.600580 1.309704 1.543393 1.503853
##      5793      5794      5795      5796      5797      5798      5799      5800
## 1.466133 1.792156 1.376335 2.079440 1.699616 1.792126 2.068923 1.918070
##      5801      5802      5803      5804      5805      5806      5807      5808
## 1.377026 1.399464 1.944240 1.419442 1.907930 1.811236 1.284165 1.657098
##      5809      5810      5811      5812      5813      5814      5815      5816
## 1.628705 1.841891 2.010792 1.912781 1.938497 1.575475 1.813092 2.000038
##      5817      5818      5819      5820      5821      5822      5823      5824
## 1.350617 1.362699 1.532487 2.087172 1.823004 1.921831 1.346237 1.527918
##      5825      5826      5827      5828      5829      5830      5831      5832
## 1.607600 1.743179 1.997051 1.872141 1.508485 1.932824 1.323983 1.984832
##      5833      5834      5835      5836      5837      5838      5839      5840
## 1.723087 1.557832 1.543090 1.409922 1.347335 1.395996 1.687661 2.096794
##      5841      5842      5843      5844      5845      5846      5847      5848
## 2.033423 1.503138 1.648826 1.465870 1.851142 1.596106 1.888978 1.630109
##      5849      5850      5851      5852      5853      5854      5855      5856
## 1.472528 2.044377 2.145828 1.472673 1.991471 1.546518 1.347048 2.038986
##      5857      5858      5859      5860      5861      5862      5863      5864
## 1.803224 1.767363 1.928031 1.596029 1.715867 1.750506 1.713926 1.427243
##      5865      5866      5867      5868      5869      5870      5871      5872
## 1.548084 1.291401 2.089141 1.303743 1.702647 1.848015 1.951928 1.592239
##      5873      5874      5875      5876      5877      5878      5879      5880
## 1.847299 1.899333 1.786039 1.754313 1.882863 2.040110 1.736500 1.567232
##      5881      5882      5883      5884      5885      5886      5887      5888
## 1.664668 2.042218 1.582609 1.674074 1.869003 1.564335 1.741783 2.004289
##      5889      5890      5891      5892      5893      5894      5895      5896
## 2.081470 1.926359 1.650729 1.862308 1.660925 1.684435 1.859764 1.810874
##      5897      5898      5899      5900      5901      5902      5903      5904
## 1.365269 1.392146 1.597748 1.807719 1.697111 1.610868 1.705872 1.606793
##      5905      5906      5907      5908      5909      5910      5911      5912
## 1.705055 1.892360 2.029896 2.006969 1.766322 2.076360 2.081904 1.443221
##      5913      5914      5915      5916      5917      5918      5919      5920
## 1.806368 1.968742 1.437578 2.092059 1.712101 1.697555 1.983479 2.097993
##      5921      5922      5923      5924      5925      5926      5927      5928
## 1.766147 1.989197 1.355453 1.324665 1.216660 1.423565 1.570620 1.963229
##      5929      5930      5931      5932      5933      5934      5935      5936
## 1.277793 1.526772 1.731941 1.870472 1.774124 1.492118 1.353837 1.789736
##      5937      5938      5939      5940      5941      5942      5943      5944
## 1.777769 2.009183 1.897468 2.092608 1.897333 1.590840 1.576228 1.723899
##      5945      5946      5947      5948      5949      5950      5951      5952
## 1.641558 1.738245 2.224413 1.479620 1.454021 1.602509 2.015952 1.686087
##      5953      5954      5955      5956      5957      5958      5959      5960
## 1.656896 1.625577 1.670656 2.019938 1.852500 1.646189 1.537749 1.629569
##      5961      5962      5963      5964      5965      5966      5967      5968
## 1.733113 1.369324 2.111699 1.660076 1.806092 1.821679 1.482987 1.791562
##      5969      5970      5971      5972      5973      5974      5975      5976
## 2.064501 1.732361 2.057636 1.806458 1.960821 1.891700 1.551456 1.360563
```

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##      5977      5978      5979      5980      5981      5982      5983      5984
## 1.985148 1.366184 1.910387 1.963493 1.194267 1.570277 1.446746 2.046919
##      5985      5986      5987      5988      5989      5990      5991      5992
## 1.479658 1.575005 2.111432 2.085507 1.337131 1.973791 1.697939 2.026690
##      5993      5994      5995      5996      5997      5998      5999      6000
## 1.553703 1.330458 2.122713 2.006968 1.856876 1.725882 1.818302 1.862441
##      6001      6002      6003      6004      6005      6006      6007      6008
## 1.576218 1.932096 1.934855 1.417212 1.613558 1.694092 1.469909 1.892128
##      6009      6010      6011      6012      6013      6014      6015      6016
## 1.721325 1.980494 1.715955 1.814019 1.806008 1.827623 1.992232 1.307807
##      6017      6018      6019      6020      6021      6022      6023      6024
## 1.844872 1.856104 1.974984 1.631453 1.486702 1.648843 1.621054 1.684459
##      6025      6026      6027      6028      6029      6030      6031      6032
## 1.418822 1.861878 1.784950 1.890385 1.740219 1.998473 1.604769 1.437687
##      6033      6034      6035      6036      6037      6038      6039      6040
## 1.816978 1.896204 1.511860 1.413817 1.989360 1.402565 1.592282 1.361932
##      6041      6042      6043      6044      6045      6046      6047      6048
## 2.056996 1.874731 1.847604 2.004390 1.936353 1.560768 1.561526 2.026835
##      6049      6050      6051      6052      6053      6054      6055      6056
## 1.678953 1.648989 1.891333 1.340995 1.661452 1.676671 2.055912 1.439845
##      6057      6058      6059      6060      6061      6062      6063      6064
## 2.009311 1.351356 1.728758 1.664667 2.040176 1.956205 1.912679 1.868515
##      6065      6066      6067      6068      6069      6070      6071      6072
## 1.998291 1.574531 1.745732 2.099672 1.946820 1.935510 1.719207 1.663681
##      6073      6074      6075      6076      6077      6078      6079      6080
## 1.663871 1.690102 1.969309 1.476048 1.532675 1.934346 1.702070 1.535388
##      6081      6082      6083      6084      6085      6086      6087      6088
## 1.246600 1.969413 1.220114 2.048169 1.915598 2.064028 1.768998 1.349125
##      6089      6090      6091      6092      6093      6094      6095      6096
## 2.186856 1.663833 2.088876 1.396644 1.927507 2.013352 1.866091 1.813216
##      6097      6098      6099      6100      6101      6102      6103      6104
## 1.782025 1.655524 1.809578 1.658016 1.608329 1.634582 1.601527 1.725681
##      6105      6106      6107      6108      6109      6110      6111      6112
## 1.496309 1.640661 2.058464 1.886281 2.061102 1.980663 1.761971 1.640406
##      6113      6114      6115      6116      6117      6118      6119      6120
## 1.959121 1.891746 1.917377 2.033680 1.309598 1.362944 1.815329 1.431002
##      6121      6122      6123      6124      6125      6126      6127      6128
## 1.748042 2.112424 1.613382 1.819212 1.576236 1.630966 2.029004 2.055090
##      6129      6130      6131      6132      6133      6134      6135      6136
## 1.790174 1.836267 1.859968 1.810952 1.611821 1.713450 1.950983 1.504682
##      6137      6138      6139      6140      6141      6142      6143      6144
## 2.104467 1.470829 1.658281 2.076331 1.639741 1.528352 1.488205 1.451968
##      6145      6146      6147      6148      6149      6150      6151      6152
## 2.046645 1.947223 1.824558 1.500978 1.815990 1.771572 1.894235 1.779890
##      6153      6154      6155      6156      6157      6158      6159      6160
## 1.540109 1.757099 1.416148 1.938031 1.366318 1.527567 1.764535 1.352237
##      6161      6162      6163      6164      6165      6166      6167      6168
## 1.612769 1.825338 1.646653 1.447867 1.558789 1.581767 1.682365 1.620345
##      6169      6170      6171      6172      6173      6174      6175      6176
## 1.610172 1.937745 1.254137 1.752519 1.719373 2.185673 1.769642 1.735998
```

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##      6177      6178      6179      6180      6181      6182      6183      6184
## 1.685805 1.731899 1.935091 1.854871 2.116898 1.393265 1.728198 1.463131
##      6185      6186      6187      6188      6189      6190      6191      6192
## 1.412488 1.910742 1.398606 1.893981 1.758005 1.940777 1.500777 2.091905
##      6193      6194      6195      6196      6197      6198      6199      6200
## 1.490493 1.814785 1.972701 1.615234 1.592581 1.706446 1.677675 2.057463
##      6201      6202      6203      6204      6205      6206      6207      6208
## 1.687285 1.849836 1.442708 1.598712 1.961095 2.009241 1.240073 2.138748
##      6209      6210      6211      6212      6213      6214      6215      6216
## 1.895635 1.943010 1.497615 1.854637 1.893417 1.782093 1.463100 1.858147
##      6217      6218      6219      6220      6221      6222      6223      6224
## 2.033224 2.021228 1.661944 2.150055 2.030219 1.827058 1.349285 1.255481
##      6225      6226      6227      6228      6229      6230      6231      6232
## 1.809261 1.968815 1.653796 1.425930 1.455396 1.654574 1.828331 1.266745
##      6233      6234      6235      6236      6237      6238      6239      6240
## 1.621049 2.073919 2.048845 1.556030 1.872494 1.982752 1.747173 1.943278
##      6241      6242      6243      6244      6245      6246      6247      6248
## 1.409847 1.901525 1.840817 1.781029 1.677601 1.884802 1.826156 1.544868
##      6249      6250      6251      6252      6253      6254      6255      6256
## 1.384090 1.758656 2.049064 1.787789 2.105452 1.750436 1.716431 1.794588
##      6257      6258      6259      6260      6261      6262      6263      6264
## 1.589911 1.524674 1.400008 1.922623 1.740970 1.986352 1.542434 1.994236
##      6265      6266      6267      6268      6269      6270      6271      6272
## 1.351169 1.662097 2.147939 1.923051 1.808946 1.873802 1.698129 1.814956
##      6273      6274      6275      6276      6277      6278      6279      6280
## 1.860881 1.943489 1.373304 1.390725 1.773533 1.847946 1.449125 1.372828
##      6281      6282      6283      6284      6285      6286      6287      6288
## 2.004225 1.788950 2.054846 1.607471 1.974714 1.811437 2.065907 1.705654
##      6289      6290      6291      6292      6293      6294      6295      6296
## 1.960744 1.667988 1.876928 2.000169 1.857049 1.411549 1.955789 1.423430
##      6297      6298      6299      6300      6301      6302      6303      6304
## 1.472065 1.953750 1.911542 1.453716 2.054461 1.848916 1.588111 1.841465
##      6305      6306      6307      6308      6309      6310      6311      6312
## 1.295311 1.367182 1.973689 2.039561 1.369979 1.870478 1.687126 1.816683
##      6313      6314      6315      6316      6317      6318      6319      6320
## 1.911157 1.368033 1.614508 1.515120 1.616021 1.872309 1.640287 2.141385
##      6321      6322      6323      6324      6325      6326      6327      6328
## 1.794490 1.465673 1.960292 1.967363 1.698789 1.887057 1.605575 1.670582
##      6329      6330      6331      6332      6333      6334      6335      6336
## 1.748740 1.757025 1.672671 1.482117 1.363176 1.596281 1.950062 1.512019
##      6337      6338      6339      6340      6341      6342      6343      6344
## 1.506379 1.641271 1.506352 1.547998 2.024666 1.788625 1.725882 1.620546
##      6345      6346      6347      6348      6349      6350      6351      6352
## 1.758241 1.986963 1.980021 1.464975 1.917388 2.135850 1.861694 1.752703
##      6353      6354      6355      6356      6357      6358      6359      6360
## 1.709441 1.338877 1.502299 1.901082 1.209750 2.034818 2.076095 1.193730
##      6361      6362      6363      6364      6365      6366      6367      6368
## 1.929855 1.593103 1.911577 1.945316 1.628515 2.052225 1.432375 2.095294
##      6369      6370      6371      6372      6373      6374      6375      6376
## 1.575574 1.552929 1.425837 1.649200 1.836441 2.002364 1.909699 1.869179
```

```
##      6377      6378      6379      6380      6381      6382      6383      6384
## 1.278716 2.096995 1.855810 1.802281 2.082448 1.922490 1.786377 1.743896
##      6385      6386      6387      6388      6389      6390      6391      6392
## 1.547049 1.879857 1.653272 1.469248 1.927641 1.881418 1.656640 2.099775
##      6393      6394      6395      6396      6397      6398      6399      6400
## 1.729962 1.938915 2.019580 1.812165 1.691875 1.613500 1.685180 1.869619
##      6401      6402      6403      6404      6405      6406      6407      6408
## 1.939428 2.020552 1.407808 2.066185 1.518127 1.987292 1.840049 2.030500
##      6409      6410      6411      6412      6413      6414      6415      6416
## 1.639050 1.699469 1.783821 1.630701 1.912642 1.989037 2.084763 1.879309
##      6417      6418      6419      6420      6421      6422      6423      6424
## 1.903288 1.929813 2.001240 1.424983 2.099490 1.870705 1.944712 1.875538
##      6425      6426      6427      6428      6429      6430      6431      6432
## 2.081122 1.601448 1.950788 2.151606 1.880310 1.299372 1.654495 1.440472
##      6433      6434      6435      6436      6437      6438      6439      6440
## 1.805134 2.019787 1.852598 1.743116 1.407357 1.861291 2.036244 1.748148
##      6441      6442      6443      6444      6445      6446      6447      6448
## 1.812552 1.984794 1.878989 1.458088 1.507003 1.621559 1.686447 1.827245
##      6449      6450      6451      6452      6453      6454      6455      6456
## 1.759687 1.704218 1.701275 1.704860 1.669027 1.359352 1.938164 1.777040
##      6457      6458      6459      6460      6461      6462      6463      6464
## 2.071328 1.490376 1.446925 1.747414 1.999858 1.696403 1.942605 1.889376
##      6465      6466      6467      6468      6469      6470      6471      6472
## 1.345512 1.907978 1.715158 2.070932 1.884083 1.827973 1.547422 1.789178
##      6473      6474      6475      6476      6477      6478      6479      6480
## 1.501108 1.224247 1.436509 1.842546 1.808719 1.641067 1.852518 1.404470
##      6481      6482      6483      6484      6485      6486      6487      6488
## 1.767435 1.924585 1.406700 1.957480 1.676967 1.664260 1.407305 1.540879
##      6489      6490      6491      6492      6493      6494      6495      6496
## 1.626135 1.407071 1.806975 1.869429 1.759383 1.979435 1.968384 1.416915
##      6497      6498      6499      6500      6501      6502      6503      6504
## 2.071016 1.359525 1.777806 1.535050 1.562816 1.860505 2.037309 1.721847
##      6505      6506      6507      6508      6509      6510      6511      6512
## 1.706699 2.030583 1.650411 1.687184 1.637156 1.648446 1.758296 1.351047
##      6513      6514      6515      6516      6517      6518      6519      6520
## 1.901992 1.888778 1.829514 1.361283 2.063723 1.701352 1.658220 2.120132
##      6521      6522      6523      6524      6525      6526      6527      6528
## 1.294115 1.944279 1.745959 1.865321 1.441564 1.794657 1.593706 1.611693
##      6529      6530      6531      6532      6533      6534      6535      6536
## 1.980094 1.471561 1.708070 1.867448 1.960751 1.407908 2.057223 1.504242
##      6537      6538      6539      6540      6541      6542      6543      6544
## 1.602982 1.748007 1.925335 1.862965 1.529068 1.425186 1.753544 1.315851
##      6545      6546      6547      6548      6549      6550      6551      6552
## 1.929114 1.461111 1.903377 1.906131 1.465313 1.871844 1.734887 1.937336
##      6553      6554      6555      6556      6557      6558      6559      6560
## 1.464502 1.279078 1.460528 1.835074 1.717658 1.999202 1.386113 1.936635
##      6561      6562      6563      6564      6565      6566      6567      6568
## 1.935834 1.622719 1.904637 2.078752 1.893520 1.289283 1.742790 1.805784
##      6569      6570      6571      6572      6573      6574      6575      6576
## 2.112463 1.776004 2.114545 1.880260 1.859983 1.910454 1.858876 2.061057
```

```
##      6577      6578      6579      6580      6581      6582      6583      6584
## 1.981970 1.954410 1.719082 1.929948 2.049137 1.394432 1.419038 1.820944
##      6585      6586      6587      6588      6589      6590      6591      6592
## 1.769410 1.802586 2.080083 2.090604 1.569041 2.077135 1.441226 1.704092
##      6593      6594      6595      6596      6597      6598      6599      6600
## 1.925595 1.590843 1.602680 1.630282 1.841331 1.549972 1.586379 1.818075
##      6601      6602      6603      6604      6605      6606      6607      6608
## 1.758141 1.362554 1.876382 1.419810 1.807849 2.118546 1.677996 1.538075
##      6609      6610      6611      6612      6613      6614      6615      6616
## 1.837498 1.565236 1.852278 1.340712 2.057154 1.537952 1.284129 1.989072
##      6617      6618      6619      6620      6621      6622      6623      6624
## 1.313507 1.270386 2.005547 1.384552 1.979893 1.389977 1.707988 1.901056
##      6625      6626      6627      6628      6629      6630      6631      6632
## 1.344818 1.366388 1.914708 1.712299 2.040363 2.039968 1.809233 1.838435
##      6633      6634      6635      6636      6637      6638      6639      6640
## 1.711539 1.748117 1.397971 1.665179 1.807209 2.013140 2.089543 1.878912
##      6641      6642      6643      6644      6645      6646      6647      6648
## 1.862665 1.817511 1.826101 1.964263 1.644317 1.307188 2.023635 2.006435
##      6649      6650      6651      6652      6653      6654      6655      6656
## 1.992502 1.452010 2.146147 1.409308 2.008186 1.960840 1.542214 1.564096
##      6657      6658      6659      6660      6661      6662      6663      6664
## 1.801148 1.666742 1.392813 1.559831 1.473367 1.840275 1.977864 1.608200
##      6665      6666      6667      6668      6669      6670      6671      6672
## 1.778512 1.767691 1.663958 1.673131 1.981273 2.071495 1.834315 1.299054
##      6673      6674      6675      6676      6677      6678      6679      6680
## 1.901156 1.834568 1.757287 1.791682 1.917813 1.356854 1.963213 1.847937
##      6681      6682      6683      6684      6685      6686      6687      6688
## 1.714835 1.938941 1.834721 1.568508 1.759215 2.196230 1.376831 1.706955
##      6689      6690      6691      6692      6693      6694      6695      6696
## 1.715721 1.978233 1.848760 1.626608 1.526877 1.447839 1.721827 1.766261
##      6697      6698      6699      6700      6701      6702      6703      6704
## 1.805999 1.957473 1.370887 1.720598 2.019053 1.607901 1.581306 1.697750
##      6705      6706      6707      6708      6709      6710      6711      6712
## 1.413368 1.358500 1.365212 1.615293 1.397860 2.057721 2.040219 1.953377
##      6713      6714      6715      6716      6717      6718      6719      6720
## 1.743793 2.038966 2.043737 1.931753 1.401389 1.487317 2.037932 2.049505
##      6721      6722      6723      6724      6725      6726      6727      6728
## 1.916450 1.929181 1.492831 1.808563 1.766526 2.204436 2.043396 1.862812
##      6729      6730      6731      6732      6733      6734      6735      6736
## 1.806604 1.550108 1.665961 1.351769 2.016568 1.740062 1.939913 1.646465
##      6737      6738      6739      6740      6741      6742      6743      6744
## 1.738320 1.885169 1.297381 2.126424 1.817265 2.034964 1.790896 1.977982
##      6745      6746      6747      6748      6749      6750      6751      6752
## 1.637129 1.386466 1.884897 1.845401 1.692213 1.694945 1.759628 1.744359
##      6753      6754      6755      6756      6757      6758      6759      6760
## 1.987393 1.406700 2.021360 1.912818 2.008739 2.068628 2.036732 1.382970
##      6761      6762      6763      6764      6765      6766      6767      6768
## 1.869635 1.838428 1.432398 1.807858 1.821798 1.985725 1.625828 2.065438
##      6769      6770      6771      6772      6773      6774      6775      6776
## 1.822899 1.736722 1.492660 1.698785 1.894885 1.824299 1.877122 1.759736
```

```
##      6777      6778      6779      6780      6781      6782      6783      6784
## 1.578868 1.890151 1.753447 2.001887 1.581452 1.960919 1.950966 2.012908
##      6785      6786      6787      6788      6789      6790      6791      6792
## 1.759765 1.651588 1.536844 1.454235 1.883738 1.576918 1.536873 1.485403
##      6793      6794      6795      6796      6797      6798      6799      6800
## 1.796605 1.441982 1.785675 2.000607 1.892166 1.686502 1.361025 1.667082
##      6801      6802      6803      6804      6805      6806      6807      6808
## 1.450381 1.754345 2.033573 1.690885 2.228300 1.402472 2.057386 1.797296
##      6809      6810      6811      6812      6813      6814      6815      6816
## 1.619567 1.776856 1.413853 1.476797 1.676771 1.689410 1.497283 1.777597
##      6817      6818      6819      6820      6821      6822      6823      6824
## 1.987230 1.941251 1.952733 1.934373 1.311317 2.051772 1.385133 1.660703
##      6825      6826      6827      6828      6829      6830      6831      6832
## 1.781813 1.350271 1.330026 1.367740 1.295557 1.787978 1.714326 1.834436
##      6833      6834      6835      6836      6837      6838      6839      6840
## 1.523455 1.645303 1.536083 1.341447 1.678918 1.555992 1.645133 2.171573
##      6841      6842      6843      6844      6845      6846      6847      6848
## 1.717061 1.899832 1.741922 1.811541 1.933260 2.040325 1.712133 1.475015
##      6849      6850      6851      6852      6853      6854      6855      6856
## 2.040145 1.527043 1.434135 1.265997 1.928962 1.564792 1.808285 1.226871
##      6857      6858      6859      6860      6861      6862      6863      6864
## 2.096153 1.355907 1.940707 1.632934 1.715814 1.870425 2.113542 1.773687
##      6865      6866      6867      6868      6869      6870      6871      6872
## 2.076048 1.886087 1.468926 1.323073 1.513207 2.085608 1.759254 1.899783
##      6873      6874      6875      6876      6877      6878      6879      6880
## 1.641359 1.510549 1.445797 1.268129 1.980284 1.372504 1.412881 1.839652
##      6881      6882      6883      6884      6885      6886      6887      6888
## 1.630576 1.759148 1.767256 1.210289 1.937446 1.646722 1.933160 1.508337
##      6889      6890      6891      6892      6893      6894      6895      6896
## 1.615232 1.643396 1.712412 1.976699 1.786401 1.782334 1.591547 1.931483
##      6897      6898      6899      6900      6901      6902      6903      6904
## 1.676798 1.649010 1.670487 1.993734 2.034559 1.334527 1.891472 1.510341
##      6905      6906      6907      6908      6909      6910      6911      6912
## 1.799177 2.058996 1.948581 1.673141 1.690827 2.005464 1.688240 1.496480
##      6913      6914      6915      6916      6917      6918      6919      6920
## 1.951954 1.409535 1.896973 1.728266 1.773577 1.903812 1.908033 1.356768
##      6921      6922      6923      6924      6925      6926      6927      6928
## 1.864444 1.583137 1.407676 1.895694 1.891586 1.407213 1.700905 2.009210
##      6929      6930      6931      6932      6933      6934      6935      6936
## 1.725865 2.114009 1.964367 1.993545 1.699389 1.770688 1.900975 1.789723
##      6937      6938      6939      6940      6941      6942      6943      6944
## 1.771510 1.769628 1.782595 1.685640 1.993233 1.585919 1.329473 1.798847
##      6945      6946      6947      6948      6949      6950      6951      6952
## 1.639235 2.050839 1.493282 1.919836 1.558075 1.519134 1.469400 1.464793
##      6953      6954      6955      6956      6957      6958      6959      6960
## 1.356058 1.780822 1.837169 1.871832 1.409782 1.430057 1.805488 1.364806
##      6961      6962      6963      6964      6965      6966      6967      6968
## 1.416140 1.702152 1.755833 1.615627 1.893232 2.014458 1.712467 2.168399
##      6969      6970      6971      6972      6973      6974      6975      6976
## 1.637069 1.534363 1.647430 2.170494 1.696819 1.736629 1.879995 1.560184
```

```
##      6977      6978      6979      6980      6981      6982      6983      6984
## 1.553173 1.706614 1.709798 1.580936 1.334455 1.856192 1.569332 1.908360
##      6985      6986      6987      6988      6989      6990      6991      6992
## 2.063141 1.886823 1.557533 1.407343 1.633443 2.030948 1.619403 1.848911
##      6993      6994      6995      6996      6997      6998      6999      7000
## 1.762797 1.565764 1.932171 1.534199 2.004911 1.311136 1.474402 1.293335
##      7001      7002      7003      7004      7005      7006      7007      7008
## 1.729937 1.999070 1.590333 1.564067 1.506970 1.665706 2.045058 1.414233
##      7009      7010      7011      7012      7013      7014      7015      7016
## 1.995160 1.824648 1.696363 1.801091 1.643126 1.667171 1.469167 1.649988
##      7017      7018      7019      7020      7021      7022      7023      7024
## 1.678968 2.103267 1.419965 1.757233 1.921761 1.289334 1.610627 1.809769
##      7025      7026      7027      7028      7029      7030      7031      7032
## 1.476730 1.666917 2.046856 1.736280 1.830835 1.673316 1.306902 1.958708
```

residuals(fit)

```
##                1              2              3              4              5
##  4.212205e-01  1.195841e-01 -6.784100e-01  6.221027e-02 -4.014162e-01
##                6              7              8              9             10
## -2.827473e-01  5.231914e-01  3.114542e-01 -4.839328e-01 -7.725445e-02
##               11             12             13             14             15
##  2.827325e-01  4.070819e-02  2.837956e-01 -6.148475e-01  4.254464e-01
##               16             17             18             19             20
## -5.528752e-02  1.936205e-02  5.385749e-02 -7.751256e-01  5.088968e-01
##               21             22             23             24             25
## -4.639526e-01  9.691352e-02 -8.080907e-01  2.274791e-02 -4.318281e-02
##               26             27             28             29             30
##  1.923469e-01 -5.937580e-01 -6.543384e-01 -9.302690e-02 -5.799656e-01
##               31             32             33             34             35
##  3.146974e-02  7.469439e-01  3.430424e-02  1.688491e-01  3.857017e-01
##               36             37             38             39             40
## -7.646371e-02 -4.264421e-01  3.298016e-01 -4.772256e-01 -3.316295e-01
##               41             42             43             44             45
##  2.330650e-01 -3.872043e-02  8.794888e-02 -5.916353e-02  3.353532e-01
##               46             47             48             49             50
##  4.347987e-01  3.288002e-01 -3.440918e-01  6.937739e-02 -1.041531e-01
##               51             52             53             54             55
##  4.845371e-01 -4.654573e-01  3.232440e-01 -3.511893e-01 -2.107078e-02
##               56             57             58             59             60
## -2.910501e-01  2.185171e-01  1.947023e-01  3.030626e-02  1.184528e-01
##               61             62             63             64             65
##  4.586655e-01  3.002228e-01 -4.680935e-02  1.908081e-01 -3.339682e-01
##               66             67             68             69             70
##  4.344628e-01  3.250105e-01  1.299734e-01 -6.464684e-02  4.860543e-01
##               71             72             73             74             75
##  2.945761e-01  3.432107e-02  1.264565e-01 -1.079414e-02  2.994959e-01
##               76             77             78             79             80
##  2.524139e-01  1.537344e-01  2.295990e-01  3.358404e-01  9.538227e-02
##               81             82             83             84             85
```

```
## -3.726814e-01  3.880094e-01 -4.502573e-01  3.231485e-01  9.042911e-03
##            86            87            88            89            90
##  6.823099e-01  1.969436e-01 -6.407877e-02  1.451483e-02  3.445073e-01
##            91            92            93            94            95
##  3.215232e-01  5.373907e-01 -4.831352e-02  2.264885e-01  1.145998e-01
##            96            97            98            99           100
## -4.655069e-01 -8.787121e-02 -8.129129e-01 -5.254209e-02 -4.339929e-01
##           101           102           103           104           105
##  1.922811e-01  1.606697e-01  2.988713e-01  1.564102e-01 -9.094287e-01
##           106           107           108           109           110
##  3.769246e-01  1.377804e-01  2.023695e-01  4.110518e-01 -1.256871e-01
##           111           112           113           114           115
## -7.031970e-01 -6.715160e-02  3.744425e-01 -4.830281e-01  8.914369e-02
##           116           117           118           119           120
##  4.940873e-01  1.258986e-01 -3.658337e-01  4.755765e-03  4.017391e-01
##           121           122           123           124           125
##  3.219929e-01  1.867968e-01 -3.609004e-01  2.643169e-01  1.716809e-01
##           126           127           128           129           130
##  2.431693e-01 -4.604158e-01 -2.441850e-02  1.889352e-01  1.745813e-01
##           131           132           133           134           135
##  6.453807e-01 -6.789968e-01 -8.015135e-02 -5.033330e-01 -6.590969e-01
##           136           137           138           139           140
##  7.810484e-02  4.042998e-01 -8.228119e-02 -2.482537e-02 -3.377407e-01
##           141           142           143           144           145
## -8.220688e-02 -6.674382e-01  2.588658e-01  1.511536e-01 -2.159794e-02
##           146           147           148           149           150
##  3.028289e-02  1.395241e-01 -5.955214e-01  1.592653e-01  2.853305e-01
##           151           152           153           154           155
##  3.925661e-01 -3.118144e-01  8.879088e-02 -1.364348e-01  1.570963e-01
##           156           157           158           159           160
##  5.488775e-01  5.685435e-01  7.103511e-02  1.667313e-01  1.198671e-01
##           161           162           163           164           165
##  2.574994e-01 -5.361363e-01  5.919486e-01  4.071304e-02  1.064347e-01
##           166           167           168           169           170
## -7.741212e-02 -4.251782e-01 -1.038671e-01 -7.065500e-01  1.269896e-01
##           171           172           173           174           175
##  1.691617e-01 -2.981633e-01  2.449552e-01 -6.897525e-01  4.780082e-02
##           176           177           178           179           180
##  1.516017e-01 -3.661907e-01 -4.921739e-01  6.163542e-01  2.412274e-02
##           181           182           183           184           185
## -6.456935e-01  3.633155e-01 -3.983476e-01  1.536691e-01 -5.033340e-01
##           186           187           188           189           190
## -5.605431e-01  3.200309e-01  3.264026e-01  1.097673e-01  2.144447e-01
##           191           192           193           194           195
##  1.179474e-01 -3.921005e-01 -1.225246e-01 -6.351538e-03 -9.580144e-02
##           196           197           198           199           200
##  4.156199e-01  9.516638e-02  2.717906e-01  5.456356e-02  1.724815e-01
##           201           202           203           204           205
##  3.924549e-01  4.424509e-01  6.137915e-02  5.381391e-01  3.068416e-01
##           206           207           208           209           210
```

```
##   2.778161e-01 -8.462521e-02 -3.977257e-01 -5.133851e-01  1.184623e-01
##            211           212           213           214           215
## -6.044005e-01  3.907666e-01 -7.833252e-02  4.809013e-02  5.931910e-01
##            216           217           218           219           220
##   1.843477e-01 -1.411816e-01 -3.092821e-02 -1.277837e-02  6.004786e-01
##            221           222           223           224           225
## -4.149313e-01 -6.597707e-02  1.698379e-01 -7.080011e-01  1.452166e-01
##            226           227           228           229           230
##   3.626987e-01  1.773754e-01 -5.789211e-01  4.639491e-01  5.103196e-02
##            231           232           233           234           235
##   1.516258e-01  1.828796e-01 -3.960425e-01 -1.037435e-01  1.656916e-01
##            236           237           238           239           240
## -5.607302e-01  2.739650e-01  5.505596e-01 -3.242492e-01  6.451731e-02
##            241           242           243           244           245
## -8.387476e-02  1.203962e-02  1.054401e-01  1.570485e-01  3.736730e-01
##            246           247           248           249           250
##   5.282130e-01  2.324144e-01 -4.528885e-01 -6.575435e-01  2.989178e-01
##            251           252           253           254           255
##   2.079577e-01 -4.759257e-01 -5.235165e-01  1.767344e-01  2.159375e-01
##            256           257           258           259           260
##   4.395252e-02  1.791151e-02  1.547702e-01 -6.090131e-01  3.818438e-01
##            261           262           263           264           265
## -4.608687e-01 -2.746057e-01  4.008091e-01  1.402068e-01  2.158756e-01
##            266           267           268           269           270
## -1.016776e-01 -2.072662e-03  5.150203e-01 -1.052810e+00 -6.205417e-03
##            271           272           273           274           275
## -3.938812e-01 -8.386235e-02 -6.321509e-01  5.736595e-01 -4.427523e-01
##            276           277           278           279           280
## -4.375218e-01 -6.189618e-01  3.211648e-01  4.308789e-01  3.063695e-01
##            281           282           283           284           285
##   2.671230e-01  3.053448e-01  2.334809e-01  6.191920e-02 -4.740042e-01
##            286           287           288           289           290
##   4.921011e-01  3.211840e-01 -4.533097e-01 -4.161786e-01 -6.445982e-01
##            291           292           293           294           295
## -4.100530e-01  8.712268e-02  2.893996e-01  7.262290e-01  1.636751e-01
##            296           297           298           299           300
##   1.926528e-01  4.921423e-02  5.929700e-01  3.260888e-01 -4.814583e-01
##            301           302           303           304           305
##   3.436183e-01 -1.933797e-01  5.771887e-01 -1.050584e-02  4.135175e-01
##            306           307           308           309           310
## -6.671144e-03 -4.613254e-01  1.585887e-01  4.867918e-01  1.658944e-01
##            311           312           313           314           315
##   2.160577e-01  4.122298e-01  1.793189e-01  6.254635e-01 -3.675017e-01
##            316           317           318           319           320
##   1.461337e-01 -4.734799e-02 -9.470274e-01 -4.058597e-01  4.414330e-01
##            321           322           323           324           325
## -9.376593e-01  3.064563e-02  3.981586e-01  1.987345e-01 -6.232062e-03
##            326           327           328           329           330
##   3.301547e-01  5.787366e-01 -3.532439e-01  4.368378e-01  6.174439e-01
##            331           332           333           334           335
```

```
##   4.193683e-02  1.772064e-01  3.374003e-01 -3.823635e-01 -3.895333e-01
##           336           337           338           339           340
## -1.018779e+00 -6.497186e-01 -8.055056e-02  4.477481e-01 -7.043652e-01
##           341           342           343           344           345
##   1.671595e-01 -1.638707e-01  2.703965e-02 -1.996391e-02  5.380622e-02
##           346           347           348           349           350
##   6.874775e-01 -2.886492e-01 -9.883570e-02  4.675036e-01  1.040104e-01
##           351           352           353           354           355
##   3.774569e-02  2.276826e-01  7.227152e-01 -4.276519e-01 -5.688047e-01
##           356           357           358           359           360
## -4.112191e-01  3.840872e-01  1.601534e-01 -7.033441e-01  3.069954e-01
##           361           362           363           364           365
##   1.583927e-01  2.628932e-01  5.581660e-02  3.854141e-02  4.351924e-01
##           366           367           368           369           370
## -3.766866e-01  2.825915e-01  1.884244e-01  2.332146e-01 -3.080177e-02
##           371           372           373           374           375
##   4.195636e-02 -2.900660e-01  9.943899e-02  1.859097e-01  4.476516e-01
##           376           377           378           379           380
##   1.433257e-01  3.953704e-01 -4.685674e-01 -6.441759e-02  4.191848e-01
##           381           382           383           384           385
##   2.370434e-01 -6.566407e-01 -1.849514e-02 -3.071079e-01  3.326004e-01
##           386           387           388           389           390
## -7.845817e-01 -6.478837e-01  1.319638e-01  4.411368e-01  3.179996e-01
##           391           392           393           394           395
##   5.895305e-01  3.711547e-01  4.445243e-01  1.458102e-01  5.578643e-01
##           396           397           398           399           400
## -6.133130e-02  4.514505e-01 -6.172160e-01  3.927323e-01  7.280820e-02
##           401           402           403           404           405
##   4.338537e-02  1.086734e-01 -7.408682e-01 -1.152076e-01  1.007629e-01
##           406           407           408           409           410
## -5.565889e-02  1.801399e-01  5.241944e-01 -7.556774e-01 -7.618583e-01
##           411           412           413           414           415
## -3.147245e-01  1.067179e-01  5.058805e-01  2.453748e-01  3.815763e-01
##           416           417           418           419           420
##   3.962277e-01  5.916297e-02  7.831100e-02 -5.729460e-01 -3.688140e-01
##           421           422           423           424           425
##   2.650398e-01  5.493744e-01  3.250442e-01  6.240530e-02  2.646001e-01
##           426           427           428           429           430
##   2.265495e-01  3.820669e-01  5.964046e-01  5.469534e-01 -8.170916e-02
##           431           432           433           434           435
## -9.424288e-01 -5.657744e-02  2.736716e-01 -6.559691e-01  3.496290e-02
##           436           437           438           439           440
##   3.228888e-01  3.771061e-02 -3.763178e-02  4.264095e-01  2.971997e-01
##           441           442           443           444           445
##   5.421770e-01  3.852467e-01  2.085351e-01  3.058026e-01  4.050018e-01
##           446           447           448           449           450
## -6.676845e-01 -4.466089e-01  2.390991e-02  6.351222e-01 -9.590628e-02
##           451           452           453           454           455
##   1.993931e-02  2.915724e-01  1.774400e-01 -5.134878e-01 -6.697339e-03
##           456           457           458           459           460
```

```
##   5.816343e-01   2.428404e-01   1.046462e-01   1.898992e-01   6.556926e-01
##            461            462            463            464            465
##   1.517096e-01   3.632688e-01  -3.187504e-01  -2.900691e-01   4.683880e-02
##            466            467            468            469            470
##   1.018230e-01   1.649397e-01   1.703256e-01  -3.148620e-02  -6.590498e-01
##            471            472            473            474            475
##   1.640539e-01  -5.423124e-01   4.805495e-01   1.348154e-01  -4.437654e-01
##            476            477            478            479            480
##  -4.926118e-01   2.808086e-01   2.754522e-01  -3.623944e-01  -5.694393e-01
##            481            482            483            484            485
##   5.301411e-02  -7.609882e-01   6.040041e-01   9.906610e-02  -4.381515e-01
##            486            487            488            489            490
##   1.615581e-01   6.646751e-01  -1.483707e-02  -3.737729e-01   1.813449e-01
##            491            492            493            494            495
##   4.298122e-01  -4.627604e-01   1.354019e-01   1.937681e-01  -6.775387e-01
##            496            497            498            499            500
##   1.026246e-01  -1.010905e-01  -6.031061e-01  -4.559647e-01   2.938045e-01
##            501            502            503            504            505
##   1.612331e-01  -9.940812e-03   1.346299e-01  -1.332582e-01  -3.823196e-01
##            506            507            508            509            510
##   5.623480e-01  -3.550694e-01  -4.453084e-01   1.936291e-01   3.395250e-01
##            511            512            513            514            515
##   3.001820e-01  -3.142740e-01   2.941799e-01   3.225834e-01  -6.318967e-01
##            516            517            518            519            520
##   8.084509e-02   5.824022e-01  -5.568680e-01   1.443885e-01   2.172205e-01
##            521            522            523            524            525
##   4.040901e-01   2.983821e-01  -5.266291e-01  -4.633092e-01   1.830836e-01
##            526            527            528            529            530
##   2.881207e-02   1.907538e-01  -1.149367e-02   2.024386e-01   6.700114e-02
##            531            532            533            534            535
##  -1.173109e-01   6.451479e-01   2.138754e-01  -2.830586e-01   6.368641e-01
##            536            537            538            539            540
##   2.777334e-01   1.053923e-01   1.931087e-01  -3.030738e-02  -3.722819e-02
##            541            542            543            544            545
##   4.764219e-01   1.913985e-01  -3.499027e-01  -6.700442e-01   3.766215e-01
##            546            547            548            549            550
##  -5.995996e-01   1.904717e-01   2.921210e-01   1.503425e-01   4.511082e-02
##            551            552            553            554            555
##  -1.705550e-02  -9.448637e-02   1.235971e-01  -5.589434e-01   8.651971e-02
##            556            557            558            559            560
##   1.705689e-01   4.865169e-02   4.939696e-01   3.389460e-01   2.722374e-01
##            561            562            563            564            565
##   2.853287e-01   3.445427e-01   2.500532e-01   2.951583e-01  -1.373273e-01
##            566            567            568            569            570
##   3.947322e-01  -1.563927e-01  -4.637177e-01   2.761360e-01  -3.894889e-02
##            571            572            573            574            575
##   6.418718e-02   2.501599e-01  -7.235697e-01   5.475199e-01  -2.434448e-02
##            576            577            578            579            580
##   3.396564e-01   5.582882e-01   4.622781e-01   2.358447e-01  -8.644240e-01
##            581            582            583            584            585
```

```
## -4.952511e-01 -2.632670e-01  2.154562e-01  2.395525e-01 -2.289630e-01
##            586           587           588           589           590
##  2.189108e-02  1.165089e-01  4.691169e-02 -1.720890e-01  4.650993e-02
##            591           592           593           594           595
##  4.192112e-02 -6.162176e-02  3.340957e-01  3.615957e-01 -7.205911e-01
##            596           597           598           599           600
##  1.599955e-01  4.095025e-01  3.299788e-01 -3.490050e-02  4.467383e-01
##            601           602           603           604           605
##  1.445286e-01  2.159550e-01  2.212062e-01  3.643128e-01 -1.002670e-01
##            606           607           608           609           610
##  2.392087e-02 -5.334676e-05 -8.362417e-02 -7.508282e-01 -6.306329e-01
##            611           612           613           614           615
## -8.386087e-01 -9.278869e-02  3.760471e-01  4.622925e-02  3.585400e-01
##            616           617           618           619           620
##  4.092478e-01  2.320312e-01  1.544049e-01  5.808139e-01  4.702381e-01
##            621           622           623           624           625
##  1.581362e-01  3.479284e-01  5.503626e-02 -8.448400e-01  5.020381e-01
##            626           627           628           629           630
##  4.428982e-01  2.415583e-01  9.672129e-02 -6.228299e-01 -5.986656e-01
##            631           632           633           634           635
##  1.440699e-01 -1.802498e-01  1.274471e-01  2.042243e-01 -7.317498e-01
##            636           637           638           639           640
##  2.880317e-01 -1.681895e-01 -7.099170e-01 -3.384050e-01 -7.269725e-02
##            641           642           643           644           645
## -8.005091e-01 -2.932137e-01  3.266431e-01  2.339723e-01 -3.070455e-01
##            646           647           648           649           650
## -5.873390e-01  1.314107e-01 -3.109713e-01  4.626381e-01 -4.309832e-01
##            651           652           653           654           655
## -4.007270e-01 -6.111241e-03  2.027491e-01 -7.847586e-01  5.926034e-01
##            656           657           658           659           660
## -1.084298e-01  6.491046e-02 -8.777837e-01  7.622945e-02 -5.672856e-01
##            661           662           663           664           665
##  3.279936e-01  1.911658e-01  6.602518e-03 -9.351029e-02  5.885753e-01
##            666           667           668           669           670
## -4.592627e-01  2.621494e-01 -6.466427e-01 -1.289015e-02  1.555597e-02
##            671           672           673           674           675
## -2.389503e-02 -3.329181e-01  2.245480e-01 -6.397548e-01  1.455968e-01
##            676           677           678           679           680
##  4.494062e-02 -5.080628e-01  7.117833e-01  3.174203e-01 -4.191568e-01
##            681           682           683           684           685
## -9.990115e-03  3.243021e-01  4.267623e-01  5.649158e-01  3.473576e-01
##            686           687           688           689           690
##  8.342110e-02 -6.138534e-01  1.640848e-01  3.407451e-01  2.444616e-01
##            691           692           693           694           695
##  1.424792e-01 -1.594902e-02 -3.616506e-01  1.970237e-01  2.516134e-01
##            696           697           698           699           700
## -4.486911e-02 -6.356900e-01  3.218616e-01 -1.244090e-01  5.259420e-02
##            701           702           703           704           705
##  4.474483e-01  5.393893e-01  2.468026e-01  3.196748e-01 -6.307914e-01
##            706           707           708           709           710
```

```
## -1.033546e-01  4.931481e-01  4.263555e-01  3.138039e-01 -8.125518e-01
##            711           712           713           714           715
##  4.410446e-01  2.833106e-02  4.629160e-01 -3.678146e-02  3.526931e-01
##            716           717           718           719           720
## -1.671811e-02  5.166828e-01  4.385709e-01  2.991493e-01  1.248963e-01
##            721           722           723           724           725
## -9.566126e-02 -3.184951e-01 -6.060852e-01 -3.916670e-01  2.793557e-01
##            726           727           728           729           730
##  1.128951e-01  6.192243e-01 -6.008032e-01 -1.323619e-02 -6.580642e-01
##            731           732           733           734           735
##  1.829388e-01  4.234499e-01  1.220805e-02  4.845896e-01  3.344654e-01
##            736           737           738           739           740
##  3.820531e-01 -9.173183e-02  4.282079e-01 -6.672108e-02  4.806321e-02
##            741           742           743           744           745
##  5.389530e-01 -4.077542e-01  1.056598e-02  3.738265e-01  1.377518e-01
##            746           747           748           749           750
##  2.551063e-02  5.924627e-01 -2.073517e-02  1.449782e-01  2.249566e-01
##            751           752           753           754           755
## -7.914855e-02  2.901397e-01  5.303456e-01 -3.178559e-01 -9.334654e-02
##            756           757           758           759           760
##  1.883408e-01 -4.789089e-01 -4.444143e-02  1.967422e-01 -4.712069e-01
##            761           762           763           764           765
## -4.112861e-01 -1.732364e-01 -9.092380e-02  4.760586e-01  5.215994e-01
##            766           767           768           769           770
##  9.253368e-02  3.110248e-01  2.154433e-01  2.008399e-01 -3.359380e-01
##            771           772           773           774           775
## -8.059991e-01 -4.260161e-01 -5.357541e-01  7.826786e-02  4.101508e-01
##            776           777           778           779           780
## -3.557812e-01  1.394890e-01 -6.520371e-01 -6.794914e-02  3.216191e-01
##            781           782           783           784           785
##  1.759973e-01 -6.355413e-01 -6.813602e-03 -6.187474e-01 -8.886135e-02
##            786           787           788           789           790
##  1.900011e-01  2.486823e-01 -1.975718e-01 -9.203687e-03  3.474838e-02
##            791           792           793           794           795
##  1.179136e-01 -1.216704e-02  4.744087e-01  3.813700e-01  3.331236e-01
##            796           797           798           799           800
##  2.063833e-01  1.647591e-01 -7.164551e-01  2.301972e-01 -3.577062e-01
##            801           802           803           804           805
##  7.481119e-02  6.069603e-02 -3.932266e-01  6.502958e-02  2.022498e-01
##            806           807           808           809           810
##  4.666898e-02 -5.105931e-01 -4.080482e-01 -7.269071e-01 -9.265018e-01
##            811           812           813           814           815
##  3.975869e-02  1.507603e-01  2.073285e-01  5.765339e-01 -3.372557e-01
##            816           817           818           819           820
##  1.668111e-01 -4.462639e-01 -1.056628e-03  2.804576e-01  2.706235e-02
##            821           822           823           824           825
##  3.644683e-01  3.606449e-01  2.753062e-02 -4.960408e-01 -2.280003e-01
##            826           827           828           829           830
##  1.965444e-01 -8.561733e-01  2.807508e-01 -8.238497e-01  1.678937e-02
##            831           832           833           834           835
```

```
## -1.835822e-01  4.372267e-01 -3.184799e-01  2.619761e-01 -1.004860e-01
##           836           837           838           839           840
## -6.473266e-01  1.837614e-01 -2.536461e-02 -5.943885e-01  1.163912e-01
##           841           842           843           844           845
## -9.244414e-01  3.367739e-01 -2.906114e-01  9.613873e-02 -1.026319e-01
##           846           847           848           849           850
##  1.529120e-01 -1.012951e-01 -1.739577e-01 -2.881953e-02  3.311776e-02
##           851           852           853           854           855
##  2.457293e-01  3.242046e-01 -8.781009e-02 -7.258641e-01 -1.314241e-01
##           856           857           858           859           860
## -6.633361e-01  2.190695e-02 -6.017233e-02  6.632273e-02  6.607199e-02
##           861           862           863           864           865
## -4.853287e-01 -3.181298e-01 -3.799266e-01 -4.684068e-01  1.083507e-01
##           866           867           868           869           870
##  2.377359e-01 -7.304455e-01  1.934625e-01  1.102588e-02  2.169853e-01
##           871           872           873           874           875
## -1.083454e-01 -7.116825e-01  2.787413e-01  4.792715e-01 -5.500170e-01
##           876           877           878           879           880
##  6.796592e-02 -5.101094e-02  2.853987e-01 -4.856753e-01  1.102909e-01
##           881           882           883           884           885
## -4.358277e-01  1.335367e-01  9.177422e-02  2.414875e-01  6.592722e-01
##           886           887           888           889           890
##  5.056957e-01  3.721477e-01 -8.006528e-01  2.708513e-01 -6.366235e-01
##           891           892           893           894           895
##  5.172233e-01 -6.140663e-01  2.065687e-01  4.446338e-01  3.635635e-03
##           896           897           898           899           900
##  2.425370e-01 -4.908038e-01  2.978103e-01  1.889328e-01 -3.579980e-01
##           901           902           903           904           905
## -5.091132e-01  1.910062e-01 -1.050177e-01 -2.369504e-01  4.525756e-01
##           906           907           908           909           910
##  2.371933e-01  1.509271e-01  9.347750e-02 -4.361378e-01  5.960740e-01
##           911           912           913           914           915
##  1.183603e-01  1.015287e-01 -3.983498e-02 -3.039774e-01  4.644230e-01
##           916           917           918           919           920
## -4.473437e-02  5.079842e-01  4.527627e-01  3.948414e-03  1.635277e-01
##           921           922           923           924           925
##  5.767950e-01  1.064551e-01  4.136000e-01  7.751985e-02 -3.238903e-01
##           926           927           928           929           930
## -4.808571e-01  1.032774e-01  3.723969e-01  4.313679e-01  1.873786e-01
##           931           932           933           934           935
## -9.952008e-02 -2.551899e-01  2.448804e-01  7.378629e-01 -4.291744e-01
##           936           937           938           939           940
##  1.610697e-01  1.549577e-01  4.744169e-02  3.091702e-01  5.063579e-01
##           941           942           943           944           945
## -9.557826e-02  2.805690e-01 -4.221811e-01  2.146706e-01  5.594432e-01
##           946           947           948           949           950
## -4.196873e-01 -3.193636e-02 -5.968557e-01  4.992220e-01  1.509067e-01
##           951           952           953           954           955
##  1.610547e-01  6.282472e-01 -6.590030e-01 -8.340569e-02  2.885181e-01
##           956           957           958           959           960
```

```
##  1.902001e-01  4.348616e-01  3.455499e-01  1.573391e-01  3.576552e-01
##          961           962           963           964           965
## -5.994977e-03 -5.873390e-01 -4.549902e-01 -8.374743e-01  1.678098e-01
##          966           967           968           969           970
## -1.997550e-01 -2.245884e-01 -3.321498e-01  2.957235e-01 -7.486633e-02
##          971           972           973           974           975
## -6.698259e-01  7.291787e-03 -9.466363e-01 -4.054459e-01  5.515454e-01
##          976           977           978           979           980
## -6.813329e-01  5.954286e-02  1.656745e-01 -2.619683e-02  1.316762e-01
##          981           982           983           984           985
## -2.751126e-01 -9.086681e-02 -5.060687e-01  2.845385e-01  1.655032e-01
##          986           987           988           989           990
##  9.014572e-02  1.776375e-02  7.084871e-02 -1.968406e-02  7.022711e-02
##          991           992           993           994           995
##  1.137972e-01  5.662251e-02 -6.747861e-01 -5.853947e-01 -2.034578e-01
##          996           997           998           999          1000
## -1.065477e-01  4.060012e-01 -3.274751e-01 -4.272478e-01  5.614051e-01
##         1001          1002          1003          1004          1005
##  8.110424e-03  1.366573e-01  4.393175e-01 -4.451677e-01 -4.631884e-01
##         1006          1007          1008          1009          1010
## -5.305468e-01  1.870092e-01  3.452664e-01 -6.355368e-02  5.944091e-01
##         1011          1012          1013          1014          1015
##  3.309485e-01 -7.154254e-01 -7.271657e-01 -9.356197e-02  4.673450e-02
##         1016          1017          1018          1019          1020
##  4.268284e-01  1.811131e-01  1.088072e-01  8.518953e-02  6.626950e-01
##         1021          1022          1023          1024          1025
##  4.432214e-01  4.167815e-01  9.306566e-02 -2.293877e-01  2.437836e-01
##         1026          1027          1028          1029          1030
## -4.645393e-01 -4.434939e-01  2.967993e-01  2.639978e-01 -3.069204e-01
##         1031          1032          1033          1034          1035
## -3.736221e-02 -1.520678e-01 -2.999556e-02 -1.847737e-03  4.414026e-01
##         1036          1037          1038          1039          1040
##  2.949148e-01 -6.938669e-01 -3.771948e-01  1.069434e-01  4.558808e-01
##         1041          1042          1043          1044          1045
## -6.143163e-01  1.474670e-01  4.426228e-01  1.467157e-02  3.451815e-01
##         1046          1047          1048          1049          1050
##  1.212846e-01 -8.078579e-01 -5.703577e-01  4.190649e-01  2.610045e-01
##         1051          1052          1053          1054          1055
## -5.771558e-01 -4.808441e-01  5.878743e-02 -3.666362e-01 -4.463918e-01
##         1056          1057          1058          1059          1060
## -3.376580e-01 -4.721211e-01  8.601431e-02  1.502947e-01  1.386129e-01
##         1061          1062          1063          1064          1065
##  2.167238e-01  1.537032e-01 -4.983675e-01 -2.217351e-02  3.913621e-01
##         1066          1067          1068          1069          1070
## -5.965071e-01  1.636001e-01 -4.741043e-01 -6.337409e-01  2.514671e-01
##         1071          1072          1073          1074          1075
## -3.070546e-01  1.989728e-01  2.360545e-01  4.853119e-02 -6.743367e-01
##         1076          1077          1078          1079          1080
##  2.602417e-01  5.636079e-01  4.972555e-02  5.015424e-01 -3.459448e-01
##         1081          1082          1083          1084          1085
```

```
## -2.574901e-02 -4.255997e-01 -3.703297e-01  3.082927e-01 -2.932851e-01
##          1086         1087         1088         1089         1090
##  5.694633e-01  1.959499e-01  2.391225e-01 -2.224205e-01 -3.523746e-02
##          1091         1092         1093         1094         1095
##  1.400219e-01  6.561796e-01  3.130762e-01 -5.002312e-01 -1.073866e-02
##          1096         1097         1098         1099         1100
##  3.773862e-01  2.285994e-01  1.123022e-01 -6.387415e-01  2.568315e-01
##          1101         1102         1103         1104         1105
##  8.377374e-02  6.080323e-01  1.619324e-01 -5.626358e-02 -4.942394e-02
##          1106         1107         1108         1109         1110
##  2.222723e-01 -1.928265e-02 -4.975110e-01 -7.273321e-02 -5.631479e-01
##          1111         1112         1113         1114         1115
##  5.267539e-01  1.269815e-01  1.404026e-01  2.927715e-01  3.406231e-01
##          1116         1117         1118         1119         1120
## -6.907507e-02  4.357028e-01  1.000670e-01 -5.717777e-01  1.328451e-01
##          1121         1122         1123         1124         1125
##  3.117345e-01 -4.770860e-01 -4.890227e-01  1.097229e-01  1.588085e-01
##          1126         1127         1128         1129         1130
##  4.890161e-01  4.379699e-02 -6.174959e-01 -3.274893e-01  1.581446e-01
##          1131         1132         1133         1134         1135
##  3.235467e-01  4.398127e-02 -9.417570e-02 -1.071026e-01  3.743357e-01
##          1136         1137         1138         1139         1140
##  1.646414e-01  1.938831e-01  2.062813e-01  6.235669e-01  3.164363e-01
##          1141         1142         1143         1144         1145
## -5.025895e-01  3.663800e-01  1.440779e-01  5.128355e-01 -2.320968e-01
##          1146         1147         1148         1149         1150
## -3.721113e-01  3.293864e-01  1.783832e-01  3.864090e-01  1.040857e-01
##          1151         1152         1153         1154         1155
##  3.946188e-02 -8.100063e-02 -3.880116e-02  3.108290e-01  2.536933e-01
##          1156         1157         1158         1159         1160
## -2.999234e-01  5.600413e-01 -5.893698e-01 -5.923149e-02 -3.886931e-01
##          1161         1162         1163         1164         1165
## -5.616502e-02  6.597823e-02  3.814802e-01  3.138935e-01  1.232375e-01
##          1166         1167         1168         1169         1170
##  1.917465e-01 -1.077454e-02 -7.385770e-01  5.726558e-01 -7.678102e-01
##          1171         1172         1173         1174         1175
##  3.450621e-01  5.275849e-01 -3.510955e-01  1.275677e-01 -4.388358e-01
##          1176         1177         1178         1179         1180
##  4.140285e-01  7.825987e-02 -6.079267e-01  2.251564e-01  2.713318e-01
##          1181         1182         1183         1184         1185
##  4.614228e-01 -4.775954e-01  3.208093e-02  2.017707e-01  3.706415e-01
##          1186         1187         1188         1189         1190
##  5.833886e-01  3.951463e-01  2.191143e-02 -3.258335e-01  7.089960e-02
##          1191         1192         1193         1194         1195
##  2.791848e-01  4.009137e-01 -7.788615e-02  1.829966e-01  3.023550e-02
##          1196         1197         1198         1199         1200
##  4.552943e-01  3.907732e-01  3.329635e-01 -7.051435e-01 -6.755165e-03
##          1201         1202         1203         1204         1205
##  3.076468e-01 -3.457945e-01  5.905855e-01  3.873603e-01 -3.421006e-01
##          1206         1207         1208         1209         1210
```

```
##   2.001857e-01 -5.171050e-01 -5.980386e-01  5.584937e-01 -1.210843e-01
##           1211          1212          1213          1214          1215
## -4.002841e-01 -3.747984e-01 -7.389301e-02  5.879204e-02 -4.626689e-01
##           1216          1217          1218          1219          1220
##   2.300977e-01  3.217836e-01  4.181286e-01 -1.462971e-01 -3.395787e-01
##           1221          1222          1223          1224          1225
## -6.083984e-01 -5.646129e-01 -6.804821e-02  2.815464e-01  4.090729e-01
##           1226          1227          1228          1229          1230
## -7.818176e-02  3.191525e-01  2.351101e-01 -6.171226e-01 -8.074418e-02
##           1231          1232          1233          1234          1235
##   1.363372e-01  2.273946e-01 -3.417489e-01  1.108149e-01 -2.669389e-01
##           1236          1237          1238          1239          1240
##   3.930840e-01  1.752496e-01  3.241279e-01  2.605944e-01 -6.484455e-01
##           1241          1242          1243          1244          1245
## -8.706048e-01  6.234833e-01  3.665216e-01  3.512826e-01 -4.522709e-01
##           1246          1247          1248          1249          1250
## -6.424937e-01  1.659016e-01 -4.637337e-01  1.788940e-01 -3.809611e-01
##           1251          1252          1253          1254          1255
##   1.601781e-01 -6.127084e-01 -7.635361e-02  2.936634e-01 -1.997926e-02
##           1256          1257          1258          1259          1260
## -6.530728e-01  3.872034e-01  4.847631e-01  3.485056e-01 -6.934374e-01
##           1261          1262          1263          1264          1265
##   8.598803e-02  2.198345e-01  6.400778e-01 -5.360280e-03 -7.732700e-01
##           1266          1267          1268          1269          1270
##   2.854740e-05 -5.974970e-02  7.617230e-02  1.543727e-01  3.244604e-01
##           1271          1272          1273          1274          1275
##   1.638940e-01 -1.236480e-01  1.300488e-03 -6.425807e-02  1.464396e-01
##           1276          1277          1278          1279          1280
##   1.188755e-01  4.630720e-02  8.037333e-02  5.059332e-01  1.303170e-01
##           1281          1282          1283          1284          1285
## -7.583181e-02 -2.822002e-01  3.505202e-01  4.430818e-01 -6.697649e-02
##           1286          1287          1288          1289          1290
## -1.047966e-01 -1.964500e-02 -5.481603e-01 -2.289852e-02  8.154085e-02
##           1291          1292          1293          1294          1295
## -6.726338e-01 -4.481641e-02  5.341687e-01  5.894027e-01  2.368881e-01
##           1296          1297          1298          1299          1300
## -6.412906e-01  7.802373e-02 -1.569861e-01  5.883962e-02 -1.240123e-01
##           1301          1302          1303          1304          1305
## -3.350375e-01  3.091536e-01 -9.868270e-01  1.040529e-01 -3.132275e-01
##           1306          1307          1308          1309          1310
## -3.873850e-01 -4.212316e-01  2.253479e-01  9.320801e-02 -6.475993e-01
##           1311          1312          1313          1314          1315
## -7.273246e-01  5.191627e-02  2.240763e-01  2.448699e-01  3.730291e-01
##           1316          1317          1318          1319          1320
## -7.868626e-01  2.575075e-01 -1.067012e-01  1.991934e-01 -9.840628e-03
##           1321          1322          1323          1324          1325
## -8.327591e-01 -3.561881e-01  1.172179e-01 -6.962335e-01  1.917630e-01
##           1326          1327          1328          1329          1330
## -1.125557e-01  1.511300e-01  4.481555e-01 -6.786653e-02  1.226618e-01
##           1331          1332          1333          1334          1335
```

```
## -5.091431e-01 -5.968850e-01  4.417214e-01  3.978448e-03 -8.080907e-01
##           1336          1337          1338          1339          1340
## -7.326856e-01 -5.867884e-01  9.114852e-02  2.351991e-02  1.267991e-01
##           1341          1342          1343          1344          1345
##  3.270031e-01 -4.129499e-01  1.066886e-01 -4.019092e-01  3.210634e-01
##           1346          1347          1348          1349          1350
## -6.705293e-02  1.857768e-01 -8.250612e-02 -7.405346e-03 -4.608943e-01
##           1351          1352          1353          1354          1355
##  2.118692e-01  6.102305e-01  3.407367e-01  5.043543e-01 -2.827167e-01
##           1356          1357          1358          1359          1360
## -2.577569e-01 -4.435654e-01 -4.169332e-01 -1.395411e-01 -8.525988e-02
##           1361          1362          1363          1364          1365
## -7.535420e-01 -3.348876e-01  3.538225e-01  6.649754e-02  2.490906e-01
##           1366          1367          1368          1369          1370
##  6.750746e-02 -2.997673e-01  5.057278e-01  1.657897e-01  7.385574e-03
##           1371          1372          1373          1374          1375
##  5.818001e-03 -5.463735e-01 -1.895567e-01  1.792849e-01 -6.982980e-02
##           1376          1377          1378          1379          1380
##  1.301858e-01  5.532849e-01  5.451738e-02 -5.527457e-01 -5.167177e-01
##           1381          1382          1383          1384          1385
##  1.601281e-01 -2.979462e-02 -8.883516e-02  3.595490e-01 -4.772775e-01
##           1386          1387          1388          1389          1390
## -1.598000e-01  4.703131e-01  2.620073e-02  1.973468e-01  1.850050e-01
##           1391          1392          1393          1394          1395
## -7.053304e-01 -7.056320e-01  6.113910e-01  4.097899e-01  9.040391e-02
##           1396          1397          1398          1399          1400
##  1.611931e-01 -2.912901e-01 -5.819522e-01  4.871683e-01  3.567272e-02
##           1401          1402          1403          1404          1405
## -3.839870e-01 -1.644916e-02  2.514064e-01  1.633035e-01  4.184976e-01
##           1406          1407          1408          1409          1410
## -1.903407e-01  5.376205e-01 -4.391280e-01 -6.460900e-02  3.757511e-01
##           1411          1412          1413          1414          1415
##  1.465197e-01  1.252181e-01  3.554416e-01  2.171731e-01 -3.687961e-02
##           1416          1417          1418          1419          1420
##  3.516138e-01 -2.961177e-01 -6.788818e-03 -3.212629e-01  1.406896e-03
##           1421          1422          1423          1424          1425
##  3.965676e-01  5.495238e-02  3.517761e-01 -5.373571e-01  9.741929e-03
##           1426          1427          1428          1429          1430
##  1.270307e-01  1.890681e-01  7.867638e-02  2.892367e-01 -3.502018e-01
##           1431          1432          1433          1434          1435
##  2.597524e-01 -2.856796e-01  3.014133e-01  1.980837e-01 -3.800466e-01
##           1436          1437          1438          1439          1440
##  9.079353e-02  3.590201e-01  1.900968e-01  3.463445e-01  1.813805e-01
##           1441          1442          1443          1444          1445
##  5.793366e-01  4.357798e-01 -4.946815e-01  1.289462e-01  2.048288e-01
##           1446          1447          1448          1449          1450
##  1.954682e-01  3.238103e-01  3.139887e-01  4.881157e-01  1.439737e-01
##           1451          1452          1453          1454          1455
##  2.481971e-01 -3.426117e-01  3.923121e-01 -8.129272e-01  2.010688e-01
##           1456          1457          1458          1459          1460
```

```
## -3.904952e-01  4.063169e-01  5.753861e-02 -4.640364e-01  2.666709e-01
##          1461          1462          1463          1464          1465
##  4.934083e-01  2.718278e-01  3.542850e-01  1.673744e-01 -5.958097e-01
##          1466          1467          1468          1469          1470
##  1.699284e-01  4.558084e-01 -4.422063e-01 -3.984880e-01  3.592375e-01
##          1471          1472          1473          1474          1475
##  1.397587e-01  1.901187e-01 -7.947566e-01 -5.425974e-01  3.125452e-01
##          1476          1477          1478          1479          1480
##  1.640900e-01 -5.971530e-02  6.940762e-01 -6.027198e-03  1.652025e-01
##          1481          1482          1483          1484          1485
## -3.055087e-01 -6.820932e-01  3.279444e-01  3.122100e-01  1.010657e-01
##          1486          1487          1488          1489          1490
##  1.456600e-01  1.913985e-01 -3.876861e-01  4.630731e-01 -8.399726e-01
##          1491          1492          1493          1494          1495
##  1.984085e-01  2.296762e-01  1.944571e-01 -4.193382e-01  3.201612e-01
##          1496          1497          1498          1499          1500
##  3.512625e-01  7.315369e-02  1.525869e-01  4.629356e-01  5.179858e-01
##          1501          1502          1503          1504          1505
## -2.971412e-01  7.887050e-02 -5.309267e-02  4.920481e-01 -4.881296e-01
##          1506          1507          1508          1509          1510
## -1.645991e-01 -7.246264e-02  6.122779e-01 -4.968712e-01 -9.993652e-02
##          1511          1512          1513          1514          1515
##  1.952802e-01  6.034422e-01  3.059763e-01  1.725918e-01 -5.966202e-01
##          1516          1517          1518          1519          1520
##  2.386061e-01  3.069832e-02 -7.856042e-01  3.195008e-01  2.249700e-01
##          1521          1522          1523          1524          1525
##  1.601783e-01  6.345324e-01 -1.282760e-01  3.866631e-01 -7.552820e-02
##          1526          1527          1528          1529          1530
## -4.941320e-01  1.789188e-01  1.358553e-01 -5.243101e-01 -1.175268e-01
##          1531          1532          1533          1534          1535
##  2.952250e-01 -1.836078e-01 -2.327115e-02 -3.417824e-01  2.654428e-01
##          1536          1537          1538          1539          1540
##  1.907543e-01 -1.116227e-01  3.697109e-02 -4.699134e-01  2.819373e-01
##          1541          1542          1543          1544          1545
##  2.062910e-01 -7.170121e-02 -7.265176e-01  3.811155e-01 -5.862237e-01
##          1546          1547          1548          1549          1550
##  6.800689e-01  1.034979e-01  1.602630e-01  2.918842e-01  1.298007e-01
##          1551          1552          1553          1554          1555
## -7.925518e-01 -4.557443e-01  2.896400e-01 -4.105898e-01  1.943776e-01
##          1556          1557          1558          1559          1560
##  9.599824e-02 -3.454227e-01  2.411898e-01  5.752942e-01 -2.341493e-01
##          1561          1562          1563          1564          1565
##  2.674979e-01 -2.827330e-02  4.457599e-01  6.791545e-01  2.865708e-01
##          1566          1567          1568          1569          1570
##  5.921152e-03  1.672768e-01 -6.041910e-01  2.193541e-01  8.899869e-02
##          1571          1572          1573          1574          1575
## -8.186739e-01  7.858847e-03 -5.975455e-01 -6.195340e-01 -3.549460e-01
##          1576          1577          1578          1579          1580
##  3.462908e-01  3.043453e-01  6.567731e-02  4.054546e-01  1.817195e-01
##          1581          1582          1583          1584          1585
```

```
##   1.291574e-01  3.325864e-02 -1.298992e-02  3.667964e-01  4.544753e-01
##           1586          1587          1588          1589          1590
## -9.405892e-02  1.376451e-01 -6.291446e-01  1.516534e-01 -5.686412e-02
##           1591          1592          1593          1594          1595
## -3.817746e-01  5.993037e-01  2.061343e-01  1.062273e-02 -8.850811e-02
##           1596          1597          1598          1599          1600
## -2.518521e-01  3.507730e-01 -4.746511e-01 -6.227853e-01  1.245568e-01
##           1601          1602          1603          1604          1605
## -3.283990e-02  2.416565e-02 -4.676598e-01  1.588131e-01  2.514243e-01
##           1606          1607          1608          1609          1610
## -1.331848e-01 -9.678046e-02 -8.785566e-01  9.925372e-02 -1.781804e-02
##           1611          1612          1613          1614          1615
##   5.367585e-02 -1.478253e-02  2.205972e-01 -4.070028e-01 -9.539672e-02
##           1616          1617          1618          1619          1620
##   2.860633e-01 -4.829268e-01  1.507434e-02  2.836566e-01 -6.713413e-01
##           1621          1622          1623          1624          1625
## -4.573527e-01  1.872089e-01  5.334866e-01  5.692937e-01 -1.168929e-01
##           1626          1627          1628          1629          1630
##   5.160269e-01 -4.594906e-01 -6.325783e-01  3.443520e-01  1.406867e-02
##           1631          1632          1633          1634          1635
##   4.593200e-01  4.708091e-02  6.460153e-02  1.098961e-01 -6.142472e-01
##           1636          1637          1638          1639          1640
##   1.186881e-01 -1.172059e-01  1.197375e-01  3.645920e-01 -5.329969e-01
##           1641          1642          1643          1644          1645
## -4.845286e-01 -5.954452e-02 -4.470510e-01  2.893847e-01  2.306232e-01
##           1646          1647          1648          1649          1650
## -3.196215e-01 -3.044612e-01  2.752441e-01 -4.340820e-02  1.169175e-01
##           1651          1652          1653          1654          1655
## -6.743194e-01  1.995470e-01  1.950516e-01 -7.157945e-01 -7.704377e-02
##           1656          1657          1658          1659          1660
##   1.124995e-01  3.463529e-01 -4.264664e-01 -5.592755e-01 -5.827159e-01
##           1661          1662          1663          1664          1665
##   6.288569e-01  9.130888e-02  2.037022e-01  3.122178e-01  6.118144e-01
##           1666          1667          1668          1669          1670
## -5.699888e-01  7.039328e-02 -1.992057e-01 -6.828560e-01  8.014584e-02
##           1671          1672          1673          1674          1675
## -5.184693e-01  5.883524e-01  1.306771e-01  1.184936e-01  4.137668e-01
##           1676          1677          1678          1679          1680
##   6.661264e-02 -5.860871e-02 -1.515237e-02  6.489651e-03  2.578189e-01
##           1681          1682          1683          1684          1685
##   5.106297e-01 -7.551655e-01  1.625102e-01  4.258390e-03  3.681084e-01
##           1686          1687          1688          1689          1690
##   1.718794e-01 -9.325546e-02  2.528725e-01 -5.624617e-02 -5.062085e-01
##           1691          1692          1693          1694          1695
##   1.017902e-01 -2.974276e-01 -1.783756e-01  4.003103e-02  8.981332e-02
##           1696          1697          1698          1699          1700
## -3.977160e-02 -7.876674e-01 -4.457352e-01  3.290709e-01 -2.607760e-01
##           1701          1702          1703          1704          1705
##   2.377503e-01  6.379870e-02  5.760042e-01 -5.669856e-01  2.523759e-01
##           1706          1707          1708          1709          1710
```

```
##   5.578079e-01 -4.691405e-03  2.757218e-01  8.451889e-02 -2.758364e-02
##           1711          1712          1713          1714          1715
## -4.203491e-02  4.164299e-01 -1.025890e-01  8.525204e-02  6.388891e-01
##           1716          1717          1718          1719          1720
##   6.572145e-01 -5.110526e-01  2.578823e-01  7.521288e-02  7.117959e-01
##           1721          1722          1723          1724          1725
##   7.126960e-01  2.892255e-01  2.908866e-01  7.720445e-03  7.040652e-02
##           1726          1727          1728          1729          1730
## -4.850257e-01 -3.535857e-01  2.739984e-01  1.837305e-01 -4.796649e-01
##           1731          1732          1733          1734          1735
## -7.373163e-02 -8.089732e-01  3.835420e-01  1.055877e-01 -4.054459e-01
##           1736          1737          1738          1739          1740
##   9.553766e-02  4.044820e-01 -3.688824e-01 -4.153789e-02  2.984707e-01
##           1741          1742          1743          1744          1745
## -2.898461e-02  2.219429e-02 -3.353937e-01 -4.928509e-02  3.647920e-01
##           1746          1747          1748          1749          1750
##   1.931405e-01 -4.222904e-01  1.218582e-01  2.071828e-02  4.412435e-02
##           1751          1752          1753          1754          1755
##   2.747599e-01  1.609580e-01  8.684224e-02 -9.702220e-02  1.339614e-01
##           1756          1757          1758          1759          1760
##   1.081434e-01  2.278854e-02  4.366397e-01  4.030521e-01 -8.445954e-02
##           1761          1762          1763          1764          1765
##   2.242203e-01  1.114551e-01  2.032077e-02  6.276299e-02  2.047220e-01
##           1766          1767          1768          1769          1770
## -5.340283e-01 -3.136476e-01 -4.106917e-01 -6.923556e-02  3.217689e-01
##           1771          1772          1773          1774          1775
##   1.430070e-01  3.250795e-02  2.788182e-01 -8.883252e-02  5.860818e-01
##           1776          1777          1778          1779          1780
## -9.419480e-01  3.287869e-01  3.996684e-01 -4.163232e-01 -8.106440e-01
##           1781          1782          1783          1784          1785
## -9.681932e-02 -7.197887e-01  4.081747e-01 -1.682388e-02  1.997661e-01
##           1786          1787          1788          1789          1790
## -4.862378e-01  9.396164e-02  1.774707e-01 -9.200867e-02 -1.360793e-01
##           1791          1792          1793          1794          1795
## -4.480068e-01  3.883044e-01  1.151413e-02  8.804310e-02 -3.505311e-01
##           1796          1797          1798          1799          1800
##   3.754738e-01  4.920907e-01  1.740490e-01  1.178612e-01  8.602943e-02
##           1801          1802          1803          1804          1805
## -1.484492e-01  2.222683e-02 -4.458477e-01 -4.856636e-01 -4.195556e-01
##           1806          1807          1808          1809          1810
## -8.966424e-03  5.793817e-01  5.568294e-01  4.578911e-01  5.002322e-02
##           1811          1812          1813          1814          1815
## -9.680965e-02  1.848458e-01  1.664553e-01  2.362951e-01 -4.693250e-03
##           1816          1817          1818          1819          1820
##   3.448614e-01 -4.686177e-01 -4.899930e-01 -5.398000e-01 -1.287219e-01
##           1821          1822          1823          1824          1825
##   2.994258e-01  2.911664e-01  2.767305e-01  8.357582e-02  6.163269e-01
##           1826          1827          1828          1829          1830
## -1.948328e-03  2.803279e-01 -6.239777e-01  2.798630e-01 -5.997923e-01
##           1831          1832          1833          1834          1835
```

```
##   4.053104e-01 -4.814360e-01 -8.322662e-01  4.052895e-01  1.959904e-01
##           1836          1837          1838          1839          1840
## -9.894299e-01  4.399698e-02  2.231271e-01 -1.205372e-01 -4.596541e-02
##           1841          1842          1843          1844          1845
##   1.177860e-01  9.541944e-02 -7.871326e-02  4.658373e-02 -6.298481e-01
##           1846          1847          1848          1849          1850
##   2.058175e-01 -5.036902e-01 -6.495645e-01 -6.456104e-01 -4.925984e-01
##           1851          1852          1853          1854          1855
##   1.118262e-02 -7.865541e-01 -1.651018e-01 -5.676612e-01 -6.684435e-01
##           1856          1857          1858          1859          1860
## -1.088013e-01 -6.318516e-01  2.551571e-01  1.941830e-01  3.070926e-01
##           1861          1862          1863          1864          1865
##   4.317284e-01  1.306700e-01 -4.340041e-01  3.769608e-01 -8.725480e-02
##           1866          1867          1868          1869          1870
##   4.115457e-01  2.989598e-01 -4.636349e-02 -1.028689e-01  6.750491e-02
##           1871          1872          1873          1874          1875
##   6.402057e-03  4.138934e-01 -1.574233e-01  2.253165e-01 -4.043306e-01
##           1876          1877          1878          1879          1880
## -2.853650e-01  3.027653e-01  2.517728e-01 -6.136763e-01  1.041915e-01
##           1881          1882          1883          1884          1885
##   1.783132e-01 -1.475560e-01 -4.921339e-01  1.746350e-01  3.907350e-01
##           1886          1887          1888          1889          1890
## -7.774839e-01 -5.880312e-01  5.677684e-01  3.362359e-01  3.708047e-01
##           1891          1892          1893          1894          1895
## -8.061842e-02  7.942402e-02 -7.048798e-01 -3.729132e-01  5.235645e-01
##           1896          1897          1898          1899          1900
##   7.434662e-02  1.143647e-01 -1.180445e-01  7.125968e-01 -7.179169e-01
##           1901          1902          1903          1904          1905
##   1.451962e-01  1.325452e-01  3.433876e-01 -9.623246e-02  1.139118e-01
##           1906          1907          1908          1909          1910
##   3.883771e-01 -8.522940e-02  4.059729e-02  2.321580e-01  4.022196e-01
##           1911          1912          1913          1914          1915
##   2.428479e-01 -6.493664e-01 -9.698516e-02  1.336813e-01 -6.409854e-01
##           1916          1917          1918          1919          1920
##   1.641650e-01 -3.169587e-02  3.363332e-01 -3.880982e-02  5.479405e-01
##           1921          1922          1923          1924          1925
##   4.123267e-02 -5.863313e-01 -6.475067e-01 -8.638783e-01  6.389720e-01
##           1926          1927          1928          1929          1930
##   2.307453e-01  2.692519e-01  1.922811e-01  1.437237e-01 -4.922932e-01
##           1931          1932          1933          1934          1935
##   4.328566e-02 -2.128198e-02  5.081352e-02  2.014361e-01  2.250338e-01
##           1936          1937          1938          1939          1940
## -9.303643e-02  4.022577e-01 -3.783798e-02  4.499993e-01 -6.489664e-01
##           1941          1942          1943          1944          1945
## -1.267649e-01  3.299886e-01  8.171415e-02 -3.932077e-01  2.158426e-02
##           1946          1947          1948          1949          1950
## -7.172299e-01  2.860650e-01  4.964108e-01 -4.445972e-01 -3.417051e-01
##           1951          1952          1953          1954          1955
##   4.244284e-01  5.670329e-02  1.461986e-01  4.745205e-01  2.736496e-01
##           1956          1957          1958          1959          1960
```

```
##   2.906042e-01  1.420909e-01  4.496945e-01  4.978240e-01  4.724378e-03
##           1961          1962          1963          1964          1965
## -7.722259e-01  3.286066e-01 -1.064139e+00  3.065975e-01  8.494574e-02
##           1966          1967          1968          1969          1970
## -3.697898e-01  1.285080e-01  5.196916e-01 -1.133612e-01 -3.993553e-01
##           1971          1972          1973          1974          1975
##  4.951702e-02 -1.908573e-01  5.555325e-01 -4.042433e-02 -4.758126e-03
##           1976          1977          1978          1979          1980
##  6.283698e-01 -7.093007e-01  1.318651e-01  2.335962e-01 -4.150608e-01
##           1981          1982          1983          1984          1985
## -6.829550e-01  6.632325e-02 -5.640417e-01 -7.228591e-01  1.401142e-01
##           1986          1987          1988          1989          1990
## -3.267089e-01  1.621647e-01  5.353170e-01 -6.133739e-01  8.895725e-02
##           1991          1992          1993          1994          1995
## -3.509834e-01 -1.698766e-01  1.418164e-01 -5.019132e-01 -4.670097e-01
##           1996          1997          1998          1999          2000
##  5.476483e-01  1.840868e-01  2.619272e-02 -7.463892e-01 -4.324075e-01
##           2001          2002          2003          2004          2005
## -6.801926e-01 -6.280374e-01 -3.520753e-01 -4.200737e-01 -1.544027e-01
##           2006          2007          2008          2009          2010
## -3.752839e-01  7.050876e-02 -6.763265e-01  3.341182e-02  1.902292e-01
##           2011          2012          2013          2014          2015
##  2.820933e-01 -3.762402e-01 -1.300672e-02 -5.863627e-01 -8.216070e-01
##           2016          2017          2018          2019          2020
##  1.295811e-01 -3.715448e-02  5.578915e-01 -3.221779e-01  5.426206e-01
##           2021          2022          2023          2024          2025
## -2.102027e-02  1.484498e-01  9.360687e-02  6.657507e-02 -8.835031e-01
##           2026          2027          2028          2029          2030
##  2.982107e-01  3.630055e-01 -4.392039e-01 -7.573972e-01  4.965810e-02
##           2031          2032          2033          2034          2035
##  1.482559e-01  6.512773e-01  6.616602e-01 -4.616700e-01 -4.892046e-01
##           2036          2037          2038          2039          2040
## -1.490251e-01  8.352758e-02  2.257864e-01  5.169390e-01  1.285845e-01
##           2041          2042          2043          2044          2045
##  1.029725e-01  3.705989e-01  4.632732e-01 -3.804409e-01  2.109924e-01
##           2046          2047          2048          2049          2050
## -6.388364e-02 -1.002010e-01  3.753110e-01 -6.779733e-01 -5.458502e-01
##           2051          2052          2053          2054          2055
##  3.106611e-01  2.866009e-01 -6.572279e-01 -1.723367e-01  4.184915e-01
##           2056          2057          2058          2059          2060
## -1.547124e-01 -7.124882e-01  9.759723e-03  4.931534e-02  2.387799e-02
##           2061          2062          2063          2064          2065
##  4.670540e-01  8.728092e-03  2.723380e-01  2.327719e-01 -3.356750e-01
##           2066          2067          2068          2069          2070
## -8.486025e-01  3.683896e-02 -7.217703e-03  1.545849e-01 -6.515629e-01
##           2071          2072          2073          2074          2075
##  4.462390e-01  2.397768e-01 -4.410361e-01  2.093113e-01  1.811919e-01
##           2076          2077          2078          2079          2080
##  2.382049e-02  4.455037e-01  1.678719e-01 -7.538186e-01 -4.963932e-01
##           2081          2082          2083          2084          2085
```

```
##  -3.867340e-01 -5.092731e-01 -6.540620e-01  2.149368e-01  3.418620e-02
##           2086          2087          2088          2089          2090
##   1.990448e-01 -6.061926e-02 -1.769770e-01  1.840439e-01  1.443650e-01
##           2091          2092          2093          2094          2095
##  -3.482816e-01 -8.182709e-01  6.476809e-01  6.158108e-01  3.655168e-01
##           2096          2097          2098          2099          2100
##   1.910868e-01 -6.942593e-01  5.253472e-01  5.922804e-01 -3.274842e-01
##           2101          2102          2103          2104          2105
##  -4.015524e-01  2.532899e-02  4.700719e-01  1.518268e-01  4.487410e-02
##           2106          2107          2108          2109          2110
##   1.826975e-01  7.953705e-03  1.042582e-01  3.217024e-01  9.398543e-02
##           2111          2112          2113          2114          2115
##   3.193471e-02 -6.006693e-01 -1.070456e-01  5.124371e-01  3.600405e-02
##           2116          2117          2118          2119          2120
##  -5.770455e-02  1.941399e-01  4.351718e-01  4.677540e-01 -5.739937e-01
##           2121          2122          2123          2124          2125
##   4.227242e-02  3.530452e-01 -8.180490e-01  1.853283e-01 -3.428204e-01
##           2126          2127          2128          2129          2130
##  -7.348019e-01  2.641836e-02  6.473414e-02 -3.465222e-01  1.958597e-01
##           2131          2132          2133          2134          2135
##   3.130679e-01  5.838606e-01  1.392343e-01 -1.126955e-01  5.018630e-01
##           2136          2137          2138          2139          2140
##  -5.462012e-01  1.201344e-01  1.929053e-01  3.264411e-01  3.472889e-01
##           2141          2142          2143          2144          2145
##   4.691725e-01  1.246477e-01  1.299589e-01  1.495266e-01  4.220342e-01
##           2146          2147          2148          2149          2150
##   5.871422e-01 -3.275887e-03  4.639910e-01  4.636966e-01  2.009306e-02
##           2151          2152          2153          2154          2155
##  -4.614695e-01 -3.959816e-01  3.399935e-01  1.165502e-02  1.044807e-01
##           2156          2157          2158          2159          2160
##  -1.781782e-01 -4.056914e-01  4.645177e-01 -3.917475e-01 -6.110315e-02
##           2161          2162          2163          2164          2165
##   1.202227e-01  1.514047e-01 -2.555776e-01 -3.233928e-01 -7.130791e-02
##           2166          2167          2168          2169          2170
##   1.525668e-01  4.085298e-01  3.376566e-01  5.894835e-01  8.919606e-02
##           2171          2172          2173          2174          2175
##  -6.252390e-01 -6.288622e-02  1.088075e-01 -5.307752e-02  1.299546e-01
##           2176          2177          2178          2179          2180
##   7.686113e-02  1.266177e-01  1.973047e-01  3.330922e-01 -2.548849e-01
##           2181          2182          2183          2184          2185
##  -7.743085e-01 -5.202831e-02  7.216971e-03  2.993518e-01 -8.656175e-02
##           2186          2187          2188          2189          2190
##  -7.420779e-02 -2.261113e-01 -7.748671e-04  2.808426e-02 -3.516274e-01
##           2191          2192          2193          2194          2195
##   1.386521e-01  1.251230e-01  7.814748e-02  2.812264e-01 -5.604030e-03
##           2196          2197          2198          2199          2200
##   2.539953e-01  7.310925e-02 -3.749372e-01  2.395173e-03 -8.555115e-01
##           2201          2202          2203          2204          2205
##   4.696666e-01 -6.423493e-01 -3.737606e-01 -1.732748e-01  1.969799e-01
##           2206          2207          2208          2209          2210
```

```
##   9.749919e-02  3.292426e-01  1.185173e-01  1.015338e-01 -4.301387e-01
##           2211          2212          2213          2214          2215
## -5.493281e-03  2.176631e-01 -1.345831e-01 -1.206084e-01  5.970106e-01
##           2216          2217          2218          2219          2220
## -1.310253e-01 -2.492030e-01  4.818337e-01 -4.786205e-01 -4.474185e-01
##           2221          2222          2223          2224          2225
##   3.045653e-01  9.906921e-02  1.300398e-02  1.553354e-01  5.337928e-01
##           2226          2227          2228          2229          2230
## -3.519408e-02 -4.544907e-01 -3.341309e-02  4.882846e-02  1.256822e-01
##           2231          2232          2233          2234          2235
##   1.652329e-01  6.417788e-01  2.976834e-01  6.649075e-01 -7.181051e-02
##           2236          2237          2238          2239          2240
## -7.217766e-02  1.397675e-02  5.324835e-02  3.626718e-01 -8.646756e-01
##           2241          2242          2243          2244          2245
##   8.271415e-02 -3.264310e-01 -1.642173e-02  2.351089e-01  3.680783e-01
##           2246          2247          2248          2249          2250
##   9.898630e-02  4.547733e-01 -6.897839e-02 -1.736203e-01 -5.023844e-03
##           2251          2252          2253          2254          2255
##   2.918996e-01  7.773955e-02  7.518112e-02 -7.657288e-03  9.647427e-02
##           2256          2257          2258          2259          2260
## -5.289192e-01  2.615421e-01 -3.475594e-01 -5.379072e-01  2.602140e-02
##           2261          2262          2263          2264          2265
## -3.636918e-01  2.210141e-01  5.025904e-03  3.335480e-02 -4.365713e-01
##           2266          2267          2268          2269          2270
## -2.951738e-01  5.248523e-01  3.698297e-01  5.514832e-02 -5.753181e-01
##           2271          2272          2273          2274          2275
## -3.709432e-01  4.091214e-01 -7.765674e-01  3.609432e-01  4.000798e-02
##           2276          2277          2278          2279          2280
##   7.080831e-01 -5.656539e-01 -6.757190e-01 -3.853670e-01  2.722890e-01
##           2281          2282          2283          2284          2285
## -7.455979e-01  3.984369e-01 -8.577389e-01  6.234102e-01 -1.584792e-02
##           2286          2287          2288          2289          2290
## -5.243489e-01 -2.967271e-01 -5.251172e-02 -8.069340e-02 -3.188496e-01
##           2291          2292          2293          2294          2295
## -5.636055e-01  4.009513e-01 -7.823005e-01  1.380067e-01 -2.120672e-02
##           2296          2297          2298          2299          2300
## -7.192045e-01  6.194399e-01 -1.035303e-01 -6.749198e-01  1.409968e-01
##           2301          2302          2303          2304          2305
##   4.694142e-01  5.880468e-01  2.928604e-01  5.992491e-02  2.061756e-01
##           2306          2307          2308          2309          2310
## -4.084221e-02  2.879558e-01  1.004787e-01  3.359414e-01 -1.148595e-01
##           2311          2312          2313          2314          2315
##   2.355191e-01  1.882565e-01  6.583443e-03 -8.164604e-03  5.771887e-01
##           2316          2317          2318          2319          2320
## -6.822008e-02  3.054859e-01 -5.948188e-02 -4.430398e-01 -4.483883e-01
##           2321          2322          2323          2324          2325
##   2.064180e-01  7.251335e-02  5.559529e-01  5.395568e-01  1.752955e-01
##           2326          2327          2328          2329          2330
##   2.865057e-01  2.001873e-01  1.301035e-01 -3.321406e-02  6.633674e-01
##           2331          2332          2333          2334          2335
```

```
##   3.363486e-01 -5.016903e-01 -6.319779e-01 -1.272879e-01 -3.125698e-01
##           2336          2337          2338          2339          2340
##   1.249296e-01 -2.250643e-02  3.990397e-01  4.135933e-01  1.889453e-01
##           2341          2342          2343          2344          2345
##   1.896963e-01  1.164342e-01  1.599925e-01  6.919965e-02 -4.868472e-02
##           2346          2347          2348          2349          2350
##   6.839033e-01 -1.114439e-01  1.959873e-01  6.436060e-01  5.746208e-02
##           2351          2352          2353          2354          2355
##  -1.091201e-01  2.132530e-01 -8.233187e-03 -4.942059e-03  2.311789e-01
##           2356          2357          2358          2359          2360
##  -9.890449e-02 -6.557406e-01  2.373230e-01  3.977868e-01  5.368857e-01
##           2361          2362          2363          2364          2365
##   5.135013e-01 -3.494963e-01 -3.524923e-01  1.024321e-02  9.531811e-03
##           2366          2367          2368          2369          2370
##   6.511760e-03  3.021116e-01 -1.609323e-01 -3.969379e-03  1.830401e-01
##           2371          2372          2373          2374          2375
##   8.373288e-03  3.529462e-01  9.344259e-02 -5.753240e-01 -4.864839e-01
##           2376          2377          2378          2379          2380
##   2.458738e-01  1.167909e-01  1.052963e-01  3.594218e-01  4.595921e-01
##           2381          2382          2383          2384          2385
##   3.451370e-01  1.416122e-01  6.685053e-01  4.649838e-01 -9.157132e-02
##           2386          2387          2388          2389          2390
##   1.014900e-01  4.792331e-01  5.849126e-01 -5.799337e-01  1.778595e-01
##           2391          2392          2393          2394          2395
##   5.327139e-01  3.519592e-01 -3.021361e-01  4.047044e-01  4.864055e-01
##           2396          2397          2398          2399          2400
##   3.843972e-01  3.033671e-01  1.515273e-01 -9.896615e-02  2.989556e-01
##           2401          2402          2403          2404          2405
##  -3.659645e-01 -3.234920e-01 -3.991736e-01 -2.558164e-02  2.691577e-01
##           2406          2407          2408          2409          2410
##   3.527529e-01 -2.893032e-03 -8.710975e-01  1.870134e-01  1.165504e-01
##           2411          2412          2413          2414          2415
##  -4.584802e-01  5.334497e-01  2.830030e-01  5.173188e-01  1.779202e-01
##           2416          2417          2418          2419          2420
##   3.356464e-01  2.170408e-01  6.458097e-01  1.041598e-01 -8.059946e-01
##           2421          2422          2423          2424          2425
##   1.681846e-01  3.561042e-01 -5.503089e-01 -5.326192e-01  1.568062e-01
##           2426          2427          2428          2429          2430
##   1.363042e-01 -5.137300e-01  1.086290e-01  2.646605e-01  1.644901e-01
##           2431          2432          2433          2434          2435
##   3.609713e-01  4.216065e-01  2.564345e-01 -4.141326e-01  5.878525e-02
##           2436          2437          2438          2439          2440
##   1.133164e-01  6.689486e-01 -2.735992e-01  5.059298e-03 -4.052563e-01
##           2441          2442          2443          2444          2445
##   3.339966e-01 -4.136675e-01  5.581563e-01 -2.963338e-01  3.621653e-01
##           2446          2447          2448          2449          2450
##   8.536153e-03 -5.973741e-01 -3.870231e-01  6.885269e-01 -4.747016e-02
##           2451          2452          2453          2454          2455
##  -4.476358e-01  3.397667e-03  2.840950e-01  3.255022e-01  2.097550e-01
##           2456          2457          2458          2459          2460
```

```
## -3.989055e-02 -5.786646e-02  2.932013e-01  6.624643e-01 -3.251147e-01
##          2461          2462          2463          2464          2465
## -5.204414e-01 -7.313797e-02  3.040013e-01 -4.904870e-01  7.500734e-02
##          2466          2467          2468          2469          2470
##  7.979847e-03 -6.116358e-01 -1.583328e-01  1.579190e-01  4.376128e-01
##          2471          2472          2473          2474          2475
##  2.942965e-02 -1.110005e-01  6.031613e-01  3.396332e-01 -2.917708e-02
##          2476          2477          2478          2479          2480
## -5.836213e-01  1.621089e-02  4.013160e-01 -6.381371e-01  1.417196e-01
##          2481          2482          2483          2484          2485
## -4.157139e-01  4.293043e-01  9.867730e-02 -7.950957e-01 -7.280216e-02
##          2486          2487          2488          2489          2490
##  3.061840e-01  7.068528e-02 -6.158834e-01  6.754121e-01 -5.902027e-01
##          2491          2492          2493          2494          2495
##  8.704311e-02  4.238951e-02  1.846291e-01  2.055452e-01  5.777007e-02
##          2496          2497          2498          2499          2500
##  6.483046e-03 -1.103054e-01 -6.700649e-03 -1.213188e-02 -4.612707e-01
##          2501          2502          2503          2504          2505
##  6.779786e-02 -1.786934e-02 -4.784249e-03  1.391671e-01 -1.381161e-02
##          2506          2507          2508          2509          2510
## -3.428167e-01  3.583205e-01  1.603114e-01 -6.204545e-02 -4.026399e-01
##          2511          2512          2513          2514          2515
##  6.068997e-02 -2.677599e-01 -3.739010e-01  5.750089e-01  7.136057e-01
##          2516          2517          2518          2519          2520
##  3.520301e-02 -4.576126e-01  1.601047e-01 -4.807856e-02 -1.322745e-01
##          2521          2522          2523          2524          2525
## -2.366088e-02 -8.136671e-01 -3.463989e-01 -4.016051e-01 -8.843133e-01
##          2526          2527          2528          2529          2530
##  6.148618e-01 -2.048990e-03  3.838757e-01  5.873349e-02  5.994864e-02
##          2531          2532          2533          2534          2535
## -3.422998e-02 -8.874999e-01 -6.270913e-02  2.110309e-01 -5.320680e-02
##          2536          2537          2538          2539          2540
##  1.093537e-02  4.960883e-02  2.332474e-01 -4.194499e-01  3.593484e-01
##          2541          2542          2543          2544          2545
## -4.854902e-02  2.699491e-01 -1.000145e-02  5.999998e-01  1.887818e-01
##          2546          2547          2548          2549          2550
## -6.027016e-02  1.380037e-01  7.911943e-02  2.245662e-01  3.344467e-01
##          2551          2552          2553          2554          2555
##  3.722800e-01  3.403651e-01  3.521421e-01  5.620178e-02  7.519931e-03
##          2556          2557          2558          2559          2560
## -6.552661e-01  3.713199e-02  4.441049e-02 -4.112035e-01 -6.199731e-01
##          2561          2562          2563          2564          2565
##  1.375030e-01 -1.286271e-01 -6.957611e-01  4.130979e-02 -6.090463e-02
##          2566          2567          2568          2569          2570
## -4.355745e-01  2.625996e-01 -5.976077e-02 -5.324102e-01 -4.442951e-01
##          2571          2572          2573          2574          2575
##  7.772658e-02  2.325975e-01 -2.292402e-01 -5.223839e-01 -3.795289e-02
##          2576          2577          2578          2579          2580
##  5.567382e-01  1.508249e-01  6.496037e-01 -5.420131e-02  9.476823e-02
##          2581          2582          2583          2584          2585
```

```
##   6.231797e-03  5.809029e-02  3.767794e-02  2.629961e-01 -2.985230e-01
##           2586          2587          2588          2589          2590
##   4.587487e-01  3.581150e-01  1.604622e-01 -1.025630e-01  1.093514e-01
##           2591          2592          2593          2594          2595
##   1.521682e-02  2.670307e-01  1.296754e-01  5.621946e-01 -1.676769e-01
##           2596          2597          2598          2599          2600
##   5.496698e-01  2.148600e-02  1.644581e-01  1.192111e-03  5.162471e-01
##           2601          2602          2603          2604          2605
##   1.298810e-01  4.348484e-01 -3.564208e-01 -7.230633e-01 -6.682632e-01
##           2606          2607          2608          2609          2610
## -7.676141e-01 -4.504370e-01  3.505016e-01 -3.504110e-01 -9.045504e-01
##           2611          2612          2613          2614          2615
## -1.073374e-01 -6.607055e-01 -7.579079e-01  5.189128e-02 -4.889314e-01
##           2616          2617          2618          2619          2620
##   2.373660e-01 -6.424642e-02  3.377237e-01  5.195024e-01  2.995057e-01
##           2621          2622          2623          2624          2625
##   2.498697e-01  8.149398e-02  6.330489e-02  4.668405e-01 -4.629320e-01
##           2626          2627          2628          2629          2630
##   7.290356e-02 -2.281319e-01  8.409634e-02  8.563236e-02 -4.031774e-01
##           2631          2632          2633          2634          2635
## -1.667441e-02  6.072738e-02  2.695067e-02 -7.882953e-01 -6.897882e-01
##           2636          2637          2638          2639          2640
##   4.171694e-01  2.480263e-01 -6.258012e-01 -4.874870e-01 -6.649503e-01
##           2641          2642          2643          2644          2645
##   1.776360e-01  3.276781e-02  2.423068e-01  2.348773e-01 -3.150033e-02
##           2646          2647          2648          2649          2650
##   5.006592e-01 -4.370759e-01  4.192659e-01 -1.479471e-01 -2.825771e-01
##           2651          2652          2653          2654          2655
## -3.916163e-01  1.327815e-01  3.326968e-01  4.402597e-02 -3.349454e-02
##           2656          2657          2658          2659          2660
##   2.771857e-01 -2.489278e-02 -4.640799e-01  2.097022e-01  1.684740e-01
##           2661          2662          2663          2664          2665
##   3.162667e-01 -5.937458e-02 -5.106881e-02 -8.349538e-01 -4.726831e-01
##           2666          2667          2668          2669          2670
##   2.121062e-01  2.021831e-01  5.362837e-02 -4.399754e-01  2.365278e-01
##           2671          2672          2673          2674          2675
## -2.234583e-02  7.669314e-02 -4.234156e-01  6.580031e-02 -3.627120e-01
##           2676          2677          2678          2679          2680
## -2.142014e-01  1.295222e-02 -5.933598e-01 -4.273620e-01  1.477020e-01
##           2681          2682          2683          2684          2685
## -5.404011e-04 -4.031019e-01  3.735879e-01 -3.952090e-01  7.046114e-02
##           2686          2687          2688          2689          2690
## -3.621954e-01  3.318248e-01  2.609269e-01 -1.147412e-01  1.308832e-01
##           2691          2692          2693          2694          2695
##   3.893654e-02 -6.270531e-02 -1.625397e-01  1.863575e-01  4.862119e-01
##           2696          2697          2698          2699          2700
##   2.847424e-01 -5.139102e-02  3.418886e-01 -5.281984e-01  8.340126e-02
##           2701          2702          2703          2704          2705
## -6.351016e-02 -4.532935e-01 -3.732895e-01 -3.070387e-01  3.917309e-01
##           2706          2707          2708          2709          2710
```

```
##   7.851356e-02 -5.409463e-01  3.122881e-01  2.444616e-01  2.099644e-01
##           2711          2712          2713          2714          2715
##   1.618173e-01  2.907133e-01 -1.719545e-01 -4.432495e-02  2.548775e-02
##           2716          2717          2718          2719          2720
## -6.399500e-01 -3.541789e-01 -7.548713e-03  1.255485e-01 -6.369523e-02
##           2721          2722          2723          2724          2725
##   3.823790e-01  1.313847e-02 -2.727149e-01  2.742860e-01 -2.838860e-01
##           2726          2727          2728          2729          2730
##   3.069515e-01  1.754850e-01  1.493397e-01  4.721442e-01  1.661593e-01
##           2731          2732          2733          2734          2735
##   3.941559e-01  3.272909e-01  1.992740e-01  5.214675e-02  1.938177e-01
##           2736          2737          2738          2739          2740
## -6.433762e-01 -2.702556e-01 -1.703912e-01  1.691940e-02  2.769292e-01
##           2741          2742          2743          2744          2745
## -2.285967e-01  9.090492e-03  2.188632e-01 -4.649824e-01  2.608340e-01
##           2746          2747          2748          2749          2750
##   1.883138e-01  3.723336e-01 -8.638546e-01 -2.639443e-01  2.815137e-01
##           2751          2752          2753          2754          2755
##   6.319003e-02 -7.981921e-01  5.235601e-02  1.813072e-01  1.647597e-01
##           2756          2757          2758          2759          2760
##   1.158522e-01 -4.851940e-01  3.278545e-01  9.039835e-02  8.711103e-02
##           2761          2762          2763          2764          2765
##   5.316716e-01  1.168409e-01  2.815170e-01  1.187958e-01 -8.683986e-01
##           2766          2767          2768          2769          2770
## -3.711047e-01  3.153370e-01 -1.405396e-01  3.024748e-01  2.812860e-01
##           2771          2772          2773          2774          2775
## -8.923102e-01 -4.667934e-01  1.593243e-01  4.767738e-01 -3.339356e-01
##           2776          2777          2778          2779          2780
## -8.961560e-01  4.433697e-01  1.108670e-01  3.608846e-01 -4.203343e-01
##           2781          2782          2783          2784          2785
##   3.706881e-01  1.046946e-01 -6.270755e-02  8.582094e-02  5.539627e-01
##           2786          2787          2788          2789          2790
## -8.067025e-01  3.580423e-02  2.670119e-01  5.831837e-01  1.670277e-01
##           2791          2792          2793          2794          2795
## -3.361180e-01  3.033444e-01 -2.431771e-01 -3.599150e-01 -4.743496e-02
##           2796          2797          2798          2799          2800
##   1.214413e-01  1.907363e-01 -4.595222e-01  2.369881e-02 -7.040431e-01
##           2801          2802          2803          2804          2805
## -1.518621e-01  7.644714e-02  1.038991e-01  5.928463e-01  2.973731e-01
##           2806          2807          2808          2809          2810
##   2.224406e-01 -1.680535e-02 -8.128544e-01 -3.538090e-02 -7.121589e-02
##           2811          2812          2813          2814          2815
## -4.250228e-01  7.269303e-02 -1.124319e-02 -6.062337e-01  2.683357e-01
##           2816          2817          2818          2819          2820
##   2.378892e-02 -2.976574e-01 -9.280811e-01  3.360436e-02 -6.570163e-02
##           2821          2822          2823          2824          2825
##   2.612738e-01  2.547403e-01  3.899634e-01  1.085807e-01 -3.939655e-01
##           2826          2827          2828          2829          2830
## -8.763324e-02 -3.010922e-01  1.353255e-01 -8.055290e-02  1.571565e-02
##           2831          2832          2833          2834          2835
```

```
##   4.059867e-03  3.609986e-01 -8.015380e-01  1.175976e-03 -4.770905e-02
##           2836          2837          2838          2839          2840
##   2.689582e-01  3.795142e-01  3.142176e-01 -5.404406e-02 -2.494802e-01
##           2841          2842          2843          2844          2845
##   5.087564e-01  4.286147e-01  4.286530e-01  1.661786e-01  1.668029e-01
##           2846          2847          2848          2849          2850
##   3.532626e-01 -5.272279e-02 -1.057312e-01  2.481459e-01  2.936705e-01
##           2851          2852          2853          2854          2855
##  -3.444437e-02  4.604123e-01 -2.463146e-02  2.237518e-01 -4.900058e-02
##           2856          2857          2858          2859          2860
##   3.580252e-01 -3.282113e-01 -4.376516e-01  3.541605e-01  3.439762e-01
##           2861          2862          2863          2864          2865
##   4.673715e-02  5.689592e-01  7.486664e-02  4.904196e-01 -3.049835e-01
##           2866          2867          2868          2869          2870
##   1.997820e-01 -3.596892e-01  3.514404e-03 -4.057309e-01 -7.693092e-02
##           2871          2872          2873          2874          2875
##  -4.123889e-01  1.313020e-01 -6.800772e-01  5.216963e-01 -6.951475e-01
##           2876          2877          2878          2879          2880
##   5.690083e-01  1.574807e-01  4.671949e-01 -5.005983e-02 -8.935303e-02
##           2881          2882          2883          2884          2885
##   9.095472e-02  1.670943e-01 -5.921719e-01 -3.670654e-01  6.276339e-02
##           2886          2887          2888          2889          2890
##  -6.794957e-01 -3.449406e-01  1.941399e-01 -7.684229e-01 -9.845999e-01
##           2891          2892          2893          2894          2895
##   8.295060e-02  1.579188e-01  2.568411e-02  3.081213e-01 -1.163405e-01
##           2896          2897          2898          2899          2900
##  -3.783627e-01  6.736842e-02  5.605807e-01  2.612148e-01 -5.682448e-01
##           2901          2902          2903          2904          2905
##   3.219366e-01  3.035586e-01 -4.093022e-01 -4.008001e-01  4.559996e-02
##           2906          2907          2908          2909          2910
##   7.944611e-02 -4.826596e-01  5.292884e-01  1.019317e-02  3.021990e-01
##           2911          2912          2913          2914          2915
##  -6.968398e-02  1.771864e-01 -6.924261e-02  4.885713e-01  1.842039e-01
##           2916          2917          2918          2919          2920
##  -1.737263e-01 -2.779035e-01 -5.255994e-01  2.231554e-01 -4.822749e-01
##           2921          2922          2923          2924          2925
##   2.252844e-01  3.242552e-02  5.945541e-01 -1.014412e-01  5.532212e-02
##           2926          2927          2928          2929          2930
##   6.018047e-02  5.359049e-01  2.733977e-01 -3.514097e-02  1.169745e-01
##           2931          2932          2933          2934          2935
##  -1.359526e-01  4.638791e-01  2.020327e-01  2.090286e-01 -5.020205e-01
##           2936          2937          2938          2939          2940
##  -6.594623e-01  4.480834e-02 -2.435508e-02  9.766581e-02  3.080147e-01
##           2941          2942          2943          2944          2945
##   4.514595e-01  2.939482e-01  2.930943e-01 -4.671345e-01 -1.877187e-02
##           2946          2947          2948          2949          2950
##   2.279225e-01  2.138617e-01  1.426711e-01 -4.235206e-01 -4.113160e-01
##           2951          2952          2953          2954          2955
##  -2.768829e-01  3.396595e-01  6.326714e-01  1.757772e-01  3.334549e-01
##           2956          2957          2958          2959          2960
```

```
##  -4.173455e-01  2.748053e-01 -6.298650e-01  1.270909e-01  1.909517e-01
##          2961          2962          2963          2964          2965
##  -7.073880e-01  5.600053e-01  6.204908e-02  5.699980e-01  1.431618e-02
##          2966          2967          2968          2969          2970
##  -3.651499e-01 -8.024520e-02 -4.432882e-02 -7.528799e-01 -5.494633e-01
##          2971          2972          2973          2974          2975
##   3.541049e-01  2.028817e-01  2.373981e-01  3.802098e-01  8.719663e-02
##          2976          2977          2978          2979          2980
##  -5.784716e-02 -9.820728e-02  2.691564e-02 -1.727223e-01  1.447620e-01
##          2981          2982          2983          2984          2985
##   2.956290e-01  1.906714e-01  4.141090e-04  8.424152e-02  2.112785e-01
##          2986          2987          2988          2989          2990
##  -5.358403e-01  3.669534e-01  2.716307e-01  1.288139e-01 -1.687227e-02
##          2991          2992          2993          2994          2995
##   3.751453e-01  3.312371e-01 -6.828778e-01  5.695262e-01  1.224716e-01
##          2996          2997          2998          2999          3000
##  -3.612892e-01  1.719933e-01  1.655475e-01 -5.805553e-01 -3.608736e-01
##          3001          3002          3003          3004          3005
##   2.360967e-01 -3.668894e-01 -5.397254e-01  1.252538e-01  3.007672e-01
##          3006          3007          3008          3009          3010
##   4.164807e-01  6.184940e-02 -4.991717e-02  3.839311e-01  4.761276e-01
##          3011          3012          3013          3014          3015
##  -7.470044e-02 -5.467793e-01  1.476461e-01  4.169322e-03 -8.367044e-01
##          3016          3017          3018          3019          3020
##   8.411283e-02  1.792035e-01  1.917531e-01 -1.697943e-01  1.479852e-01
##          3021          3022          3023          3024          3025
##  -4.440722e-02 -3.750925e-01  2.324775e-01 -7.188646e-01 -7.153890e-01
##          3026          3027          3028          3029          3030
##  -3.512557e-01 -5.979732e-01  4.058677e-02  1.048039e-01 -3.422978e-01
##          3031          3032          3033          3034          3035
##   5.153487e-01  3.418962e-02  4.742182e-02  2.409369e-01  1.530921e-02
##          3036          3037          3038          3039          3040
##  -9.212247e-01  3.564049e-01 -7.924087e-01 -5.166433e-01 -5.856192e-01
##          3041          3042          3043          3044          3045
##   1.663116e-01  2.112865e-01 -6.134072e-01  3.455271e-01 -8.203040e-01
##          3046          3047          3048          3049          3050
##  -4.273819e-01 -1.706561e-01  2.522918e-01  1.305397e-01  1.489189e-01
##          3051          3052          3053          3054          3055
##  -6.926648e-01  3.547315e-02  5.452823e-02 -6.665903e-01  4.769241e-03
##          3056          3057          3058          3059          3060
##   3.357291e-01 -3.530754e-01  2.990529e-01  5.167788e-01  4.819012e-01
##          3061          3062          3063          3064          3065
##   4.134045e-01  6.208644e-01 -4.025541e-01  2.685270e-01  2.254240e-01
##          3066          3067          3068          3069          3070
##   2.962052e-01  4.871633e-02 -2.739553e-02  1.261159e-01  1.917479e-01
##          3071          3072          3073          3074          3075
##   1.960304e-01 -7.358799e-01 -3.941144e-03 -2.370321e-01 -5.408413e-01
##          3076          3077          3078          3079          3080
##   3.851536e-01 -4.307108e-01  9.568044e-03 -1.365325e-02  1.786010e-01
##          3081          3082          3083          3084          3085
```

```
## -2.812930e-01  5.350918e-01 -3.157613e-01 -1.330455e-02 -1.275256e-01
##         3086          3087          3088          3089          3090
## -5.469041e-01  1.259016e-01 -5.522162e-01  1.256032e-01  2.048941e-01
##         3091          3092          3093          3094          3095
##  5.383174e-01  5.648289e-02  1.670369e-01 -5.380447e-01  1.089764e-01
##         3096          3097          3098          3099          3100
##  3.337150e-01  2.616970e-01 -7.822514e-01 -7.166936e-01  6.533115e-01
##         3101          3102          3103          3104          3105
##  1.684340e-01 -4.509515e-02 -5.816610e-03  2.190729e-01  3.316419e-02
##         3106          3107          3108          3109          3110
##  1.880527e-01 -8.687619e-01 -3.888176e-03  5.408101e-01  3.661963e-01
##         3111          3112          3113          3114          3115
## -4.391792e-01  3.026277e-01  1.671392e-01  1.430398e-02 -4.168561e-01
##         3116          3117          3118          3119          3120
##  3.145823e-03 -6.748501e-01 -2.433311e-02  5.031568e-01 -1.735241e-01
##         3121          3122          3123          3124          3125
##  1.752256e-01  1.290487e-01 -6.646367e-01  1.419138e-01  1.789186e-01
##         3126          3127          3128          3129          3130
##  1.698775e-01 -1.322709e-01  5.424087e-01  6.421112e-02  4.908600e-02
##         3131          3132          3133          3134          3135
## -4.852338e-01 -4.832263e-01  3.154644e-01 -5.941734e-01 -6.913203e-01
##         3136          3137          3138          3139          3140
##  4.752320e-01 -3.885884e-01 -8.106930e-01  3.341265e-01  1.698787e-01
##         3141          3142          3143          3144          3145
## -4.410502e-01 -4.063603e-01  5.148001e-01  2.334280e-01  3.176069e-01
##         3146          3147          3148          3149          3150
##  3.996221e-01  3.979158e-01  3.255393e-01  2.554767e-01  5.460110e-01
##         3151          3152          3153          3154          3155
##  4.937189e-02  1.245288e-01 -6.766449e-01 -6.704154e-01  8.029799e-01
##         3156          3157          3158          3159          3160
## -1.315707e-01  1.055618e-01  4.298488e-01  4.636255e-01  4.892728e-01
##         3161          3162          3163          3164          3165
##  6.740165e-02  2.173197e-01 -1.006328e-01  6.278452e-02  4.095096e-02
##         3166          3167          3168          3169          3170
##  4.802528e-01  9.520419e-02 -4.877607e-01  1.071168e-01  2.687102e-01
##         3171          3172          3173          3174          3175
## -4.410389e-01  2.538589e-02 -8.005827e-02 -7.637899e-01  8.488447e-02
##         3176          3177          3178          3179          3180
##  1.891324e-01 -4.526924e-02  2.776262e-01 -4.438006e-01 -2.344538e-02
##         3181          3182          3183          3184          3185
## -5.527694e-01 -8.103243e-02  3.945895e-01 -6.798256e-01  1.344940e-01
##         3186          3187          3188          3189          3190
##  1.927024e-02  4.174996e-01 -2.242146e-02  7.526094e-02 -6.603921e-01
##         3191          3192          3193          3194          3195
##  4.864893e-01  1.478311e-01 -6.936722e-01  4.208128e-01 -5.626281e-02
##         3196          3197          3198          3199          3200
## -6.139289e-01  1.368158e-01  4.595464e-01 -1.715177e-01  4.536837e-02
##         3201          3202          3203          3204          3205
## -6.664143e-03  1.817397e-01  2.163849e-01  1.968389e-01 -2.348166e-01
##         3206          3207          3208          3209          3210
```

```
## -6.374512e-02  9.342198e-02  3.482412e-01  1.216968e-01  3.395519e-01
##          3211          3212          3213          3214          3215
##   3.989047e-01 -6.625555e-01  2.455957e-01  7.693878e-02  7.752963e-02
##          3216          3217          3218          3219          3220
## -1.184917e-01  3.710966e-01  3.278565e-01  3.520665e-01 -5.131964e-01
##          3221          3222          3223          3224          3225
##   4.144716e-01  1.800756e-01  4.036539e-01  3.127535e-01 -2.999544e-01
##          3226          3227          3228          3229          3230
## -8.775621e-02  2.529018e-01  5.297004e-02  4.719723e-01  2.379176e-02
##          3231          3232          3233          3234          3235
## -4.248088e-02  3.249765e-01 -5.527470e-02  2.248817e-03  2.839014e-01
##          3236          3237          3238          3239          3240
## -7.763844e-01 -8.084624e-01  7.350656e-02  4.115319e-01  3.518553e-01
##          3241          3242          3243          3244          3245
## -6.920425e-01 -5.936973e-01  7.731853e-02 -2.778528e-01  3.291362e-01
##          3246          3247          3248          3249          3250
##   1.788555e-01 -5.164793e-01  2.276483e-01  4.368969e-01  6.379274e-01
##          3251          3252          3253          3254          3255
##   1.505674e-01 -1.191341e-01  5.438474e-01  4.308180e-01  5.180017e-01
##          3256          3257          3258          3259          3260
## -6.626797e-01 -1.285965e-01 -5.802233e-01  1.275061e-01  5.197106e-01
##          3261          3262          3263          3264          3265
## -5.668566e-01 -1.293604e-01  8.277674e-04  2.819536e-01  1.603658e-03
##          3266          3267          3268          3269          3270
##   7.118864e-01 -2.632321e-01 -3.866296e-01 -6.305973e-01  3.977897e-01
##          3271          3272          3273          3274          3275
##   7.798608e-02 -3.663908e-01  9.543270e-02  1.030237e-02  7.556350e-02
##          3276          3277          3278          3279          3280
## -6.899912e-02  2.877057e-01  2.082691e-01 -2.060275e-02  4.755288e-01
##          3281          3282          3283          3284          3285
## -1.172546e-01 -4.087047e-01 -4.656835e-01  6.018161e-02  3.951686e-01
##          3286          3287          3288          3289          3290
##   3.274397e-01  1.184380e-01  5.187595e-01  4.726790e-01 -4.218077e-01
##          3291          3292          3293          3294          3295
## -1.961017e-01  2.858871e-01  6.740597e-02  1.868095e-01  7.999809e-02
##          3296          3297          3298          3299          3300
##   4.790329e-02 -3.535857e-01 -5.116857e-01 -4.577112e-01  1.531215e-01
##          3301          3302          3303          3304          3305
##   5.214348e-01  4.912635e-01  6.820671e-02  1.297766e-01  6.906385e-02
##          3306          3307          3308          3309          3310
## -3.556655e-01  2.362239e-01  1.930246e-01  1.770352e-01  2.705308e-01
##          3311          3312          3313          3314          3315
##   1.959977e-01  1.942919e-01 -9.581864e-02 -6.425453e-01 -5.358321e-01
##          3316          3317          3318          3319          3320
##   3.630156e-01 -1.850059e-02 -2.855358e-01  1.007583e-01  5.482040e-01
##          3321          3322          3323          3324          3325
## -3.003214e-01 -8.095515e-01  1.714845e-01  6.011069e-01  2.868928e-01
##          3326          3327          3328          3329          3330
## -5.344600e-01 -6.331996e-01  2.464096e-02 -5.316932e-01  2.091072e-01
##          3331          3332          3333          3334          3335
```

```
## -5.614906e-02  6.261019e-01 -4.780322e-01 -1.626771e-01 -2.812340e-01
##          3336          3337          3338          3339          3340
##  2.150121e-01  1.945562e-01  8.866221e-02 -3.968517e-01  1.890719e-01
##          3341          3342          3343          3344          3345
##  7.530593e-01  3.042789e-02  2.629467e-01 -2.994314e-01 -5.988637e-01
##          3346          3347          3348          3349          3350
## -7.364355e-01 -2.719021e-01  5.631905e-01  6.283009e-02  5.690169e-03
##          3351          3352          3353          3354          3355
## -6.099211e-01 -6.233327e-01  1.193812e-01  1.866721e-01 -4.368426e-01
##          3356          3357          3358          3359          3360
##  7.783972e-02 -6.699744e-01  9.308377e-02 -4.366511e-01  5.491564e-02
##          3361          3362          3363          3364          3365
##  4.576463e-01  3.584860e-02  3.455463e-01  4.196628e-01  1.582744e-01
##          3366          3367          3368          3369          3370
## -8.077959e-01  3.347301e-01 -2.857762e-01 -6.669495e-01 -1.254782e-01
##          3371          3372          3373          3374          3375
##  2.184303e-01 -4.408407e-02 -1.762103e-01  1.865629e-01 -1.776183e-01
##          3376          3377          3378          3379          3380
##  1.094822e-01 -8.328821e-02 -3.667757e-01 -4.550974e-01 -2.953356e-01
##          3381          3382          3383          3384          3385
##  6.086680e-02  1.825109e-01  6.052064e-02  6.075695e-01 -1.581979e-02
##          3386          3387          3388          3389          3390
##  1.755078e-01  1.214940e-01  1.746533e-01  1.842352e-01  1.296841e-01
##          3391          3392          3393          3394          3395
##  1.193821e-01 -6.656203e-02  1.646693e-01  1.734980e-01  5.368117e-01
##          3396          3397          3398          3399          3400
## -1.445475e-02 -3.282923e-01  1.742063e-01  5.186919e-02  1.477510e-01
##          3401          3402          3403          3404          3405
##  7.441862e-02  1.324461e-02 -6.781806e-01  8.753859e-02 -6.239511e-01
##          3406          3407          3408          3409          3410
## -5.521383e-01  1.120076e-01  4.895660e-01  3.867747e-02 -7.666270e-01
##          3411          3412          3413          3414          3415
##  3.848686e-01  2.214258e-01  2.401229e-01  4.918011e-02  2.963338e-01
##          3416          3417          3418          3419          3420
## -4.075537e-02 -4.834674e-03 -7.165120e-01 -3.487386e-01  3.768486e-01
##          3421          3422          3423          3424          3425
## -4.061894e-01  6.406938e-01 -6.449926e-01 -3.537815e-02  1.227092e-01
##          3426          3427          3428          3429          3430
## -3.827012e-01 -7.700877e-02  1.998683e-01  2.100016e-01  5.909991e-01
##          3431          3432          3433          3434          3435
##  1.052097e-01  2.171312e-01 -3.417462e-01 -8.211691e-01 -1.022899e-01
##          3436          3437          3438          3439          3440
##  1.168228e-01  4.458907e-01  2.329626e-01  1.701590e-01  3.367589e-01
##          3441          3442          3443          3444          3445
##  2.186448e-01  3.199067e-01 -6.810693e-01  2.864569e-01  2.651817e-01
##          3446          3447          3448          3449          3450
##  2.562732e-01  4.070845e-01  2.381482e-01  3.582204e-01 -2.857785e-01
##          3451          3452          3453          3454          3455
## -1.450424e-02  2.413485e-01 -4.655624e-01  1.095052e-01  3.240911e-01
##          3456          3457          3458          3459          3460
```

```
##   1.362430e-02 -3.145637e-01  4.359489e-01  4.317784e-01  3.933392e-01
##          3461          3462          3463          3464          3465
## -3.235359e-02 -2.545829e-01  1.663888e-01  6.841231e-01  2.947104e-01
##          3466          3467          3468          3469          3470
##   6.584268e-02  3.589769e-01 -5.928234e-01  2.182067e-01  1.297429e-01
##          3471          3472          3473          3474          3475
##   2.824679e-01  5.582217e-01  3.372239e-01 -5.992469e-01 -9.872783e-02
##          3476          3477          3478          3479          3480
##   4.046144e-01  3.113303e-01  4.143147e-01  4.227018e-01 -3.705435e-01
##          3481          3482          3483          3484          3485
##   2.215889e-01 -7.603149e-02  4.356823e-01  2.398040e-01 -6.501224e-01
##          3486          3487          3488          3489          3490
##   1.067628e-01  3.652193e-01  3.921050e-01 -3.675767e-01 -2.923083e-01
##          3491          3492          3493          3494          3495
##   3.324353e-01  6.398453e-01 -6.896107e-01 -7.985639e-01  2.660313e-01
##          3496          3497          3498          3499          3500
## -1.097278e-02  2.451859e-01  1.884510e-01 -1.234195e-01  4.129307e-01
##          3501          3502          3503          3504          3505
##   4.827182e-01  1.808719e-01  8.432281e-03  4.067128e-01  6.230521e-01
##          3506          3507          3508          3509          3510
##   9.745019e-03  8.652965e-02  1.227203e-01  1.176793e-01  2.503930e-01
##          3511          3512          3513          3514          3515
## -6.205093e-01 -9.836194e-01  1.867046e-01  5.059429e-01  1.530595e-01
##          3516          3517          3518          3519          3520
## -4.527497e-02  1.432035e-02 -4.870622e-02 -3.015551e-01 -5.859074e-01
##          3521          3522          3523          3524          3525
## -6.191318e-01 -3.619320e-01 -8.029821e-01  6.313029e-01  3.794727e-01
##          3526          3527          3528          3529          3530
##   9.205117e-02 -6.138881e-01  1.764647e-01 -8.148042e-01  1.202987e-01
##          3531          3532          3533          3534          3535
##   6.417819e-01  1.510613e-01 -1.309321e-01 -6.235318e-01 -6.598253e-02
##          3536          3537          3538          3539          3540
##   1.967816e-01  1.611663e-01 -7.166528e-02 -5.710216e-01  4.567970e-01
##          3541          3542          3543          3544          3545
## -1.182588e-01 -8.948470e-02  6.341341e-02 -1.465938e-01 -5.482941e-01
##          3546          3547          3548          3549          3550
## -3.695732e-01  7.249495e-02 -4.556672e-02  5.523074e-01 -4.036672e-01
##          3551          3552          3553          3554          3555
##   1.084946e-01  3.586735e-01  4.445743e-01  2.158272e-02  3.267500e-01
##          3556          3557          3558          3559          3560
## -5.427511e-01 -2.850482e-01  5.264498e-01  1.958600e-01 -6.133861e-01
##          3561          3562          3563          3564          3565
##   1.162756e-01 -5.291325e-01  4.883226e-01  1.057579e-01  4.763689e-02
##          3566          3567          3568          3569          3570
##   3.100924e-01  5.178382e-01  1.236839e-01  2.476685e-01  2.570144e-01
##          3571          3572          3573          3574          3575
##   1.770332e-03 -8.330966e-01  1.498477e-01  4.051985e-01 -6.169417e-01
##          3576          3577          3578          3579          3580
## -1.884630e-01  6.485408e-01  1.768891e-01  5.086698e-01  2.973620e-01
##          3581          3582          3583          3584          3585
```

```
## -7.379652e-01 -2.664604e-01  4.370547e-01  2.852393e-01  4.946565e-02
##          3586          3587          3588          3589          3590
## -5.263968e-01 -5.915711e-01 -4.328084e-01  4.040004e-01 -3.687921e-01
##          3591          3592          3593          3594          3595
## -7.259928e-01  4.973647e-01  4.091301e-01  7.893606e-02 -6.406422e-01
##          3596          3597          3598          3599          3600
##  1.111805e-02  1.892937e-01 -6.400428e-01  5.965180e-02  2.369826e-01
##          3601          3602          3603          3604          3605
##  2.643504e-01  1.539681e-01 -6.096094e-01  2.718842e-01 -3.191364e-01
##          3606          3607          3608          3609          3610
##  2.595920e-01  5.348437e-01  3.073771e-01 -3.326947e-02 -4.472114e-01
##          3611          3612          3613          3614          3615
##  9.223542e-02 -4.791488e-01  1.568429e-01 -2.181932e-01  3.232692e-01
##          3616          3617          3618          3619          3620
## -5.819019e-01 -1.727007e-01  4.582619e-01  3.128303e-01 -9.364799e-02
##          3621          3622          3623          3624          3625
##  1.877304e-01  1.132567e-01  3.023609e-01  1.472513e-01 -8.299981e-01
##          3626          3627          3628          3629          3630
## -6.021138e-01  5.266882e-01  6.586824e-01  6.908289e-03 -4.906666e-02
##          3631          3632          3633          3634          3635
##  1.260568e-01 -8.289588e-01 -6.252150e-01  3.679618e-01 -4.360292e-01
##          3636          3637          3638          3639          3640
##  8.347794e-02  5.888984e-01 -6.518389e-03  2.655282e-02  1.670867e-01
##          3641          3642          3643          3644          3645
##  2.298004e-01  6.054132e-01  3.332414e-01 -8.206507e-02  5.513604e-02
##          3646          3647          3648          3649          3650
##  1.975653e-03 -5.590930e-01  1.498095e-01  4.100688e-01  8.437856e-02
##          3651          3652          3653          3654          3655
##  1.012161e-01  6.310226e-02  2.449171e-01  1.075151e-01  3.069531e-01
##          3656          3657          3658          3659          3660
##  2.838583e-01 -6.782543e-01  6.603217e-01  3.450331e-01  6.835329e-02
##          3661          3662          3663          3664          3665
## -6.175183e-01  5.124207e-01  2.403812e-01  3.824369e-01  1.073804e-01
##          3666          3667          3668          3669          3670
## -3.403570e-01 -7.473395e-01 -5.205959e-01 -6.407775e-01  1.984620e-01
##          3671          3672          3673          3674          3675
##  8.711570e-02  3.453130e-01  2.794044e-01 -7.581407e-01 -6.277330e-01
##          3676          3677          3678          3679          3680
## -4.883232e-01 -4.113941e-01 -1.737951e-01  4.194981e-01  1.283810e-01
##          3681          3682          3683          3684          3685
## -4.012857e-01 -6.176772e-01  4.198297e-01 -3.420611e-01 -5.834797e-01
##          3686          3687          3688          3689          3690
##  1.876987e-01  4.405618e-01  1.758899e-01 -9.412542e-01  5.175413e-01
##          3691          3692          3693          3694          3695
## -6.763678e-01  3.883893e-01  2.732289e-01  1.187102e-01 -8.452987e-01
##          3696          3697          3698          3699          3700
##  5.334114e-02 -4.580217e-01  1.026410e-01 -2.117427e-02 -1.230175e-01
##          3701          3702          3703          3704          3705
##  4.415387e-01 -1.243836e-01  8.050889e-02  4.223624e-01  1.025983e-01
##          3706          3707          3708          3709          3710
```

```
##   1.051273e-02  4.419429e-02 -5.498252e-01 -1.249072e-01  6.343524e-01
##           3711          3712          3713          3714          3715
## -2.990878e-01  2.081144e-01  3.452177e-01  4.735558e-02  9.002124e-02
##           3716          3717          3718          3719          3720
## -8.030345e-01  9.532792e-02  1.299769e-01 -1.689298e-02 -3.869931e-01
##           3721          3722          3723          3724          3725
## -4.529358e-01 -2.278370e-01 -3.809679e-02 -2.318465e-02 -6.546295e-01
##           3726          3727          3728          3729          3730
##   5.881540e-01  1.741375e-01  7.233248e-02  1.136146e-01  7.060766e-01
##           3731          3732          3733          3734          3735
##   1.623489e-01 -5.415121e-01  3.464416e-01  1.288919e-01  5.843452e-01
##           3736          3737          3738          3739          3740
## -5.048971e-02  3.103882e-01 -7.474667e-01  3.291637e-01 -3.538772e-01
##           3741          3742          3743          3744          3745
## -4.068446e-01  3.499820e-01  1.365806e-02 -1.956322e-01  3.438100e-01
##           3746          3747          3748          3749          3750
##   2.036211e-01 -5.833990e-02  3.309532e-01  1.911658e-01 -3.548507e-01
##           3751          3752          3753          3754          3755
## -5.609995e-01  6.041190e-02  2.800884e-01 -3.438684e-01  5.606835e-01
##           3756          3757          3758          3759          3760
## -2.999962e-02  3.921212e-01 -3.603817e-01  1.771317e-01  2.453733e-01
##           3761          3762          3763          3764          3765
## -5.993458e-01  3.023026e-02  3.100021e-01  1.638073e-01 -6.393377e-02
##           3766          3767          3768          3769          3770
## -3.549733e-01 -3.423722e-01 -6.017945e-01  2.496217e-01 -4.756257e-01
##           3771          3772          3773          3774          3775
##   2.418800e-01 -6.388740e-02  3.884765e-01 -1.109051e+00 -2.360685e-02
##           3776          3777          3778          3779          3780
##   6.793302e-02  6.205930e-01  2.907429e-01 -4.072969e-01 -2.992418e-01
##           3781          3782          3783          3784          3785
##   4.831583e-01  2.689022e-01 -9.742534e-01  1.680308e-01 -8.749547e-01
##           3786          3787          3788          3789          3790
##   5.612731e-01 -3.854681e-01  1.745954e-01  3.519000e-01  6.014150e-01
##           3791          3792          3793          3794          3795
## -5.995704e-01  2.237726e-01  4.342762e-01 -8.577563e-01  2.280278e-02
##           3796          3797          3798          3799          3800
## -4.637804e-01  1.907940e-01 -8.406178e-01  5.326610e-01 -3.422938e-01
##           3801          3802          3803          3804          3805
##   5.249008e-01 -4.193334e-01  1.621777e-01  1.156528e-03  3.238034e-01
##           3806          3807          3808          3809          3810
##   2.902751e-01  1.282810e-01  1.521273e-01 -1.011236e-01 -3.570763e-01
##           3811          3812          3813          3814          3815
##   9.137724e-02 -2.940994e-02  1.260396e-01  1.772376e-01  1.344065e-01
##           3816          3817          3818          3819          3820
## -2.969084e-01  6.404670e-01 -1.875559e-01  4.532109e-01 -5.577843e-02
##           3821          3822          3823          3824          3825
##   1.528905e-01 -9.205050e-02 -4.819860e-01 -2.672250e-01 -4.876096e-01
##           3826          3827          3828          3829          3830
##   1.606969e-01  4.441136e-01 -9.085498e-01  6.387698e-02 -1.349162e-02
##           3831          3832          3833          3834          3835
```

```
## -4.253257e-01  5.856628e-01  1.357780e-01  1.147815e-02 -4.546254e-01
##         3836          3837          3838          3839          3840
##  5.511131e-01 -3.890387e-01 -7.935903e-01 -4.334405e-01  3.540594e-01
##         3841          3842          3843          3844          3845
##  2.011518e-01  3.320293e-01 -8.155684e-01 -1.462775e-02  1.253100e-02
##         3846          3847          3848          3849          3850
##  2.150814e-01  3.326855e-01  2.724762e-01  4.399721e-02  2.590286e-01
##         3851          3852          3853          3854          3855
##  1.617115e-01  5.047680e-02  2.828144e-01  3.479920e-01  3.519929e-01
##         3856          3857          3858          3859          3860
## -6.100051e-02  6.181071e-01 -4.413437e-01  2.230715e-01  9.709920e-02
##         3861          3862          3863          3864          3865
##  2.553982e-01 -5.750035e-01  3.684116e-01  1.471367e-01 -2.526698e-01
##         3866          3867          3868          3869          3870
##  5.420480e-01 -2.447133e-02  3.621422e-01 -6.055625e-01  6.008968e-01
##         3871          3872          3873          3874          3875
## -6.534173e-01 -1.995198e-02 -6.450997e-01  3.103805e-01 -1.741553e-01
##         3876          3877          3878          3879          3880
##  3.785123e-01  5.370330e-01  5.468705e-01  6.480559e-01  1.970187e-01
##         3881          3882          3883          3884          3885
## -5.291228e-01 -3.997271e-01  9.461685e-02 -8.851862e-01  1.246052e-01
##         3886          3887          3888          3889          3890
##  1.334542e-01  4.234833e-01  2.104152e-02 -5.064438e-02  3.221458e-02
##         3891          3892          3893          3894          3895
## -1.278529e-02  5.817514e-02  3.689099e-01  3.447920e-02  1.042937e-01
##         3896          3897          3898          3899          3900
##  3.417563e-01  2.252741e-01  8.737057e-02 -5.677965e-01 -4.014891e-01
##         3901          3902          3903          3904          3905
##  4.362515e-01  1.475009e-01  5.895337e-02 -5.764523e-01 -7.806084e-01
##         3906          3907          3908          3909          3910
##  3.364174e-02 -6.535624e-02  4.360239e-02  1.673278e-01  5.247337e-01
##         3911          3912          3913          3914          3915
## -4.115755e-01 -4.297442e-01 -2.839860e-01  7.915590e-02  2.385851e-01
##         3916          3917          3918          3919          3920
##  3.906506e-01 -3.325298e-01 -6.453931e-01  1.849224e-01  3.322820e-01
##         3921          3922          3923          3924          3925
## -7.736406e-01  5.963092e-01  1.222044e-01  1.077091e-01  2.189157e-01
##         3926          3927          3928          3929          3930
## -3.119067e-01  1.511880e-01  1.692710e-01 -8.931701e-02  2.747705e-01
##         3931          3932          3933          3934          3935
##  2.230276e-01  3.085191e-01 -4.269584e-01  3.676347e-01  1.793073e-01
##         3936          3937          3938          3939          3940
## -6.159684e-01  3.920290e-01  1.103558e-01 -7.273681e-01 -6.524677e-01
##         3941          3942          3943          3944          3945
##  2.730070e-01  2.301127e-01  2.854017e-01 -4.909969e-01 -1.480365e-01
##         3946          3947          3948          3949          3950
##  6.922509e-02 -4.372180e-01  7.172436e-01  4.449419e-01 -2.769057e-01
##         3951          3952          3953          3954          3955
##  2.254071e-01 -4.553402e-01  1.216429e-01  3.783043e-01  4.008782e-01
##         3956          3957          3958          3959          3960
```

```
## -2.737298e-01 -9.541578e-02  1.082017e-02  3.994105e-01 -1.478916e-02
##          3961          3962          3963          3964          3965
##  6.676522e-02 -1.039194e-01  5.649406e-01  6.664647e-03 -9.234518e-01
##          3966          3967          3968          3969          3970
##  1.463147e-01  1.657020e-01  2.188955e-01 -3.516574e-01 -5.731095e-01
##          3971          3972          3973          3974          3975
##  4.056883e-02  6.618620e-01 -1.465970e-02 -4.425264e-01  6.748913e-01
##          3976          3977          3978          3979          3980
## -6.565377e-02 -5.702973e-01 -9.000761e-02  2.946483e-01 -2.931812e-02
##          3981          3982          3983          3984          3985
## -3.861487e-01  4.759745e-02  3.811350e-01  6.454459e-01 -3.872600e-01
##          3986          3987          3988          3989          3990
## -5.142447e-02 -1.830072e-01 -5.943209e-01 -6.476934e-01  4.809094e-02
##          3991          3992          3993          3994          3995
##  3.736883e-02  7.331593e-02 -3.584760e-01  5.496444e-01  2.437769e-01
##          3996          3997          3998          3999          4000
## -1.455499e-01  1.193588e-02 -1.540221e-01 -7.062963e-01 -7.503212e-02
##          4001          4002          4003          4004          4005
## -1.561708e-02  2.062900e-01 -8.162515e-02  1.977185e-01  7.546808e-02
##          4006          4007          4008          4009          4010
## -6.612445e-01  4.058064e-01  2.916675e-01  1.657185e-01  3.636873e-01
##          4011          4012          4013          4014          4015
##  1.835923e-01  2.322154e-01 -3.346318e-01  2.397723e-02 -7.733909e-01
##          4016          4017          4018          4019          4020
##  1.636248e-01  1.134805e-02  3.550565e-01 -4.444492e-01 -1.454742e-02
##          4021          4022          4023          4024          4025
## -6.187456e-01 -3.602131e-02 -6.751221e-02  3.205392e-01  7.198921e-02
##          4026          4027          4028          4029          4030
##  2.545977e-01 -1.501726e-01  2.803822e-01  2.675347e-01  1.764736e-01
##          4031          4032          4033          4034          4035
## -2.538519e-02 -4.083638e-02  7.215867e-01  6.927979e-02  1.178319e-01
##          4036          4037          4038          4039          4040
##  3.734430e-01  1.289585e-01 -1.954191e-02 -4.665827e-01  2.918857e-01
##          4041          4042          4043          4044          4045
##  1.532336e-01  7.254860e-03  3.624058e-01  4.050376e-01  1.766226e-01
##          4046          4047          4048          4049          4050
## -5.637070e-01  3.245456e-01  4.462007e-01  6.548620e-02 -4.688615e-01
##          4051          4052          4053          4054          4055
## -6.814293e-02 -6.567513e-01 -5.462826e-01  7.225382e-02  2.282297e-01
##          4056          4057          4058          4059          4060
## -4.473561e-01 -3.671483e-01  3.001709e-01 -8.110648e-01 -8.733614e-03
##          4061          4062          4063          4064          4065
## -1.061988e-01  1.415164e-01  3.684110e-02  4.027922e-01  3.760777e-01
##          4066          4067          4068          4069          4070
##  6.536280e-01 -7.021822e-01 -5.843151e-01  1.978432e-01  6.743453e-02
##          4071          4072          4073          4074          4075
##  7.210912e-01 -8.689299e-01  5.341606e-01  7.337048e-02 -4.037261e-01
##          4076          4077          4078          4079          4080
## -9.229510e-01 -6.535065e-01 -4.087799e-01  2.857728e-01 -1.557175e-01
##          4081          4082          4083          4084          4085
```

```
##    2.249556e-01 -4.389605e-01 -3.890951e-01  2.822337e-01  3.319390e-01
##           4086          4087          4088          4089          4090
##    2.469250e-01  5.007888e-01  4.820457e-01  5.003011e-01  4.527990e-01
##           4091          4092          4093          4094          4095
##    1.779249e-01 -7.573972e-01  2.997575e-01 -3.596902e-02  3.587697e-01
##           4096          4097          4098          4099          4100
##    3.002677e-01  1.470120e-01  3.342367e-01  4.266004e-02 -3.361602e-01
##           4101          4102          4103          4104          4105
##    7.576210e-02  6.489642e-02 -5.676470e-01 -1.659569e-01  2.236040e-01
##           4106          4107          4108          4109          4110
##    2.362597e-01  9.163825e-02 -4.945630e-02  1.399270e-02  5.279693e-02
##           4111          4112          4113          4114          4115
##    8.027146e-02  3.056038e-01  1.029479e-01  3.714568e-01 -4.231265e-01
##           4116          4117          4118          4119          4120
##   -9.331304e-02  4.232102e-01  7.087953e-01  2.698476e-01  1.515361e-01
##           4121          4122          4123          4124          4125
##    2.512493e-02 -7.329618e-01  4.241739e-01  2.915150e-01 -7.530750e-01
##           4126          4127          4128          4129          4130
##   -6.034134e-01  3.143077e-01  3.550319e-01  1.220916e-01  6.070722e-04
##           4131          4132          4133          4134          4135
##    1.785717e-01 -3.454252e-01  5.476483e-01 -7.709380e-01  4.109893e-01
##           4136          4137          4138          4139          4140
##   -1.298761e-01 -4.301708e-01  5.168286e-01  1.907870e-01 -5.283798e-01
##           4141          4142          4143          4144          4145
##   -2.235767e-02  9.717992e-02 -9.043662e-01  7.177457e-01  3.294956e-01
##           4146          4147          4148          4149          4150
##   -9.708076e-02  7.687743e-02 -3.746290e-01  6.499526e-02  2.392570e-01
##           4151          4152          4153          4154          4155
##    3.030925e-01  3.061384e-02  2.522737e-01  1.591803e-01  3.974550e-01
##           4156          4157          4158          4159          4160
##   -1.001387e-01 -2.932020e-02  8.101883e-03  5.957525e-01  9.964778e-02
##           4161          4162          4163          4164          4165
##    1.924881e-01  8.245236e-02 -3.937400e-01 -5.749027e-02 -7.887379e-01
##           4166          4167          4168          4169          4170
##    1.910268e-01  6.592527e-01 -7.941160e-01 -3.426673e-02  5.570953e-02
##           4171          4172          4173          4174          4175
##    2.558913e-01 -4.323387e-02  6.271075e-01 -5.683681e-01  3.643946e-01
##           4176          4177          4178          4179          4180
##   -4.820714e-01  2.843666e-01 -3.347544e-01  1.921384e-01  1.547765e-01
##           4181          4182          4183          4184          4185
##   -2.939109e-02 -4.386904e-01 -1.042640e-01 -4.662661e-01  2.330557e-01
##           4186          4187          4188          4189          4190
##    6.884111e-02  1.484586e-01  2.952171e-03  2.333403e-01 -6.626180e-02
##           4191          4192          4193          4194          4195
##    5.662867e-01 -1.716942e-02 -7.204689e-01 -1.180080e-02 -1.336129e-01
##           4196          4197          4198          4199          4200
##    9.943322e-02  1.144104e-01  6.655294e-01  2.126481e-01 -1.249912e-02
##           4201          4202          4203          4204          4205
##    2.957222e-01  9.660532e-02  8.573053e-02  1.993298e-01 -3.890770e-01
##           4206          4207          4208          4209          4210
```

```
## -3.317781e-01 -6.822431e-01 -3.246749e-01  7.416221e-02 -1.534056e-01
##          4211          4212          4213          4214          4215
##  6.371597e-01  2.610211e-01  2.183632e-01 -2.058057e-02  1.699680e-01
##          4216          4217          4218          4219          4220
##  1.638994e-01  5.942121e-01 -8.180919e-02  1.754761e-01 -3.457801e-01
##          4221          4222          4223          4224          4225
## -1.795609e-01 -4.380299e-01  5.434458e-02 -5.240379e-01 -1.716454e-01
##          4226          4227          4228          4229          4230
## -3.933130e-01  1.314115e-01  1.038160e-01  1.187228e-01  1.787513e-01
##          4231          4232          4233          4234          4235
## -5.109784e-01 -2.650889e-02  1.548109e-01 -3.660473e-01 -8.358682e-01
##          4236          4237          4238          4239          4240
##  1.928856e-01  1.227917e-01 -5.322021e-02 -8.819957e-02  9.255207e-02
##          4241          4242          4243          4244          4245
## -8.265027e-03  1.829636e-01  3.419055e-01  3.412042e-02  1.472103e-01
##          4246          4247          4248          4249          4250
##  3.936039e-01  5.472196e-01 -5.905918e-01 -5.291666e-01 -1.342495e-02
##          4251          4252          4253          4254          4255
##  3.020326e-01 -6.421399e-01 -7.633413e-01  1.002507e-01  3.455927e-02
##          4256          4257          4258          4259          4260
## -6.111203e-01  9.505867e-03  4.744411e-01 -7.009716e-01 -9.286848e-01
##          4261          4262          4263          4264          4265
## -1.040498e-01  2.945023e-01 -5.750831e-01 -8.674378e-02  5.667647e-02
##          4266          4267          4268          4269          4270
## -9.572471e-01 -5.761932e-01 -1.697082e-03  3.102940e-01 -6.152238e-01
##          4271          4272          4273          4274          4275
##  2.391586e-01  3.108516e-01  1.908813e-01 -6.289375e-02  1.975986e-01
##          4276          4277          4278          4279          4280
##  2.925248e-01  6.327259e-01  5.236203e-01 -3.117716e-02  5.956371e-01
##          4281          4282          4283          4284          4285
## -7.429669e-01 -3.641849e-01 -3.381539e-02 -6.312257e-01  1.168140e-02
##          4286          4287          4288          4289          4290
## -4.604356e-01 -3.552140e-01  4.876102e-01 -4.900604e-02 -8.737156e-01
##          4291          4292          4293          4294          4295
##  6.649102e-02  3.263755e-01  2.812192e-01  1.165685e-01 -4.608976e-02
##          4296          4297          4298          4299          4300
##  2.222701e-01  4.374428e-02  3.531212e-03  8.490783e-02  3.210925e-01
##          4301          4302          4303          4304          4305
## -4.053747e-01  4.169278e-01  4.655358e-01 -3.188308e-02 -5.515780e-01
##          4306          4307          4308          4309          4310
##  1.011015e-01  4.010961e-01 -3.490781e-01 -3.976270e-01 -1.189636e-01
##          4311          4312          4313          4314          4315
##  1.616032e-01  7.736328e-02  1.333715e-01 -4.781401e-02  6.187762e-01
##          4316          4317          4318          4319          4320
##  5.959081e-01 -5.761624e-01  1.632187e-01  1.807491e-01 -2.965596e-01
##          4321          4322          4323          4324          4325
##  5.741206e-01  4.154817e-01 -5.254664e-01 -5.444753e-01 -6.882126e-02
##          4326          4327          4328          4329          4330
## -7.545723e-02  3.272859e-01  4.488720e-01  6.033789e-01  8.059794e-02
##          4331          4332          4333          4334          4335
```

```
##   3.226669e-01  4.112692e-01  1.536880e-01  2.782342e-01 -5.607226e-01
##           4336          4337          4338          4339          4340
##   5.861147e-02 -3.245943e-01  8.973364e-02 -2.100774e-02  1.326625e-01
##           4341          4342          4343          4344          4345
##   2.258242e-01 -7.616256e-01 -3.451843e-01  2.631051e-01  1.805393e-01
##           4346          4347          4348          4349          4350
##   1.589648e-01 -4.063071e-01 -2.435666e-02  3.951758e-01  1.805415e-01
##           4351          4352          4353          4354          4355
##   1.446327e-01  3.854631e-01  5.893995e-01  4.638977e-01  8.749932e-02
##           4356          4357          4358          4359          4360
##   1.038967e-02  3.645578e-01 -6.147861e-02  9.835534e-03  4.969428e-01
##           4361          4362          4363          4364          4365
##   1.244971e-01 -3.356518e-01 -6.224409e-01  2.088630e-01  1.216921e-01
##           4366          4367          4368          4369          4370
##   1.966244e-01  6.401677e-02 -8.125457e-02  8.760426e-02  2.999171e-01
##           4371          4372          4373          4374          4375
##   5.305030e-01  8.541323e-03  1.939689e-01 -5.488600e-01  4.497625e-01
##           4376          4377          4378          4379          4380
## -7.582533e-02 -4.967252e-01  1.465611e-01 -1.165905e+00  2.190856e-01
##           4381          4382          4383          4384          4385
##   6.035373e-02  5.074338e-01  1.436417e-01  3.477714e-01  1.626712e-01
##           4386          4387          4388          4389          4390
## -3.929136e-01  2.589479e-01 -7.739479e-01 -5.138370e-01 -2.972232e-02
##           4391          4392          4393          4394          4395
## -8.036095e-02  1.088801e-01  3.983224e-01  3.476332e-01 -8.104591e-01
##           4396          4397          4398          4399          4400
##   2.152454e-01  4.793811e-01 -4.348230e-01  1.604723e-01  1.495676e-01
##           4401          4402          4403          4404          4405
## -2.719156e-02 -6.830010e-02  5.830474e-01  1.326807e-01 -8.102588e-03
##           4406          4407          4408          4409          4410
## -4.232897e-01  1.205475e-01 -3.672479e-02  4.571263e-01 -4.174348e-01
##           4411          4412          4413          4414          4415
## -1.051976e+00  1.468689e-01  9.635344e-02  4.389310e-01  4.479295e-01
##           4416          4417          4418          4419          4420
##   2.691149e-01 -6.407904e-01  3.067425e-01  4.387040e-01  1.849741e-01
##           4421          4422          4423          4424          4425
## -5.047210e-01 -1.979978e-01  5.219808e-02  5.096042e-01  1.029995e-01
##           4426          4427          4428          4429          4430
##   6.469619e-01  4.462023e-01  5.342580e-01  2.122761e-01  2.236479e-01
##           4431          4432          4433          4434          4435
##   4.680551e-02  5.049235e-02  1.542174e-01 -9.980994e-03 -3.708860e-01
##           4436          4437          4438          4439          4440
##   3.592261e-01 -8.119984e-01  5.857779e-02 -3.112399e-01  1.401907e-01
##           4441          4442          4443          4444          4445
## -3.940951e-01  1.906943e-01 -7.021315e-01  5.096934e-01 -1.652601e-01
##           4446          4447          4448          4449          4450
## -3.081974e-01  1.774696e-01 -5.900591e-01  1.017984e-02  3.401223e-01
##           4451          4452          4453          4454          4455
## -5.812828e-01 -2.508261e-01  3.724830e-01  4.715794e-01 -3.936115e-01
##           4456          4457          4458          4459          4460
```

```
## -4.058176e-01 -5.757140e-01  3.762865e-01 -3.650909e-01  1.712550e-01
##          4461          4462          4463          4464          4465
## -7.507866e-01  9.922228e-02  3.569714e-01 -6.094027e-01 -1.354182e-02
##          4466          4467          4468          4469          4470
##  6.241702e-01  8.268009e-02  1.780846e-01 -7.985639e-01  1.799074e-01
##          4471          4472          4473          4474          4475
##  4.466224e-01 -1.638776e-02 -3.956881e-01  2.741770e-01 -3.760504e-01
##          4476          4477          4478          4479          4480
## -4.635155e-02  5.979000e-01 -1.150396e-01  2.828273e-01  1.556094e-01
##          4481          4482          4483          4484          4485
## -6.493954e-01  7.658964e-02  2.225986e-01  2.236356e-01  1.115583e-02
##          4486          4487          4488          4489          4490
##  8.081272e-02  5.680445e-01 -4.000084e-01 -1.787569e-01  2.828592e-01
##          4491          4492          4493          4494          4495
##  1.542087e-01 -4.933252e-01  7.075197e-02 -3.372351e-03 -5.760011e-01
##          4496          4497          4498          4499          4500
## -4.672999e-01  3.348673e-02  1.861187e-02 -3.169105e-02  2.557196e-01
##          4501          4502          4503          4504          4505
##  1.169082e-01 -4.180940e-01  1.792240e-01  2.273727e-01  1.206652e-02
##          4506          4507          4508          4509          4510
## -1.100342e+00  5.043933e-01  5.307419e-01 -1.497936e-01 -2.527615e-01
##          4511          4512          4513          4514          4515
## -3.283027e-01  2.216375e-01 -8.551844e-01  1.987817e-01  6.134553e-02
##          4516          4517          4518          4519          4520
##  4.963409e-01 -5.147335e-01  3.545641e-01  4.581300e-01 -7.686209e-01
##          4521          4522          4523          4524          4525
##  3.377610e-01  3.117690e-01 -7.051636e-02 -4.360407e-01 -4.384920e-01
##          4526          4527          4528          4529          4530
##  1.487932e-01  2.785830e-01 -4.540735e-01 -4.095353e-01  4.719798e-01
##          4531          4532          4533          4534          4535
## -4.555850e-01 -9.755318e-01  1.744255e-01 -5.250339e-01  4.772612e-01
##          4536          4537          4538          4539          4540
## -8.718424e-03 -3.421060e-01  3.313330e-01 -4.519648e-01  2.457351e-01
##          4541          4542          4543          4544          4545
## -4.856568e-01  4.657089e-01 -3.781781e-02  2.536378e-01  2.127920e-01
##          4546          4547          4548          4549          4550
## -6.208922e-03  4.076184e-01  3.534423e-02 -4.256410e-01  1.460671e-01
##          4551          4552          4553          4554          4555
## -3.886897e-01  1.543774e-01  5.960758e-01  3.457298e-01 -6.696551e-02
##          4556          4557          4558          4559          4560
## -4.289229e-01 -8.092060e-01 -2.944998e-02  1.402641e-01  4.650494e-01
##          4561          4562          4563          4564          4565
##  3.244501e-01 -7.546582e-01  2.174670e-01  4.758399e-01  3.351352e-01
##          4566          4567          4568          4569          4570
## -1.128548e-01  2.484629e-01  2.433037e-01  1.185869e-01  2.988908e-01
##          4571          4572          4573          4574          4575
##  3.764795e-01  4.620456e-01 -9.889303e-02 -4.611010e-02 -1.074544e-01
##          4576          4577          4578          4579          4580
## -1.280017e-01 -6.815448e-02 -2.325465e-01 -1.687948e-02  4.008511e-01
##          4581          4582          4583          4584          4585
```

```
##   4.460204e-01   6.264149e-02   1.305755e-01   2.206520e-01   1.239767e-01
##           4586           4587           4588           4589           4590
##   1.450688e-01  -5.408525e-01  -6.814013e-02   5.449334e-01  -3.703538e-01
##           4591           4592           4593           4594           4595
##   2.960417e-01   1.071909e-01   6.638059e-02   3.695366e-01   2.688373e-02
##           4596           4597           4598           4599           4600
##   2.787405e-01   2.759487e-01  -2.332138e-02   1.156142e-01   3.827684e-01
##           4601           4602           4603           4604           4605
##   1.785482e-01   2.340859e-01  -9.619135e-01  -1.088379e-02   1.489792e-02
##           4606           4607           4608           4609           4610
##  -6.243594e-01   1.539892e-01  -1.812461e-01   3.002544e-01   2.241701e-01
##           4611           4612           4613           4614           4615
##   7.316041e-01  -4.293212e-01  -4.391720e-02   3.231722e-01   3.263103e-01
##           4616           4617           4618           4619           4620
##   2.888242e-01  -3.420807e-01   5.829092e-01   3.575199e-01   1.400036e-01
##           4621           4622           4623           4624           4625
##   1.723079e-01   2.062724e-01   2.337459e-01  -2.998424e-01  -8.315196e-01
##           4626           4627           4628           4629           4630
##  -3.984724e-02   1.585599e-01  -3.992424e-02  -1.325049e-02  -4.425592e-02
##           4631           4632           4633           4634           4635
##  -3.433875e-01   6.479430e-01  -4.268770e-01   3.922573e-01  -1.073138e+00
##           4636           4637           4638           4639           4640
##   4.594195e-01   3.069166e-01  -4.772520e-01   6.122634e-01   3.260861e-01
##           4641           4642           4643           4644           4645
##   5.920348e-01   2.077851e-02   1.367900e-01  -5.243677e-01   1.234262e-01
##           4646           4647           4648           4649           4650
##  -6.996596e-01   5.801100e-02   2.703767e-01   5.121233e-01   3.056504e-01
##           4651           4652           4653           4654           4655
##   3.284341e-01   1.437670e-01  -8.112743e-01  -1.228323e-01   9.582653e-02
##           4656           4657           4658           4659           4660
##  -3.095176e-01  -4.053949e-01  -3.360449e-02   1.566860e-01   1.171501e-01
##           4661           4662           4663           4664           4665
##   3.796119e-01  -2.820829e-02   1.211001e-01  -4.017188e-01   2.738203e-01
##           4666           4667           4668           4669           4670
##  -4.301789e-01   1.840680e-01  -6.118363e-01   1.607127e-01  -4.246068e-01
##           4671           4672           4673           4674           4675
##  -2.785593e-01  -6.764595e-02   3.414514e-01  -2.954102e-01  -4.753213e-01
##           4676           4677           4678           4679           4680
##   6.091078e-01  -9.189476e-01   2.737859e-01   3.584889e-02  -4.324805e-01
##           4681           4682           4683           4684           4685
##   2.748425e-01   1.825712e-01   2.502283e-01  -5.715825e-01   4.733476e-01
##           4686           4687           4688           4689           4690
##  -2.347506e-02   1.856789e-01   6.532198e-02   1.941726e-01   2.408635e-01
##           4691           4692           4693           4694           4695
##  -8.680564e-01   1.111791e-01   4.129555e-01   6.458902e-01   2.977477e-01
##           4696           4697           4698           4699           4700
##  -4.822278e-01   3.446990e-01   4.847366e-01  -5.926827e-01   2.629178e-01
##           4701           4702           4703           4704           4705
##  -4.229462e-02   3.504971e-01   1.966107e-01   6.409314e-02   2.563543e-01
##           4706           4707           4708           4709           4710
```

```
##   2.281710e-01 -6.279581e-02 -5.817600e-02 -8.190345e-02  3.337529e-01
##           4711          4712          4713          4714          4715
##   1.516061e-01 -5.008828e-01  1.982557e-01 -8.073472e-01  1.791538e-02
##           4716          4717          4718          4719          4720
##  -4.281435e-01  2.060302e-02 -6.282783e-01  2.788080e-02 -2.240990e-02
##           4721          4722          4723          4724          4725
##   1.528521e-02  1.081790e-01  5.035115e-01  7.741563e-02 -1.180792e-01
##           4726          4727          4728          4729          4730
##   4.526258e-01 -9.475410e-01  1.791626e-01 -9.695594e-02  1.302728e-03
##           4731          4732          4733          4734          4735
##  -3.322180e-01  5.208223e-01 -6.685234e-01  6.596051e-01 -3.526650e-02
##           4736          4737          4738          4739          4740
##   2.551750e-02  1.597713e-02  5.470200e-01 -3.400259e-01  3.404361e-02
##           4741          4742          4743          4744          4745
##   7.626478e-02 -6.771900e-01  2.383202e-01 -8.072008e-01  9.060965e-02
##           4746          4747          4748          4749          4750
##  -4.254084e-01 -5.552377e-02  4.683902e-01  1.305053e-01 -6.565736e-01
##           4751          4752          4753          4754          4755
##  -6.216988e-02 -3.557168e-01 -1.056159e-01 -8.854720e-02  4.114108e-01
##           4756          4757          4758          4759          4760
##   2.457086e-01 -6.036788e-01  2.276129e-01  8.023448e-03  1.091032e-01
##           4761          4762          4763          4764          4765
##  -7.217971e-02  2.680620e-02  1.153032e-01 -3.603319e-01 -1.379973e-01
##           4766          4767          4768          4769          4770
##  -7.084093e-01  2.946491e-01 -4.799714e-01  5.718158e-01  3.256053e-01
##           4771          4772          4773          4774          4775
##   1.264721e-02  6.089336e-01  5.093217e-01 -5.470308e-02  5.768264e-01
##           4776          4777          4778          4779          4780
##   4.307430e-03  2.417203e-01 -4.583441e-01  1.417098e-01  2.733715e-01
##           4781          4782          4783          4784          4785
##   4.864225e-02 -4.350842e-01  5.853968e-01  1.641868e-01 -6.945818e-01
##           4786          4787          4788          4789          4790
##   2.651996e-01  1.828858e-01 -1.002850e+00  2.580721e-01 -2.836276e-02
##           4791          4792          4793          4794          4795
##   5.001411e-01  1.737153e-01 -1.875114e-01 -1.957103e-01  1.399149e-01
##           4796          4797          4798          4799          4800
##   3.684753e-01  1.486881e-01 -1.382210e-02  2.263347e-02  2.781816e-01
##           4801          4802          4803          4804          4805
##  -3.489058e-02  2.255791e-01 -3.955780e-01 -5.938325e-01 -6.890516e-01
##           4806          4807          4808          4809          4810
##   3.675942e-01 -4.736060e-01 -6.526732e-01  1.406595e-02  1.940009e-01
##           4811          4812          4813          4814          4815
##   1.281109e-01 -1.084627e+00  2.869296e-02  1.833478e-01 -2.577688e-02
##           4816          4817          4818          4819          4820
##  -7.178750e-01  2.485835e-01  5.240792e-01 -2.450609e-01 -4.493221e-01
##           4821          4822          4823          4824          4825
##   1.582484e-01  3.447043e-01  3.677028e-02  2.141297e-01  8.715474e-02
##           4826          4827          4828          4829          4830
##   9.257901e-02 -7.664833e-02  2.521624e-01  2.276521e-01 -4.244136e-01
##           4831          4832          4833          4834          4835
```

```
##   1.583896e-01 -3.811888e-01  2.508135e-01  5.049874e-01 -6.346244e-01
##          4836          4837          4838          4839          4840
## -1.231628e-01  8.432078e-03  1.281817e-01  4.912491e-01 -4.852368e-01
##          4841          4842          4843          4844          4845
## -2.536906e-01  3.406799e-01  2.329016e-01 -3.579462e-01 -4.124245e-02
##          4846          4847          4848          4849          4850
##   1.802500e-01  2.877979e-01  4.076903e-02 -5.159964e-01  3.235781e-01
##          4851          4852          4853          4854          4855
## -1.116740e-01  1.287344e-01  1.122063e-01  2.084464e-01 -3.988350e-01
##          4856          4857          4858          4859          4860
## -6.236816e-02  1.342252e-01  3.561794e-01  4.511990e-01  4.899094e-01
##          4861          4862          4863          4864          4865
## -4.831107e-01  5.625840e-01  6.223920e-02  5.469085e-02 -6.540879e-02
##          4866          4867          4868          4869          4870
##   1.729704e-01 -7.195328e-01 -6.940326e-01 -4.376557e-01  5.942465e-02
##          4871          4872          4873          4874          4875
##   3.581776e-01  2.133784e-01 -2.536262e-02  3.388287e-01 -1.880813e-02
##          4876          4877          4878          4879          4880
## -5.455614e-01  4.093016e-01  1.250742e-01  1.332228e-01  7.446536e-02
##          4881          4882          4883          4884          4885
##   2.973160e-01  1.979083e-01  2.448626e-01  4.525464e-01  6.391807e-01
##          4886          4887          4888          4889          4890
## -6.487113e-01  1.974909e-01  2.661216e-01  3.039420e-01  2.985159e-01
##          4891          4892          4893          4894          4895
## -6.143301e-01 -4.793671e-01 -4.513477e-01 -4.215907e-01  1.386096e-01
##          4896          4897          4898          4899          4900
## -3.225616e-01  4.820806e-01 -1.836014e-02  5.198890e-02 -4.074970e-02
##          4901          4902          4903          4904          4905
## -3.940248e-01 -2.140593e-02 -8.960706e-01 -8.740839e-03 -5.050269e-01
##          4906          4907          4908          4909          4910
##   8.485949e-02 -1.583007e-01  3.217694e-01  5.812078e-01  1.538016e-01
##          4911          4912          4913          4914          4915
## -7.502620e-02 -3.035380e-02 -1.239937e-01  4.342416e-01  3.034000e-02
##          4916          4917          4918          4919          4920
##   1.176426e-01 -4.984015e-01  1.545033e-01 -6.334952e-02  1.922124e-02
##          4921          4922          4923          4924          4925
## -6.233779e-01 -8.244129e-03  3.924395e-01  6.018092e-01  3.006835e-01
##          4926          4927          4928          4929          4930
##   4.258727e-01  1.030843e-01  1.083428e-01  3.197399e-01  1.126147e-01
##          4931          4932          4933          4934          4935
## -5.354971e-01  1.826152e-01  5.987612e-01 -7.657114e-01 -5.702637e-01
##          4936          4937          4938          4939          4940
## -1.329530e-01  2.471530e-01  3.189158e-02 -3.589616e-01 -4.143800e-01
##          4941          4942          4943          4944          4945
##   3.920436e-01 -4.731591e-01 -3.081405e-01  5.949566e-01  5.817032e-01
##          4946          4947          4948          4949          4950
##   3.006832e-02 -3.074369e-01 -4.516746e-01 -2.978097e-01  2.041788e-01
##          4951          4952          4953          4954          4955
##   2.604938e-01 -7.916145e-01 -5.015155e-01  3.149195e-01  2.916412e-01
##          4956          4957          4958          4959          4960
```

```
##   9.073616e-02 -4.901590e-01 -4.876914e-01  3.049941e-01 -5.539852e-01
##           4961          4962          4963          4964          4965
##   1.592271e-01  1.685696e-01  3.632427e-01  1.940649e-01 -5.782588e-02
##           4966          4967          4968          4969          4970
##   5.443981e-01 -6.243329e-01  1.434959e-01  1.260560e-01  1.046716e-01
##           4971          4972          4973          4974          4975
##  -6.030957e-01  3.015507e-02  1.821876e-01 -5.052043e-01 -6.797705e-01
##           4976          4977          4978          4979          4980
##  -6.240979e-01  6.038974e-02 -1.001068e-01  5.282983e-01 -6.667170e-02
##           4981          4982          4983          4984          4985
##   8.299749e-02  2.981466e-01  3.218300e-01 -8.038854e-01  2.494470e-01
##           4986          4987          4988          4989          4990
##  -5.875804e-02 -4.460043e-01 -3.907854e-01  3.473399e-03 -5.566591e-01
##           4991          4992          4993          4994          4995
##   2.263754e-01  4.502803e-02  3.106076e-01 -7.500023e-01  4.983908e-02
##           4996          4997          4998          4999          5000
##  -4.281767e-01  2.451169e-01 -7.239709e-01 -6.451453e-01  1.280304e-01
##           5001          5002          5003          5004          5005
##   7.754263e-02  2.130966e-02  1.102980e-02  4.102071e-01  1.665017e-01
##           5006          5007          5008          5009          5010
##   4.503428e-01  2.331973e-01  2.583338e-01 -8.332680e-01  1.475832e-01
##           5011          5012          5013          5014          5015
##  -1.203476e-01  7.415982e-01  5.036690e-02  3.689207e-01 -1.088260e-01
##           5016          5017          5018          5019          5020
##  -3.985214e-01 -4.124509e-02  5.472987e-01  1.016201e-01 -3.361565e-01
##           5021          5022          5023          5024          5025
##  -1.353819e-02  3.118549e-01 -3.980877e-01  5.698872e-01  6.234187e-01
##           5026          5027          5028          5029          5030
##   2.406050e-01  1.899308e-01  4.800706e-01 -3.283582e-01 -3.442109e-01
##           5031          5032          5033          5034          5035
##   1.733969e-01 -3.031992e-01  4.648924e-01  1.021462e-01  7.735046e-02
##           5036          5037          5038          5039          5040
##  -3.993312e-01  4.378332e-01  3.459169e-01  3.622002e-01  4.320300e-01
##           5041          5042          5043          5044          5045
##   2.908570e-01 -7.768788e-01 -8.381281e-01  2.836456e-01  3.079396e-01
##           5046          5047          5048          5049          5050
##   5.232597e-01 -9.960208e-03  5.384835e-02 -1.244308e-01  6.142556e-01
##           5051          5052          5053          5054          5055
##   2.225791e-01 -4.919840e-01  3.222740e-01  4.792381e-02 -7.208293e-01
##           5056          5057          5058          5059          5060
##  -4.714096e-01 -6.520523e-01  1.876722e-01  1.786130e-01  1.286653e-01
##           5061          5062          5063          5064          5065
##  -4.915798e-02 -4.074572e-01 -6.278197e-01  5.366703e-01  6.495040e-01
##           5066          5067          5068          5069          5070
##   3.846161e-01 -1.883765e-02  4.012376e-01 -5.752108e-01  6.939591e-02
##           5071          5072          5073          5074          5075
##   7.182760e-02  5.001051e-01  1.563434e-01 -5.076669e-02  7.370619e-02
##           5076          5077          5078          5079          5080
##   1.198414e-01  5.436539e-02  3.032697e-01 -9.274191e-01  1.962707e-01
##           5081          5082          5083          5084          5085
```

```
## -9.704718e-02  3.962776e-01 -3.580361e-01 -6.050354e-01  1.591055e-01
##          5086          5087          5088          5089          5090
##  1.252358e-01  8.134910e-02  7.949319e-02 -1.933563e-01  3.143893e-01
##          5091          5092          5093          5094          5095
## -2.917184e-01 -8.712150e-01 -4.536548e-01  4.673582e-01  4.718884e-02
##          5096          5097          5098          5099          5100
##  3.453410e-01  6.498720e-02 -6.353261e-01  2.126714e-01  2.023261e-01
##          5101          5102          5103          5104          5105
##  2.481082e-01 -1.951717e-01  6.070758e-01 -6.715728e-01 -8.224448e-01
##          5106          5107          5108          5109          5110
## -6.971364e-02  3.334384e-01 -8.487101e-02 -4.520500e-01  2.541469e-02
##          5111          5112          5113          5114          5115
##  3.417387e-01  5.329210e-01 -7.460282e-01  2.546788e-01  2.089736e-01
##          5116          5117          5118          5119          5120
## -4.537983e-01  2.337473e-02 -2.997588e-01  1.703912e-01 -9.055222e-01
##          5121          5122          5123          5124          5125
##  4.504180e-01  6.088147e-01 -6.374829e-01 -5.094968e-01  4.887611e-02
##          5126          5127          5128          5129          5130
## -3.665669e-01 -3.943908e-01  1.850749e-01  6.891477e-01  2.829074e-01
##          5131          5132          5133          5134          5135
##  1.670289e-01 -3.868955e-03  7.045557e-01  2.253717e-01  6.617679e-02
##          5136          5137          5138          5139          5140
##  4.352967e-02  4.720004e-01  2.892948e-02  5.891428e-01  2.870052e-01
##          5141          5142          5143          5144          5145
##  1.145423e-01 -2.155924e-02  1.708996e-01  1.792845e-01  2.508401e-02
##          5146          5147          5148          5149          5150
##  4.784063e-01 -4.251402e-01  4.153698e-01  1.767424e-01  6.727511e-02
##          5151          5152          5153          5154          5155
## -7.024828e-02  6.193113e-01  5.254852e-01  1.429570e-01  1.204070e-01
##          5156          5157          5158          5159          5160
##  2.877402e-01  3.707683e-01 -3.571644e-01  1.854596e-01 -6.084718e-02
##          5161          5162          5163          5164          5165
## -3.868713e-01  2.190084e-01  1.921421e-01  3.037881e-01 -4.214959e-02
##          5166          5167          5168          5169          5170
##  3.141658e-01 -3.670966e-01  1.051114e-01  2.281548e-01 -4.526564e-01
##          5171          5172          5173          5174          5175
##  2.526545e-01 -5.555195e-01 -7.170106e-02 -1.142557e-01  1.599964e-01
##          5176          5177          5178          5179          5180
## -5.188901e-01  8.066221e-02  1.871195e-02 -4.430565e-01  5.202483e-01
##          5181          5182          5183          5184          5185
##  5.828324e-01  3.851624e-01  6.272055e-01  1.915700e-01 -7.856006e-02
##          5186          5187          5188          5189          5190
## -5.113388e-02 -5.339127e-01 -1.686488e-01  2.365334e-01  8.452038e-02
##          5191          5192          5193          5194          5195
## -6.622829e-01  2.897819e-01  2.032713e-01  1.688720e-01  1.187530e-01
##          5196          5197          5198          5199          5200
##  3.864118e-01  3.757602e-01  2.934424e-01 -5.732291e-02 -5.434610e-01
##          5201          5202          5203          5204          5205
##  1.239085e-01  2.943583e-02 -8.154894e-01 -3.290423e-01 -7.953640e-02
##          5206          5207          5208          5209          5210
```

```
##    7.017176e-01 -4.733349e-01 -8.446455e-01 -8.301107e-01  2.731853e-01
##            5211          5212          5213          5214          5215
##    1.952552e-01  3.951530e-02  2.870079e-01  3.356780e-01 -3.246843e-02
##            5216          5217          5218          5219          5220
##    4.622301e-01  1.695970e-01  1.864797e-01  6.901776e-01  3.738491e-01
##            5221          5222          5223          5224          5225
##   -5.581841e-01  9.536475e-02 -2.947181e-01  1.681398e-01 -3.995437e-01
##            5226          5227          5228          5229          5230
##    3.343753e-01  5.594454e-01  2.762781e-01  2.585607e-01  1.242625e-01
##            5231          5232          5233          5234          5235
##    2.763896e-02  1.498550e-01  5.978554e-02 -4.212204e-01  4.523088e-01
##            5236          5237          5238          5239          5240
##    4.128652e-01 -6.492833e-02 -3.518839e-01 -4.015969e-01  1.226731e-01
##            5241          5242          5243          5244          5245
##   -9.175141e-02  6.417943e-01 -3.694901e-01  2.141531e-01  2.654540e-01
##            5246          5247          5248          5249          5250
##   -4.694780e-02  5.049697e-01 -8.003333e-01 -4.257264e-01 -8.474612e-01
##            5251          5252          5253          5254          5255
##    5.194882e-01  4.637729e-01  2.626213e-01 -1.133258e-02  2.516558e-01
##            5256          5257          5258          5259          5260
##    2.072234e-01  2.153945e-01  4.726630e-02  1.612593e-01 -1.302340e-01
##            5261          5262          5263          5264          5265
##    3.979465e-01 -8.607210e-01  3.831108e-01 -3.328869e-01 -1.175672e-01
##            5266          5267          5268          5269          5270
##    2.066424e-01 -6.506022e-01 -5.048703e-02 -3.751149e-01  2.470433e-01
##            5271          5272          5273          5274          5275
##   -7.891303e-02  2.658495e-01 -1.800487e-01 -2.366537e-01  1.957349e-01
##            5276          5277          5278          5279          5280
##   -4.555077e-01 -5.557664e-02 -5.003885e-01  1.792621e-01 -3.465618e-01
##            5281          5282          5283          5284          5285
##    1.495597e-01 -7.795399e-02  1.407525e-01  1.110350e-01  3.084257e-01
##            5286          5287          5288          5289          5290
##    8.332505e-02  3.148882e-01  7.356379e-02 -2.789651e-02  3.839216e-01
##            5291          5292          5293          5294          5295
##   -4.137105e-01 -3.579516e-01 -5.020112e-01  3.254308e-01  1.697004e-01
##            5296          5297          5298          5299          5300
##    5.241092e-01  6.559641e-02 -4.209781e-01  6.887010e-01 -6.869047e-02
##            5301          5302          5303          5304          5305
##   -6.866208e-02  5.848204e-02 -8.456425e-01 -6.890663e-01  3.230319e-01
##            5306          5307          5308          5309          5310
##   -7.785739e-02 -5.958932e-01  3.036129e-01 -6.897813e-01 -3.017458e-04
##            5311          5312          5313          5314          5315
##    9.990215e-02 -6.189164e-02  6.323837e-02  2.440944e-01  2.665213e-01
##            5316          5317          5318          5319          5320
##    1.920319e-01  1.113243e-01 -8.262298e-01  6.132442e-03  2.743591e-02
##            5321          5322          5323          5324          5325
##   -6.079812e-01 -4.444216e-01  4.526813e-02  1.236183e-02 -4.495522e-01
##            5326          5327          5328          5329          5330
##   -7.927851e-01  1.204515e-01  1.841023e-01  2.204228e-01  1.145955e-01
##            5331          5332          5333          5334          5335
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##   4.684078e-01  1.622659e-01 -2.872390e-01 -6.618924e-01  3.370362e-02
##           5336          5337          5338          5339          5340
## -1.792230e-01 -5.813441e-01 -1.026682e-02  1.434750e-03  2.798029e-01
##           5341          5342          5343          5344          5345
##   3.385176e-03 -5.869574e-03 -4.435505e-01  4.715961e-01  3.201188e-01
##           5346          5347          5348          5349          5350
##   6.853606e-01  3.021781e-01  1.932061e-01 -5.649080e-02  1.405449e-01
##           5351          5352          5353          5354          5355
## -5.973757e-01 -4.558027e-01  1.730080e-01 -6.963587e-02 -5.791063e-02
##           5356          5357          5358          5359          5360
## -4.009506e-01 -1.080893e-01 -1.630640e-02 -6.529798e-02 -3.602898e-01
##           5361          5362          5363          5364          5365
##   1.081950e-01  5.799465e-01 -7.270129e-01  4.160253e-01  5.969816e-02
##           5366          5367          5368          5369          5370
## -3.955906e-01 -6.459507e-01  1.491086e-01  3.958374e-01 -5.911155e-02
##           5371          5372          5373          5374          5375
##   3.034877e-01 -3.510577e-01 -5.309932e-01  8.254003e-02 -5.011229e-01
##           5376          5377          5378          5379          5380
##   4.530970e-01 -6.675557e-01  3.624731e-01  3.235971e-01 -8.321241e-01
##           5381          5382          5383          5384          5385
##   2.828704e-01 -2.644225e-01  4.389527e-01 -4.811177e-02 -3.962908e-01
##           5386          5387          5388          5389          5390
##   3.576569e-01 -3.670234e-01  7.416402e-02 -3.987333e-01  1.862457e-01
##           5391          5392          5393          5394          5395
## -5.698568e-03  4.119844e-01  2.625980e-02  6.735397e-02  1.672243e-01
##           5396          5397          5398          5399          5400
##   2.206035e-01  3.916692e-01  1.168146e-01 -1.991199e-01 -4.227873e-03
##           5401          5402          5403          5404          5405
## -4.143499e-01  1.174639e-01 -5.104028e-01  2.102430e-01  5.974569e-01
##           5406          5407          5408          5409          5410
## -8.077242e-01  3.922785e-01  2.548632e-01  1.738842e-01  5.853211e-01
##           5411          5412          5413          5414          5415
##   8.877095e-02 -4.724441e-02  1.014438e-02 -2.525401e-01 -4.085123e-01
##           5416          5417          5418          5419          5420
##   1.687043e-01  5.181463e-01  1.386788e-01  4.089462e-01 -3.915749e-01
##           5421          5422          5423          5424          5425
## -1.470530e-01 -4.701796e-01  9.764571e-02 -5.878361e-01  2.361895e-01
##           5426          5427          5428          5429          5430
##   3.983525e-01  1.830070e-01  2.159540e-01 -4.983497e-01 -4.748380e-01
##           5431          5432          5433          5434          5435
## -3.826924e-01  2.805330e-01 -1.149837e+00  2.726024e-03  2.492394e-01
##           5436          5437          5438          5439          5440
##   4.318465e-01  2.067743e-01 -8.118083e-01  3.505227e-01  3.052663e-01
##           5441          5442          5443          5444          5445
## -1.862943e-02 -2.830501e-01  9.660637e-02  1.212829e-01 -8.546963e-02
##           5446          5447          5448          5449          5450
## -3.522431e-01  1.628185e-01 -6.080709e-01  2.244426e-01 -6.650826e-01
##           5451          5452          5453          5454          5455
##   6.247349e-01  2.232009e-03 -2.320874e-02  7.704832e-02 -6.390329e-01
##           5456          5457          5458          5459          5460
```

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##   9.609602e-02  2.335599e-01  1.252160e-01  1.851882e-01 -3.824728e-01
##           5461          5462          5463          5464          5465
##   3.736216e-01  9.194398e-02  5.066185e-01  2.497342e-01  2.917229e-01
##           5466          5467          5468          5469          5470
##   7.127179e-01 -8.371958e-01 -3.157683e-01 -9.046089e-02  1.014843e-01
##           5471          5472          5473          5474          5475
##   4.982851e-01  4.143808e-01 -3.049482e-01 -7.855296e-01 -6.783199e-01
##           5476          5477          5478          5479          5480
##   1.377782e-01  3.588141e-01 -5.859631e-03  8.761400e-02  3.135752e-01
##           5481          5482          5483          5484          5485
##   3.344146e-01  2.935200e-01  2.301496e-01 -2.078865e-02 -2.646461e-01
##           5486          5487          5488          5489          5490
## -4.908239e-01 -5.296584e-01  1.213217e-02 -7.450989e-01 -5.874358e-01
##           5491          5492          5493          5494          5495
## -3.802152e-01 -1.350777e-01  3.325335e-01 -4.369960e-01  8.126511e-03
##           5496          5497          5498          5499          5500
## -6.211080e-01  2.265248e-01  1.922811e-01  1.038859e-01 -7.063825e-02
##           5501          5502          5503          5504          5505
## -6.711755e-01  5.220488e-01 -3.557112e-02  3.959990e-01  3.382745e-02
##           5506          5507          5508          5509          5510
##   3.222314e-01  3.865456e-02 -5.985888e-01  6.697267e-02 -5.784643e-01
##           5511          5512          5513          5514          5515
##   3.050233e-01  2.198266e-01  1.061726e-01 -3.918260e-01  5.481847e-01
##           5516          5517          5518          5519          5520
## -8.954794e-02  5.736595e-02  8.240356e-02  1.952082e-01  9.665617e-03
##           5521          5522          5523          5524          5525
##   1.883158e-01  2.505827e-01  4.574358e-02  1.532749e-02  6.777599e-01
##           5526          5527          5528          5529          5530
##   4.092659e-01  1.358679e-02 -5.449226e-01  6.113595e-02 -3.345312e-01
##           5531          5532          5533          5534          5535
##   6.883346e-02 -8.233408e-01 -7.882211e-01 -5.297965e-02  4.459191e-01
##           5536          5537          5538          5539          5540
## -8.222016e-01  5.194811e-01  2.718742e-01 -3.011803e-01 -6.615538e-02
##           5541          5542          5543          5544          5545
## -3.902464e-01  1.237160e-01  1.732273e-01  4.481250e-02 -5.292971e-01
##           5546          5547          5548          5549          5550
## -6.197676e-03 -1.240009e-01 -4.960102e-01  5.847529e-01 -1.997310e-02
##           5551          5552          5553          5554          5555
##   3.942102e-01  1.191254e-01  1.878163e-01  3.065454e-01  1.874961e-01
##           5556          5557          5558          5559          5560
##   1.250708e-01 -5.753144e-01  2.562226e-03  1.676683e-01  2.429561e-01
##           5561          5562          5563          5564          5565
## -3.608241e-01  4.340731e-01  1.571636e-01 -7.744248e-02 -3.517269e-01
##           5566          5567          5568          5569          5570
##   8.409049e-02 -1.526293e-01 -5.425819e-01 -1.542265e-03 -2.387976e-02
##           5571          5572          5573          5574          5575
## -1.107628e+00 -5.597291e-03 -9.981498e-01  6.936078e-03 -5.100413e-01
##           5576          5577          5578          5579          5580
## -4.328949e-01 -7.640889e-01  7.706971e-02  3.496105e-01 -5.999577e-01
##           5581          5582          5583          5584          5585
```

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## -1.005284e+00  1.486301e-01 -3.210369e-01  7.051189e-02  1.074476e-01
##          5586          5587          5588          5589          5590
##  5.558683e-01  1.864494e-01 -3.736218e-02 -4.349856e-01 -3.340913e-02
##          5591          5592          5593          5594          5595
## -4.730377e-01 -4.767295e-01  2.132027e-01  2.942856e-01 -6.688427e-01
##          5596          5597          5598          5599          5600
##  5.155766e-01  3.472715e-01  1.506351e-01 -6.344204e-01  1.030415e-01
##          5601          5602          5603          5604          5605
## -5.365602e-01 -3.482508e-01  3.693106e-01  2.828208e-02 -1.728160e-01
##          5606          5607          5608          5609          5610
##  1.023403e-01 -7.808292e-01  8.782041e-02  1.934790e-01  1.665326e-01
##          5611          5612          5613          5614          5615
##  5.915289e-01  1.449415e-01 -3.604232e-01 -4.491925e-01  1.811919e-01
##          5616          5617          5618          5619          5620
##  3.399626e-01  1.589701e-01  2.781407e-01  6.743742e-01 -4.244307e-01
##          5621          5622          5623          5624          5625
## -7.586939e-01 -5.264268e-01  3.883708e-01 -6.129353e-02  2.200422e-01
##          5626          5627          5628          5629          5630
## -7.856627e-01  2.940448e-01 -5.424339e-01  1.944748e-01 -8.173884e-01
##          5631          5632          5633          5634          5635
##  1.826507e-01 -3.999563e-01  5.164639e-02  9.651520e-02 -4.535055e-01
##          5636          5637          5638          5639          5640
## -4.491990e-01  9.185739e-02 -8.386714e-01  2.510948e-01  3.571150e-01
##          5641          5642          5643          5644          5645
##  1.095345e-01  2.323938e-02 -6.551105e-01  3.745785e-01 -3.844463e-01
##          5646          5647          5648          5649          5650
##  4.400833e-02 -2.842318e-03  2.932464e-01  6.584236e-01  6.064597e-01
##          5651          5652          5653          5654          5655
## -5.361891e-02  2.717328e-01  2.249240e-01 -3.988931e-01  5.263590e-01
##          5656          5657          5658          5659          5660
## -3.636998e-01  3.218263e-01  2.238735e-01  1.810425e-01  5.164034e-01
##          5661          5662          5663          5664          5665
##  3.961513e-01 -8.212825e-01 -3.048516e-02  7.189555e-02  1.356726e-01
##          5666          5667          5668          5669          5670
## -1.013200e-02  5.896443e-01  1.589499e-01  2.629936e-01 -7.486148e-01
##          5671          5672          5673          5674          5675
## -3.163829e-01 -6.967592e-01  1.761755e-01  4.486641e-01 -6.104295e-01
##          5676          5677          5678          5679          5680
## -8.207261e-01 -5.029439e-02 -3.965482e-01  1.496267e-01  2.177382e-02
##          5681          5682          5683          5684          5685
##  5.513778e-01  7.895715e-03  1.401128e-01  2.253432e-01  1.250586e-01
##          5686          5687          5688          5689          5690
##  1.835435e-01  4.622164e-02 -8.064046e-01 -8.574219e-01 -4.704742e-01
##          5691          5692          5693          5694          5695
##  5.169578e-01  4.782196e-01  2.460163e-01 -7.849602e-01 -1.688547e-02
##          5696          5697          5698          5699          5700
##  6.244621e-01  1.881917e-01 -4.141555e-01  3.536748e-01  6.026047e-01
##          5701          5702          5703          5704          5705
##  1.174658e-01  1.032724e-01 -4.098296e-01  1.636500e-01  1.411892e-02
##          5706          5707          5708          5709          5710
```

```
## -3.021609e-01 -6.042587e-01  4.315894e-01  8.117994e-02 -3.801979e-01
##          5711          5712          5713          5714          5715
##  7.196454e-02  4.691246e-01  4.480860e-02 -4.916544e-01  1.979876e-01
##          5716          5717          5718          5719          5720
## -3.868541e-01  1.271175e-01 -6.426219e-03  8.036071e-02 -5.489303e-01
##          5721          5722          5723          5724          5725
##  1.268360e-01 -2.349873e-02  2.199308e-01  5.559113e-01 -1.225903e-01
##          5726          5727          5728          5729          5730
## -1.080262e-01 -3.924253e-02  1.911658e-01  2.439935e-01 -8.047448e-01
##          5731          5732          5733          5734          5735
##  1.131133e-01 -9.213255e-02 -3.742398e-01  6.244339e-02  6.169773e-02
##          5736          5737          5738          5739          5740
##  2.416356e-01  1.682432e-02 -4.133445e-01  2.092866e-01  6.146486e-01
##          5741          5742          5743          5744          5745
##  3.754459e-01 -4.117465e-01 -3.400266e-02 -2.869223e-02  2.223592e-01
##          5746          5747          5748          5749          5750
##  8.432897e-02  6.251420e-01 -4.808563e-02  2.294639e-01  9.147443e-02
##          5751          5752          5753          5754          5755
## -3.918260e-01  5.562486e-01 -2.304276e-02  4.121217e-01  5.894959e-01
##          5756          5757          5758          5759          5760
##  1.278736e-01 -7.912910e-01  1.943367e-01  1.031332e-02  3.850650e-01
##          5761          5762          5763          5764          5765
##  5.680396e-02  8.734193e-02  1.665211e-01 -5.067129e-02  1.231742e-01
##          5766          5767          5768          5769          5770
##  3.515118e-01  1.781441e-01 -1.226614e-01 -1.785011e-01  1.813537e-01
##          5771          5772          5773          5774          5775
## -7.471826e-01 -2.977118e-02  4.286202e-01 -3.532140e-01 -2.409819e-01
##          5776          5777          5778          5779          5780
##  3.958314e-01  1.293590e-02 -6.295466e-02 -6.347904e-01  4.331545e-01
##          5781          5782          5783          5784          5785
##  2.824378e-02  3.513685e-01  2.963785e-01 -4.819922e-01  3.779214e-01
##          5786          5787          5788          5789          5790
##  1.155273e-01  4.399102e-01  1.434724e-01  3.994203e-01 -3.097039e-01
##          5791          5792          5793          5794          5795
## -5.433932e-01  4.961466e-01  5.338669e-01  2.078439e-01 -3.763345e-01
##          5796          5797          5798          5799          5800
## -7.944037e-02  3.003840e-01 -7.921262e-01 -6.892324e-02  8.193045e-02
##          5801          5802          5803          5804          5805
##  6.229738e-01 -3.994640e-01  5.576012e-02 -4.194417e-01  9.207008e-02
##          5806          5807          5808          5809          5810
##  1.887641e-01 -2.841654e-01  3.429017e-01 -6.287045e-01  1.581086e-01
##          5811          5812          5813          5814          5815
## -1.079247e-02  8.721864e-02  6.150302e-02  4.245251e-01  1.869081e-01
##          5816          5817          5818          5819          5820
## -3.755608e-05 -3.506171e-01 -3.626993e-01  4.675134e-01 -8.717158e-02
##          5821          5822          5823          5824          5825
##  1.769957e-01  7.816858e-02 -3.462366e-01 -5.279179e-01  3.924001e-01
##          5826          5827          5828          5829          5830
##  2.568206e-01  2.948619e-03  1.278587e-01  4.915154e-01  6.717602e-02
##          5831          5832          5833          5834          5835
```

```
##   6.760169e-01  1.516821e-02 -7.230872e-01  4.421682e-01  4.569102e-01
##           5836          5837          5838          5839          5840
##   5.900783e-01 -3.473355e-01  6.040037e-01  3.123387e-01 -9.679355e-02
##           5841          5842          5843          5844          5845
##  -3.342337e-02 -5.031381e-01  3.511741e-01 -4.658700e-01  1.488579e-01
##           5846          5847          5848          5849          5850
##   4.038943e-01  1.110217e-01  3.698908e-01 -4.725280e-01 -4.437724e-02
##           5851          5852          5853          5854          5855
##  -1.458280e-01 -4.726727e-01  8.529143e-03  4.534816e-01 -3.470476e-01
##           5856          5857          5858          5859          5860
##  -3.898575e-02  1.967758e-01  2.326373e-01  7.196933e-02  4.039714e-01
##           5861          5862          5863          5864          5865
##   2.841326e-01 -7.505058e-01 -7.139263e-01 -4.272433e-01  4.519162e-01
##           5866          5867          5868          5869          5870
##  -2.914011e-01 -8.914114e-02 -3.037426e-01 -7.026475e-01  1.519850e-01
##           5871          5872          5873          5874          5875
##   4.807216e-02 -5.922387e-01  1.527011e-01  1.006666e-01  2.139614e-01
##           5876          5877          5878          5879          5880
##  -7.543131e-01  1.171373e-01 -4.011032e-02  2.635003e-01 -5.672325e-01
##           5881          5882          5883          5884          5885
##   3.353319e-01 -4.221766e-02 -5.826091e-01  3.259263e-01  1.309972e-01
##           5886          5887          5888          5889          5890
##  -5.643353e-01  2.582172e-01 -4.288830e-03 -8.146964e-02  7.364088e-02
##           5891          5892          5893          5894          5895
##   3.492710e-01 -8.623077e-01 -6.609254e-01  3.155655e-01  1.402358e-01
##           5896          5897          5898          5899          5900
##   1.891258e-01  6.347314e-01 -3.921464e-01  4.022516e-01 -8.077189e-01
##           5901          5902          5903          5904          5905
##   3.028886e-01  3.891320e-01  2.941282e-01 -6.067930e-01  2.949446e-01
##           5906          5907          5908          5909          5910
##   1.076401e-01 -2.989579e-02 -6.968715e-03  2.336775e-01 -7.636027e-02
##           5911          5912          5913          5914          5915
##  -8.190363e-02  5.567795e-01  1.936325e-01  3.125804e-02  5.624222e-01
##           5916          5917          5918          5919          5920
##  -9.205876e-02  2.878987e-01  3.024454e-01  1.652150e-02 -9.799308e-02
##           5921          5922          5923          5924          5925
##   2.338533e-01  1.080256e-02 -3.554533e-01 -3.246650e-01 -2.166605e-01
##           5926          5927          5928          5929          5930
##  -4.235652e-01  4.293803e-01  3.677121e-02 -2.777927e-01  4.732279e-01
##           5931          5932          5933          5934          5935
##   2.680585e-01  1.295281e-01  2.258759e-01 -4.921182e-01 -3.538367e-01
##           5936          5937          5938          5939          5940
##  -7.897356e-01  2.222311e-01 -1.009183e+00 -8.974682e-01 -9.260810e-02
##           5941          5942          5943          5944          5945
##   1.026675e-01  4.091596e-01  4.237721e-01  2.761008e-01  3.584423e-01
##           5946          5947          5948          5949          5950
##   2.617551e-01 -2.244132e-01 -4.796205e-01 -4.540206e-01  3.974908e-01
##           5951          5952          5953          5954          5955
##  -1.595165e-02  3.139129e-01  3.431036e-01  3.744229e-01  3.293437e-01
##           5956          5957          5958          5959          5960
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## -1.993788e-02  1.474996e-01 -6.461895e-01 -5.377490e-01 -6.295691e-01
##          5961          5962          5963          5964          5965
##  2.668868e-01  6.306755e-01 -1.116990e-01 -6.600759e-01  1.939076e-01
##          5966          5967          5968          5969          5970
##  1.783211e-01 -4.829868e-01  2.084375e-01 -6.450107e-02  2.676389e-01
##          5971          5972          5973          5974          5975
## -5.763648e-02  1.935418e-01  3.917892e-02  1.082998e-01  4.485445e-01
##          5976          5977          5978          5979          5980
## -3.605633e-01  1.485163e-02  6.338162e-01  8.961294e-02  3.650714e-02
##          5981          5982          5983          5984          5985
## -1.942673e-01  4.297229e-01 -4.467457e-01 -1.046919e+00  5.203419e-01
##          5986          5987          5988          5989          5990
## -5.750055e-01 -1.114316e-01 -8.550714e-02  6.628692e-01  2.620880e-02
##          5991          5992          5993          5994          5995
##  3.020614e-01 -2.668971e-02  4.462967e-01 -3.304582e-01 -1.227130e-01
##          5996          5997          5998          5999          6000
## -6.967741e-03  1.431244e-01  2.741178e-01  1.816977e-01  1.375589e-01
##          6001          6002          6003          6004          6005
## -5.762176e-01  6.790425e-02  6.514487e-02 -4.172122e-01  3.864419e-01
##          6006          6007          6008          6009          6010
##  3.059082e-01  5.300907e-01 -8.921280e-01  2.786749e-01  1.950556e-02
##          6011          6012          6013          6014          6015
##  2.840451e-01  1.859811e-01  1.939920e-01  1.723769e-01  7.767824e-03
##          6016          6017          6018          6019          6020
## -3.078069e-01  1.551281e-01  1.438965e-01  2.501567e-02 -6.314534e-01
##          6021          6022          6023          6024          6025
##  5.132976e-01 -6.488429e-01  3.789456e-01 -6.844593e-01 -4.188222e-01
##          6026          6027          6028          6029          6030
##  1.381217e-01 -7.849501e-01  1.096149e-01  2.597806e-01 -9.984732e-01
##          6031          6032          6033          6034          6035
## -6.047694e-01 -4.376866e-01  1.830218e-01  1.037960e-01 -5.118597e-01
##          6036          6037          6038          6039          6040
##  5.861832e-01  1.064032e-02  5.974355e-01  4.077183e-01 -3.619323e-01
##          6041          6042          6043          6044          6045
## -5.699637e-02  1.252695e-01  1.523961e-01 -4.389575e-03  6.364714e-02
##          6046          6047          6048          6049          6050
## -5.607679e-01  4.384736e-01 -2.683521e-02  3.210475e-01  3.510106e-01
##          6051          6052          6053          6054          6055
##  1.086670e-01  6.590052e-01  3.385479e-01  3.233289e-01 -5.591223e-02
##          6056          6057          6058          6059          6060
## -4.398451e-01 -9.310619e-03 -3.513559e-01  2.712419e-01 -6.646671e-01
##          6061          6062          6063          6064          6065
## -4.017578e-02  4.379452e-02  8.732120e-02  1.314849e-01  1.708781e-03
##          6066          6067          6068          6069          6070
## -5.745311e-01  2.542677e-01 -9.967217e-02  5.318019e-02  6.449019e-02
##          6071          6072          6073          6074          6075
##  2.807931e-01 -6.636811e-01  3.361293e-01 -6.901016e-01  3.069136e-02
##          6076          6077          6078          6079          6080
##  5.239520e-01 -5.326752e-01  6.565391e-02  2.979298e-01 -5.353879e-01
##          6081          6082          6083          6084          6085
```

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## -2.466004e-01  3.058696e-02 -2.201138e-01 -4.816875e-02  8.440213e-02
##         6086          6087          6088          6089          6090
## -6.402840e-02  2.310016e-01  6.508754e-01 -1.868562e-01  3.361669e-01
##         6091          6092          6093          6094          6095
## -8.887598e-02 -3.966441e-01  7.249290e-02 -1.335196e-02  1.339088e-01
##         6096          6097          6098          6099          6100
##  1.867842e-01 -7.820247e-01 -6.555239e-01  1.904223e-01  3.419845e-01
##         6101          6102          6103          6104          6105
##  3.916714e-01  3.654178e-01  3.984732e-01  2.743194e-01  5.036905e-01
##         6106          6107          6108          6109          6110
##  3.593385e-01 -5.846449e-02  1.137191e-01 -6.110198e-02  1.933656e-02
##         6111          6112          6113          6114          6115
##  2.380286e-01  3.595942e-01  4.087922e-02  1.082540e-01  8.262256e-02
##         6116          6117          6118          6119          6120
## -3.368005e-02 -3.095982e-01 -3.629445e-01  1.846714e-01  5.689983e-01
##         6121          6122          6123          6124          6125
##  2.519583e-01 -1.124242e-01 -6.133815e-01  1.807876e-01  4.237637e-01
##         6126          6127          6128          6129          6130
##  3.690341e-01 -2.900370e-02 -5.508979e-02 -7.901737e-01  1.637331e-01
##         6131          6132          6133          6134          6135
##  1.400316e-01  1.890480e-01 -6.118206e-01 -7.134502e-01  4.901665e-02
##         6136          6137          6138          6139          6140
##  4.953182e-01 -1.044670e-01 -4.708288e-01  3.417191e-01 -7.633138e-02
##         6141          6142          6143          6144          6145
##  3.602589e-01  4.716480e-01 -4.882052e-01 -4.519685e-01 -4.664513e-02
##         6146          6147          6148          6149          6150
##  5.277696e-02 -8.245583e-01  4.990220e-01 -8.159902e-01  2.284275e-01
##         6151          6152          6153          6154          6155
##  1.057652e-01  2.201104e-01  4.598911e-01  2.429010e-01  5.838524e-01
##         6156          6157          6158          6159          6160
##  6.196889e-02  6.336817e-01 -5.275673e-01  2.354655e-01 -3.522369e-01
##         6161          6162          6163          6164          6165
## -6.127688e-01  1.746619e-01  3.533469e-01 -4.478670e-01  4.412114e-01
##         6166          6167          6168          6169          6170
## -5.817671e-01  3.176353e-01 -6.203450e-01 -6.101716e-01  6.225462e-02
##         6171          6172          6173          6174          6175
## -2.541367e-01  2.474809e-01  2.806274e-01 -1.856727e-01  2.303581e-01
##         6176          6177          6178          6179          6180
##  2.640019e-01  3.141952e-01 -7.318990e-01  6.490895e-02  1.451286e-01
##         6181          6182          6183          6184          6185
## -1.168979e-01 -3.932645e-01  2.718024e-01  5.368690e-01  5.875119e-01
##         6186          6187          6188          6189          6190
##  8.925776e-02 -3.986058e-01  1.060189e-01 -7.580049e-01  5.922303e-02
##         6191          6192          6193          6194          6195
## -5.007769e-01 -9.190453e-02  5.095067e-01 -8.147853e-01  2.729949e-02
##         6196          6197          6198          6199          6200
##  3.847658e-01 -5.925811e-01  2.935543e-01 -6.776749e-01 -5.746276e-02
##         6201          6202          6203          6204          6205
##  3.127147e-01  1.501640e-01 -4.427077e-01  4.012885e-01  3.890473e-02
##         6206          6207          6208          6209          6210
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## -9.241278e-03 -2.400729e-01 -1.387477e-01  1.043654e-01  5.699026e-02
##          6211          6212          6213          6214          6215
## -4.976148e-01  1.453635e-01  1.065830e-01  2.179069e-01 -4.631002e-01
##          6216          6217          6218          6219          6220
##  1.418526e-01 -3.322413e-02 -2.122779e-02 -6.619437e-01 -1.500548e-01
##          6221          6222          6223          6224          6225
## -3.021925e-02  1.729415e-01 -3.492854e-01 -2.554807e-01  1.907388e-01
##          6226          6227          6228          6229          6230
##  3.118498e-02 -6.537961e-01  5.740696e-01 -4.553958e-01  3.454263e-01
##          6231          6232          6233          6234          6235
##  1.716694e-01 -2.667454e-01 -6.210490e-01 -7.391910e-02 -4.884465e-02
##          6236          6237          6238          6239          6240
##  4.439695e-01  1.275060e-01  1.724829e-02  2.528272e-01  5.672237e-02
##          6241          6242          6243          6244          6245
##  5.901531e-01  9.847476e-02  1.591827e-01  2.189711e-01  3.223987e-01
##          6246          6247          6248          6249          6250
##  1.151981e-01  1.738441e-01 -5.448678e-01 -3.840904e-01  2.413441e-01
##          6251          6252          6253          6254          6255
## -4.906396e-02  2.122115e-01 -1.054524e-01  2.495636e-01  2.835691e-01
##          6256          6257          6258          6259          6260
##  2.054122e-01  4.100893e-01 -5.246745e-01 -4.000084e-01  7.737678e-02
##          6261          6262          6263          6264          6265
##  2.590301e-01  1.364770e-02  4.575662e-01  5.763887e-03 -3.511686e-01
##          6266          6267          6268          6269          6270
##  3.379034e-01 -1.479392e-01  7.694870e-02 -8.089462e-01  1.261978e-01
##          6271          6272          6273          6274          6275
##  3.018710e-01  1.850441e-01  1.391188e-01  5.651131e-02 -3.733038e-01
##          6276          6277          6278          6279          6280
##  6.092748e-01  2.264669e-01  1.520538e-01 -4.491251e-01  6.271722e-01
##          6281          6282          6283          6284          6285
## -1.004225e+00 -7.889504e-01 -5.484593e-02  3.925292e-01  2.528624e-02
##          6286          6287          6288          6289          6290
## -8.114365e-01 -6.590742e-02  2.943459e-01  3.925553e-02  3.320125e-01
##          6291          6292          6293          6294          6295
##  1.230723e-01 -1.690350e-04  1.429508e-01 -4.115490e-01  4.421125e-02
##          6296          6297          6298          6299          6300
## -4.234302e-01 -4.720651e-01  4.625003e-02  8.845828e-02  5.462837e-01
##          6301          6302          6303          6304          6305
## -5.446143e-02  1.510836e-01  4.118895e-01 -8.414645e-01 -2.953107e-01
##          6306          6307          6308          6309          6310
##  6.328178e-01  2.631102e-02 -3.956106e-02 -3.699791e-01  1.295219e-01
##          6311          6312          6313          6314          6315
##  3.128743e-01  1.833174e-01 -9.111566e-01 -3.680331e-01  3.854919e-01
##          6316          6317          6318          6319          6320
##  4.848800e-01 -6.160208e-01  1.276905e-01  3.597135e-01 -1.413854e-01
##          6321          6322          6323          6324          6325
##  2.055102e-01  5.343272e-01  3.970796e-02  3.263689e-02 -6.987894e-01
##          6326          6327          6328          6329          6330
##  1.129434e-01  3.944248e-01  3.294179e-01  2.512600e-01  2.429746e-01
##          6331          6332          6333          6334          6335
```

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## -6.726712e-01  5.178826e-01 -3.631761e-01  4.037186e-01  4.993825e-02
##          6336          6337          6338          6339          6340
## -5.120195e-01  4.936214e-01 -6.412707e-01  4.936478e-01  4.520024e-01
##          6341          6342          6343          6344          6345
## -2.466585e-02  2.113755e-01 -7.258824e-01  3.794542e-01  2.417588e-01
##          6346          6347          6348          6349          6350
##  1.303721e-02  1.997861e-02  5.350249e-01 -9.173878e-01 -1.358497e-01
##          6351          6352          6353          6354          6355
##  1.383063e-01 -7.527033e-01  2.905593e-01  6.611230e-01  4.977007e-01
##          6356          6357          6358          6359          6360
##  9.891757e-02 -2.097499e-01 -3.481836e-02 -7.609539e-02 -1.937299e-01
##          6361          6362          6363          6364          6365
##  7.014473e-02 -5.931033e-01  8.842304e-02  5.468447e-02  3.714851e-01
##          6366          6367          6368          6369          6370
## -5.222514e-02 -4.323755e-01 -9.529384e-02 -5.755737e-01 -5.529295e-01
##          6371          6372          6373          6374          6375
## -4.258371e-01  3.507996e-01  1.635591e-01 -2.363995e-03  9.030128e-02
##          6376          6377          6378          6379          6380
##  1.308206e-01 -2.787162e-01 -9.699494e-02  1.441897e-01 -8.022815e-01
##          6381          6382          6383          6384          6385
## -8.244817e-02  7.750993e-02  2.136226e-01  2.561040e-01  4.529506e-01
##          6386          6387          6388          6389          6390
##  1.201430e-01 -6.532716e-01  5.307521e-01  7.235887e-02 -8.814179e-01
##          6391          6392          6393          6394          6395
##  3.433597e-01 -9.977500e-02 -7.299616e-01  6.108485e-02 -1.957995e-02
##          6396          6397          6398          6399          6400
##  1.878351e-01  3.081250e-01  3.865000e-01  3.148201e-01 -8.696190e-01
##          6401          6402          6403          6404          6405
##  6.057153e-02 -2.055196e-02  5.921920e-01 -6.618476e-02 -5.181266e-01
##          6406          6407          6408          6409          6410
##  1.270844e-02  1.599514e-01 -3.049981e-02 -6.390499e-01  3.005306e-01
##          6411          6412          6413          6414          6415
##  2.161793e-01  3.692993e-01  8.735831e-02  1.096274e-02 -8.476270e-02
##          6416          6417          6418          6419          6420
## -8.793095e-01  9.671249e-02  7.018738e-02 -1.239683e-03 -4.249832e-01
##          6421          6422          6423          6424          6425
## -9.949037e-02  1.292949e-01  5.528761e-02  1.244620e-01 -8.112214e-02
##          6426          6427          6428          6429          6430
## -6.014484e-01  4.921235e-02 -1.516065e-01  1.196905e-01 -2.993718e-01
##          6431          6432          6433          6434          6435
##  3.455048e-01  5.595279e-01  1.948657e-01 -1.978706e-02  1.474019e-01
##          6436          6437          6438          6439          6440
## -7.431161e-01  5.926435e-01  1.387093e-01 -3.624352e-02 -7.481480e-01
##          6441          6442          6443          6444          6445
##  1.874482e-01  1.520638e-02  1.210106e-01  5.419122e-01 -5.070034e-01
##          6446          6447          6448          6449          6450
##  3.784411e-01  3.135526e-01  1.727549e-01  2.403135e-01  2.957823e-01
##          6451          6452          6453          6454          6455
##  2.987250e-01 -7.048599e-01  3.309729e-01 -3.593522e-01  6.183621e-02
##          6456          6457          6458          6459          6460
```

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##   2.229599e-01 -7.132786e-02  5.096242e-01  5.530747e-01  2.525858e-01
##           6461          6462          6463          6464          6465
##   1.420479e-04  3.035966e-01  5.739488e-02  1.106236e-01 -3.455120e-01
##           6466          6467          6468          6469          6470
##   9.202171e-02  2.848416e-01 -7.093199e-02  1.159172e-01  1.720275e-01
##           6471          6472          6473          6474          6475
##  -5.474221e-01  2.108219e-01  4.988918e-01 -2.242470e-01  5.634909e-01
##           6476          6477          6478          6479          6480
##   1.574541e-01  1.912808e-01 -6.410669e-01  1.474821e-01 -4.044696e-01
##           6481          6482          6483          6484          6485
##  -7.674348e-01  7.541510e-02 -4.067002e-01  4.252022e-02  3.230330e-01
##           6486          6487          6488          6489          6490
##   3.357403e-01 -4.073047e-01 -5.408793e-01  3.738653e-01 -4.070707e-01
##           6491          6492          6493          6494          6495
##   1.930246e-01  1.305709e-01  2.406171e-01  2.056461e-02  3.161615e-02
##           6496          6497          6498          6499          6500
##  -4.169155e-01 -7.101594e-02 -3.595252e-01 -7.778062e-01 -5.350500e-01
##           6501          6502          6503          6504          6505
##  -5.628161e-01  1.394954e-01 -3.730858e-02  2.781526e-01  2.933005e-01
##           6506          6507          6508          6509          6510
##  -3.058322e-02 -6.504108e-01 -6.871838e-01  3.628435e-01 -6.484455e-01
##           6511          6512          6513          6514          6515
##   2.417044e-01 -3.510469e-01  9.800771e-02  1.112222e-01  1.704856e-01
##           6516          6517          6518          6519          6520
##  -3.612830e-01 -6.372330e-02 -7.013517e-01 -6.582202e-01 -1.201316e-01
##           6521          6522          6523          6524          6525
##  -2.941152e-01  5.572062e-02  2.540415e-01  1.346791e-01  5.584358e-01
##           6526          6527          6528          6529          6530
##   2.053429e-01 -5.937064e-01  3.883070e-01 -9.800939e-01 -4.715607e-01
##           6531          6532          6533          6534          6535
##   2.919297e-01  1.325517e-01  3.924899e-02 -4.079075e-01 -5.722277e-02
##           6536          6537          6538          6539          6540
##  -5.042424e-01 -6.029817e-01  2.519933e-01  7.466537e-02  1.370351e-01
##           6541          6542          6543          6544          6545
##  -5.290680e-01 -4.251862e-01  2.464559e-01 -3.158514e-01  7.088563e-02
##           6546          6547          6548          6549          6550
##  -4.611113e-01  9.662273e-02  9.386871e-02  5.346872e-01 -8.718438e-01
##           6551          6552          6553          6554          6555
##   2.651130e-01  6.266444e-02  5.354978e-01 -2.790782e-01 -4.605279e-01
##           6556          6557          6558          6559          6560
##   1.649263e-01  2.823418e-01  7.981283e-04  6.138871e-01  6.336510e-02
##           6561          6562          6563          6564          6565
##   6.416622e-02  3.772810e-01  9.536347e-02 -7.875175e-02  1.064803e-01
##           6566          6567          6568          6569          6570
##   7.107169e-01  2.572097e-01  1.942156e-01 -1.124628e-01  2.239956e-01
##           6571          6572          6573          6574          6575
##  -1.145453e-01  1.197402e-01  1.400170e-01  8.954559e-02  1.411241e-01
##           6576          6577          6578          6579          6580
##  -6.105722e-02  1.803048e-02  4.558962e-02  2.809183e-01  7.005173e-02
##           6581          6582          6583          6584          6585
```

```
## -4.913653e-02 -3.944320e-01 -4.190379e-01  1.790559e-01 -7.694099e-01
##          6586          6587          6588          6589          6590
##  1.974138e-01 -8.008321e-02 -9.060414e-02 -5.690414e-01 -7.713501e-02
##          6591          6592          6593          6594          6595
## -4.412265e-01 -7.040915e-01  7.440508e-02  4.091568e-01  3.973199e-01
##          6596          6597          6598          6599          6600
##  3.697175e-01 -8.413312e-01 -5.499715e-01 -5.863793e-01 -8.180755e-01
##          6601          6602          6603          6604          6605
## -7.581407e-01  6.374458e-01  1.236178e-01 -4.198098e-01  1.921505e-01
##          6606          6607          6608          6609          6610
## -1.185455e-01  3.220039e-01 -5.380747e-01  1.625023e-01  4.347640e-01
##          6611          6612          6613          6614          6615
##  1.477220e-01 -3.407122e-01 -5.715395e-02 -5.379517e-01 -2.841295e-01
##          6616          6617          6618          6619          6620
##  1.092842e-02 -3.135066e-01 -2.703860e-01 -5.547151e-03  6.154477e-01
##          6621          6622          6623          6624          6625
##  2.010710e-02  6.100228e-01  2.920122e-01 -9.010556e-01 -3.448182e-01
##          6626          6627          6628          6629          6630
## -3.663883e-01  8.529231e-02  2.877011e-01 -4.036275e-02 -3.996826e-02
##          6631          6632          6633          6634          6635
##  1.907670e-01  1.615654e-01 -7.115386e-01  2.518832e-01  6.020292e-01
##          6636          6637          6638          6639          6640
##  3.348213e-01  1.927907e-01 -1.313973e-02 -8.954288e-02  1.210878e-01
##          6641          6642          6643          6644          6645
##  1.373350e-01  1.824889e-01  1.738986e-01  3.573670e-02  3.556832e-01
##          6646          6647          6648          6649          6650
## -3.071876e-01 -2.363539e-02 -6.434512e-03  7.498486e-03 -4.520103e-01
##          6651          6652          6653          6654          6655
## -1.461473e-01 -4.093079e-01 -8.186063e-03  3.915985e-02  4.577862e-01
##          6656          6657          6658          6659          6660
##  4.359037e-01  1.988524e-01  3.332583e-01 -3.928130e-01  4.401691e-01
##          6661          6662          6663          6664          6665
##  5.266330e-01  1.597254e-01  2.213646e-02  3.917996e-01  2.214882e-01
##          6666          6667          6668          6669          6670
##  2.323085e-01  3.360424e-01  3.268694e-01  1.872735e-02 -7.149452e-02
##          6671          6672          6673          6674          6675
## -8.343151e-01 -2.990542e-01  9.884411e-02  1.654323e-01  2.427128e-01
##          6676          6677          6678          6679          6680
##  2.083178e-01  8.218707e-02 -3.568540e-01  3.678667e-02  1.520628e-01
##          6681          6682          6683          6684          6685
##  2.851646e-01  6.105862e-02  1.652794e-01  4.314918e-01  2.407855e-01
##          6686          6687          6688          6689          6690
## -1.962301e-01  6.231687e-01  2.930451e-01  2.842789e-01  2.176665e-02
##          6691          6692          6693          6694          6695
##  1.512398e-01  3.733923e-01  4.731230e-01 -4.478385e-01  2.781726e-01
##          6696          6697          6698          6699          6700
##  2.337386e-01  1.940009e-01  4.252709e-02 -3.708867e-01  2.794024e-01
##          6701          6702          6703          6704          6705
## -1.905251e-02  3.920990e-01  4.186938e-01  3.022501e-01  5.866316e-01
##          6706          6707          6708          6709          6710
```

```
##   6.414997e-01 -3.652121e-01 -6.152934e-01 -3.978603e-01 -5.772054e-02
##           6711          6712          6713          6714          6715
## -4.021919e-02  4.662297e-02  2.562074e-01 -3.896620e-02 -1.043737e+00
##           6716          6717          6718          6719          6720
##   6.824667e-02 -4.013890e-01  5.126832e-01 -3.793151e-02 -4.950547e-02
##           6721          6722          6723          6724          6725
##   8.354960e-02  7.081915e-02  5.071691e-01  1.914369e-01 -7.665258e-01
##           6726          6727          6728          6729          6730
## -2.044362e-01 -4.339563e-02  1.371878e-01  1.933964e-01  4.498924e-01
##           6731          6732          6733          6734          6735
## -6.659608e-01 -3.517693e-01 -1.656842e-02  2.599385e-01  6.008690e-02
##           6736          6737          6738          6739          6740
## -6.464648e-01 -7.383197e-01  1.148313e-01 -2.973814e-01 -1.264236e-01
##           6741          6742          6743          6744          6745
##   1.827347e-01 -3.496370e-02  2.091045e-01  2.201823e-02  3.628713e-01
##           6746          6747          6748          6749          6750
##   6.135335e-01 -8.848974e-01  1.545993e-01  3.077870e-01 -6.949452e-01
##           6751          6752          6753          6754          6755
##   2.403722e-01 -7.443586e-01  1.260711e-02 -4.067002e-01 -2.135967e-02
##           6756          6757          6758          6759          6760
##   8.718197e-02 -8.739008e-03 -6.862767e-02 -3.673218e-02  6.170303e-01
##           6761          6762          6763          6764          6765
##   1.303646e-01 -8.384283e-01 -4.323977e-01  1.921421e-01  1.782023e-01
##           6766          6767          6768          6769          6770
##   1.427505e-02  3.741722e-01 -6.543816e-02  1.771007e-01  2.632784e-01
##           6771          6772          6773          6774          6775
## -4.926604e-01  3.012154e-01  1.051147e-01  1.757009e-01 -8.771222e-01
##           6776          6777          6778          6779          6780
## -7.597365e-01  4.211317e-01  1.098486e-01 -7.534468e-01 -1.886670e-03
##           6781          6782          6783          6784          6785
## -5.814522e-01 -9.609194e-01  4.903443e-02 -1.290773e-02  2.402348e-01
##           6786          6787          6788          6789          6790
## -6.515884e-01  4.631561e-01  5.457655e-01  1.162624e-01 -5.769177e-01
##           6791          6792          6793          6794          6795
##   4.631272e-01  5.145965e-01  2.033945e-01  5.580182e-01  2.143252e-01
##           6796          6797          6798          6799          6800
## -6.070212e-04  1.078336e-01  3.134980e-01 -3.610253e-01 -6.670820e-01
##           6801          6802          6803          6804          6805
## -4.503813e-01  2.456548e-01 -1.033573e+00  3.091150e-01 -2.283000e-01
##           6806          6807          6808          6809          6810
## -4.024718e-01 -5.738610e-02  2.027044e-01 -6.195665e-01  2.231443e-01
##           6811          6812          6813          6814          6815
## -4.138531e-01 -4.767971e-01  3.232291e-01 -6.894103e-01  5.027167e-01
##           6816          6817          6818          6819          6820
##   2.224028e-01  1.277005e-02  5.874907e-02  4.726693e-02  6.562699e-02
##           6821          6822          6823          6824          6825
## -3.113168e-01 -5.177195e-02  6.148674e-01  3.392969e-01  2.181875e-01
##           6826          6827          6828          6829          6830
## -3.502705e-01  6.699744e-01 -3.677402e-01 -2.955567e-01  2.120221e-01
##           6831          6832          6833          6834          6835
```

```
##    2.856742e-01   1.655637e-01  -5.234552e-01   3.546974e-01   4.639166e-01
##           6836           6837           6838           6839           6840
## -3.414474e-01   3.210823e-01   4.440079e-01   3.548673e-01  -1.715729e-01
##           6841           6842           6843           6844           6845
##    2.829386e-01   1.001681e-01  -7.419219e-01   1.884593e-01   6.673951e-02
##           6846           6847           6848           6849           6850
## -4.032494e-02   2.878668e-01  -4.750154e-01  -4.014481e-02  -5.270433e-01
##           6851           6852           6853           6854           6855
## -4.341351e-01  -2.659974e-01   7.103774e-02  -5.647915e-01   1.917145e-01
##           6856           6857           6858           6859           6860
## -2.268706e-01  -9.615271e-02  -3.559066e-01  -9.407068e-01   3.670656e-01
##           6861           6862           6863           6864           6865
##    2.841864e-01   1.295753e-01  -1.135423e-01   2.263130e-01  -7.604803e-02
##           6866           6867           6868           6869           6870
##    1.139128e-01  -4.689256e-01  -3.230731e-01   4.867933e-01  -8.560825e-02
##           6871           6872           6873           6874           6875
##    2.407463e-01   1.002167e-01   3.586415e-01  -5.105486e-01  -4.457974e-01
##           6876           6877           6878           6879           6880
## -2.681295e-01   1.971644e-02   6.274959e-01   5.871192e-01   1.603479e-01
##           6881           6882           6883           6884           6885
##    3.694237e-01   2.408524e-01  -7.672559e-01  -2.102894e-01   6.255416e-02
##           6886           6887           6888           6889           6890
## -6.467221e-01   6.684045e-02   4.916634e-01  -6.152322e-01   3.566042e-01
##           6891           6892           6893           6894           6895
##    2.875876e-01   2.330140e-02   2.135993e-01   2.176663e-01   4.084533e-01
##           6896           6897           6898           6899           6900
##    6.851711e-02  -6.767983e-01  -6.490103e-01   3.295131e-01   6.265533e-03
##           6901           6902           6903           6904           6905
## -3.455892e-02   6.654735e-01   1.085280e-01  -5.103410e-01   2.008234e-01
##           6906           6907           6908           6909           6910
## -5.899572e-02   5.141895e-02  -6.731409e-01   3.091728e-01  -5.464398e-03
##           6911           6912           6913           6914           6915
##    3.117596e-01   5.035195e-01   4.804585e-02  -4.095353e-01   1.030268e-01
##           6916           6917           6918           6919           6920
## -7.282665e-01   2.264234e-01   9.618769e-02   9.196691e-02  -3.567682e-01
##           6921           6922           6923           6924           6925
##    1.355560e-01   4.168629e-01  -4.076764e-01   1.043062e-01   1.084141e-01
##           6926           6927           6928           6929           6930
## -4.072129e-01   2.990950e-01  -9.209502e-03   2.741347e-01  -1.140085e-01
##           6931           6932           6933           6934           6935
##    3.563313e-02   6.454570e-03  -6.993892e-01   2.293117e-01  -9.009746e-01
##           6936           6937           6938           6939           6940
##    2.102774e-01   2.284897e-01   2.303719e-01   2.174048e-01   3.143597e-01
##           6941           6942           6943           6944           6945
##    6.766779e-03  -5.859194e-01  -3.294726e-01   2.011526e-01   3.607647e-01
##           6946           6947           6948           6949           6950
## -5.083948e-02   5.067184e-01   8.016383e-02   4.419251e-01   4.808658e-01
##           6951           6952           6953           6954           6955
## -4.694003e-01  -4.647934e-01   6.439419e-01   2.191776e-01   1.628314e-01
##           6956           6957           6958           6959           6960
```

```
##   1.281675e-01 -4.097824e-01 -4.300568e-01 -8.054883e-01 -3.648057e-01
##           6961          6962          6963          6964          6965
## -4.161395e-01 -7.021523e-01  2.441671e-01  3.843727e-01  1.067679e-01
##           6966          6967          6968          6969          6970
## -1.445786e-02  2.875331e-01 -1.683985e-01  3.629309e-01 -5.343626e-01
##           6971          6972          6973          6974          6975
##   3.525698e-01 -1.704938e-01  3.031808e-01  2.633714e-01  1.200052e-01
##           6976          6977          6978          6979          6980
## -5.601844e-01  4.468272e-01  2.933861e-01  2.902018e-01  4.190636e-01
##           6981          6982          6983          6984          6985
## -3.344550e-01  1.438081e-01 -5.693321e-01  9.164043e-02 -6.314080e-02
##           6986          6987          6988          6989          6990
## -8.868231e-01  4.424669e-01  5.926571e-01 -6.334427e-01 -3.094810e-02
##           6991          6992          6993          6994          6995
## -6.194026e-01  1.510891e-01  2.372026e-01  4.342355e-01  6.782851e-02
##           6996          6997          6998          6999          7000
## -5.341992e-01 -4.910679e-03 -3.111364e-01 -4.744019e-01 -2.933352e-01
##           7001          7002          7003          7004          7005
## -7.299373e-01  9.295996e-04  4.096674e-01  4.359333e-01  4.930302e-01
##           7006          7007          7008          7009          7010
##   3.342943e-01 -4.505845e-02 -4.142334e-01  4.840340e-03  1.753519e-01
##           7011          7012          7013          7014          7015
## -6.963625e-01  1.989088e-01  3.568745e-01  3.328288e-01  5.308326e-01
##           7016          7017          7018          7019          7020
## -6.499883e-01  3.210324e-01 -1.032665e-01  5.800353e-01  2.427666e-01
##           7021          7022          7023          7024          7025
##   7.823893e-02 -2.893342e-01  3.893726e-01 -8.097692e-01  5.232701e-01
##           7026          7027          7028          7029          7030
##   3.330831e-01 -4.685621e-02  2.637199e-01  1.691649e-01  3.266835e-01
##           7031          7032
## -3.069020e-01  4.129215e-02
```

#Anova Table
anova(fit)

```
## Analysis of Variance Table
##
## Response: Churn
##                   Df Sum Sq Mean Sq   F value      Pr(>F)
## Gender             1   0.10   0.100    0.7064     0.40068
## SeniorCitizen      1  31.09  31.092  219.2101  < 2.2e-16 ***
## Partner            1  31.94  31.942  225.1981  < 2.2e-16 ***
## Dependents         1   7.01   7.007   49.4036  2.280e-12 ***
## Tenure             1 143.41 143.413 1011.1025  < 2.2e-16 ***
## PhoneService       1   0.22   0.224    1.5826     0.20843
## MultipleLines      1  28.49  28.491  200.8684  < 2.2e-16 ***
## InternetService    1   2.83   2.831   19.9589  8.037e-06 ***
## OnlineBackup       1   0.09   0.092    0.6490     0.42049
## OnlineSecurity     1   8.41   8.406   59.2631  1.569e-14 ***
## DeviceProtection   1   1.29   1.286    9.0682    0.00261 **
```

```
## TechSupport          1    5.91   5.911   41.6721 1.151e-10 ***
## StreamingTV          1   20.06  20.061  141.4371 < 2.2e-16 ***
## StreamingMovies       1    8.13   8.128   57.3065 4.207e-14 ***
## Contract             1   21.94  21.938  154.6714 < 2.2e-16 ***
## PaperlessBilling     1   11.10  11.098   78.2460 < 2.2e-16 ***
## PaymentMethod        1    0.00   0.001    0.0050   0.94340
## MonthlyCharges       1   46.53  46.531  328.0532 < 2.2e-16 ***
## TotalCharges         1    9.12   9.124   64.3284 1.225e-15 ***
## Residuals         7012  994.57   0.142
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

vcov(fit)

```
##                    (Intercept)         Gender SeniorCitizen         Partner
## (Intercept)       9.330979e-03 -1.043314e-04 -7.174709e-05 -1.196903e-04
## Gender           -1.043314e-04  8.084175e-05 -1.918729e-07 -7.220319e-07
## SeniorCitizen    -7.174709e-05 -1.918729e-07  1.704688e-04  1.433912e-05
## Partner          -1.196903e-04 -7.220319e-07  1.433912e-05  1.180349e-04
## Dependents       -7.359280e-05  1.271971e-06 -2.827964e-05 -5.513827e-05
## Tenure           -2.655198e-06 -1.438413e-08 -2.714253e-07  6.209264e-07
## PhoneService     -1.325468e-03 -1.919321e-06 -1.375776e-05 -4.739417e-06
## MultipleLines     2.621207e-04  7.127575e-07 -4.244851e-06  2.555923e-06
## InternetService  -2.141852e-04 -1.254449e-06  2.906557e-06 -5.852266e-07
## OnlineBackup     -4.321501e-04 -1.679395e-06 -1.639265e-06  3.367763e-07
## OnlineSecurity   -4.649507e-04 -2.405852e-06 -8.707809e-06 -7.710743e-07
## DeviceProtection -4.054213e-04  1.640601e-07 -2.683899e-06 -1.943922e-06
## TechSupport      -3.973676e-04 -1.006999e-06 -1.372185e-05  2.804173e-06
## StreamingTV      -4.884500e-04 -4.046762e-07 -6.087791e-06 -1.093309e-06
## StreamingMovies  -4.996359e-04 -9.416645e-07 -2.726379e-06 -1.069560e-06
## Contract         -3.314475e-04  3.762276e-07  7.694614e-06  9.571979e-07
## PaperlessBilling -2.410612e-04 -8.575108e-07  5.524762e-06  2.985978e-08
## PaymentMethod    -7.834087e-05 -7.445961e-07  3.226624e-07 -9.974055e-07
## MonthlyCharges   -2.315082e-05  1.284184e-08 -6.076301e-07  5.001210e-08
## TotalCharges     -5.857800e-08 -8.271498e-10  1.028860e-09  5.862567e-10
##                      Dependents        Tenure  PhoneService MultipleLines
## (Intercept)       -7.359280e-05 -2.655198e-06 -1.325468e-03  2.621207e-04
## Gender             1.271971e-06 -1.438413e-08 -1.919321e-06  7.127575e-07
## SeniorCitizen     -2.827964e-05 -2.714253e-07 -1.375776e-05 -4.244851e-06
## Partner           -5.513827e-05  6.209264e-07 -4.739417e-06  2.555923e-06
## Dependents         1.329003e-04 -8.259228e-08 -5.466097e-06 -8.899269e-07
## Tenure            -8.259228e-08  2.509082e-07  3.599119e-07 -4.764958e-07
## PhoneService      -5.466097e-06  3.599119e-07  8.435583e-04 -2.398677e-04
## MultipleLines     -8.899269e-07 -4.764958e-07 -2.398677e-04  1.278825e-04
## InternetService   -2.600217e-07 -1.288240e-07 -7.277115e-05  3.739687e-06
## OnlineBackup      -3.649096e-06 -1.067779e-07  4.383273e-05 -8.987536e-06
## OnlineSecurity    -5.172883e-06 -2.189410e-07  3.401055e-05 -1.112849e-05
## DeviceProtection   2.046162e-07 -2.530302e-07  4.908229e-05 -9.437501e-06
## TechSupport       -2.548810e-06 -5.059799e-07  3.258670e-05 -1.156028e-05
## StreamingTV       -4.345735e-06 -2.065340e-07  7.783321e-05 -1.261980e-05
```

```
## StreamingMovies     1.805325e-07 -2.368224e-07   7.820319e-05 -1.163990e-05
## Contract            7.055507e-06 -1.650745e-06   2.682114e-05 -2.626768e-06
## PaperlessBilling    2.582901e-06  1.619332e-07   1.346655e-05  7.414882e-07
## PaymentMethod       4.599891e-07  4.332767e-07 -2.218533e-08   6.444628e-07
## MonthlyCharges     -2.334312e-07  7.015047e-08   5.462805e-06 -1.177836e-06
## TotalCharges       -1.400690e-09 -2.559805e-09   1.250002e-08 -4.421621e-09
##                     InternetService  OnlineBackup OnlineSecurity
## (Intercept)          -2.141852e-04 -4.321501e-04  -4.649507e-04
## Gender               -1.254449e-06 -1.679395e-06  -2.405852e-06
## SeniorCitizen         2.906557e-06 -1.639265e-06  -8.707809e-06
## Partner              -5.852266e-07  3.367763e-07  -7.710743e-07
## Dependents           -2.600217e-07 -3.649096e-06  -5.172883e-06
## Tenure               -1.288240e-07 -1.067779e-07  -2.189410e-07
## PhoneService         -7.277115e-05  4.383273e-05   3.401055e-05
## MultipleLines         3.739687e-06 -8.987536e-06  -1.112849e-05
## InternetService       7.138995e-05  1.481684e-05   2.939667e-05
## OnlineBackup          1.481684e-05  1.354896e-04   3.871325e-06
## OnlineSecurity        2.939667e-05  3.871325e-06   1.474679e-04
## DeviceProtection      1.158418e-05  6.968639e-06   5.240840e-06
## TechSupport           2.689060e-05  1.850624e-06  -6.362494e-06
## StreamingTV          -7.690445e-07  1.331065e-05   1.859493e-05
## StreamingMovies      -8.601065e-09  1.599902e-05   1.630379e-05
## Contract              9.941673e-06  4.457994e-06   1.460907e-05
## PaperlessBilling      2.160343e-06  1.275585e-06   1.030859e-05
## PaymentMethod         1.246129e-06  1.217583e-07   2.268381e-07
## MonthlyCharges       -5.724919e-07  7.342228e-07   5.395447e-07
## TotalCharges          6.723676e-09  1.338913e-08   1.137596e-08
##                     DeviceProtection    TechSupport     StreamingTV
## (Intercept)          -4.054213e-04 -3.973676e-04 -4.884500e-04
## Gender                1.640601e-07 -1.006999e-06 -4.046762e-07
## SeniorCitizen        -2.683899e-06 -1.372185e-05 -6.087791e-06
## Partner              -1.943922e-06  2.804173e-06 -1.093309e-06
## Dependents            2.046162e-07 -2.548810e-06 -4.345735e-06
## Tenure               -2.530302e-07 -5.059799e-07 -2.065340e-07
## PhoneService          4.908229e-05  3.258670e-05  7.783321e-05
## MultipleLines        -9.437501e-06 -1.156028e-05 -1.261980e-05
## InternetService       1.158418e-05  2.689060e-05 -7.690445e-07
## OnlineBackup          6.968639e-06  1.850624e-06  1.331065e-05
## OnlineSecurity        5.240840e-06 -6.362494e-06  1.859493e-05
## DeviceProtection      1.424146e-04 -1.441401e-06  1.917970e-07
## TechSupport          -1.441401e-06  1.510015e-04  3.442249e-06
## StreamingTV           1.917970e-07  3.442249e-06  1.653172e-04
## StreamingMovies      -2.348457e-06  3.950646e-06 -1.737778e-05
## Contract              1.356267e-05  2.371814e-05  1.357233e-05
## PaperlessBilling      6.110666e-06  4.468371e-06 -1.485915e-06
## PaymentMethod        -3.925489e-07 -2.622397e-07  1.250326e-06
## MonthlyCharges        7.895166e-07  4.171404e-07  1.694071e-06
## TotalCharges          1.041821e-08  1.071044e-08  6.810876e-09
##                     StreamingMovies       Contract PaperlessBilling
## (Intercept)          -4.996359e-04 -3.314475e-04    -2.410612e-04
```

```
## Gender              -9.416645e-07  3.762276e-07    -8.575108e-07
## SeniorCitizen       -2.726379e-06  7.694614e-06     5.524762e-06
## Partner             -1.069560e-06  9.571979e-07     2.985978e-08
## Dependents           1.805325e-07  7.055507e-06     2.582901e-06
## Tenure              -2.368224e-07 -1.650745e-06     1.619332e-07
## PhoneService         7.820319e-05  2.682114e-05     1.346655e-05
## MultipleLines       -1.163990e-05 -2.626768e-06     7.414882e-07
## InternetService     -8.601065e-09  9.941673e-06     2.160343e-06
## OnlineBackup         1.599902e-05  4.457994e-06     1.275585e-06
## OnlineSecurity       1.630379e-05  1.460907e-05     1.030859e-05
## DeviceProtection    -2.348457e-06  1.356267e-05     6.110666e-06
## TechSupport          3.950646e-06  2.371814e-05     4.468371e-06
## StreamingTV         -1.737778e-05  1.357233e-05    -1.485915e-06
## StreamingMovies      1.651940e-04  1.399133e-05     1.137417e-06
## Contract             1.399133e-05  7.247600e-05    -7.238461e-06
## PaperlessBilling     1.137417e-06 -7.238461e-06     1.004681e-04
## PaymentMethod        7.983254e-07  7.276605e-07    -1.007124e-06
## MonthlyCharges       1.646184e-06  8.133148e-07     6.816789e-07
## TotalCharges         7.393941e-09  3.944176e-09    -8.912854e-10
##                   PaymentMethod MonthlyCharges   TotalCharges
## (Intercept)       -7.834087e-05  -2.315082e-05  -5.857800e-08
## Gender            -7.445961e-07   1.284184e-08  -8.271498e-10
## SeniorCitizen      3.226624e-07  -6.076301e-07   1.028860e-09
## Partner           -9.974055e-07   5.001210e-08   5.862567e-10
## Dependents         4.599891e-07  -2.334312e-07  -1.400690e-09
## Tenure             4.332767e-07   7.015047e-08  -2.559805e-09
## PhoneService      -2.218533e-08   5.462805e-06   1.250002e-08
## MultipleLines      6.444628e-07  -1.177836e-06  -4.421621e-09
## InternetService    1.246129e-06  -5.724919e-07   6.723676e-09
## OnlineBackup       1.217583e-07   7.342228e-07   1.338913e-08
## OnlineSecurity     2.268381e-07   5.395447e-07   1.137596e-08
## DeviceProtection  -3.925489e-07   7.895166e-07   1.041821e-08
## TechSupport       -2.622397e-07   4.171404e-07   1.071044e-08
## StreamingTV        1.250326e-06   1.694071e-06   6.810876e-09
## StreamingMovies    7.983254e-07   1.646184e-06   7.393941e-09
## Contract           7.276605e-07   8.133148e-07   3.944176e-09
## PaperlessBilling  -1.007124e-06   6.816789e-07  -8.912854e-10
## PaymentMethod      2.099732e-05   1.594187e-07  -2.132492e-09
## MonthlyCharges     1.594187e-07   1.434099e-07  -1.126434e-09
## TotalCharges      -2.132492e-09  -1.126434e-09   4.168302e-11
```

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```
##                   (Intercept)        Gender SeniorCitizen         Partner
## (Intercept)        1.00000000 -0.120124991   -0.056887682 -0.1140485821
## Gender            -0.12012499  1.000000000   -0.001634456 -0.0073915108
## SeniorCitizen     -0.05688768 -0.001634456    1.000000000  0.1010868537
## Partner           -0.11404858 -0.007391511    0.101086854  1.0000000000
## Dependents        -0.06608590  0.012271465   -0.187883457 -0.4402354054
## Tenure            -0.05487517 -0.003193804   -0.041502129  0.1140978354
```

```
## PhoneService     -0.47244143 -0.007349743  -0.036280035 -0.0150197278
## MultipleLines     0.23995631  0.007010005  -0.028749773  0.0208035239
## InternetService  -0.26242624 -0.016512650   0.026347409 -0.0063752938
## OnlineBackup     -0.38434222 -0.016046567  -0.010786334  0.0026630738
## OnlineSecurity   -0.39636423 -0.022034448  -0.054920899 -0.0058444292
## DeviceProtection -0.35169465  0.001529001  -0.017225288 -0.0149932688
## TechSupport      -0.33476364 -0.009114247  -0.085526315  0.0210043335
## StreamingTV      -0.39327608 -0.003500505  -0.036264217 -0.0078267000
## StreamingMovies  -0.40243240 -0.008148567  -0.016246757 -0.0076595445
## Contract         -0.40304543  0.004915137   0.069225690  0.0103490223
## PaperlessBilling -0.24897151 -0.009514976   0.042215996  0.0002741999
## PaymentMethod    -0.17698759 -0.018072613   0.005393169 -0.0200347772
## MonthlyCharges   -0.63286796  0.003771549  -0.122893017  0.0121557057
## TotalCharges     -0.09392720 -0.014249077   0.012205460  0.0083580106
##                    Dependents       Tenure   PhoneService MultipleLines
## (Intercept)      -0.066085903 -0.054875174 -0.4724414252   0.239956313
## Gender            0.012271465 -0.003193804 -0.0073497432   0.007010005
## SeniorCitizen    -0.187883457 -0.041502129 -0.0362800351  -0.028749773
## Partner          -0.440235405  0.114097835 -0.0150197278   0.020803524
## Dependents        1.000000000 -0.014302736 -0.0163251398  -0.006826307
## Tenure           -0.014302736  1.000000000  0.0247389472  -0.084119387
## PhoneService     -0.016325140  0.024738947  1.0000000000  -0.730312367
## MultipleLines    -0.006826307 -0.084119387 -0.7303123670   1.000000000
## InternetService  -0.002669489 -0.030438324 -0.2965399227   0.039139127
## OnlineBackup     -0.027193772 -0.018313490  0.1296546345  -0.068278207
## OnlineSecurity   -0.036950553 -0.035993236  0.0964289163  -0.081036697
## DeviceProtection  0.001487305 -0.042328976  0.1416087256  -0.069931717
## TechSupport      -0.017992189 -0.082202537  0.0913045053  -0.083190171
## StreamingTV      -0.029318470 -0.032068233  0.2084243111  -0.086793655
## StreamingMovies   0.001218416 -0.036784795  0.2094931462  -0.080084142
## Contract          0.071889960 -0.387102138  0.1084732349  -0.027284690
## PaperlessBilling  0.022352739  0.032252577  0.0462577826   0.006541609
## PaymentMethod     0.008707684  0.188766964 -0.0001666964   0.012436847
## MonthlyCharges   -0.053469544  0.369814198  0.4966707501  -0.275036036
## TotalCharges     -0.018819129 -0.791534549  0.0666612625  -0.060561464
##                  InternetService OnlineBackup OnlineSecurity
## (Intercept)        -2.624262e-01 -0.384342218    -0.396364232
## Gender             -1.651265e-02 -0.016046567    -0.022034448
## SeniorCitizen       2.634741e-02 -0.010786334    -0.054920899
## Partner            -6.375294e-03  0.002663074    -0.005844429
## Dependents         -2.669489e-03 -0.027193772    -0.036950553
## Tenure             -3.043832e-02 -0.018313490    -0.035993236
## PhoneService       -2.965399e-01  0.129654634     0.096428916
## MultipleLines       3.913913e-02 -0.068278207    -0.081036697
## InternetService     1.000000e+00  0.150655219     0.286504096
## OnlineBackup        1.506552e-01  1.000000000     0.027387844
## OnlineSecurity      2.865041e-01  0.027387844     1.000000000
## DeviceProtection    1.148867e-01  0.050166960     0.036163867
## TechSupport         2.589950e-01  0.012938223    -0.042637133
## StreamingTV        -7.079033e-03  0.088937971     0.119093125
```

```
## StreamingMovies   -7.920208e-05  0.106940746    0.104458219
## Contract            1.382114e-01  0.044987250    0.141311182
## PaperlessBilling    2.550880e-02  0.010933076    0.084690841
## PaymentMethod       3.218567e-02  0.002282778    0.004076479
## MonthlyCharges     -1.789210e-01  0.166565591    0.117324590
## TotalCharges        1.232562e-01  0.178163964    0.145097370
##                  DeviceProtection  TechSupport   StreamingTV
## (Intercept)         -0.351694650 -0.334763642 -0.393276081
## Gender               0.001529001 -0.009114247 -0.003500505
## SeniorCitizen       -0.017225288 -0.085526315 -0.036264217
## Partner             -0.014993269  0.021004333 -0.007826700
## Dependents           0.001487305 -0.017992189 -0.029318470
## Tenure              -0.042328976 -0.082202537 -0.032068233
## PhoneService         0.141608726  0.091304505  0.208424311
## MultipleLines       -0.069931717 -0.083190171 -0.086793655
## InternetService      0.114886685  0.258995028 -0.007079033
## OnlineBackup         0.050166960  0.012938223  0.088937971
## OnlineSecurity       0.036163867 -0.042637133  0.119093125
## DeviceProtection     1.000000000 -0.009829171  0.001249987
## TechSupport         -0.009829171  1.000000000  0.021786765
## StreamingTV          0.001249987  0.021786765  1.000000000
## StreamingMovies     -0.015311169  0.025013845 -0.105157016
## Contract             0.133496839  0.226721613  0.123993281
## PaperlessBilling     0.051085452  0.036278100 -0.011529776
## PaymentMethod       -0.007178515 -0.004657211  0.021221809
## MonthlyCharges       0.174700623  0.089640054  0.347922814
## TotalCharges         0.135218601  0.135001107  0.082047320
##                   StreamingMovies     Contract PaperlessBilling
## (Intercept)         -4.024324e-01 -0.403045428   -0.2489715131
## Gender              -8.148567e-03  0.004915137   -0.0095149757
## SeniorCitizen       -1.624676e-02  0.069225690    0.0422159960
## Partner             -7.659544e-03  0.010349022    0.0002741999
## Dependents           1.218416e-03  0.071889960    0.0223527390
## Tenure              -3.678479e-02 -0.387102138    0.0322525774
## PhoneService         2.094931e-01  0.108473235    0.0462577826
## MultipleLines       -8.008414e-02 -0.027284690    0.0065416094
## InternetService     -7.920208e-05  0.138211394    0.0255087997
## OnlineBackup         1.069407e-01  0.044987250    0.0109330759
## OnlineSecurity       1.044582e-01  0.141311182    0.0846908407
## DeviceProtection    -1.531117e-02  0.133496839    0.0510854523
## TechSupport          2.501384e-02  0.226721613    0.0362780999
## StreamingTV         -1.051570e-01  0.123993281   -0.0115297760
## StreamingMovies      1.000000e+00  0.127868842    0.0088289399
## Contract             1.278688e-01  1.000000000   -0.0848271864
## PaperlessBilling     8.828940e-03 -0.084827186    1.0000000000
## PaymentMethod        1.355504e-02  0.018653045   -0.0219273902
## MonthlyCharges       3.382141e-01  0.252273697    0.1795875220
## TotalCharges         8.910444e-02  0.071759542   -0.0137728282
##                   PaymentMethod MonthlyCharges TotalCharges
## (Intercept)         -0.1769875922   -0.632867955 -0.093927200
```

```
## Gender              -0.0180726126     0.003771549 -0.014249077
## SeniorCitizen         0.0053931685    -0.122893017  0.012205460
## Partner              -0.0200347772     0.012155706  0.008358011
## Dependents            0.0087076837    -0.053469544 -0.018819129
## Tenure                0.1887669642     0.369814198 -0.791534549
## PhoneService         -0.0001666964     0.496670750  0.066661263
## MultipleLines         0.0124368473    -0.275036036 -0.060561464
## InternetService       0.0321856660    -0.178920961  0.123256160
## OnlineBackup          0.0022827775     0.166565591  0.178163964
## OnlineSecurity        0.0040764789     0.117324590  0.145097370
## DeviceProtection     -0.0071785152     0.174700623  0.135218601
## TechSupport          -0.0046572109     0.089640054  0.135001107
## StreamingTV           0.0212218090     0.347922814  0.082047320
## StreamingMovies       0.0135550435     0.338214078  0.089104435
## Contract              0.0186530455     0.252273697  0.071759542
## PaperlessBilling     -0.0219273902     0.179587522 -0.013772828
## PaymentMethod         1.0000000000     0.091868757 -0.072081851
## MonthlyCharges        0.0918687568     1.000000000 -0.460719561
## TotalCharges         -0.0720818510    -0.460719561  1.000000000

temp <- influence.measures(fit)
temp

## Influence measures of
##    lm(formula = Churn ~ Gender + SeniorCitizen + Partner + Dependents +
Tenure + PhoneService + MultipleLines + InternetService +        OnlineBackup +
OnlineSecurity + DeviceProtection + TechSupport +        StreamingTV +
StreamingMovies + Contract + PaperlessBilling +        PaymentMethod +
MonthlyCharges + TotalCharges, data = tablechurn) :
##
##          dfb.1_   dfb.Gndr  dfb.SnrC  dfb.Prtn  dfb.Dpnd  dfb.Tenr  dfb.PhnS
## 1      -2.03e-03 -1.34e-02 -1.12e-02 -2.90e-02  1.88e-02 -2.65e-02  1.89e-02
## 2      -4.60e-03  3.55e-03 -8.24e-04  2.91e-03  1.89e-03  2.50e-03 -7.70e-05
## 3      -1.66e-02 -2.24e-02  6.71e-03 -5.75e-03 -1.07e-02  8.29e-03  1.46e-02
## 4      -1.74e-03  1.97e-03 -5.51e-04  1.78e-03  8.49e-04  1.71e-03  3.82e-03
## 5       1.64e-02  1.29e-02  9.08e-03 -4.11e-03 -2.83e-03  2.32e-03 -1.53e-02
## 6      -7.70e-03  8.71e-03  8.13e-03 -5.15e-03 -1.11e-03 -6.52e-03  8.23e-03
## 7       3.38e-03  1.68e-02 -7.18e-03  3.03e-02 -3.91e-02  5.68e-03 -9.05e-03
## 8      -1.16e-02 -1.04e-02 -4.01e-03  3.72e-03  4.00e-03 -6.90e-03  1.58e-02
## 9      -2.08e-02  1.50e-02  1.57e-02  2.48e-02 -1.72e-02 -8.20e-03  9.92e-03
## 10      1.92e-03 -2.36e-03 -3.38e-04 -5.61e-03  5.17e-03 -3.27e-03 -6.37e-04
## 11      2.67e-03  8.69e-03 -9.30e-04 -7.84e-03 -9.75e-03 -1.00e-03 -3.15e-03
## 12     -3.66e-04  1.31e-03  7.68e-05  6.56e-04  9.97e-04 -2.55e-03  1.91e-04
## 13     -1.12e-02  8.46e-03 -9.79e-03 -1.01e-02  1.06e-02 -3.09e-03  4.24e-04
## 14     -1.83e-02 -1.97e-02  2.05e-02 -2.28e-02 -6.28e-05 -5.54e-03  1.13e-02
## 15      1.80e-02  1.43e-02 -7.58e-03  9.59e-03  2.85e-03  1.63e-02  1.17e-02
## 16     -5.80e-04  1.76e-03  3.61e-04 -3.01e-04  2.10e-03  2.73e-03 -4.31e-04
## 17     -2.77e-05 -6.52e-04 -1.41e-04  5.71e-04  3.35e-04  1.49e-03  1.19e-04
## 18     -2.59e-03  1.61e-03 -3.12e-04  4.58e-03 -3.98e-03 -1.96e-03  7.92e-04
## 19     -2.14e-02  2.59e-02 -1.79e-03  2.18e-02  2.84e-02  6.94e-03  9.64e-03
```

```
## 20     6.73e-03 -1.59e-02 -1.38e-02  1.07e-02  1.97e-03  1.39e-02  1.48e-02
## 21     3.95e-03 -1.41e-02 -3.36e-02 -9.05e-03  4.53e-03  2.01e-02 -1.51e-02
## 22     2.87e-03  3.21e-03 -9.67e-04 -6.04e-03  5.22e-03 -6.10e-03 -2.72e-05
## 23    -2.44e-02 -2.49e-02  3.60e-03 -6.00e-03 -1.39e-02  3.60e-02  7.29e-03
## 24    -4.00e-04 -7.19e-04 -3.98e-04 -9.53e-04  1.10e-03 -1.60e-05 -9.46e-04
## 25    -1.31e-03 -1.36e-03 -2.29e-05  5.48e-04  1.51e-03 -1.99e-03  1.38e-04
## 26     6.80e-03 -5.78e-03 -2.71e-03  4.38e-03  2.18e-03  3.62e-03 -2.37e-03
## 27    -7.01e-03 -1.83e-02  1.50e-02  4.41e-03  2.73e-02 -5.38e-03  6.43e-03
## 28     1.66e-02 -1.97e-02  5.50e-03  2.18e-02  2.27e-02  3.88e-02 -3.23e-02
## 29    -4.12e-03 -3.08e-03  1.59e-03  2.92e-03 -4.37e-03  1.10e-03  4.64e-03
## 30    -1.08e-02  2.00e-02  3.04e-04 -3.06e-02  4.21e-02 -1.11e-02  1.16e-02
## 31    -6.85e-04 -9.73e-04  2.12e-03 -7.15e-04  7.99e-04 -1.00e-03  3.81e-04
## 32     1.54e-02  2.52e-02  4.46e-02 -4.00e-02  1.71e-02  6.42e-03  1.39e-02
## 33     1.03e-03 -1.10e-03  2.43e-04 -7.11e-04 -1.02e-03  2.40e-04 -1.62e-04
## 34     8.00e-03  5.49e-03 -8.44e-04  1.58e-03  2.77e-03 -1.06e-02 -1.51e-03
## 35    -1.23e-02  1.18e-02  3.17e-02  7.25e-03 -1.87e-03 -1.79e-02 -5.53e-03
## 36     1.93e-03  2.42e-03  4.62e-04 -3.57e-04  2.73e-03  3.19e-03 -1.48e-03
## 37     2.05e-02 -1.33e-02  9.70e-03 -4.69e-03 -3.28e-03  9.93e-04 -1.58e-02
## 38    -1.17e-02 -1.13e-02 -9.00e-03  1.03e-02  3.05e-04  9.51e-03  1.51e-02
## 39    -1.10e-02 -1.53e-02  1.55e-02 -1.40e-02 -1.11e-03 -1.17e-02  9.90e-03
## 40    -1.33e-02  9.90e-03  9.55e-03 -6.89e-03 -1.07e-03 -3.11e-03  1.01e-02
## 41    -7.72e-03  6.97e-03  1.28e-04 -6.78e-03 -6.81e-03 -7.72e-03 -1.13e-03
## 42    -1.76e-04  1.24e-03  2.19e-04 -1.05e-04  1.25e-03 -6.33e-05  1.63e-03
## 43     1.93e-03 -2.93e-03  4.42e-04 -2.26e-03 -2.47e-03 -2.85e-03  3.39e-04
## 44    -1.92e-03  1.82e-03  4.02e-04 -2.40e-03 -9.35e-04 -3.61e-04  3.01e-03
## 45     2.92e-02 -9.48e-03 -5.97e-03 -2.05e-02  1.60e-02  2.01e-03 -2.41e-02
## 46    -1.46e-02 -1.46e-02 -1.43e-02  1.46e-02 -5.10e-04  1.53e-02 -2.34e-03
## 47    -6.34e-03  9.98e-03 -3.32e-03  2.57e-03  4.90e-03 -5.64e-03 -5.29e-03
## 48     7.53e-03  1.09e-02  7.78e-03 -3.88e-03 -2.86e-03 -2.49e-03 -1.11e-02
## 49     3.61e-04  2.28e-03 -4.49e-04  2.44e-03  1.07e-03 -8.08e-04 -3.52e-03
## 50    -7.62e-04  3.41e-03 -5.44e-05 -9.02e-05  3.58e-03 -2.26e-03  4.26e-03
## 51    -7.95e-03 -1.58e-02  2.96e-02  1.95e-02 -6.77e-03  9.41e-03 -6.00e-03
## 52    -2.18e-02  1.30e-02  1.07e-02 -8.97e-03 -4.16e-03 -1.26e-02 -1.12e-02
## 53     1.99e-02 -9.66e-03  2.41e-02 -1.49e-02  8.93e-03  8.16e-04 -2.27e-02
## 54     3.02e-04  1.04e-02 -1.98e-02  1.83e-02 -8.01e-03  5.63e-03  6.28e-03
## 55    -1.23e-03  6.66e-04 -1.92e-03 -1.09e-04  1.15e-03 -5.10e-04  1.70e-04
## 56     4.11e-03 -9.30e-03 -1.82e-02 -8.74e-03  3.84e-03 -3.79e-03  6.64e-03
## 57    -1.53e-03 -7.11e-03 -4.15e-03  4.60e-04 -9.60e-03 -3.94e-03  1.12e-03
## 58     2.33e-03  5.83e-03  1.47e-02  2.11e-03 -1.20e-02 -2.95e-03 -1.30e-03
## 59     4.81e-04 -9.62e-04  8.89e-05 -4.54e-04 -8.10e-04 -8.34e-04 -1.20e-03
## 60    -5.02e-03 -4.04e-03 -2.52e-03  5.58e-03  4.09e-04 -5.00e-03  1.60e-03
## 61     4.74e-03 -1.52e-02 -1.85e-02 -1.89e-02  1.48e-02  5.88e-03 -5.31e-03
## 62    -5.09e-03  9.29e-03 -9.94e-03  1.18e-02  4.21e-04  3.73e-03 -1.07e-03
## 63     2.37e-03 -1.50e-03  1.04e-03  1.62e-03 -2.35e-03 -2.10e-03 -3.37e-03
## 64     3.61e-03 -6.27e-03  5.35e-04 -4.60e-03 -6.58e-03 -4.29e-03 -1.57e-03
## 65     3.84e-03  1.05e-02  8.55e-03 -5.75e-03 -2.10e-03 -6.27e-03  6.90e-03
## 66     2.96e-02 -1.30e-02 -4.17e-03  4.27e-03  5.42e-03  5.24e-03 -1.29e-02
## 67    -1.65e-02  1.02e-02 -1.14e-02 -1.47e-02  1.34e-02 -7.16e-04  5.86e-04
## 68     5.48e-04 -4.22e-03 -1.02e-04  3.12e-03  2.47e-03 -1.25e-04 -1.40e-03
## 69    -4.71e-04  2.07e-03 -2.78e-04  6.26e-04  1.72e-03 -1.53e-03 -9.08e-04
```

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## 70      -5.21e-03   1.56e-02  -9.82e-03   7.15e-03   4.29e-03   8.55e-03   1.58e-02
## 71      -6.22e-03   8.80e-03  -9.93e-04   1.71e-03   4.23e-03  -3.99e-03  -4.08e-03
## 72       1.24e-03  -1.13e-03  -9.56e-05  -3.69e-04  -1.11e-03   2.01e-03   1.79e-04
## 73      -4.39e-04   4.05e-03   1.04e-02   1.62e-03  -7.27e-03  -6.82e-03   8.00e-04
## 74      -2.71e-04  -3.49e-04   4.23e-05   3.61e-05   3.20e-04  -4.66e-04   4.32e-04
## 75       2.11e-02  -8.87e-03   2.82e-03   1.40e-02  -2.09e-02  -2.59e-03  -6.46e-03
## 76      -1.20e-03  -8.08e-03   1.73e-02   1.27e-02  -2.69e-03  -2.18e-03  -1.71e-03
## 77      -7.69e-03  -5.29e-03  -1.96e-03   4.63e-03   1.56e-03   2.75e-03   4.27e-04
## 78       5.63e-03  -7.35e-03  -4.08e-05  -6.74e-03  -7.30e-03  -2.02e-03  -2.88e-03
## 79       1.61e-02   1.11e-02   2.59e-02   1.10e-02  -1.81e-03   1.06e-02  -8.91e-03
## 80       5.02e-03  -3.02e-03  -5.69e-04  -1.05e-03  -3.21e-03   2.07e-03  -4.39e-03
## 81       5.16e-03   1.22e-02   2.53e-03  -1.74e-02   2.72e-02  -2.21e-03  -1.18e-02
## 82       7.12e-03  -1.25e-02  -2.94e-03  -1.00e-02  -1.39e-02  -5.82e-03   1.70e-02
## 83       4.14e-04   1.38e-02   1.41e-02   2.78e-02  -1.76e-02   6.11e-03  -1.57e-02
## 84       1.67e-02  -9.92e-03  -7.40e-03   1.00e-02   7.69e-04   7.76e-03   9.65e-03
## 85       1.77e-04  -2.74e-04  -1.25e-04  -4.16e-04   4.82e-04   1.37e-04   8.58e-05
## 86       1.86e-02   2.37e-02  -2.02e-02   1.18e-02   4.57e-03   9.77e-03  -1.94e-02
## 87       1.67e-03  -6.04e-03  -3.53e-03  -9.85e-03   9.48e-03  -2.38e-03  -2.54e-04
## 88      -4.02e-04   2.05e-03  -2.89e-04   6.68e-04   1.71e-03  -8.02e-04  -9.56e-04
## 89       1.29e-04  -4.79e-04   3.62e-05  -1.93e-04  -3.94e-04   3.70e-04   1.47e-04
## 90      -1.65e-02   9.83e-03  -8.92e-03  -1.97e-02   1.54e-02   4.97e-03   1.72e-02
## 91      -4.58e-03   9.96e-03  -5.38e-03  -5.21e-03  -1.35e-02   1.47e-03   1.47e-02
## 92      -2.61e-02   1.70e-02   4.24e-02   9.14e-03  -3.66e-03   1.51e-03   1.86e-02
## 93      -1.03e-03  -1.45e-03  -1.27e-05  -2.40e-05   1.66e-03   1.80e-04   2.36e-03
## 94       9.36e-03  -7.16e-03  -7.24e-03   1.02e-02  -1.96e-04   1.71e-03  -1.99e-03
## 95      -3.30e-03   3.53e-03  -2.99e-03   5.56e-03   6.78e-04  -5.32e-03   3.37e-05
## 96       3.19e-03   1.40e-02   1.12e-02  -7.92e-03  -3.41e-03  -2.85e-03   6.66e-03
## 97      -1.65e-03  -2.79e-03   4.59e-04   5.51e-05   3.20e-03  -3.04e-03   3.63e-03
## 98      -2.24e-02  -2.49e-02   4.30e-03  -7.40e-03  -1.37e-02   2.68e-02   5.85e-03
## 99       8.97e-04  -1.67e-03   2.00e-04  -1.66e-03  -1.13e-03  -1.71e-03  -6.80e-04
## 100     -1.50e-02   1.34e-02  -2.51e-02   1.90e-02  -9.13e-03  -7.19e-03  -9.35e-03
## 101      5.79e-03   5.91e-03  -8.59e-04   1.43e-03   3.32e-03  -8.56e-03  -1.72e-03
## 102      9.47e-03  -5.24e-03   5.22e-04  -5.20e-03  -5.04e-03  -9.44e-03  -1.13e-03
## 103     -8.43e-03   9.39e-03  -5.21e-03   9.03e-03   2.54e-03  -1.67e-03  -1.12e-03
## 104     -4.26e-03  -5.27e-03   1.01e-02  -4.32e-03   4.22e-03   6.90e-03   8.77e-03
## 105      5.70e-03  -2.93e-02   2.62e-02   2.86e-02  -3.64e-02   5.34e-02  -5.21e-03
## 106     -2.56e-02   1.07e-02  -5.75e-03   3.28e-03   4.39e-03  -1.55e-02   1.89e-02
## 107      7.28e-04  -4.48e-03  -2.78e-03   7.44e-04  -5.97e-03  -1.37e-03   5.82e-04
## 108     -1.40e-02  -6.84e-03  -2.37e-03   4.39e-03   3.13e-03   2.08e-03   1.25e-02
## 109     -2.83e-02   1.21e-02  -1.01e-02   1.30e-02   3.02e-03   4.54e-03  -9.74e-04
## 110      1.37e-03  -3.82e-03  -2.05e-04   2.23e-04   3.39e-03  -1.15e-02  -1.99e-03
## 111     -3.27e-03  -2.29e-02   2.63e-02   2.83e-02  -2.70e-02  -1.11e-02   1.88e-03
## 112      2.63e-05   2.21e-03   1.37e-04  -2.15e-03  -9.37e-04  -2.62e-03   1.13e-04
## 113     -1.33e-03  -1.25e-02  -1.04e-02   1.15e-02   1.31e-03   1.15e-02   1.48e-02
## 114      2.24e-02   1.60e-02  -2.61e-02   1.94e-02  -8.72e-03  -3.10e-03   1.63e-03
## 115     -1.36e-03  -2.96e-03  -5.48e-04  -3.95e-04  -3.02e-03   2.69e-03   5.53e-03
## 116      8.11e-03   1.68e-02  -4.81e-03  -1.44e-02  -1.64e-02   7.53e-03   1.55e-02
## 117     -1.00e-02  -4.02e-03  -1.11e-03   3.28e-03   2.32e-03  -2.96e-03   8.86e-03
## 118     -1.59e-02   1.08e-02   6.70e-03   8.26e-03   1.50e-02  -5.06e-03   7.77e-03
## 119     -1.08e-04  -1.58e-04  -7.65e-06   1.22e-04   1.06e-04   1.03e-04   5.29e-05
```

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## 120    5.35e-03   1.32e-02 -6.71e-03 -7.85e-03 -1.68e-02   5.16e-03 -3.72e-03
## 121   -2.20e-03  -1.09e-02 -6.99e-03 -8.28e-05 -1.49e-02 -4.33e-03 -4.50e-04
## 122    6.64e-03  -6.14e-03 -9.74e-04   1.86e-03   3.00e-03 -5.51e-03 -1.33e-03
## 123    1.30e-02  -1.15e-02   9.51e-03 -4.32e-03 -2.40e-03   3.00e-03   5.57e-03
## 124    9.52e-05  -8.79e-03   8.14e-05 -7.86e-03 -8.80e-03 -3.43e-03 -2.02e-03
## 125    8.59e-03  -5.71e-03   4.37e-04 -5.45e-03 -5.40e-03 -7.25e-03 -8.16e-04
## 126   -1.15e-02   8.04e-03 -1.93e-03   6.00e-03   4.20e-03 -3.77e-03   1.25e-02
## 127    1.06e-02   1.53e-02 -2.94e-02 -1.55e-02   6.89e-03 -5.23e-03   8.07e-03
## 128   -4.31e-04  -8.08e-04   4.96e-04   8.57e-04 -1.25e-03 -1.61e-03   9.90e-04
## 129    5.84e-03   5.81e-03 -8.17e-04   1.40e-03   3.27e-03 -8.49e-03 -1.81e-03
## 130   -3.50e-03   5.44e-03   1.23e-02   8.78e-03 -1.15e-03   1.04e-02   9.37e-03
## 131   -1.14e-02  -2.03e-02 -1.90e-02   1.16e-02   1.78e-03   4.15e-03 -9.54e-03
## 132   -5.62e-02   2.07e-02   8.55e-03   1.21e-02   2.60e-02 -3.67e-03 -2.22e-02
## 133    6.54e-03  -2.36e-03   3.18e-04 -2.96e-03 -1.27e-03 -3.27e-03 -1.34e-03
## 134    1.30e-02  -1.54e-02   1.01e-02 -4.40e-03 -4.19e-03   2.37e-02 -2.12e-02
## 135    2.43e-02  -1.95e-02   6.30e-03 -5.62e-03 -8.63e-03   1.91e-02   7.90e-03
## 136    1.18e-03  -2.42e-03 -7.03e-04   2.32e-03   1.45e-03 -1.74e-05 -3.32e-03
## 137   -5.53e-03  -1.22e-02 -8.84e-03   8.61e-03   2.67e-03   1.99e-03   1.71e-02
## 138    1.17e-03   2.81e-03 -2.43e-04   4.81e-04   2.21e-03 -6.51e-03 -1.35e-03
## 139    2.51e-04  -7.37e-04 -2.18e-04 -1.68e-03   1.51e-03 -1.59e-03 -2.42e-04
## 140    1.42e-02   1.09e-02 -2.10e-02   1.97e-02 -8.10e-03   4.43e-03 -1.19e-02
## 141   -4.57e-03   2.61e-03 -7.52e-03 -1.17e-03   4.30e-03   1.52e-03   4.46e-03
## 142   -2.74e-02   2.01e-02   5.05e-03 -9.03e-03 -7.91e-03 -5.57e-03   4.51e-02
## 143   -8.76e-03  -8.02e-03 -8.93e-03 -8.83e-03   1.06e-02 -1.13e-02   2.22e-03
## 144   -5.93e-03   4.87e-03 -3.96e-03   6.11e-03   1.10e-03   1.49e-03   9.12e-04
## 145    1.27e-04  -6.97e-04 -1.62e-03   5.65e-04 -7.66e-04 -1.30e-03   8.66e-04
## 146   -2.10e-04  -9.38e-04 -2.43e-04   2.48e-05 -1.08e-03 -1.01e-03   3.56e-04
## 147    8.86e-04   4.33e-03 -5.32e-05   1.24e-03   3.00e-03 -8.76e-03 -4.09e-04
## 148    1.25e-02  -1.80e-02   7.65e-03 -4.84e-03 -6.79e-03   1.92e-02   8.18e-03
## 149   -6.85e-05   4.73e-03   9.03e-04   9.58e-03 -1.04e-02   4.76e-04 -1.73e-03
## 150    1.91e-02   8.98e-03 -9.18e-04 -7.63e-03 -1.07e-02   5.11e-03 -7.08e-03
## 151    2.35e-02  -1.26e-02 -4.99e-04 -1.14e-02 -1.45e-02   9.42e-04 -9.45e-03
## 152    7.68e-03  -9.88e-03   7.97e-03 -4.75e-03 -2.36e-03 -7.95e-03   6.59e-03
## 153    2.81e-03  -2.88e-03 -1.74e-03   6.10e-04 -3.97e-03 -3.40e-03 -5.92e-05
## 154   -2.88e-03  -4.24e-03 -8.03e-04   3.35e-04   4.08e-03 -9.04e-04 -4.26e-04
## 155    8.07e-03  -5.23e-03   4.18e-04 -4.86e-03 -4.94e-03 -5.98e-03 -9.35e-04
## 156   -1.40e-03  -1.72e-02 -1.02e-02 -1.27e-02 -2.43e-02 -3.21e-03   2.16e-02
## 157   -4.70e-03  -1.77e-02 -1.62e-02   1.31e-02   2.41e-03   1.12e-03 -8.21e-03
## 158    1.02e-03   2.14e-03   3.12e-04 -1.72e-03 -1.95e-03 -1.11e-03   2.15e-04
## 159   -3.00e-03   5.12e-03   1.32e-03 -3.78e-03 -4.06e-03 -5.40e-03 -8.48e-04
## 160    7.16e-04   4.02e-03 -2.36e-04   1.94e-03   2.77e-03 -1.05e-02 -5.46e-03
## 161    8.93e-03  -8.12e-03   8.75e-04   1.29e-02 -1.76e-02   1.05e-04 -3.58e-03
## 162    1.39e-02   1.65e-02   1.65e-02   3.01e-02 -2.21e-02 -3.95e-03   1.37e-03
## 163   -2.31e-02  -1.90e-02 -1.32e-02   6.04e-03   4.27e-03 -3.66e-03   2.17e-02
## 164    5.42e-04   1.32e-03 -4.35e-04   1.45e-03   5.09e-04 -4.71e-04 -2.23e-03
## 165    2.57e-03  -3.53e-03   6.23e-04 -3.01e-03 -2.94e-03 -5.02e-03   2.74e-04
## 166    2.17e-03  -2.35e-03   1.01e-03   3.11e-03 -4.27e-03 -7.13e-03 -1.15e-03
## 167    1.30e-02   1.32e-02   9.90e-03 -5.27e-03 -2.66e-03   6.43e-03 -1.66e-02
## 168   -5.46e-03  -3.50e-03   1.76e-03   3.20e-03 -4.88e-03   1.56e-03   5.39e-03
## 169   -2.63e-05  -2.12e-02 -4.01e-02   2.36e-02 -1.44e-02 -4.43e-02 -3.08e-02
```

```
## 170     6.74e-03 -4.18e-03  1.14e-04 -3.32e-03 -4.13e-03 -1.98e-03 -4.46e-04
## 171    -8.73e-04  5.68e-03 -3.67e-03 -7.93e-03  7.30e-03 -4.53e-05  8.32e-03
## 172    -1.81e-02  8.64e-03  8.98e-03  1.88e-02 -1.18e-02 -7.69e-03  9.51e-03
## 173     2.36e-03  8.04e-03 -1.91e-03 -1.49e-02  1.35e-02 -4.88e-03 -2.93e-03
## 174     9.99e-03  2.25e-02  2.28e-02  2.67e-02 -2.54e-02  7.53e-03 -3.26e-02
## 175     1.02e-03 -1.50e-03 -2.41e-04  1.11e-03  8.50e-04  5.72e-05  1.51e-04
## 176     8.21e-03 -4.83e-03 -3.11e-03 -8.01e-03  7.05e-03  4.23e-03 -8.27e-03
## 177     1.67e-02  1.21e-02 -2.38e-02 -9.64e-03  4.61e-03 -1.32e-03  5.28e-03
## 178     1.50e-02  1.48e-02 -3.67e-02 -1.17e-02  3.68e-03  2.85e-03 -1.92e-02
## 179     4.34e-02 -1.80e-02 -1.43e-02 -1.13e-02 -2.71e-02  5.23e-03 -1.66e-02
## 180     6.33e-04  7.72e-04 -4.74e-04 -1.03e-03  1.18e-03  1.86e-03  1.19e-04
## 181     1.29e-02  2.07e-02  1.04e-02 -6.10e-03 -7.57e-03  4.13e-02 -3.04e-02
## 182    -1.31e-02 -1.25e-02 -3.44e-03  2.89e-03  4.56e-03 -8.73e-03 -3.80e-03
## 183     1.02e-02 -1.32e-02  1.04e-02 -6.58e-03 -2.19e-03  1.15e-03  6.38e-03
## 184     4.17e-03  4.81e-03 -4.85e-05 -2.08e-03 -5.06e-03  1.56e-04 -1.66e-03
## 185     1.34e-04  1.59e-02  1.22e-02 -8.25e-03 -3.31e-03 -6.05e-03 -1.55e-02
## 186     1.56e-02  1.87e-02  1.44e-02  3.85e-02 -2.41e-02  3.88e-02 -2.73e-02
## 187    -4.30e-03  9.68e-03 -5.14e-03  4.96e-03  3.60e-03  4.26e-03 -3.71e-03
## 188    -1.40e-02  9.75e-03 -3.18e-03  2.25e-03  3.97e-03 -1.33e-02  1.64e-02
## 189     1.85e-03 -3.53e-03 -2.01e-04  1.54e-03  2.17e-03 -4.38e-03 -1.05e-04
## 190    -4.04e-04 -7.02e-03 -5.82e-03 -1.05e-02  8.99e-03  3.16e-03 -1.13e-02
## 191     3.23e-03  3.84e-03 -3.61e-04 -1.35e-03 -4.33e-03 -9.05e-05 -5.93e-03
## 192    -8.39e-03 -1.33e-02  1.32e-02  2.47e-02 -1.58e-02 -5.58e-03 -1.01e-02
## 193    -2.90e-04  3.98e-03 -2.32e-04  2.27e-04  3.42e-03 -9.12e-03 -2.03e-03
## 194     9.00e-05  2.09e-04  8.32e-05 -5.37e-05  2.50e-04  3.67e-04 -7.61e-05
## 195     7.19e-04 -2.94e-03 -3.33e-04  6.79e-04  2.50e-03 -4.90e-03 -1.34e-03
## 196     1.82e-02 -1.18e-02 -1.01e-02 -2.44e-02  1.85e-02  1.09e-02  1.45e-02
## 197     3.46e-03  3.18e-03  1.19e-04 -1.81e-03 -2.57e-03 -5.84e-03 -4.39e-03
## 198     7.11e-03  8.34e-03 -7.80e-03  1.06e-02 -1.76e-04  4.83e-03 -2.94e-03
## 199    -3.99e-04  1.69e-03 -7.93e-04  3.46e-04 -2.31e-03 -3.09e-03  6.39e-04
## 200     5.97e-03  5.14e-03  1.84e-03  7.47e-03 -1.11e-02 -7.39e-03 -1.19e-03
## 201     6.39e-03 -1.12e-02 -8.65e-03 -2.09e-02  1.74e-02  2.17e-04  1.69e-02
## 202     1.47e-03 -1.33e-02 -8.32e-03  6.36e-03  3.46e-03  6.10e-03  1.59e-02
## 203    -3.00e-03  1.79e-03 -7.87e-04  4.14e-04 -2.41e-03 -2.15e-03  8.83e-04
## 204    -1.10e-02  1.66e-02 -4.28e-03  2.80e-02 -3.96e-02  3.54e-03  1.82e-02
## 205    -2.38e-02  8.92e-03 -7.34e-03  8.72e-03  1.50e-03  1.09e-02  1.56e-02
## 206    -7.08e-03 -8.45e-03 -4.64e-03  6.65e-03  2.66e-03 -1.46e-03  1.36e-02
## 207    -3.84e-04 -2.70e-03  3.88e-04 -2.98e-05  2.89e-03 -2.49e-03 -5.45e-03
## 208     1.77e-02 -1.26e-02  8.43e-03 -4.12e-03 -3.23e-03 -3.10e-03 -1.35e-02
## 209    -2.70e-02  1.51e-02  9.04e-03 -1.04e-02 -3.44e-03 -2.34e-02 -1.37e-02
## 210     1.27e-03  3.71e-03 -3.31e-03 -4.33e-03  4.58e-03 -1.14e-03  5.24e-03
## 211     9.82e-03 -1.86e-02  8.01e-03 -5.57e-03 -6.64e-03  2.17e-02  7.89e-03
## 212    -2.15e-02 -1.35e-02 -5.90e-03  3.21e-03  4.19e-03 -2.25e-02  2.01e-02
## 213     2.24e-03 -2.27e-03 -8.71e-04 -5.42e-03  4.66e-03 -6.44e-03 -1.05e-03
## 214     1.25e-03 -1.58e-03  1.64e-04 -9.72e-04 -1.39e-03 -5.77e-05  2.06e-04
## 215    -2.73e-02  1.85e-02  3.36e-02 -2.71e-02  1.21e-02  2.80e-03 -5.85e-03
## 216     1.26e-02 -5.63e-03 -5.86e-03 -7.27e-03  7.32e-03  7.70e-03  7.43e-03
## 217     3.95e-03 -4.39e-03  4.15e-05  1.49e-04  4.26e-03 -7.89e-03 -9.88e-03
## 218    -1.53e-04 -1.03e-03  5.56e-04  1.16e-03 -1.56e-03 -4.86e-04 -1.95e-03
## 219    -4.80e-04 -4.02e-04  5.40e-05 -1.50e-05  4.57e-04  1.65e-04  6.67e-04
```

```
## 220    -7.54e-03 -1.85e-02 -1.40e-02  9.11e-03  4.28e-03 -1.04e-03  2.01e-02
## 221     1.69e-02  1.33e-02  9.41e-03 -4.59e-03 -2.88e-03  1.44e-03 -1.57e-02
## 222    -3.51e-04  2.06e-03  1.15e-03  2.30e-03 -3.42e-03 -4.09e-03  2.31e-03
## 223     7.37e-03  5.42e-03  6.92e-04 -5.47e-03 -4.75e-03 -1.42e-02 -5.48e-04
## 224     1.08e-02 -2.15e-02  8.38e-03  4.94e-02 -3.38e-02  1.09e-02  7.60e-03
## 225     6.80e-03 -4.40e-03 -7.18e-04  2.17e-03  2.58e-03 -8.33e-03 -6.96e-04
## 226    -7.81e-03  1.15e-02 -5.59e-03  7.33e-03  5.22e-03 -2.58e-03  1.72e-02
## 227     1.05e-02 -5.67e-03  5.00e-04 -2.97e-03 -6.04e-03  2.52e-03 -2.30e-03
## 228     4.92e-03  1.94e-02  9.96e-03  3.93e-02 -2.76e-02  1.19e-02  8.73e-03
## 229    -3.20e-03  1.50e-02 -1.17e-02  1.11e-02  9.72e-04  7.84e-03 -5.50e-03
## 230     2.59e-03 -1.51e-03  4.70e-05 -3.81e-04 -1.59e-03 -1.31e-03 -2.65e-03
## 231    -3.57e-04  5.22e-03 -2.41e-03  5.70e-03  1.88e-03 -4.40e-03 -1.94e-04
## 232     3.83e-03  6.13e-03 -3.74e-03  5.76e-03  8.76e-04  5.40e-03  7.37e-03
## 233     2.64e-03 -1.34e-02  8.26e-03 -4.10e-03 -3.69e-03 -7.60e-03 -1.13e-02
## 234     2.05e-03  3.40e-03  6.20e-04 -4.12e-03 -2.04e-03 -9.59e-03 -1.61e-03
## 235     7.61e-03 -5.35e-03 -2.02e-03  3.63e-03  2.14e-03  3.68e-03 -9.23e-03
## 236    -4.89e-03 -1.77e-02  9.58e-03 -5.41e-03 -6.74e-03  1.22e-02  3.97e-02
## 237    -2.00e-02 -9.13e-03 -1.31e-03  2.98e-03  5.03e-03 -1.84e-02  1.66e-02
## 238    -1.80e-02  1.74e-02 -1.94e-02 -3.21e-02  2.14e-02 -2.26e-03 -6.26e-03
## 239    -3.50e-03  9.84e-03 -2.16e-02 -8.29e-03  3.32e-03 -6.19e-03 -7.20e-03
## 240    -1.40e-03  2.00e-03  1.26e-04  9.56e-04  1.61e-03 -3.10e-03  3.62e-04
## 241    -3.00e-04  2.77e-03  8.33e-04 -3.85e-03 -9.33e-04  1.07e-03  3.69e-03
## 242    -4.00e-04  3.70e-04 -2.19e-04  5.68e-04  9.04e-05 -5.29e-04  9.58e-05
## 243     4.97e-03 -3.30e-03  2.13e-04 -1.33e-03 -3.65e-03  4.48e-04 -7.13e-04
## 244    -1.69e-04 -5.17e-03  9.39e-03 -4.16e-03  2.92e-03  4.11e-03  7.01e-03
## 245     8.18e-03 -1.22e-02  2.90e-02  9.12e-03 -2.66e-03 -1.53e-03 -8.95e-03
## 246    -2.44e-02  1.72e-02  3.99e-02  1.09e-02 -2.97e-03  1.50e-03  1.91e-02
## 247    -8.02e-03  6.66e-03 -3.66e-03  6.86e-03  2.30e-03  5.57e-03 -1.31e-02
## 248     1.58e-02 -1.45e-02 -3.07e-02 -1.11e-02  4.18e-03 -3.64e-03 -1.47e-02
## 249    -1.53e-03 -2.08e-02  5.86e-03 -5.32e-03 -9.50e-03  1.34e-02  1.19e-02
## 250     1.45e-03  9.95e-03 -7.54e-03  9.86e-03  2.14e-03 -1.39e-03 -3.09e-03
## 251     1.55e-03 -6.46e-03 -5.85e-03 -8.62e-03  9.06e-03  1.64e-03  9.20e-03
## 252     2.08e-02  1.58e-02  5.72e-03  1.46e-02  1.85e-02  5.35e-03 -2.07e-02
## 253     9.02e-03 -1.64e-02 -3.60e-02  3.08e-02 -1.61e-02  2.72e-02 -2.05e-02
## 254     8.57e-03  5.57e-03  1.07e-03  1.10e-02 -1.20e-02  1.31e-03 -1.21e-02
## 255     9.90e-03  6.74e-03 -1.85e-03  2.40e-03  3.26e-03 -4.65e-03 -2.46e-03
## 256     1.10e-04 -1.48e-03 -2.81e-04 -6.74e-05 -1.56e-03  1.08e-03  2.59e-03
## 257     2.28e-04 -5.59e-04 -1.16e-04  3.46e-05 -6.63e-04 -7.84e-04  1.23e-04
## 258     3.68e-03  5.17e-03 -2.64e-03  5.70e-03  1.36e-03 -1.37e-03 -1.28e-03
## 259    -1.53e-03  1.96e-02  1.25e-02  4.09e-02 -2.69e-02  2.79e-02  8.11e-03
## 260     8.54e-03 -1.22e-02  2.45e-02 -1.70e-02  8.90e-03  4.85e-03  1.49e-02
## 261     5.46e-03 -1.40e-02 -3.30e-02 -9.40e-03  4.68e-03  1.76e-02 -1.61e-02
## 262    -8.35e-03 -9.23e-03 -1.69e-02 -8.05e-03  3.34e-03 -7.08e-03  8.75e-03
## 263    -8.49e-03  1.24e-02  2.01e-02 -1.24e-02  6.52e-03  8.34e-03 -3.12e-03
## 264     4.13e-04 -3.99e-03 -1.02e-03  3.28e-03  2.49e-03 -3.81e-03  7.75e-03
## 265     7.50e-03 -6.52e-03 -5.13e-03 -9.31e-03  9.38e-03  7.58e-04 -2.34e-03
## 266    -3.83e-03  3.32e-03 -3.59e-04  1.21e-04  3.20e-03  6.70e-04  5.21e-03
## 267     9.31e-06 -6.72e-05  1.46e-05 -6.77e-05 -4.22e-05 -4.04e-05  8.32e-05
## 268     2.37e-02 -1.49e-02  3.86e-02  1.42e-02 -4.04e-03  2.15e-02  1.17e-02
## 269     3.46e-02 -3.16e-02  3.99e-03 -3.42e-02 -2.34e-02 -7.83e-02 -1.19e-02
```

```
## 270   -1.15e-04   1.93e-04   1.25e-04   2.21e-04  -3.14e-04  -4.29e-04   2.43e-04
## 271   -2.57e-03   1.23e-02  -2.87e-02  -1.03e-02   4.51e-03  -1.09e-02  -1.02e-02
## 272    1.29e-03  -2.75e-03   8.58e-04   3.74e-03  -4.45e-03  -1.12e-03  -6.37e-04
## 273    3.19e-02  -1.91e-02   9.75e-03  -5.70e-03  -6.96e-03   4.46e-02  -3.18e-02
## 274    9.11e-03   1.94e-02   3.57e-02  -2.72e-02   1.37e-02   1.07e-02  -1.16e-02
## 275    3.15e-02  -1.34e-02   8.61e-03  -3.85e-03  -4.36e-03  -7.49e-04  -1.79e-02
## 276   -5.97e-03  -1.52e-02   1.30e-02   2.87e-02  -1.86e-02  -1.46e-03   7.70e-03
## 277   -1.82e-02   2.01e-02   2.55e-02   2.41e-02  -2.03e-02  -2.10e-03   8.02e-03
## 278    1.74e-02   1.13e-02   2.25e-02  -1.54e-02   8.92e-03  -1.94e-03  -7.26e-03
## 279    1.29e-02   1.34e-02  -6.82e-03   6.50e-03   3.60e-03   2.30e-03   1.41e-02
## 280    6.46e-04  -9.67e-03  -3.46e-03   3.54e-03   3.93e-03  -8.80e-03  -4.04e-03
## 281    2.83e-03  -8.39e-03  -2.05e-03   2.86e-03   4.29e-03  -5.42e-04  -4.02e-03
## 282   -3.82e-03  -1.01e-02  -3.59e-03   3.78e-03   3.91e-03  -2.23e-03  -3.39e-03
## 283    1.25e-02  -7.74e-03   1.62e-03   1.07e-02  -1.55e-02  -1.05e-02  -1.37e-02
## 284   -1.68e-03  -2.18e-03  -1.11e-03   2.41e-03   4.56e-04   5.40e-03  -2.98e-03
## 285    3.42e-03  -1.41e-02   7.26e-03   1.01e-02   1.96e-02  -1.26e-02  -1.54e-02
## 286   -2.95e-02  -1.57e-02  -1.22e-02   1.08e-02   3.63e-03  -1.22e-02   3.27e-05
## 287   -5.99e-03  -1.09e-02  -4.69e-03   5.32e-03   2.92e-03   6.50e-04  -3.42e-03
## 288    2.52e-02  -1.42e-02   1.23e-02   3.06e-02  -1.97e-02   6.23e-03  -1.85e-02
## 289    1.32e-02  -1.34e-02  -2.85e-02  -8.99e-03   3.54e-03  -1.06e-04  -1.27e-02
## 290    1.12e-02  -1.97e-02   8.93e-03  -8.08e-03  -6.73e-03   1.38e-02   8.26e-03
## 291    2.24e-02  -1.26e-02  -2.59e-02  -1.25e-02   5.44e-03  -4.22e-03   4.18e-03
## 292   -1.29e-03   2.69e-03  -6.51e-04   2.15e-03   1.50e-03   2.21e-03  -4.51e-04
## 293   -8.87e-03   8.93e-03  -1.59e-03  -6.44e-03  -1.01e-02   2.72e-03   1.39e-02
## 294   -5.75e-03  -2.27e-02   4.93e-02   1.70e-02  -7.95e-03   1.03e-02   1.69e-02
## 295    5.83e-03  -5.40e-03  -9.34e-04   2.03e-03   2.59e-03  -2.15e-03  -1.24e-03
## 296    5.79e-03   5.93e-03  -8.64e-04   1.43e-03   3.32e-03  -8.57e-03  -1.71e-03
## 297   -5.34e-03  -1.82e-03  -5.56e-04   9.48e-05  -1.94e-03   2.26e-04   3.66e-03
## 298    2.80e-03   1.85e-02   3.13e-02  -2.24e-02   1.03e-02   7.39e-03  -1.18e-02
## 299    1.47e-02   9.56e-03  -4.88e-03  -3.46e-03  -1.40e-02   7.37e-03  -2.24e-02
## 300    5.55e-03   1.53e-02   1.59e-03  -2.20e-02   3.43e-02  -3.24e-03  -1.67e-02
## 301   -1.61e-03   1.09e-02  -4.47e-03   7.40e-03   4.33e-03  -6.03e-03  -4.54e-03
## 302   -3.97e-04   5.91e-03  -1.23e-02  -4.71e-03   2.34e-03  -2.45e-03   5.36e-03
## 303    7.05e-03   1.90e-02  -1.10e-02   6.61e-03   3.51e-03   1.57e-02   1.49e-02
## 304    1.15e-04   3.55e-04   4.16e-05   4.56e-06   3.61e-04  -2.62e-04  -6.65e-04
## 305   -1.52e-02   1.22e-02  -6.61e-03   2.59e-02  -3.21e-02   1.10e-02  -1.23e-03
## 306    5.28e-05  -2.01e-04  -5.15e-06   6.25e-05   1.77e-04  -2.40e-04   2.50e-04
## 307    2.21e-02  -1.42e-02  -2.53e-02   1.98e-02  -9.13e-03  -3.39e-03   3.75e-03
## 308   -1.97e-03   4.70e-03   1.11e-03  -2.90e-03  -4.63e-03  -7.88e-04  -7.09e-04
## 309   -3.93e-03   1.50e-02   3.42e-02  -9.93e-04  -2.95e-02   6.73e-03  -6.03e-03
## 310    6.68e-03   5.15e-03  -1.12e-04   1.19e-02  -1.18e-02   2.23e-03  -1.05e-02
## 311    1.60e-02  -6.56e-03  -1.64e-03   2.12e-03   3.07e-03  -1.42e-02  -2.81e-03
## 312    6.78e-03  -1.23e-02  -7.03e-03   7.82e-03   2.71e-03   1.41e-02   1.42e-02
## 313    2.01e-03  -5.23e-03  -2.24e-03   6.24e-03   2.40e-03  -4.24e-03  -6.64e-04
## 314   -2.28e-02  -1.99e-02   3.88e-02  -3.50e-02   1.46e-02  -9.98e-03   2.19e-02
## 315    1.15e-02  -1.16e-02   8.45e-03  -4.45e-03  -3.20e-03  -2.87e-03  -1.21e-02
## 316    2.31e-03   4.84e-03  -1.43e-03  -7.51e-04  -5.57e-03  -2.47e-03   2.81e-05
## 317    3.82e-04  -1.50e-03   4.23e-04  -1.84e-03  -9.06e-04  -4.44e-03  -5.03e-04
## 318   -5.00e-02   2.88e-02  -4.20e-03   1.32e-02   2.97e-02  -7.22e-03   6.97e-03
## 319   -2.36e-03  -1.28e-02  -2.38e-02   1.81e-02  -8.37e-03  -6.59e-03  -9.61e-03
```

```
## 320   -2.13e-03   1.42e-02  -1.42e-02  -2.24e-02   1.67e-02   3.74e-03  -2.86e-03
## 321   -4.32e-02   2.82e-02  -7.93e-02  -4.29e-02   3.79e-03  -1.00e-02   5.95e-02
## 322    2.55e-06  -1.04e-03  -2.20e-04   1.73e-05  -1.10e-03   1.14e-03   1.85e-03
## 323   -7.80e-03   1.21e-02  -5.00e-03   3.23e-03   4.59e-03  -1.32e-02  -5.92e-03
## 324   -4.18e-03  -6.57e-03   9.76e-04  -5.63e-03  -5.73e-03  -6.73e-03  -6.96e-04
## 325    3.12e-05  -2.09e-04   7.20e-05  -2.52e-04  -9.69e-05  -1.52e-04  -3.79e-04
## 326    1.34e-02  -1.01e-02  -1.15e-02  -1.38e-02   1.16e-02   5.32e-03  -4.47e-03
## 327    1.14e-03  -1.80e-02   3.92e-02  -3.13e-02   1.44e-02   5.39e-03   1.64e-02
## 328    1.60e-02   1.14e-02  -2.46e-02  -6.91e-03   3.61e-03   3.36e-03  -1.21e-02
## 329   -8.80e-03  -1.53e-02   3.42e-02  -4.85e-03  -2.49e-02   1.50e-03   2.09e-02
## 330   -1.25e-02  -1.98e-02   3.90e-02   1.86e-02  -9.16e-03  -9.72e-04  -8.83e-03
## 331    5.02e-04  -1.37e-03   1.69e-04  -7.46e-04  -1.11e-03  -2.84e-04   3.55e-04
## 332    5.47e-03  -5.66e-03  -6.76e-04   2.01e-03   3.35e-03  -9.08e-03  -9.80e-04
## 333   -6.28e-03   1.06e-02  -9.27e-03   1.17e-02   2.28e-03  -2.93e-03  -2.26e-03
## 334    1.13e-02   1.21e-02   1.01e-02  -5.41e-03  -2.10e-03   1.79e-03   5.54e-03
## 335    1.25e-02   1.28e-02   9.19e-03  -5.02e-03  -2.66e-03  -3.55e-03   6.13e-03
## 336   -4.06e-02  -3.14e-02   9.57e-03  -7.84e-04   4.25e-02  -1.11e-02   5.18e-02
## 337    1.41e-02   2.07e-02   1.57e-02  -2.28e-02  -5.82e-03   2.31e-02   3.30e-03
## 338   -3.45e-03   2.53e-03   6.35e-04  -3.50e-03  -1.08e-03   4.04e-04   4.39e-03
## 339    3.03e-03  -1.41e-02  -1.26e-02   1.25e-02   1.55e-03   7.51e-03   1.56e-02
## 340   -1.28e-02  -2.13e-02   2.95e-02   2.45e-02  -2.29e-02  -3.64e-03   8.23e-03
## 341    1.16e-03  -5.39e-03   1.41e-02   5.14e-03  -1.05e-03   2.84e-03  -1.98e-03
## 342   -7.01e-03   5.09e-03   2.04e-03   5.17e-03  -7.97e-03   1.98e-03   8.64e-03
## 343    1.57e-03  -8.74e-04  -4.07e-04   2.35e-05  -1.17e-03   1.08e-03  -1.40e-03
## 344    2.45e-04  -5.90e-04   1.76e-04  -6.71e-04  -3.45e-04  -2.09e-03  -1.47e-04
## 345    1.97e-03  -1.75e-03   3.41e-04   3.34e-03  -3.53e-03   1.62e-03   1.20e-04
## 346   -1.97e-02  -2.17e-02   4.60e-02   1.43e-02  -7.49e-03  -1.07e-02  -1.51e-02
## 347    5.65e-04   8.89e-03   7.02e-03  -3.55e-03  -1.96e-03  -5.59e-03  -7.62e-03
## 348    2.37e-04   3.11e-03   1.33e-03   3.69e-03  -5.30e-03  -7.83e-03  -1.45e-03
## 349   -3.23e-03  -1.56e-02  -1.05e-02   9.11e-03   3.23e-03   4.03e-03   1.93e-02
## 350   -2.02e-03  -3.29e-03   6.56e-03  -2.58e-03   2.27e-03  -2.23e-03   5.77e-03
## 351    6.29e-04   1.23e-03   1.69e-04  -5.03e-04  -1.13e-03  -8.22e-04  -1.96e-03
## 352   -1.53e-02   6.32e-03   1.85e-03   1.15e-02  -1.48e-02  -3.05e-03  -1.54e-04
## 353   -5.64e-03  -2.26e-02   4.90e-02   1.72e-02  -7.93e-03   1.25e-02   1.67e-02
## 354   -1.39e-02  -1.45e-02   8.70e-03   1.10e-02   1.76e-02   6.16e-03   9.09e-03
## 355    4.82e-03   1.84e-02  -4.23e-02  -1.58e-02   3.69e-03  -5.07e-05  -2.50e-02
## 356    5.55e-03   1.26e-02   1.05e-02  -6.60e-03  -1.65e-03   8.14e-04  -1.42e-02
## 357    5.27e-03  -1.21e-02   2.98e-02   1.03e-02  -2.60e-03  -3.29e-03  -2.62e-02
## 358   -5.64e-03   5.08e-03  -4.51e-03  -5.77e-03   6.78e-03  -6.48e-03   1.38e-03
## 359    2.61e-02  -2.20e-02  -4.84e-02   3.35e-02  -1.98e-02   2.92e-03  -3.69e-02
## 360   -6.07e-03   9.66e-03  -4.07e-03  -2.59e-03  -1.16e-02  -1.18e-03  -1.32e-03
## 361    5.46e-03   4.70e-03   1.63e-03   7.12e-03  -1.02e-02  -4.99e-03  -1.12e-03
## 362   -4.30e-03  -7.84e-03  -3.80e-03   7.97e-03   3.22e-03  -5.61e-03   1.24e-02
## 363   -2.79e-03   1.59e-03  -1.15e-03  -2.34e-03   2.50e-03   2.20e-03   2.83e-04
## 364   -2.53e-04  -1.26e-03  -2.08e-04   1.08e-03   7.85e-04   1.41e-03   3.31e-04
## 365   -1.09e-02   1.42e-02  -8.29e-03   7.12e-03   2.72e-03   2.87e-03   1.82e-02
## 366   -6.00e-04  -1.24e-02   8.53e-03  -6.01e-03  -2.70e-03  -6.69e-03  -1.00e-02
## 367    1.00e-02   9.53e-03  -6.21e-03  -1.59e-02   1.23e-02  -1.12e-03  -4.19e-03
## 368    7.45e-03  -6.17e-03  -7.58e-04   1.48e-03   3.13e-03  -8.54e-03  -1.86e-03
## 369   -6.30e-03   6.88e-03  -8.89e-03  -7.00e-03   7.98e-03  -3.53e-03   2.32e-04
```

```
## 370   -6.16e-04 -9.90e-04  2.99e-04 -1.92e-04  1.20e-03  1.55e-03 -1.28e-04
## 371    4.31e-04  1.25e-03  1.16e-04 -8.24e-04 -1.19e-03  5.88e-04  2.27e-04
## 372    5.50e-03 -9.42e-03  7.73e-03 -3.67e-03 -2.26e-03 -1.14e-03  5.70e-03
## 373   -7.39e-03  3.00e-03  1.43e-03  5.26e-03 -5.95e-03 -2.41e-03  6.72e-03
## 374    3.31e-03 -5.99e-03 -3.09e-03 -5.54e-04 -8.39e-03 -2.07e-03 -1.56e-04
## 375   -1.61e-03  1.43e-02 -1.29e-02  1.25e-02  1.77e-03  8.26e-03  1.63e-02
## 376    5.99e-03 -4.57e-03 -1.53e-03  4.56e-03  1.59e-03  1.38e-03 -9.06e-03
## 377   -2.71e-02  1.13e-02 -5.96e-03  2.80e-03  4.65e-03 -2.04e-02  2.02e-02
## 378   -2.66e-02  1.39e-02  1.53e-02  2.41e-02 -1.67e-02 -5.42e-03  1.03e-02
## 379   -1.78e-03  2.03e-03  3.11e-04 -2.60e-03 -1.02e-03 -2.77e-04  3.37e-03
## 380   -2.01e-02  1.32e-02 -6.63e-03  7.80e-03  4.41e-03  2.17e-04 -1.80e-03
## 381   -4.70e-04 -7.22e-03 -6.14e-03 -1.14e-02  9.82e-03  1.03e-04  1.16e-02
## 382    1.40e-02 -2.00e-02  6.85e-03 -4.89e-03 -9.71e-03  1.16e-02  9.50e-03
## 383   -4.18e-04 -6.00e-04 -1.63e-03 -2.14e-04  9.43e-04 -2.16e-04 -1.04e-03
## 384   -3.37e-03 -1.07e-02  9.03e-03 -3.93e-03 -1.95e-03 -1.42e-03  7.34e-03
## 385   -8.68e-03  1.09e-02 -8.74e-03  1.27e-02  2.71e-03 -1.26e-02  1.63e-04
## 386   -2.46e-02 -2.43e-02 -6.18e-02  4.39e-02 -2.60e-02  2.28e-02  7.87e-03
## 387    8.02e-03  2.17e-02 -3.37e-02  2.00e-02 -1.05e-02 -7.53e-03  4.16e-03
## 388    4.15e-03 -4.04e-03 -1.64e-03  3.65e-03  1.57e-03  3.42e-03  6.16e-03
## 389   -1.19e-02  1.29e-02 -1.43e-02  1.41e-02 -4.24e-04  1.20e-02 -4.37e-03
## 390   -9.69e-03  9.10e-03  1.91e-03  1.40e-02 -2.17e-02 -9.68e-03 -3.60e-03
## 391    2.72e-03 -1.82e-02 -1.83e-02  1.56e-02  9.31e-04  3.78e-03 -9.11e-03
## 392    3.52e-02  1.27e-02  2.53e-02 -1.60e-02  8.97e-03  1.35e-03 -3.03e-02
## 393   -7.45e-03 -1.49e-02  3.55e-02  8.14e-03 -2.93e-03 -1.57e-02 -8.09e-03
## 394    4.85e-03 -4.84e-03 -9.79e-04  2.23e-03  2.23e-03  9.51e-04 -9.12e-04
## 395   -6.19e-03 -1.82e-02  2.93e-02 -1.99e-02  9.35e-03  5.51e-03 -7.24e-03
## 396   -2.85e-03  1.88e-03  5.21e-04 -2.65e-03 -8.05e-04  5.97e-04  3.23e-03
## 397    2.85e-02  1.58e-02  2.80e-02 -1.73e-02  9.10e-03  1.40e-03 -1.06e-02
## 398    1.56e-02  1.98e-02  1.63e-02 -1.52e-02 -3.02e-03 -1.26e-02 -2.58e-02
## 399    6.77e-03  1.18e-02  2.93e-02  1.28e-02 -4.24e-03  1.22e-02  1.32e-02
## 400    1.60e-03 -2.43e-03  3.18e-04 -1.70e-03 -2.06e-03 -8.56e-04  2.50e-04
## 401    9.92e-04 -1.36e-03 -2.08e-04  1.01e-03  7.77e-04  6.52e-05  8.67e-05
## 402    2.43e-03 -3.43e-03 -2.01e-04  1.51e-03  2.12e-03 -5.70e-03 -6.73e-05
## 403   -1.09e-03 -2.09e-02  2.00e-02 -3.31e-03  3.83e-02 -1.06e-03  2.36e-03
## 404    2.15e-03  3.73e-03  1.46e-03  4.46e-03 -5.35e-03 -5.32e-03 -1.45e-03
## 405   -5.31e-04  3.18e-03 -1.55e-04  1.66e-03  2.33e-03 -4.14e-03  3.05e-04
## 406    4.77e-04 -1.75e-03  5.00e-04 -2.18e-03 -1.06e-03 -5.18e-03 -6.08e-04
## 407   -1.06e-03  5.60e-03 -3.19e-03  2.37e-04 -7.61e-03 -3.77e-03  7.75e-04
## 408    9.46e-04  1.62e-02  3.80e-02 -3.86e-03 -3.11e-02  1.46e-02  1.57e-02
## 409   -4.23e-02  2.42e-02  5.49e-03 -5.95e-03 -1.13e-02  3.55e-02  9.20e-03
## 410   -3.72e-02 -2.40e-02  5.54e-03 -5.63e-03 -1.20e-02  3.61e-02  9.93e-03
## 411    6.76e-03 -1.05e-02 -2.03e-02 -6.72e-03  2.97e-03  1.23e-03  6.36e-03
## 412    5.96e-03 -3.21e-03 -2.26e-03 -4.90e-03  5.11e-03  2.35e-03 -5.30e-03
## 413   -1.71e-02 -1.64e-02 -1.87e-02 -2.68e-02  1.85e-02  3.22e-03 -2.52e-03
## 414    1.19e-03  7.57e-03 -6.27e-03  8.02e-03  5.89e-04  8.19e-03 -2.86e-03
## 415   -1.88e-02 -1.27e-02  2.16e-02 -1.38e-02  6.77e-03  3.68e-03  1.92e-02
## 416   -5.05e-03 -1.25e-02 -5.50e-03 -9.29e-03 -1.56e-02 -2.95e-03  1.63e-02
## 417   -1.19e-03  1.91e-03 -1.72e-03 -1.89e-03  2.34e-03 -2.28e-03  4.46e-04
## 418    1.61e-03 -2.54e-03 -3.64e-05 -1.08e-03 -2.21e-03 -9.38e-05 -3.29e-03
## 419    4.94e-03  1.85e-02  9.11e-03  1.21e-02  2.36e-02 -9.08e-03 -2.17e-02
```

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## 420    4.51e-03   1.15e-02 -2.56e-02 -8.07e-03   4.25e-03   5.35e-03 -1.06e-02
## 421    2.14e-02 -8.50e-03 -1.06e-03 -7.84e-03 -9.07e-03 -1.24e-02 -1.63e-02
## 422   -1.67e-02 -1.71e-02 -1.28e-02   7.51e-03   3.32e-03 -7.85e-03   2.12e-02
## 423   -1.36e-04   1.05e-02 -1.24e-03   2.00e-02 -2.37e-02   1.71e-03 -2.91e-03
## 424    1.05e-03   1.88e-03 -1.61e-04 -8.25e-04 -1.90e-03   2.25e-03 -2.74e-03
## 425    5.83e-03 -8.07e-03 -3.86e-03   4.07e-03   3.29e-03 -7.92e-03   1.14e-02
## 426   -6.70e-03 -7.74e-03   1.45e-02 -7.44e-03   4.90e-03   7.91e-03 -1.12e-02
## 427    1.78e-03   1.24e-02   2.09e-02 -1.08e-02   7.74e-03 -1.04e-02 -4.18e-03
## 428   -1.13e-02 -1.93e-02 -1.12e-02 -1.45e-02 -2.56e-02   2.03e-03 -6.19e-03
## 429   -1.89e-02   1.76e-02 -1.57e-02   1.08e-02   2.27e-03 -4.57e-03 -4.91e-03
## 430    3.27e-04   2.60e-03   1.28e-03   3.02e-03 -3.71e-03 -3.04e-03   3.46e-03
## 431   -5.13e-02   3.21e-02   7.29e-03   7.91e-03   3.47e-02 -1.09e-01   1.48e-03
## 432   -1.63e-03   1.79e-03   2.30e-04 -1.18e-04   1.93e-03 -1.15e-03 -3.43e-03
## 433    3.09e-03   8.60e-03 -1.74e-03   2.90e-03   4.05e-03 -4.05e-03 -5.47e-03
## 434    8.73e-03 -2.04e-02   9.49e-03 -9.22e-03 -6.51e-03   1.50e-02   7.65e-03
## 435    1.05e-04   1.12e-03 -4.30e-04 -1.78e-03   1.93e-03   3.88e-05   2.64e-04
## 436    6.62e-03 -1.07e-02 -4.99e-03   6.51e-03   2.57e-03   4.28e-03   1.31e-02
## 437    7.90e-04   1.23e-03 -5.11e-04 -1.97e-03   1.96e-03   1.63e-04   1.81e-04
## 438   -6.06e-04 -1.20e-03   3.76e-04 -2.41e-04   1.49e-03   2.30e-03 -2.68e-04
## 439    2.06e-03   1.42e-02 -1.44e-02 -2.14e-02   1.49e-02   1.65e-03 -3.84e-03
## 440   -4.86e-04   8.86e-03 -1.16e-03   2.16e-03   3.97e-03 -1.26e-03 -5.30e-03
## 441    4.12e-02 -1.59e-02 -7.61e-03 -1.08e-02 -2.29e-02   1.56e-02 -1.15e-02
## 442   -5.77e-03 -1.24e-02   2.52e-02   1.76e-02 -5.71e-03   3.26e-03 -2.49e-03
## 443    9.17e-03 -6.31e-03 -5.82e-03 -8.15e-03   8.41e-03 -4.83e-04 -1.76e-03
## 444    7.21e-03 -9.94e-03   3.90e-04   1.69e-02 -2.18e-02   2.97e-03 -1.96e-02
## 445   -1.95e-02 -1.36e-02 -1.32e-02 -2.05e-02   1.49e-02   8.27e-03   1.94e-02
## 446   -9.54e-03   2.25e-02   2.30e-02 -2.76e-02   1.44e-03 -8.98e-03   6.64e-03
## 447    2.75e-02   1.49e-02   8.48e-03 -4.08e-03 -4.11e-03 -3.99e-04 -1.76e-02
## 448    8.12e-04 -7.40e-04 -6.45e-05 -1.66e-04 -7.14e-04   3.42e-04 -9.53e-04
## 449    1.47e-02   2.02e-02 -1.11e-02 -1.59e-02 -2.65e-02   1.23e-02   1.56e-02
## 450    2.54e-03 -3.06e-03   3.85e-04 -3.40e-04   3.42e-03   3.77e-03 -6.41e-03
## 451    1.18e-04 -6.71e-04 -2.46e-04   7.26e-04   3.00e-04   1.89e-03 -8.76e-04
## 452    1.57e-02 -9.25e-03   2.47e-02   8.11e-03 -2.26e-03   9.16e-03 -7.41e-03
## 453    9.24e-03   5.67e-03 -5.32e-03 -7.26e-03   6.81e-03   9.30e-03   7.59e-03
## 454    1.11e-02   1.71e-02   1.01e-02   9.42e-03   2.33e-02 -8.88e-03 -2.26e-02
## 455    5.05e-05   2.18e-04   1.04e-04   2.75e-04 -3.59e-04 -4.00e-04   2.52e-04
## 456    2.38e-02 -1.79e-02 -1.79e-02   1.47e-02   1.90e-03   1.46e-02 -1.59e-02
## 457    1.82e-03   7.87e-03 -1.22e-03 -4.14e-03 -8.48e-03 -2.96e-03   9.78e-03
## 458    3.52e-03 -3.25e-03   6.06e-04 -1.61e-03 -3.11e-03 -2.54e-03 -6.94e-04
## 459    7.40e-03   5.95e-03 -2.34e-03 -1.31e-02   9.69e-03 -9.61e-03 -1.51e-03
## 460   -2.37e-02   2.11e-02 -1.73e-02   7.31e-03   4.45e-03 -5.99e-03 -9.94e-03
## 461    5.33e-03   4.50e-03   1.57e-03   6.88e-03 -9.78e-03 -4.42e-03 -1.16e-03
## 462    2.15e-02 -1.10e-02 -9.28e-03 -2.00e-02   1.55e-02   1.09e-03 -8.12e-03
## 463   -5.18e-03 -1.02e-02   5.89e-03   7.94e-03   1.31e-02 -6.56e-03   7.49e-03
## 464   -6.43e-03 -9.95e-03   8.53e-03 -4.58e-03 -2.10e-03 -6.59e-03   8.30e-03
## 465    3.79e-04   1.57e-03   3.10e-03 -9.11e-04   1.13e-03 -3.18e-03   2.30e-04
## 466   -8.58e-03   2.94e-03 -1.45e-03   3.74e-03   1.26e-03   7.00e-03   6.93e-03
## 467   -8.83e-03   4.88e-03   1.13e-02 -4.19e-03   4.11e-03 -5.41e-03   3.63e-04
## 468   -7.74e-03   4.90e-03 -3.77e-03   5.09e-04 -7.32e-03 -8.63e-04   1.65e-03
## 469    5.29e-04   1.08e-03 -4.26e-04 -1.97e-03   1.86e-03 -9.93e-04 -3.73e-04
```

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## 470    2.03e-03  2.25e-02  3.63e-03  1.72e-02  2.52e-02  4.14e-03  6.40e-03
## 471    5.06e-04 -5.41e-03  1.47e-02  4.01e-03  3.82e-04 -4.20e-03 -3.89e-04
## 472    1.95e-04 -1.69e-02  7.83e-03 -4.96e-03 -5.40e-03  1.09e-02  1.10e-02
## 473    1.87e-02  1.49e-02 -1.11e-02 -3.00e-02  2.10e-02  4.13e-03 -1.34e-02
## 474    5.48e-04  4.22e-03 -1.43e-03 -8.17e-03  6.53e-03  2.83e-03 -1.22e-03
## 475    5.79e-04  1.38e-02  6.84e-03  1.38e-02  1.72e-02  3.85e-03 -1.55e-02
## 476    1.25e-02 -1.58e-02  1.46e-02 -1.04e-02 -2.75e-03 -7.07e-03  5.68e-03
## 477    1.44e-02  8.74e-03  2.44e-02 -2.34e-03 -1.57e-02  6.76e-03 -5.50e-03
## 478    2.94e-02 -8.16e-03  5.78e-04 -7.80e-03 -8.99e-03  3.07e-03 -7.32e-03
## 479   -2.91e-03 -1.21e-02  6.95e-03 -4.17e-03 -2.87e-03 -1.17e-02 -9.69e-03
## 480    2.56e-02  1.90e-02  3.18e-03 -3.02e-02  4.25e-02  3.88e-04 -2.52e-02
## 481   -3.23e-04  1.63e-03  5.42e-04 -1.49e-03 -1.19e-03 -3.78e-03  3.89e-04
## 482   -2.36e-02  2.39e-02  2.36e-02  3.39e-02 -2.92e-02 -2.96e-02 -3.60e-02
## 483   -2.28e-02 -1.97e-02  3.97e-02  1.72e-02 -8.54e-03  7.97e-03  2.19e-02
## 484    2.55e-03 -3.17e-03 -3.24e-03 -2.96e-03  3.43e-03 -3.64e-03 -7.75e-05
## 485   -6.79e-03  1.37e-02  6.89e-03  1.19e-02  1.68e-02 -2.59e-03 -1.33e-02
## 486   -1.36e-02  4.69e-03 -3.13e-03  6.66e-04 -6.92e-03 -3.91e-03  2.99e-03
## 487    1.63e-02 -1.98e-02 -2.01e-02  1.32e-02  3.56e-03  1.65e-02 -1.64e-02
## 488   -1.61e-04 -4.65e-04  2.04e-04 -6.74e-04 -1.51e-04  1.17e-04  6.75e-04
## 489    1.10e-02 -1.16e-02  4.05e-03 -1.76e-02  2.79e-02  3.25e-03  5.54e-03
## 490   -2.87e-03  5.64e-03 -3.45e-03  6.76e-04 -7.46e-03 -9.23e-03  8.26e-04
## 491    1.33e-02 -1.36e-02 -5.62e-03  4.28e-03  5.81e-03 -5.77e-03 -1.07e-02
## 492    1.97e-03  1.37e-02  1.25e-02  3.05e-02 -2.01e-02  3.41e-03 -1.66e-02
## 493   -2.71e-03  4.22e-03  8.93e-03 -3.92e-03  3.50e-03  1.53e-03 -7.15e-03
## 494    5.77e-03  5.96e-03 -8.79e-04  1.44e-03  3.34e-03 -8.59e-03 -1.68e-03
## 495   -5.78e-04 -2.21e-02  1.31e-02 -1.41e-02 -7.60e-03  1.79e-02 -2.82e-02
## 496    2.11e-03  3.32e-03 -1.28e-03 -6.03e-03  5.03e-03  2.76e-03 -8.48e-04
## 497    3.43e-04  3.19e-03  1.37e-03  3.77e-03 -5.41e-03 -7.70e-03 -1.56e-03
## 498    2.13e-02  2.02e-02 -4.62e-02 -1.15e-02  3.11e-03  2.81e-02 -2.55e-02
## 499   -3.01e-02  1.24e-02  1.24e-02 -9.52e-03 -2.53e-03 -5.31e-03  1.25e-02
## 500    9.35e-03  1.02e-02 -4.82e-03  8.73e-03  3.22e-03  1.40e-03 -3.80e-03
## 501   -1.31e-02 -5.22e-03  1.00e-02 -3.69e-03  4.01e-03 -3.24e-03  2.99e-03
## 502    5.70e-05  3.30e-04  8.52e-05 -2.70e-05  3.92e-04 -2.78e-04  4.08e-04
## 503    3.69e-03 -4.31e-03 -1.52e-03 -9.72e-04 -6.01e-03  3.72e-03  6.38e-03
## 504   -3.60e-03 -4.17e-03 -1.07e-03 -1.05e-02  8.76e-03 -6.33e-04  6.40e-03
## 505   -7.97e-03  1.18e-02 -2.36e-02 -1.21e-02  5.54e-03 -7.67e-03  1.05e-02
## 506   -9.61e-03  1.68e-02 -6.44e-03  2.93e-02 -4.28e-02  6.71e-03 -1.05e-02
## 507   -7.75e-03 -1.21e-02  9.25e-03  2.37e-02 -1.51e-02 -7.58e-03 -8.61e-03
## 508   -1.20e-03  1.40e-02  6.05e-03  1.28e-02  1.85e-02  8.00e-04  5.00e-03
## 509    7.43e-03 -6.34e-03 -8.23e-04  1.53e-03  3.20e-03 -8.65e-03 -1.73e-03
## 510    1.02e-03  1.13e-02  3.05e-02 -3.81e-03 -1.80e-02 -1.74e-04  1.28e-02
## 511    2.50e-03  9.18e-03 -9.35e-03  1.26e-02 -1.46e-04  6.72e-03 -2.25e-03
## 512    8.07e-03  9.81e-03 -1.82e-02  1.70e-02 -6.96e-03  5.49e-03  5.26e-03
## 513    8.46e-03 -9.18e-03 -8.35e-03  1.11e-02 -1.03e-04  2.21e-03 -2.45e-03
## 514    1.38e-02  1.12e-02 -6.89e-03  8.05e-03  2.15e-03  7.14e-03 -5.34e-03
## 515   -8.47e-03 -2.00e-02  1.48e-02 -2.00e-02 -1.32e-03 -1.19e-02  9.16e-03
## 516   -1.96e-03 -2.64e-03  6.07e-05  1.54e-03  1.43e-03  1.06e-03 -1.01e-04
## 517   -3.21e-02 -1.89e-02  3.77e-02 -3.26e-02  1.45e-02 -6.74e-03  2.28e-02
## 518    6.64e-03  1.67e-02 -3.46e-02  2.48e-02 -1.27e-02 -6.87e-04 -2.30e-02
## 519    5.58e-03  4.57e-03 -9.02e-04  1.91e-03  2.30e-03 -3.87e-03 -1.07e-03
```

```
## 520  -1.41e-03   6.37e-03  -5.08e-03   7.80e-04  -9.89e-03  -3.21e-03   7.72e-05
## 521  -8.03e-03   1.22e-02   2.59e-02  -1.84e-02   9.65e-03   1.19e-03  -2.41e-02
## 522  -1.18e-02   8.79e-03  -7.02e-03  -1.14e-03  -1.44e-02   3.17e-03   1.27e-03
## 523   2.48e-02   1.70e-02   1.37e-02  -1.18e-02  -2.31e-03   6.85e-04   1.95e-03
## 524  -5.21e-03  -1.45e-02   1.81e-02   2.20e-02  -1.61e-02  -4.85e-03   8.11e-03
## 525  -1.01e-02   5.47e-03  -3.24e-03   6.51e-03   1.84e-03   2.61e-03   9.89e-03
## 526   2.38e-04   9.19e-04   2.36e-03   4.55e-04  -1.64e-03  -1.75e-03   1.68e-04
## 527  -2.17e-03   5.93e-03  -2.88e-03  -7.86e-04  -7.76e-03  -1.30e-03   6.97e-04
## 528   1.45e-04  -3.46e-04  -8.01e-05   2.10e-04   2.75e-04   3.49e-05  -1.24e-04
## 529  -4.38e-03  -6.39e-03   1.50e-02   9.85e-03  -1.64e-03  -8.23e-03   9.15e-05
## 530   1.64e-03  -2.10e-03   3.18e-04  -1.41e-03  -1.77e-03  -3.20e-03   5.64e-04
## 531   1.37e-03  -3.57e-03  -2.01e-04   3.01e-04   3.16e-03  -9.94e-03  -1.94e-03
## 532  -1.84e-02   2.05e-02  -1.45e-02   6.96e-03   5.91e-03   3.39e-03   2.01e-02
## 533  -2.87e-03   6.20e-03   1.60e-02   2.69e-03  -1.38e-02  -5.98e-03   7.18e-04
## 534   2.50e-03   8.65e-03   7.94e-03  -3.58e-03  -1.26e-03  -1.09e-03   5.81e-03
## 535  -9.36e-04   2.02e-02  -1.75e-02   1.17e-02   3.75e-03   1.04e-02  -1.46e-02
## 536  -5.82e-03  -8.95e-03  -1.17e-02  -1.03e-02   9.22e-03   5.15e-03   1.35e-03
## 537   3.16e-03  -3.41e-03  -1.74e-04  -1.76e-03  -3.40e-03   8.71e-04  -1.00e-03
## 538  -5.84e-03  -6.39e-03  -6.79e-03  -6.51e-03   7.17e-03  -2.40e-03   1.09e-02
## 539  -1.05e-03   9.81e-04   3.42e-06   6.97e-05   1.06e-03   4.12e-04  -9.03e-06
## 540  -1.19e-03   1.15e-03   3.68e-04  -2.76e-04   1.50e-03   2.23e-03  -2.11e-04
## 541   4.64e-03  -1.57e-02  -9.02e-03   7.15e-03   3.51e-03  -4.27e-04  -3.36e-02
## 542   7.44e-03  -6.27e-03  -7.95e-04   1.51e-03   3.17e-03  -8.60e-03  -1.79e-03
## 543   4.39e-03  -1.16e-02   9.78e-03  -6.10e-03  -2.17e-03   1.11e-03   5.75e-03
## 544  -1.37e-02  -2.22e-02   7.42e-03  -9.04e-03  -8.74e-03   7.51e-03  -2.84e-02
## 545  -1.56e-02   1.18e-02  -6.00e-03  -5.42e-03  -1.55e-02  -5.44e-03   1.85e-02
## 546   1.18e-02  -1.79e-02   1.18e-02   8.79e-03   2.49e-02  -1.85e-02  -2.64e-02
## 547  -2.16e-05  -6.01e-03  -4.75e-03   8.05e-03   5.46e-04  -2.71e-03   1.86e-04
## 548   2.46e-03   9.87e-03   1.73e-02  -8.62e-03   7.07e-03  -9.83e-03  -1.45e-03
## 549   4.05e-03   4.57e-03  -9.34e-04   1.98e-03   2.46e-03  -8.96e-04  -1.12e-03
## 550   5.68e-05   1.45e-03  -7.52e-04   3.87e-04  -1.82e-03  -2.71e-03   3.85e-04
## 551  -4.76e-04   5.26e-04   1.83e-04  -1.28e-04   6.92e-04   9.64e-04  -1.52e-04
## 552   8.68e-05  -2.96e-03  -3.64e-04   7.62e-04   2.47e-03  -3.05e-03  -1.29e-03
## 553   4.47e-03  -3.80e-03   1.41e-04  -2.42e-03  -3.41e-03  -6.73e-03  -5.44e-03
## 554   1.05e-02  -1.83e-02   1.72e-02  -1.45e-02  -2.22e-03  -2.25e-03   4.73e-03
## 555   3.59e-03  -2.77e-03  -8.33e-04  -1.61e-04  -3.48e-03   8.43e-04  -4.75e-03
## 556   9.47e-03  -5.29e-03  -8.18e-04   1.68e-03   2.67e-03  -1.07e-02  -1.51e-03
## 557   4.52e-05   1.55e-03  -6.59e-05   1.17e-03   9.50e-04   1.31e-03  -2.56e-04
## 558  -3.43e-02   1.50e-02  -1.02e-02   6.74e-03   4.21e-03   2.81e-03   2.12e-02
## 559   6.22e-04   1.05e-02  -2.24e-03   2.18e-03   4.22e-03  -7.35e-03  -5.69e-03
## 560  -2.55e-03   8.71e-03  -8.78e-03  -1.09e-02   1.06e-02  -4.07e-03   4.43e-04
## 561   1.98e-02   9.30e-03  -5.40e-03  -1.91e-02   1.38e-02  -1.55e-02  -1.84e-02
## 562   1.50e-02   1.12e-02  -5.28e-04  -9.25e-03  -1.15e-02  -2.19e-03  -7.00e-03
## 563  -1.01e-02   7.41e-03  -4.45e-03   3.08e-04  -1.04e-02  -9.78e-03   1.40e-03
## 564   9.69e-03   9.35e-03  -1.43e-03   3.78e-03   3.91e-03  -1.00e-03  -6.72e-03
## 565  -3.08e-04  -4.21e-03  -2.88e-04  -1.00e-04   4.78e-03  -2.65e-03  -1.27e-03
## 566  -1.06e-03   1.33e-02  -9.73e-04  -9.32e-03  -1.31e-02   1.60e-03   1.70e-02
## 567   1.03e-03  -5.05e-03   1.87e-03   5.43e-03  -8.16e-03   7.09e-06   6.44e-03
## 568  -4.35e-03   1.52e-02   1.46e-02  -1.40e-02  -6.83e-05  -9.94e-03   8.20e-03
## 569   1.42e-03  -8.62e-03  -2.92e-03   3.69e-03   3.82e-03  -1.14e-02   1.28e-02
```

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## 570   -7.02e-04   1.25e-03  -1.61e-05   2.44e-04   1.11e-03  -2.17e-03  -4.27e-04
## 571   -2.91e-03   2.04e-03   5.57e-03   2.55e-03   2.23e-05  -7.66e-04  -3.02e-03
## 572    2.10e-03  -8.00e-03  -7.12e-04   3.74e-03   3.45e-03  -3.57e-03  -3.48e-03
## 573    2.66e-02  -2.27e-02   2.52e-02   2.75e-02  -2.89e-02   1.28e-02  -1.68e-03
## 574    3.20e-02  -1.64e-02   3.22e-02  -2.30e-02   1.07e-02   8.16e-03  -1.42e-02
## 575   -2.12e-04  -7.94e-04   2.96e-04   9.99e-04  -1.26e-03  -3.43e-04  -5.44e-05
## 576   -3.62e-03   1.11e-02  -4.37e-03  -3.86e-03  -1.27e-02  -6.83e-03   8.67e-05
## 577   -2.87e-02   1.73e-02  -1.31e-02   7.12e-03   3.98e-03   1.38e-03   2.20e-02
## 578    7.33e-03   1.58e-02   2.57e-02  -1.84e-02   9.82e-03   3.23e-03  -7.63e-03
## 579    1.14e-02   7.41e-03  -1.75e-03   1.84e-03   3.70e-03  -1.05e-02  -3.02e-03
## 580   -4.40e-02   2.89e-02  -1.79e-03   2.47e-02   2.75e-02   1.89e-02   5.18e-03
## 581    1.85e-02   1.55e-02   8.01e-03  -4.87e-03  -5.72e-03  -4.69e-03  -1.93e-02
## 582   -1.57e-03   8.28e-03  -1.73e-02  -6.51e-03   2.95e-03  -2.24e-03   7.67e-03
## 583    1.54e-02  -7.01e-03   1.25e-04  -7.13e-03  -7.03e-03  -1.19e-02  -2.35e-03
## 584    1.32e-02  -7.70e-03  -1.81e-03   2.08e-03   3.54e-03  -9.88e-03  -2.81e-03
## 585    3.68e-03   7.13e-03  -1.51e-02  -5.04e-03   2.33e-03  -5.92e-05   5.24e-03
## 586   -3.57e-04   7.12e-04  -1.59e-04   7.33e-04   4.37e-04   3.05e-05  -1.48e-05
## 587    2.23e-03   3.56e-03   7.82e-04  -3.64e-03  -3.07e-03  -7.42e-03   5.38e-05
## 588   -1.41e-03   1.49e-03  -1.48e-03  -1.40e-03   1.93e-03  -2.03e-03   4.54e-04
## 589   -4.31e-03  -5.27e-03  -2.85e-04  -6.08e-04   5.64e-03   2.83e-03   7.62e-03
## 590   -7.24e-04   1.48e-03  -1.20e-03  -1.37e-03   1.88e-03  -2.40e-03   5.76e-04
## 591    9.76e-04   1.28e-03  -1.15e-04  -4.93e-04  -1.29e-03   1.42e-03  -1.87e-03
## 592   -1.25e-03  -1.93e-03   1.96e-04  -1.28e-04   1.98e-03   1.25e-03   3.08e-03
## 593    4.78e-03   1.12e-02  -7.75e-03   8.22e-03   2.51e-03   8.71e-03   1.15e-02
## 594   -1.60e-02   1.05e-02  -3.49e-03   2.71e-03   4.80e-03  -8.66e-03  -3.81e-03
## 595   -4.38e-02   2.24e-02   5.61e-03  -1.07e-02  -8.34e-03  -8.46e-03   5.45e-02
## 596   -2.19e-03   5.26e-03  -5.83e-05   2.59e-03   3.88e-03  -4.79e-03   7.95e-03
## 597    2.17e-03   1.28e-02  -4.08e-03   4.09e-03   4.52e-03   1.33e-03  -2.81e-02
## 598   -1.08e-02   1.07e-02  -1.24e-02  -1.37e-02   1.26e-02  -4.72e-03   4.23e-04
## 599   -2.66e-05  -1.12e-03   5.56e-04   1.41e-03  -1.85e-03  -2.16e-03  -4.22e-04
## 600   -1.22e-02   1.43e-02  -8.15e-03   6.60e-03   3.12e-03   5.18e-03   1.75e-02
## 601    8.68e-04   4.48e-03  -5.16e-05   1.22e-03   3.11e-03  -9.47e-03  -3.75e-04
## 602   -1.27e-02  -7.40e-03  -4.65e-03   1.46e-04  -9.76e-03   9.57e-04   2.90e-03
## 603   -5.74e-03   7.03e-03  -3.43e-03   7.56e-03   2.66e-03  -3.72e-03  -9.11e-04
## 604    1.61e-02  -1.04e-02  -6.57e-03   1.09e-02   2.69e-03  -2.97e-03  -5.47e-03
## 605   -2.38e-04  -3.13e-03   1.40e-03   3.15e-03  -4.73e-03   4.70e-04   4.17e-03
## 606    4.22e-04   7.65e-04   2.11e-04  -2.93e-04  -6.86e-04  -3.37e-04  -3.75e-05
## 607    2.46e-06  -1.51e-06  -5.39e-07  -3.45e-06   3.62e-06  -2.38e-06  -2.03e-07
## 608   -3.38e-04  -2.67e-03   6.22e-04  -5.88e-04   3.19e-03   4.90e-03  -8.84e-04
## 609   -9.39e-03   2.44e-02  -4.23e-02   1.65e-02  -1.19e-02   3.41e-03   4.29e-03
## 610    6.14e-03  -1.92e-02   7.80e-03   1.89e-02   2.32e-02   2.61e-02  -2.97e-02
## 611   -5.44e-02   2.63e-02  -4.41e-03   2.45e-02   2.69e-02  -7.70e-03   1.51e-02
## 612    2.96e-03  -2.67e-03  -9.51e-04  -6.62e-03   5.58e-03  -8.56e-03  -1.45e-03
## 613    1.04e-02  -1.12e-02   2.51e-02   1.71e-02  -4.03e-03  -5.27e-03  -5.99e-03
## 614   -1.19e-03   1.43e-03  -3.23e-04   1.59e-03   6.05e-04  -2.89e-04  -2.24e-03
## 615   -1.01e-02  -1.23e-02  -5.26e-03   5.60e-03   3.69e-03   4.07e-04  -2.19e-02
## 616   -1.69e-02   1.23e-02  -7.90e-03   4.60e-03   3.74e-03  -1.94e-02   1.99e-02
## 617   -2.44e-03  -7.87e-03   1.60e-02   1.23e-02  -3.83e-03  -3.92e-03  -1.34e-03
## 618    3.87e-03  -4.62e-03  -3.59e-03   5.60e-03   5.66e-04   4.24e-03  -8.46e-04
## 619    3.25e-03  -1.70e-02  -1.60e-02   8.95e-03   3.77e-03  -6.49e-03  -1.10e-02
```

```
## 620   -3.33e-03   1.45e-02   3.70e-02  -8.40e-03  -2.73e-02  -2.43e-02   1.98e-02
## 621   -3.55e-03  -5.10e-03  -4.18e-03   6.51e-03   8.26e-04   5.53e-04   9.65e-04
## 622   -1.34e-02   1.01e-02  -5.15e-03  -4.00e-03  -1.38e-02   9.09e-04   1.67e-02
## 623   -8.37e-04  -1.80e-03   8.52e-05   9.33e-04   1.32e-03  -2.10e-03   3.70e-04
## 624   -4.53e-02   2.63e-02   4.77e-03  -1.04e-02  -1.29e-02   3.88e-02   6.64e-03
## 625    6.94e-03  -1.56e-02  -1.43e-02  -2.81e-02   1.93e-02   1.18e-02   1.74e-02
## 626   -5.18e-03   1.41e-02  -1.51e-02  -2.42e-02   1.78e-02   3.56e-03  -5.98e-03
## 627   -4.63e-03  -8.06e-03   1.37e-02  -5.39e-03   4.70e-03  -5.22e-03  -5.42e-04
## 628   -4.53e-03  -3.31e-03   7.15e-03   5.40e-03  -1.01e-03  -3.41e-03   8.25e-04
## 629    1.89e-02  -1.95e-02  -3.36e-02   2.09e-02  -1.14e-02  -1.56e-03   3.80e-03
## 630   -3.51e-02  -1.96e-02  -4.33e-02  -8.23e-04   3.82e-02  -1.83e-03   1.16e-02
## 631    1.07e-03  -4.57e-03  -3.43e-03  -6.53e-03   6.11e-03   3.81e-03  -7.46e-03
## 632   -5.76e-03  -5.64e-03  -2.63e-04  -8.16e-04   5.94e-03   2.84e-03   8.16e-03
## 633    4.11e-04   3.93e-03  -2.03e-04   1.50e-03   2.67e-03  -5.28e-03  -1.24e-04
## 634    3.79e-03  -6.17e-03  -2.35e-03   5.67e-03   2.48e-03   1.69e-03   1.01e-02
## 635   -1.88e-02   2.53e-02   1.99e-02  -1.93e-03   3.70e-02  -1.37e-03   4.22e-03
## 636   -1.13e-02   9.32e-03  -2.94e-03   7.78e-03   3.86e-03  -6.14e-03   1.32e-02
## 637   -3.12e-04   5.28e-03   2.12e-03   5.91e-03  -8.33e-03  -6.29e-04   6.52e-03
## 638   -7.67e-03  -2.26e-02  -5.23e-02  -7.12e-03   4.32e-02   1.84e-02   4.49e-03
## 639    4.46e-03  -1.11e-02   1.25e-02   2.05e-02  -1.28e-02   2.80e-04   5.55e-03
## 640   -2.53e-04  -2.29e-03   1.51e-04   5.71e-05   2.08e-03  -4.42e-03   2.48e-03
## 641    1.41e-02   2.88e-02   5.75e-03   1.07e-02   3.09e-02  -2.88e-02   1.09e-03
## 642    2.23e-03  -9.60e-03   7.05e-03  -3.33e-03  -2.29e-03  -5.16e-03  -7.18e-03
## 643   -6.64e-03  -1.04e-02   2.17e-02   1.45e-02  -4.31e-03  -2.43e-04   1.37e-02
## 644    1.91e-02  -7.42e-03  -1.36e-03  -5.79e-03  -8.27e-03  -6.09e-03  -1.37e-02
## 645    1.49e-03  -9.95e-03  -1.68e-02   1.41e-02  -6.29e-03  -1.58e-03   6.83e-03
## 646    1.58e-02  -1.74e-02   7.45e-03  -4.40e-03  -6.86e-03   1.54e-02   8.03e-03
## 647    2.34e-03   3.84e-03  -5.87e-04  -1.11e-03  -4.89e-03   2.40e-03  -7.28e-03
## 648    2.56e-03   9.37e-03  -2.07e-02  -6.96e-03   3.05e-03  -2.82e-03   7.78e-03
## 649   -3.49e-02   1.39e-02   3.25e-02   1.35e-02  -4.89e-03   2.98e-03   2.01e-02
## 650    1.20e-02   1.33e-02   9.79e-03  -5.14e-03  -2.82e-03   7.83e-03  -1.59e-02
## 651    9.20e-03   1.31e-02   8.89e-03  -4.23e-03  -2.72e-03  -2.80e-03  -1.24e-02
## 652    8.16e-05  -1.84e-04  -4.15e-05   1.12e-04   1.47e-04   8.57e-06  -6.93e-05
## 653    8.94e-03  -6.61e-03  -2.08e-03   3.31e-03   2.85e-03  -1.28e-03  -1.17e-02
## 654   -2.92e-02   2.55e-02  -6.83e-02  -1.63e-02   1.21e-03   2.77e-02   9.04e-03
## 655    7.53e-03   1.99e-02  -1.16e-02   8.48e-03   4.25e-03   1.66e-02   1.61e-02
## 656   -5.84e-03  -3.50e-03   9.26e-05  -2.93e-04   3.67e-03   1.91e-03   5.59e-03
## 657    2.92e-03   2.17e-03  -1.13e-03  -2.83e-03   3.14e-03   2.63e-05  -8.38e-04
## 658   -1.79e-02  -2.69e-02  -6.33e-03   2.85e-02   2.29e-02   6.39e-02   2.48e-04
## 659    3.50e-03   2.46e-03  -1.35e-03  -4.01e-03   3.64e-03   2.40e-03  -1.81e-04
## 660    2.40e-02   1.96e-02   1.02e-02  -4.96e-03  -5.30e-03   2.65e-02  -2.68e-02
## 661   -1.29e-02  -1.14e-02  -3.46e-03   3.85e-03   3.86e-03  -1.99e-03  -2.81e-03
## 662    5.81e-03   5.88e-03  -8.45e-04   1.42e-03   3.30e-03  -8.54e-03  -1.75e-03
## 663   -7.66e-05   2.05e-04  -4.51e-05  -8.12e-06  -2.18e-04   7.71e-05  -2.89e-04
## 664   -5.62e-04   3.01e-03  -3.39e-04   6.34e-04   2.53e-03  -3.67e-03  -1.36e-03
## 665   -1.43e-02  -1.93e-02  -1.32e-02   6.73e-03   3.83e-03   4.90e-03   1.88e-02
## 666    2.60e-02   1.50e-02   8.86e-03  -4.69e-03  -4.04e-03   1.98e-03  -1.84e-02
## 667   -7.28e-03   7.71e-03  -6.56e-03   7.97e-03   1.27e-03   1.43e-02   1.33e-02
## 668    2.45e-02   2.24e-02   6.42e-03  -5.98e-03  -7.90e-03   1.19e-02   6.01e-03
## 669    8.26e-05   4.15e-04   2.45e-04   4.51e-04  -6.10e-04  -3.20e-04  -7.56e-04
```

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## 670    7.56e-04 -4.93e-04 -4.87e-05 -1.41e-04 -5.09e-04  7.94e-04  6.91e-05
## 671   -3.89e-05 -7.47e-04 -2.14e-06  1.81e-04  6.54e-04 -5.77e-04  8.62e-04
## 672    1.14e-02  1.06e-02  8.68e-03 -3.65e-03 -2.09e-03  9.55e-04  4.91e-03
## 673    1.45e-02  7.34e-03 -3.25e-03  4.31e-03  2.79e-03 -8.83e-04 -1.37e-02
## 674    4.85e-03 -1.92e-02 -4.22e-02 -2.60e-02  6.93e-03 -3.64e-02 -2.54e-02
## 675   -4.05e-03  4.54e-03  1.10e-02  7.70e-03 -1.34e-03 -5.40e-03  3.93e-04
## 676    1.27e-03 -1.41e-03 -4.81e-04  1.42e-03  6.92e-04  1.58e-03 -2.10e-03
## 677    8.74e-03  1.68e-02  1.01e-02 -4.88e-03 -3.85e-03  2.29e-02 -2.13e-02
## 678    1.21e-02  2.37e-02 -1.93e-02  1.07e-02  5.93e-03  2.96e-02 -1.99e-02
## 679   -1.18e-02  1.01e-02 -1.18e-02 -1.43e-02  1.19e-02  6.38e-04  6.65e-04
## 680    1.28e-02 -1.31e-02  5.74e-03  1.28e-02  1.66e-02 -1.21e-04 -1.53e-02
## 681   -1.58e-04  3.35e-04 -9.05e-06  2.02e-05  3.59e-04  6.35e-05 -1.01e-05
## 682    1.65e-02  1.10e-02 -1.29e-03  3.13e-03  5.07e-03 -1.64e-03 -7.57e-03
## 683    2.12e-03 -1.36e-02  3.02e-02  1.76e-02 -5.51e-03 -3.13e-03 -6.55e-03
## 684   -3.63e-02 -1.88e-02 -1.10e-02  5.19e-03  5.08e-03  1.34e-03  2.35e-02
## 685    2.93e-03 -1.13e-02 -2.33e-03  2.40e-03  4.02e-03 -7.26e-03 -5.40e-03
## 686    3.12e-03  2.73e-03 -1.19e-03  2.71e-03  1.20e-03  3.43e-03 -4.17e-03
## 687   -7.64e-04 -1.97e-02 -5.09e-02 -1.14e-02  2.06e-03  1.70e-02  1.25e-02
## 688   -1.41e-02  4.69e-03 -2.99e-03  4.74e-03  2.25e-03  8.89e-03  1.03e-02
## 689   -1.60e-02  1.03e-02 -1.03e-02  1.20e-02  1.62e-04  7.61e-03 -1.06e-03
## 690    1.16e-02  7.69e-03 -1.84e-03  1.81e-03  3.82e-03 -1.14e-02 -2.91e-03
## 691    9.26e-03  5.01e-03 -3.06e-04 -2.29e-03 -4.84e-03 -2.08e-03 -8.56e-03
## 692   -1.43e-04 -4.80e-04 -1.33e-04 -1.02e-03  1.02e-03 -7.72e-04 -1.02e-04
## 693    8.69e-03  1.12e-02  9.63e-03 -4.75e-03 -1.97e-03  5.43e-03  5.03e-03
## 694    4.02e-03 -6.39e-03  1.70e-02  5.21e-03  9.88e-05 -2.74e-03 -1.13e-03
## 695    1.60e-02 -7.93e-03 -3.84e-03 -1.73e-02  1.22e-02 -1.38e-02 -2.52e-03
## 696   -1.12e-03 -1.43e-03  9.12e-04  1.41e-03 -1.99e-03  1.08e-03  2.18e-03
## 697   -9.05e-03 -1.89e-02  3.53e-03  1.94e-02  2.37e-02  1.86e-02  1.06e-02
## 698   -1.11e-02  1.00e-02  2.45e-02  2.31e-04 -1.81e-02 -4.75e-03  1.56e-02
## 699    9.05e-04 -3.79e-03  6.04e-05 -2.36e-04  4.29e-03 -1.78e-03  4.52e-03
## 700   -1.03e-03  1.53e-03 -4.17e-04  9.55e-05 -1.87e-03 -5.54e-05 -2.41e-03
## 701   -2.25e-02  1.33e-02 -1.17e-02  1.21e-02  2.59e-03  1.08e-02 -3.90e-03
## 702   -1.73e-02  1.68e-02 -1.67e-02  1.32e-02  9.48e-04  8.01e-03 -6.09e-03
## 703    1.35e-02 -7.92e-03 -1.88e-03  2.05e-03  3.65e-03 -1.07e-02 -2.76e-03
## 704   -6.45e-03  9.67e-03 -3.30e-03  2.77e-03  4.70e-03 -4.51e-03 -4.98e-03
## 705   -5.26e-03  1.83e-02  1.44e-02 -1.40e-02 -4.94e-03 -6.15e-03 -2.46e-02
## 706    2.57e-03  3.33e-03  3.25e-04 -3.66e-03 -1.88e-03 -4.77e-03 -8.57e-04
## 707    5.56e-03  1.72e-02  3.50e-02  1.69e-02 -4.18e-03 -8.21e-03 -8.98e-03
## 708   -1.12e-02  1.32e-02 -1.43e-02 -2.27e-02  1.59e-02  2.80e-03  1.78e-02
## 709    1.91e-02  9.81e-03 -3.74e-03 -4.63e-03 -1.23e-02  4.98e-03 -2.26e-02
## 710   -2.54e-02 -2.50e-02  3.46e-03 -6.02e-03 -1.41e-02  3.67e-02  7.98e-03
## 711   -2.90e-03 -1.44e-02 -1.17e-02 -2.63e-02  1.72e-02  9.21e-03  1.74e-02
## 712    3.53e-04 -8.88e-04 -3.03e-04  1.02e-03  4.99e-04  1.13e-03 -1.18e-03
## 713    3.95e-03 -1.44e-02 -1.65e-03  2.39e-02 -3.41e-02  1.21e-02 -4.93e-03
## 714    7.46e-04 -1.13e-03  6.41e-04  1.36e-03 -1.97e-03 -3.27e-03  1.28e-03
## 715   -3.93e-03  1.12e-02 -9.69e-03  1.17e-02  1.58e-03  4.71e-03 -2.50e-03
## 716    1.31e-04  5.40e-04  3.21e-04  5.77e-04 -7.87e-04 -4.17e-04 -9.98e-04
## 717   -1.20e-02  1.66e-02 -1.65e-02  1.39e-02  4.17e-04  4.47e-03 -4.94e-03
## 718    7.71e-03 -1.45e-02 -1.02e-02  1.00e-02  2.34e-03  5.22e-03  1.65e-02
## 719   -1.28e-02  8.60e-03  1.52e-02 -7.50e-03  4.18e-03  5.68e-03  9.64e-05
```

```
## 720    2.47e-03   3.82e-03   8.86e-04  -4.05e-03  -3.27e-03  -9.04e-03   2.24e-05
## 721    1.00e-03  -2.93e-03  -2.71e-04   5.93e-04   2.54e-03  -5.29e-03  -1.55e-03
## 722   -5.92e-04   9.95e-03   6.72e-03   8.57e-03   1.39e-02   9.20e-04   4.98e-03
## 723    1.29e-02  -1.83e-02   7.87e-03  -5.43e-03  -6.83e-03   1.76e-02   8.28e-03
## 724    4.88e-03  -1.23e-02  -2.09e-02   1.57e-02  -7.36e-03  -2.96e-03   6.86e-03
## 725    1.32e-02   8.85e-03   2.11e-02  -1.59e-02   8.79e-03  -1.03e-02  -3.29e-03
## 726   -9.46e-04  -3.63e-03  -3.48e-04   2.23e-03   2.50e-03  -4.34e-03  -4.76e-03
## 727   -5.94e-03  -2.00e-02  -9.58e-03  -1.75e-02  -2.46e-02   1.74e-03   2.23e-02
## 728   -2.60e-03   1.83e-02  -4.07e-02  -2.19e-02   6.56e-03  -8.28e-03   7.75e-03
## 729   -1.44e-05  -4.14e-04   1.57e-04  -5.33e-04  -1.51e-04  -8.92e-05   6.70e-04
## 730    1.02e-02   2.22e-02   1.69e-02  -2.02e-02  -1.02e-04  -1.97e-02   1.85e-03
## 731    5.27e-03   5.61e-03  -9.27e-04   1.66e-03   3.10e-03  -6.01e-03  -1.50e-03
## 732   -9.65e-03   1.31e-02  -7.75e-03  -8.99e-03  -1.73e-02   4.62e-03   1.83e-02
## 733   -9.75e-04  -4.07e-04  -1.42e-04   5.79e-05  -4.63e-04  -2.32e-04   3.00e-04
## 734   -1.80e-04  -1.52e-02  -1.74e-02  -2.42e-02   1.70e-02   6.79e-04  -5.72e-03
## 735    1.08e-03   9.71e-03  -4.55e-03  -5.32e-03  -1.36e-02   4.79e-03   1.50e-02
## 736    7.06e-03  -1.16e-02  -7.20e-03   1.06e-02   3.26e-03   1.00e-03  -5.34e-03
## 737    3.07e-03  -2.96e-03   1.79e-03   3.08e-03  -4.10e-03   2.41e-03  -5.94e-03
## 738   -1.18e-02   1.37e-02   2.61e-02   1.69e-02  -6.15e-03   3.25e-03  -4.28e-03
## 739   -3.45e-03   2.02e-03  -5.04e-03   1.39e-03  -1.90e-03   2.26e-03   3.49e-03
## 740   -4.60e-04  -1.55e-03  -2.16e-04   1.50e-03   7.74e-04   6.80e-04  -2.33e-03
## 741    3.46e-03  -1.63e-02  -1.06e-02   6.65e-03   4.71e-03   5.96e-03   1.66e-02
## 742   -2.86e-03  -1.39e-02   9.15e-03  -7.28e-03  -3.87e-03  -9.73e-03   9.52e-03
## 743    1.63e-04  -3.49e-04  -3.20e-05  -5.47e-05  -3.13e-04   5.65e-04  -4.18e-04
## 744   -2.40e-03  -1.23e-02  -4.82e-03   4.06e-03   3.83e-03  -1.17e-02  -5.44e-03
## 745   -1.78e-03  -4.45e-03   8.70e-03  -2.82e-03   2.98e-03  -7.03e-03   7.00e-04
## 746    4.14e-04   8.31e-04   2.08e-03   4.16e-04  -1.46e-03  -1.54e-03   1.06e-04
## 747   -2.82e-02  -1.99e-02   4.31e-02   1.23e-02  -5.49e-03   4.95e-03   1.91e-02
## 748    4.29e-04  -6.40e-04   2.08e-04   1.01e-03  -1.18e-03  -7.34e-04  -2.20e-04
## 749   -4.90e-03  -4.99e-03  -2.71e-03   5.68e-03   6.51e-04   1.29e-03   7.86e-03
## 750    3.56e-03  -7.16e-03  -3.04e-03   4.44e-03   2.71e-03   5.29e-03  -2.33e-03
## 751   -1.76e-03  -2.47e-03   2.94e-04  -2.52e-04   2.63e-03   3.03e-05  -1.38e-04
## 752    2.37e-02   9.77e-03   1.51e-04  -8.15e-03  -1.06e-02   2.36e-04  -6.48e-03
## 753    9.69e-03  -1.51e-02  -1.33e-02  -3.45e-02   2.53e-02   7.06e-03   1.64e-02
## 754   -3.03e-03  -1.01e-02  -1.99e-02  -1.03e-02   4.44e-03  -7.46e-03   9.60e-03
## 755    1.70e-03  -2.95e-03   5.01e-04  -3.49e-03  -1.94e-03  -7.06e-03  -1.20e-03
## 756    7.12e-03  -6.18e-03  -8.52e-04   1.64e-03   3.09e-03  -7.33e-03  -1.63e-03
## 757   -5.34e-03   1.47e-02   5.57e-03  -2.59e-02   3.67e-02  -4.17e-03  -1.66e-02
## 758    1.08e-03   1.38e-03   4.25e-04  -1.49e-04   1.69e-03   1.40e-03  -8.99e-04
## 759    5.73e-03   6.05e-03  -9.18e-04   1.47e-03   3.38e-03  -8.65e-03  -1.60e-03
## 760    1.37e-02   1.55e-02   1.08e-02  -9.91e-03  -2.84e-03  -1.34e-02  -1.66e-02
## 761    1.62e-02  -1.31e-02   1.25e-02   2.74e-02  -1.71e-02   5.62e-03  -1.59e-02
## 762    2.06e-03   5.74e-03  -3.97e-04  -5.24e-04   5.89e-03  -2.24e-03   5.59e-03
## 763    1.96e-03  -2.67e-03  -2.55e-04   5.37e-04   2.37e-03  -7.42e-03  -1.42e-03
## 764   -1.36e-02  -1.63e-02  -9.23e-03   6.08e-03   4.65e-03  -8.23e-03   2.15e-02
## 765   -1.42e-02   1.65e-02  -1.50e-02   1.02e-02   3.33e-03   1.12e-02  -7.49e-03
## 766    1.77e-03   3.01e-03  -2.46e-04   1.42e-03   1.83e-03  -4.55e-03  -2.20e-05
## 767   -1.42e-02   9.32e-03  -6.40e-03   7.76e-03   1.37e-03   1.14e-02   1.46e-02
## 768    4.11e-04   7.15e-03  -3.07e-03  -1.30e-02   1.13e-02  -2.86e-03  -2.26e-03
## 769    1.12e-02   6.50e-03  -1.86e-03   2.58e-03   2.89e-03  -6.27e-03  -2.08e-03
```

```
## 770    1.14e-03 -1.09e-02  9.71e-03 -6.49e-03 -1.63e-03 -5.13e-03  7.88e-03
## 771   -3.09e-02  2.64e-02  3.44e-03 -6.36e-03 -1.33e-02  3.60e-02  7.17e-03
## 772   -1.27e-02  1.26e-02  1.23e-02  2.68e-02 -1.75e-02 -8.22e-03 -1.08e-02
## 773    1.23e-02 -1.68e-02  1.68e-02  2.64e-02 -2.18e-02 -1.16e-03 -2.16e-02
## 774   -2.54e-04 -2.44e-03 -2.49e-03 -2.15e-03  3.17e-03 -4.54e-03  6.61e-04
## 775   -1.89e-03 -1.37e-02 -4.20e-03 -1.30e-02 -1.52e-02 -1.43e-02  1.83e-02
## 776    6.02e-03 -1.19e-02  9.91e-03 -4.13e-03 -2.81e-03  4.33e-04  5.78e-03
## 777    4.36e-03 -4.13e-03 -4.15e-03 -5.12e-03  5.28e-03 -1.54e-03  1.55e-04
## 778    2.51e-02 -1.93e-02  6.44e-03 -5.58e-03 -8.44e-03  1.85e-02  6.94e-03
## 779   -6.16e-05 -2.07e-03  4.15e-05  2.69e-05  2.27e-03 -8.84e-04 -2.53e-04
## 780   -7.31e-03 -1.13e-02 -7.22e-04 -1.01e-02 -1.14e-02 -7.82e-03 -2.50e-03
## 781    6.64e-03  5.72e-03 -1.03e-03 -3.61e-03 -6.16e-03  1.18e-03 -2.00e-03
## 782   -2.89e-03  2.06e-02  4.74e-03 -4.45e-03 -7.15e-03  1.19e-02  7.93e-03
## 783    4.60e-05 -2.18e-04 -8.40e-06 -4.81e-04  4.67e-04 -4.05e-04 -4.25e-04
## 784   -1.31e-02  1.88e-02 -4.12e-02 -2.83e-02  6.54e-03  7.03e-04  9.56e-03
## 785    4.93e-03 -2.68e-03  2.96e-04 -2.17e-04  2.87e-03 -1.65e-03  2.72e-03
## 786    9.23e-03 -5.66e-03 -3.76e-03 -9.88e-03  8.09e-03  2.20e-03 -1.10e-02
## 787    1.20e-02 -7.55e-03 -7.78e-04 -4.30e-03 -7.74e-03 -1.81e-03 -1.63e-02
## 788    1.47e-03 -6.35e-03  1.05e-03 -8.58e-03 -3.20e-03 -3.80e-03  8.24e-03
## 789    3.64e-05  3.02e-04 -8.34e-06  2.91e-05  2.99e-04 -1.52e-04 -5.78e-04
## 790    8.41e-04  1.11e-03 -6.95e-04  1.51e-03  2.76e-04  1.09e-03 -1.84e-03
## 791    2.33e-03 -3.79e-03  9.05e-04 -3.41e-03 -2.90e-03 -9.55e-03  5.07e-04
## 792   -7.99e-05  3.96e-04 -2.41e-04 -7.55e-04  7.36e-04  1.08e-04  4.37e-05
## 793   -5.98e-03 -1.56e-02 -8.35e-03  6.18e-03  4.59e-03 -1.43e-02  1.94e-02
## 794    1.80e-02  1.27e-02 -6.43e-03 -2.66e-02  1.77e-02 -1.76e-03 -9.62e-03
## 795   -2.36e-02  1.04e-02 -5.73e-03  7.96e-03  3.13e-03 -1.91e-03  1.88e-03
## 796    1.88e-02 -6.34e-03 -1.43e-03 -4.42e-03 -7.50e-03 -5.02e-03 -1.18e-02
## 797    9.55e-03 -5.37e-03  5.05e-04 -5.33e-03 -5.18e-03 -9.59e-03 -1.03e-03
## 798    2.36e-02 -2.07e-02  2.06e-02 -3.02e-02 -1.54e-03  2.68e-03  4.32e-03
## 799   -2.42e-02 -7.85e-03  1.36e-02 -5.54e-03  5.23e-03 -5.10e-03  4.42e-03
## 800   -9.73e-03  1.08e-02  8.07e-03 -5.72e-03 -1.96e-03 -8.58e-03  9.20e-03
## 801    1.15e-03  2.33e-03 -1.20e-05 -1.11e-03 -2.03e-03 -1.17e-04 -3.31e-03
## 802   -2.34e-04 -1.90e-03 -7.17e-04 -2.90e-03  3.15e-03 -6.92e-04  6.18e-05
## 803    3.20e-03 -1.30e-02  9.35e-03 -4.91e-03 -3.99e-03 -5.85e-03 -1.14e-02
## 804   -3.23e-04 -2.24e-03 -7.13e-04  4.12e-04 -2.59e-03 -5.92e-04 -2.73e-03
## 805    3.99e-04  6.09e-03 -1.26e-03  3.20e-03  2.24e-03  1.54e-03 -2.64e-03
## 806   -3.61e-04  1.50e-03 -1.15e-03 -1.41e-03  1.93e-03 -1.96e-03  3.02e-04
## 807   -3.68e-03 -1.65e-02  2.07e-02  2.36e-02 -1.85e-02 -4.09e-03  6.19e-03
## 808    1.87e-02 -1.28e-02  9.08e-03 -3.79e-03 -3.31e-03  3.14e-03 -1.46e-02
## 809   -2.65e-04 -2.30e-02  2.16e-02 -3.03e-02 -2.32e-03  1.33e-02  6.34e-03
## 810    3.40e-02 -2.96e-02  1.57e-02 -4.15e-02 -8.03e-03  2.93e-02 -9.28e-03
## 811    7.03e-05 -1.26e-03 -5.31e-04 -1.92e-03  2.16e-03 -6.69e-05 -1.55e-03
## 812   -6.99e-03  4.69e-03 -7.79e-04 -2.55e-03 -4.90e-03 -1.35e-03  9.68e-03
## 813    8.56e-03  6.70e-03  1.80e-02  4.22e-03 -2.43e-04 -1.15e-02 -2.47e-03
## 814   -1.61e-02 -1.91e-02 -1.63e-02  1.29e-02  2.68e-03  1.25e-02 -7.37e-03
## 815    2.26e-03  1.08e-02  8.31e-03 -4.07e-03 -1.64e-03 -7.29e-03 -9.40e-03
## 816    5.57e-03 -5.31e-03 -2.06e-03 -5.90e-04 -7.13e-03 -1.50e-03  7.32e-03
## 817   -2.70e-02 -1.54e-02  1.48e-02  2.45e-02 -1.73e-02 -1.17e-02  1.16e-02
## 818    3.82e-05 -3.53e-05  2.54e-05  3.67e-05 -4.81e-05  1.62e-05 -1.41e-05
## 819    5.06e-03 -9.50e-03 -1.00e-02 -1.03e-02  8.58e-03  4.16e-04 -1.20e-03
```

```
## 820    9.58e-04   8.73e-04   1.62e-04 -2.74e-04 -8.30e-04 -4.84e-04 -1.46e-04
## 821   -1.41e-03   1.14e-02  -1.03e-02  1.30e-02   1.93e-03 -1.61e-03 -4.85e-03
## 822    1.67e-02   1.15e-02  -2.64e-03  4.06e-03   4.39e-03 -8.57e-04 -9.76e-03
## 823    2.65e-04  -8.65e-04  -3.20e-04  1.03e-03   4.74e-04  1.47e-03 -1.09e-03
## 824   -1.79e-02   1.55e-02   8.51e-03  1.07e-02   2.02e-02 -5.18e-03 -1.45e-02
## 825   -2.91e-03  -7.88e-03  -1.26e-02  1.15e-02  -4.91e-03  1.53e-03  5.89e-03
## 826    1.14e-02  -6.48e-03  -5.10e-04 -5.07e-03  -6.58e-03 -3.95e-03 -1.08e-02
## 827    4.07e-02  -2.42e-02   1.26e-02  2.25e-03   3.39e-02 -6.24e-03 -4.85e-02
## 828    5.04e-03   8.21e-03  -2.52e-03 -5.22e-03  -1.11e-02  8.70e-03  1.25e-02
## 829   -1.27e-02   2.47e-02   2.00e-02  3.43e-02  -3.56e-02  1.16e-02  2.46e-03
## 830    1.17e-04   5.32e-04   3.78e-05 -2.32e-04  -4.40e-04 -2.68e-04 -6.58e-04
## 831   -7.66e-03   6.01e-03  -2.07e-04 -3.18e-05   6.74e-03 -6.85e-03 -1.43e-04
## 832    3.82e-03  -1.43e-02  -9.85e-03 -5.50e-03  -1.90e-02  4.79e-03 -4.60e-03
## 833    8.00e-03   1.02e-02  -2.23e-02 -6.82e-03   2.87e-03 -1.06e-03 -8.69e-03
## 834    2.17e-03   8.22e-03   1.81e-02  1.87e-03  -1.66e-02  2.19e-03 -1.93e-03
## 835   -1.18e-03  -3.02e-03  -1.80e-04  3.70e-04   3.69e-03 -3.13e-03 -4.48e-04
## 836    2.74e-02  -1.88e-02   6.00e-03 -4.83e-03  -8.71e-03  1.62e-02  7.85e-03
## 837    1.36e-02   6.00e-03  -1.70e-03  4.86e-03   1.71e-03  6.85e-03 -4.35e-03
## 838    4.91e-04  -7.98e-04   6.04e-05 -7.02e-04  -5.67e-04 -4.33e-04 -2.74e-04
## 839    1.91e-02   2.04e-02  -3.76e-02 -2.91e-02   9.24e-03  3.97e-03  4.21e-03
## 840   -2.71e-03  -3.75e-03  -3.61e-03 -3.21e-03   4.59e-03 -5.58e-03  1.18e-03
## 841   -3.93e-02   2.90e-02  -5.04e-03  2.40e-02   2.63e-02  5.79e-02 -1.48e-03
## 842   -1.79e-03  -1.05e-02  -5.77e-03  5.11e-03   3.37e-03 -1.16e-02  1.67e-02
## 843    2.39e-03  -9.52e-03   7.02e-03 -3.31e-03  -2.25e-03 -5.22e-03 -7.25e-03
## 844    2.23e-03  -3.19e-03   5.11e-04 -2.56e-03  -2.68e-03 -3.39e-03  2.92e-04
## 845   -4.54e-03   3.12e-03   4.92e-04 -4.26e-03  -1.50e-03 -4.97e-05  2.89e-04
## 846   -2.09e-03  -4.85e-03   7.04e-04 -4.27e-03  -4.63e-03 -8.09e-03  8.71e-03
## 847   -4.01e-03  -3.32e-03   1.76e-03  3.16e-03  -4.70e-03  2.53e-03  4.69e-03
## 848   -6.94e-03   5.60e-03  -2.70e-04 -8.66e-04   5.86e-03  2.39e-03  7.83e-03
## 849   -7.63e-04   8.94e-04   3.07e-04 -2.19e-04   1.18e-03  1.89e-03 -2.86e-04
## 850    6.82e-04   1.06e-03   2.80e-04  2.31e-03  -2.13e-03 -6.98e-06 -1.73e-03
## 851    1.01e-02   7.70e-03  -2.07e-03  2.38e-03   3.92e-03 -1.10e-02 -1.50e-02
## 852    1.68e-02  -9.83e-03  -1.26e-03  3.35e-03   4.83e-03  8.46e-04 -7.23e-03
## 853    1.65e-03   2.87e-03   4.87e-04 -3.34e-03  -1.75e-03 -7.34e-03 -1.33e-03
## 854    1.96e-02   2.60e-02   1.04e-02 -5.72e-02   5.88e-02  6.85e-03 -8.48e-04
## 855    5.70e-04  -4.20e-03   8.46e-04 -5.78e-03  -2.05e-03  8.36e-04  5.48e-03
## 856    1.05e-02  -2.06e-02   7.07e-03 -5.38e-03  -9.61e-03  1.57e-02  9.46e-03
## 857   -6.16e-04  -6.93e-04  -5.42e-04 -8.14e-04   9.30e-04  1.44e-04  2.47e-04
## 858   -1.33e-03  -1.92e-03   2.45e-04 -9.47e-05   2.00e-03 -1.33e-03 -3.58e-03
## 859    7.49e-04   2.10e-03  -2.62e-04  1.30e-03   1.29e-03 -5.13e-04  3.72e-05
## 860   -2.93e-03   2.05e-03  -8.14e-04  2.31e-04  -2.58e-03 -1.96e-03  7.76e-04
## 861    1.33e-02  -1.56e-02  -2.90e-02  2.43e-02  -1.17e-02 -1.06e-03 -1.67e-02
## 862   -6.65e-03   9.41e-03   7.98e-03 -4.04e-03  -2.60e-03 -7.65e-03 -7.16e-03
## 863    1.54e-03  -1.23e-02   1.15e-02 -8.77e-03  -1.31e-03 -4.33e-03  7.26e-03
## 864    2.14e-03  -1.50e-02   1.17e-02  3.14e-02  -1.96e-02 -6.05e-03 -1.54e-02
## 865   -5.81e-03   3.38e-03  -2.11e-03 -4.53e-03   5.32e-03  3.08e-03  7.13e-03
## 866    1.28e-02  -7.65e-03  -1.90e-03  2.27e-03   3.46e-03 -8.37e-03 -2.56e-03
## 867    6.08e-02  -2.14e-02   2.54e-02  2.82e-02  -2.75e-02  6.01e-04 -8.02e-03
## 868    2.43e-03   6.12e-03   2.25e-03  9.16e-03  -1.14e-02 -1.73e-02 -9.21e-03
## 869   -1.22e-04  -3.45e-04  -2.58e-04 -3.30e-04   4.67e-04 -4.00e-04  1.16e-04
```

```
## 870    2.70e-04   6.57e-03  -3.90e-03  -4.87e-04  -9.21e-03  -1.54e-03   9.37e-03
## 871    2.07e-03  -3.25e-03  -1.09e-03  -7.87e-03   6.55e-03  -8.95e-03  -1.58e-03
## 872    7.70e-04   2.41e-02   1.98e-02  -2.51e-02  -3.35e-03  -5.25e-02  -3.40e-02
## 873   -1.49e-02   8.36e-03  -1.65e-03   2.03e-02  -2.02e-02  -1.09e-02   8.42e-04
## 874   -6.17e-03  -1.58e-02  -8.81e-03   5.13e-03   4.78e-03  -2.39e-02   2.03e-02
## 875   -2.18e-02   1.65e-02   7.55e-03  -1.02e-02  -4.96e-03  -2.47e-02  -1.46e-02
## 876    1.41e-03  -2.22e-03   3.59e-04   4.75e-03  -4.77e-03   2.00e-03   3.62e-03
## 877    2.19e-04   1.71e-03   3.58e-04  -1.88e-03  -5.84e-04  -1.91e-03   2.41e-03
## 878    3.66e-03   9.15e-03  -6.10e-03   7.06e-03   2.35e-03   3.98e-03  -1.80e-02
## 879   -3.70e-02  -1.76e-02   8.34e-03  -7.67e-03  -5.08e-03  -2.47e-02  -8.12e-03
## 880    7.40e-04   3.47e-03   9.76e-03   3.19e-03   2.35e-04  -1.52e-03  -3.65e-04
## 881    7.35e-03   1.41e-02   9.36e-03  -6.28e-03  -2.63e-03  -7.91e-03  -1.28e-02
## 882    2.01e-03  -4.29e-03  -3.87e-03  -4.34e-03   4.86e-03  -2.68e-03   4.43e-04
## 883   -1.23e-03  -2.96e-03  -3.63e-04  -1.14e-03  -3.24e-03   2.78e-03   5.92e-03
## 884    1.16e-02   7.59e-03  -1.79e-03   1.79e-03   3.79e-03  -1.13e-02  -3.00e-03
## 885   -4.43e-03  -2.13e-02   4.58e-02   1.60e-02  -6.82e-03   7.61e-03   1.58e-02
## 886    2.23e-02  -1.40e-02   3.43e-02   1.95e-02  -4.31e-03  -3.68e-03  -1.14e-02
## 887   -1.97e-02   1.12e-02  -5.07e-03  -4.64e-03  -1.45e-02  -7.72e-04   1.93e-02
## 888   -2.82e-02   2.64e-02   1.80e-02  -9.43e-04   3.67e-02  -1.40e-02   3.29e-03
## 889    3.09e-03   8.57e-03  -2.66e-03  -4.39e-03  -1.10e-02   5.52e-03  -2.09e-03
## 890   -2.77e-02  -2.01e-02   1.65e-02   2.17e-03   3.03e-02  -3.68e-03   1.00e-02
## 891   -1.71e-02   1.58e-02   3.21e-02   1.87e-02  -8.06e-03   4.29e-03  -6.22e-03
## 892    3.31e-02   2.12e-02   9.15e-03  -5.02e-03  -6.64e-03   3.58e-02  -3.10e-02
## 893   -1.09e-02  -6.82e-03  -6.41e-03  -7.98e-03   7.69e-03   1.85e-03   2.78e-03
## 894    9.97e-03   1.55e-02  -1.27e-02   1.16e-02   2.38e-03   9.02e-03  -7.63e-03
## 895    5.03e-05   1.22e-04  -9.49e-05  -1.06e-04   1.51e-04  -2.33e-04   2.89e-05
## 896   -1.14e-02  -8.05e-03  -5.43e-03   9.58e-03   2.21e-03  -7.33e-03   7.62e-04
## 897   -2.56e-02   1.36e-02   8.00e-03  -8.33e-03  -4.13e-03  -1.32e-02  -1.24e-02
## 898    5.22e-03   1.01e-02  -1.14e-02  -1.24e-02   1.08e-02   5.05e-04  -2.18e-03
## 899    7.31e-03  -6.19e-03  -8.08e-04   1.56e-03   3.12e-03  -7.89e-03  -1.76e-03
## 900   -6.09e-03   1.11e-02   9.16e-03  -6.90e-03  -1.89e-03  -6.34e-03   9.74e-03
## 901    4.19e-03  -1.67e-02   9.82e-03  -9.72e-03  -5.00e-03  -1.45e-02  -1.59e-02
## 902    4.21e-03  -5.84e-03  -5.87e-03  -7.09e-03   7.63e-03  -3.35e-03   8.81e-03
## 903   -4.26e-04  -3.22e-03   8.29e-05  -2.05e-04   3.31e-03   2.63e-05  -6.03e-04
## 904   -2.92e-03  -7.71e-03  -1.49e-02  -6.52e-03   3.05e-03  -4.71e-03   7.44e-03
## 905   -2.22e-03   1.38e-02  -6.07e-03   4.74e-03   5.53e-03  -6.78e-03  -7.94e-03
## 906    5.10e-03   8.04e-03  -1.83e-03   4.05e-03   3.35e-03  -3.67e-03  -3.20e-03
## 907    6.27e-03  -5.12e-03   1.52e-03   7.04e-03  -9.87e-03  -3.64e-03  -9.70e-04
## 908   -2.16e-03  -3.12e-03  -1.98e-03   4.30e-03   5.03e-04  -3.66e-03   7.56e-04
## 909    1.29e-02  -1.41e-02  -3.00e-02  -9.77e-03   3.68e-03  -1.19e-03  -1.26e-02
## 910   -5.86e-03  -1.84e-02   4.00e-02   1.71e-02  -5.29e-03   4.37e-03  -1.25e-02
## 911    1.79e-04   3.61e-03  -2.42e-03   9.46e-04  -5.48e-03  -4.51e-03   7.98e-04
## 912    1.46e-03   3.24e-03  -2.12e-04   1.41e-03   2.06e-03  -5.09e-03  -9.24e-05
## 913   -7.94e-04  -1.28e-03   2.19e-04  -3.48e-05   1.22e-03  -2.63e-03   1.47e-03
## 914    9.14e-03  -9.89e-03  -1.78e-02   1.71e-02  -7.14e-03   7.05e-03   5.90e-03
## 915   -8.84e-03  -1.41e-02   3.26e-02   1.42e-02  -4.97e-03   2.95e-03   1.82e-02
## 916   -5.40e-04  -1.47e-03   5.36e-04  -1.93e-03  -6.23e-04  -9.46e-04  -2.61e-03
## 917   -1.13e-02  -1.68e-02  -1.48e-02   1.22e-02   1.01e-03   6.19e-03  -5.37e-03
## 918    9.91e-03  -1.38e-02  -7.49e-03   9.25e-03   4.67e-03   9.45e-03   1.32e-02
## 919    1.05e-04   1.28e-04  -7.91e-05  -1.60e-04   1.94e-04   2.27e-04  -1.77e-04
```

```
## 920    4.34e-03   4.98e-03 -9.87e-04   1.96e-03   2.69e-03 -2.26e-03 -1.14e-03
## 921   -2.05e-02   1.83e-02 -2.07e-02 -3.41e-02   2.24e-02 -2.74e-03 -5.14e-03
## 922    4.68e-03 -3.24e-03 -2.78e-03 -3.79e-03   4.67e-03   1.69e-03 -5.94e-03
## 923   -1.15e-02 -1.28e-02   3.01e-02   1.20e-02 -3.02e-03   7.73e-03   1.68e-02
## 924    6.79e-03 -2.34e-03   6.06e-06 -1.25e-03 -2.89e-03   1.85e-03 -1.14e-03
## 925    3.38e-03   9.82e-03 -2.11e-02 -7.04e-03   3.21e-03   1.49e-03   7.26e-03
## 926    1.35e-03   1.51e-02   1.20e-02 -7.88e-03 -3.09e-03 -9.45e-03 -1.58e-02
## 927   -1.61e-03 -3.36e-03 -1.33e-03   2.70e-04 -4.18e-03 -4.17e-03   9.73e-04
## 928   -1.67e-02 -1.27e-02 -4.84e-03 -5.71e-03 -1.52e-02   3.88e-04   1.87e-02
## 929   -1.30e-02 -1.34e-02 -9.50e-03   7.57e-03   3.48e-03   5.88e-04   1.77e-02
## 930   -1.43e-02   6.16e-03 -1.85e-03   4.52e-03   3.04e-03 -4.62e-03   1.11e-02
## 931    1.58e-03 -3.13e-03   1.36e-03   3.75e-03 -5.43e-03 -9.15e-03 -1.41e-03
## 932    3.87e-03   7.90e-03 -1.63e-02 -5.94e-03   3.37e-03 -7.83e-05   5.95e-03
## 933   -5.47e-03 -7.78e-03 -1.41e-03   2.87e-03   4.01e-03 -8.46e-03   1.27e-02
## 934   -3.47e-03 -2.27e-02   4.32e-02 -3.95e-02   1.74e-02 -6.16e-03 -1.77e-02
## 935    1.61e-03   1.28e-02   1.00e-02 -6.18e-03 -3.45e-03 -1.19e-03   6.95e-03
## 936    4.17e-03 -5.13e-03 -5.13e-03 -5.42e-03   5.81e-03 -3.84e-03 -7.55e-04
## 937    5.31e-03 -5.13e-03 -9.54e-04   2.12e-03   2.41e-03 -9.18e-04 -1.05e-03
## 938    1.33e-03 -1.53e-03   5.31e-04   2.65e-03 -3.00e-03 -9.97e-04   1.93e-04
## 939   -9.34e-03 -1.07e-02 -6.43e-04   1.52e-02 -2.17e-02 -6.36e-03   1.57e-02
## 940   -1.71e-02   1.59e-02 -1.35e-02   1.06e-02   1.74e-03   5.76e-03   1.94e-02
## 941   -9.96e-04   2.95e-03   1.58e-03   3.16e-03 -4.63e-03 -1.03e-03 -6.06e-03
## 942    1.45e-02 -8.52e-03 -6.44e-03 -5.14e-04 -1.29e-02 -7.78e-04 -2.52e-03
## 943    1.46e-02   1.31e-02   9.98e-03 -5.82e-03 -2.91e-03   7.42e-03   4.96e-03
## 944    1.30e-02   6.64e-03 -9.12e-05 -6.92e-03 -6.92e-03 -9.79e-03 -1.91e-03
## 945   -3.16e-03 -1.93e-02   3.93e-02 -2.53e-03 -3.50e-02   9.05e-03 -7.59e-03
## 946    3.76e-04 -1.28e-02 -2.56e-02 -1.63e-02   6.77e-03 -8.81e-03   9.86e-03
## 947   -8.64e-05 -1.02e-03 -1.98e-04   5.19e-04   7.98e-04   7.37e-04 -3.90e-04
## 948    2.92e-02 -1.72e-02 -4.94e-02 -1.03e-02   2.42e-03   1.57e-02   8.68e-03
## 949   -1.89e-02 -1.58e-02 -1.05e-02   6.38e-03   4.77e-03   5.10e-03   1.94e-02
## 950   -9.93e-04   4.65e-03 -4.62e-04   2.33e-03   2.20e-03   3.98e-03 -1.30e-03
## 951    5.25e-03 -5.15e-03 -3.36e-04   2.42e-03   2.16e-03   2.23e-03 -2.65e-03
## 952   -6.79e-03   2.00e-02 -1.89e-02   1.41e-02   2.27e-03   9.96e-03 -1.15e-02
## 953    1.49e-02 -2.03e-02   1.15e-02   4.48e-02 -3.08e-02   3.02e-02   6.97e-03
## 954   -8.03e-04   2.69e-03   1.94e-04 -8.10e-05   2.48e-03 -5.39e-03   2.73e-03
## 955    1.38e-03   9.04e-03 -2.21e-03   3.34e-03   4.08e-03 -2.59e-03 -4.35e-03
## 956    1.50e-02   6.63e-03 -2.07e-03   4.41e-03   2.01e-03   3.57e-03 -1.34e-02
## 957   -9.80e-04 -1.42e-02 -8.25e-03 -7.21e-03 -1.81e-02   8.52e-03   1.82e-02
## 958   -8.10e-03   1.12e-02   2.47e-02 -1.92e-02   1.02e-02 -2.11e-02   1.65e-02
## 959    2.90e-03   4.93e-03 -8.73e-04   2.30e-03   2.96e-03 -4.04e-03 -4.50e-04
## 960    5.98e-03   1.19e-02   2.74e-02 -1.91e-02   1.14e-02 -9.77e-03 -6.25e-03
## 961   -3.27e-06   1.89e-04 -5.31e-04 -2.85e-04   1.96e-05   2.88e-05   3.13e-04
## 962    1.58e-02 -1.74e-02   7.45e-03 -4.40e-03 -6.86e-03   1.54e-02   8.03e-03
## 963   -7.10e-03 -1.59e-02 -3.60e-02 -1.07e-02   2.75e-03 -1.31e-02 -1.16e-02
## 964   -3.01e-02 -2.61e-02   4.32e-03 -8.80e-03 -1.40e-02   2.82e-02   7.88e-03
## 965    5.68e-03   4.99e-03   1.74e-03   7.41e-03 -1.08e-02 -6.23e-03 -1.09e-03
## 966    9.16e-04   6.51e-03   2.93e-04 -8.47e-03 -3.45e-03 -3.21e-03 -2.06e-03
## 967   -1.73e-03   6.78e-03   6.39e-03 -3.18e-03 -1.22e-03 -4.03e-03   5.50e-03
## 968    6.42e-03   1.04e-02   7.07e-03 -3.95e-03 -2.81e-03 -7.00e-03 -9.82e-03
## 969    7.21e-03   1.01e-02 -1.07e-02 -1.23e-02   1.15e-02 -7.00e-04 -2.54e-03
```

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## 970     1.44e-03 -2.30e-03  2.25e-04 -2.70e-03 -1.32e-03 -5.76e-04 -2.09e-04
## 971     2.19e-02 -2.02e-02 -4.02e-02  2.81e-02 -1.65e-02 -2.54e-02 -3.31e-02
## 972     6.63e-05 -2.38e-04  4.40e-07 -3.59e-05 -2.44e-04 -3.35e-05  3.46e-05
## 973     1.99e-02 -2.94e-02  1.58e-02 -4.35e-02 -7.52e-03  2.33e-02 -4.15e-03
## 974     1.89e-02 -1.28e-02  9.07e-03 -3.77e-03 -3.27e-03  2.99e-03 -1.47e-02
## 975    -2.86e-02 -1.80e-02 -1.34e-02  8.82e-03  3.51e-03 -2.66e-04 -4.34e-03
## 976     7.35e-03 -2.08e-02 -3.72e-02  1.72e-02 -1.34e-02  1.17e-02  5.99e-03
## 977     1.23e-03 -1.85e-03  2.23e-04 -1.01e-03 -1.98e-03 -1.78e-04  3.39e-05
## 978     1.13e-02 -5.10e-03 -1.69e-03  2.92e-03  2.13e-03 -2.09e-03 -1.63e-03
## 979     3.70e-04 -7.85e-04 -1.65e-04  4.24e-04  6.37e-04 -2.68e-04 -3.03e-04
## 980    -2.98e-03 -4.30e-03 -1.20e-03  3.40e-03  1.88e-03  2.36e-03 -4.18e-04
## 981     5.27e-03 -9.07e-03  7.89e-03 -3.36e-03 -1.38e-03 -1.42e-03  5.19e-03
## 982    -1.17e-03  2.92e-03  1.81e-04 -1.15e-04  2.68e-03 -6.49e-03  3.21e-03
## 983     4.34e-03  1.54e-02 -2.72e-02  2.06e-02 -9.88e-03  3.42e-03  4.85e-03
## 984    -5.89e-03 -9.45e-03 -3.08e-03  4.12e-03  3.11e-03 -6.50e-03 -2.84e-03
## 985     7.96e-03  5.39e-03 -8.03e-04  1.55e-03  2.73e-03 -1.05e-02 -1.58e-03
## 986     2.71e-03  2.63e-03  6.89e-04  4.86e-03 -5.93e-03  2.61e-03 -4.67e-04
## 987     4.13e-04  5.50e-04  4.62e-05 -3.19e-04 -5.11e-04  8.47e-05  7.37e-05
## 988    -4.86e-03 -2.27e-03 -1.56e-03 -2.73e-03  3.24e-03 -1.51e-03  4.70e-03
## 989     8.25e-05  6.29e-04  1.50e-04 -7.05e-04 -3.80e-04 -8.92e-04  7.68e-04
## 990     1.34e-03 -2.21e-03  3.10e-04 -1.40e-03 -1.82e-03 -4.04e-03 -2.89e-03
## 991     2.44e-03 -3.54e-03  6.50e-04 -2.84e-03 -2.86e-03 -9.93e-03 -4.79e-03
## 992    -5.63e-04  1.83e-03  1.10e-04  8.44e-04  1.39e-03 -3.97e-03  3.19e-04
## 993     1.07e-02  2.13e-02  1.48e-02 -1.71e-02 -3.70e-03 -1.60e-02  3.26e-03
## 994     2.91e-02  1.95e-02  1.52e-02 -1.44e-02 -1.94e-03 -1.11e-02 -2.74e-02
## 995    -7.89e-04  6.22e-03 -1.31e-02 -4.95e-03  2.44e-03 -2.14e-03  5.93e-03
## 996     1.42e-03 -3.41e-03  1.51e-03  3.93e-03 -5.75e-03 -8.58e-03 -1.77e-03
## 997     8.28e-03  1.29e-02 -2.38e-03  3.65e-03  5.47e-03  3.32e-03 -9.44e-03
## 998    -5.32e-03  1.02e-02  8.18e-03 -5.22e-03 -1.73e-03 -9.08e-03 -7.52e-03
## 999     1.97e-02 -1.33e-02 -2.36e-02  1.93e-02 -8.68e-03 -2.14e-03  3.85e-03
## 1000   -2.19e-02  1.70e-02 -8.34e-03 -1.74e-02 -2.22e-02 -3.56e-03  2.20e-02
## 1001   -1.65e-04 -2.68e-04 -6.38e-06  1.94e-04  1.84e-04  6.95e-05  7.76e-05
## 1002    3.40e-03  4.14e-03 -9.73e-04  2.14e-03  2.18e-03  1.60e-03 -8.56e-04
## 1003   -1.66e-02 -1.43e-02  2.43e-02 -1.30e-02  8.45e-03 -8.13e-03 -5.11e-04
## 1004   -7.85e-04  1.38e-02  1.07e-02 -8.21e-03 -1.39e-03 -9.37e-03  6.92e-03
## 1005    2.56e-02  1.52e-02  8.84e-03 -4.72e-03 -4.13e-03  1.89e-03 -1.80e-02
## 1006   -1.55e-02 -1.76e-02  1.08e-02  6.74e-03  2.29e-02 -3.93e-03  7.53e-03
## 1007    4.78e-03  6.02e-03  1.46e-02 -9.29e-03  6.47e-03 -5.09e-03 -7.16e-04
## 1008   -4.34e-04  1.09e-02 -3.34e-03  3.10e-03  4.84e-03 -5.43e-03 -5.36e-03
## 1009    1.01e-03  2.10e-03  1.42e-05  8.42e-05  1.93e-03 -2.82e-03 -4.15e-03
## 1010    1.04e-02  2.04e-02 -1.18e-02  8.66e-03  4.08e-03  1.22e-02  1.66e-02
## 1011   -1.97e-03 -1.08e-02 -3.35e-03  2.82e-03  4.60e-03 -8.16e-03 -5.14e-03
## 1012   -1.03e-02 -2.09e-02  3.75e-03  1.66e-02  2.74e-02 -5.02e-03  1.35e-02
## 1013    1.82e-02 -2.21e-02  5.32e-04  1.88e-02  2.40e-02  2.94e-02  5.02e-03
## 1014   -1.68e-03 -3.00e-03  1.59e-03  3.23e-03 -4.41e-03 -1.14e-03  4.40e-03
## 1015    1.94e-03 -1.46e-03 -7.38e-04  1.79e-03  5.93e-04  3.51e-03 -2.23e-03
## 1016   -2.41e-03  1.34e-02 -6.21e-03  3.56e-03  3.83e-03 -1.25e-02  1.75e-02
## 1017    9.12e-03 -5.91e-03 -1.83e-03  3.06e-03  2.44e-03  2.59e-03 -1.70e-03
## 1018   -2.54e-04 -3.65e-03 -4.25e-04 -1.62e-03 -4.03e-03  2.88e-03  9.43e-05
## 1019   -1.94e-03  2.68e-03 -6.13e-04 -4.96e-03  4.46e-03  7.31e-04 -7.38e-05
```

```
## 1020 -2.68e-03 -2.03e-02  4.57e-02  1.45e-02 -5.13e-03  7.02e-03  1.64e-02
## 1021 -9.50e-03 -1.50e-02  2.46e-02 -1.60e-02  6.98e-03  9.76e-03  1.80e-02
## 1022 -2.94e-02  1.21e-02 -1.09e-02  1.01e-02  1.81e-03  1.54e-02  1.98e-02
## 1023  1.54e-03 -2.74e-03  6.64e-03 -2.45e-03  2.50e-03 -4.36e-03  4.60e-03
## 1024 -2.93e-03 -7.48e-03 -1.45e-02 -6.22e-03  2.93e-03 -4.59e-03  7.26e-03
## 1025 -6.64e-03 -7.90e-03 -5.02e-03  8.87e-03  2.02e-03 -1.95e-03  2.69e-05
## 1026  6.68e-03 -1.42e-02  9.73e-03  8.32e-03  1.97e-02 -5.19e-03  5.51e-03
## 1027 -1.36e-02  1.34e-02 -3.87e-02  9.60e-03  2.35e-02 -8.27e-03 -1.16e-02
## 1028 -1.11e-02 -1.01e-02 -6.03e-03 -2.59e-03 -1.38e-02  6.05e-03  1.60e-02
## 1029  1.33e-02  8.33e-03 -1.07e-03 -4.80e-03 -1.01e-02  1.46e-03 -1.84e-02
## 1030 -4.91e-03  9.68e-03 -2.10e-02 -7.86e-03  3.59e-03 -6.67e-03 -4.79e-03
## 1031 -4.01e-04  1.15e-03  5.96e-04  1.45e-03 -1.97e-03 -1.65e-03  1.44e-03
## 1032 -8.54e-04  4.90e-03  1.53e-03  4.96e-03 -7.23e-03  9.17e-04 -1.56e-03
## 1033  8.19e-04 -9.05e-04  2.60e-04 -1.12e-03 -5.98e-04 -2.30e-03  1.11e-03
## 1034 -4.46e-05 -6.09e-05  1.87e-05 -9.65e-06  7.23e-05  1.08e-04 -1.06e-05
## 1035  6.38e-04 -1.50e-02 -8.02e-03  7.39e-03  3.79e-03 -1.87e-03  1.60e-02
## 1036 -2.19e-02  8.77e-03 -9.95e-03 -1.24e-02  1.12e-02  2.19e-03  1.71e-02
## 1037  5.65e-03 -2.30e-02  2.19e-02  3.53e-02 -2.88e-02 -1.57e-02 -3.01e-02
## 1038  1.28e-02 -1.19e-02 -2.62e-02 -1.02e-02  3.79e-03 -5.43e-03 -1.14e-02
## 1039  5.45e-03 -3.36e-03  1.06e-03  5.61e-03 -6.85e-03 -5.05e-03 -2.94e-04
## 1040 -2.26e-02 -1.55e-02 -6.02e-03 -1.16e-02 -1.84e-02 -6.54e-04  2.14e-02
## 1041  2.24e-02 -1.87e-02  1.13e-02  1.04e-02  2.68e-02 -7.71e-05 -2.96e-02
## 1042  2.38e-04 -4.43e-03  3.79e-04  1.84e-03  2.77e-03 -5.36e-03 -9.44e-04
## 1043  1.42e-02 -1.45e-02 -1.09e-02 -2.65e-03 -2.17e-02  1.93e-03 -6.06e-03
## 1044  3.49e-04 -4.75e-04 -8.60e-05  5.17e-04  1.92e-04  3.08e-04 -8.09e-04
## 1045 -2.19e-03  1.05e-02 -2.41e-03  2.30e-03  4.28e-03 -3.89e-03 -5.20e-03
## 1046  1.99e-03  3.77e-03 -8.45e-04  2.37e-03  2.20e-03  1.05e-03 -2.56e-04
## 1047 -3.13e-02  2.65e-02  3.38e-03 -6.37e-03 -1.34e-02  3.62e-02  7.45e-03
## 1048 -5.47e-03 -1.76e-02 -4.40e-02 -1.28e-02  5.56e-03  6.22e-03 -1.85e-02
## 1049 -1.47e-03 -1.40e-02 -6.09e-03 -1.04e-02 -1.75e-02 -1.10e-02  2.02e-02
## 1050  6.85e-03 -8.72e-03 -3.28e-03  7.62e-03  2.34e-03  5.10e-03 -1.65e-02
## 1051  8.39e-03  1.96e-02  1.00e-02 -7.11e-03 -4.66e-03  1.69e-02 -2.33e-02
## 1052  1.97e-03 -1.56e-02  1.96e-02  2.17e-02 -1.65e-02 -2.31e-03  3.97e-03
## 1053  3.09e-04 -1.95e-03 -2.82e-04  1.34e-03  1.09e-03  1.99e-03  1.21e-04
## 1054  7.96e-03  1.15e-02  8.99e-03 -4.60e-03 -1.92e-03 -2.91e-03 -1.19e-02
## 1055  2.22e-03  1.38e-02  8.87e-03 -6.59e-03 -4.55e-03 -1.07e-02 -1.44e-02
## 1056 -5.87e-03 -1.13e-02  5.73e-03  9.39e-03  1.37e-02  7.19e-04 -9.24e-03
## 1057  4.69e-03 -1.51e-02  1.08e-02 -9.51e-03 -2.87e-03 -1.26e-02  6.53e-03
## 1058  4.14e-03  2.79e-03  3.19e-05 -1.78e-03 -2.59e-03 -2.17e-03  2.19e-05
## 1059 -2.57e-03 -4.79e-03  9.04e-03 -2.81e-03  3.49e-03 -8.02e-03  1.11e-03
## 1060 -4.79e-04 -4.56e-03 -2.19e-03 -7.57e-03  5.99e-03  1.91e-03 -3.39e-04
## 1061  8.53e-03  7.27e-03 -2.68e-04  2.87e-03  3.58e-03 -2.85e-04 -4.56e-03
## 1062 -3.18e-03 -4.93e-03  2.96e-04  2.02e-03  2.89e-03 -1.21e-03 -4.46e-04
## 1063 -7.02e-03  1.47e-02  1.28e-02 -1.21e-02 -3.10e-03 -9.31e-04  6.85e-03
## 1064  4.81e-04 -6.83e-04  2.21e-04  1.09e-03 -1.26e-03 -6.20e-04 -2.54e-04
## 1065  6.05e-03  1.33e-02 -9.83e-03 -2.25e-02  1.60e-02  8.11e-03  1.43e-02
## 1066 -1.05e-02 -1.96e-02  2.45e-02  2.46e-02 -2.08e-02  7.89e-04  7.19e-03
## 1067 -5.40e-03  5.09e-03  1.54e-02  4.01e-03  3.23e-04 -2.90e-04 -1.25e-03
## 1068  2.15e-02  1.50e-02  9.34e-03 -5.47e-03 -3.90e-03  7.78e-03 -1.90e-02
## 1069 -1.13e-02  1.99e-02  8.41e-03 -6.06e-03 -7.61e-03  1.99e-02  1.22e-02
```

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## 1070 -7.96e-03  8.01e-03 -1.59e-03  5.32e-03  4.26e-03 -1.02e-02  1.35e-02
## 1071 -1.06e-02 -1.04e-02  8.78e-03 -5.69e-03 -1.39e-03 -2.88e-03  9.86e-03
## 1072  5.69e-03  6.12e-03 -9.48e-04  1.48e-03  3.41e-03 -8.69e-03 -1.54e-03
## 1073  5.42e-03 -7.53e-03 -5.16e-03 -7.37e-04 -1.17e-02  2.61e-03  1.52e-04
## 1074  2.49e-03 -1.56e-03 -3.52e-04 -2.78e-04 -1.67e-03  2.73e-03 -2.23e-03
## 1075 -5.80e-02  1.91e-02  1.60e-02 -2.24e-02 -2.26e-03 -1.36e-02  1.49e-02
## 1076 -2.15e-02 -8.50e-03  1.76e-02  1.25e-02 -2.12e-03 -4.60e-03  2.24e-03
## 1077 -1.42e-02 -1.83e-02 -8.36e-03 -1.71e-02 -2.28e-02 -7.18e-03  2.22e-02
## 1078  4.06e-04  1.64e-03 -1.91e-04  1.16e-03  1.07e-03 -1.17e-03  2.56e-04
## 1079  5.27e-04  1.52e-02  2.63e-02 -1.65e-02  8.10e-03  4.39e-03 -9.08e-03
## 1080  1.01e-02 -1.12e-02  8.52e-03 -3.74e-03 -2.16e-03 -2.35e-03 -1.12e-02
## 1081 -6.69e-04  8.48e-04 -6.42e-06  2.61e-04  7.92e-04 -1.46e-03 -1.86e-04
## 1082  1.19e-02  1.40e-02 -2.93e-02 -1.09e-02  5.17e-03 -3.39e-03 -1.32e-02
## 1083  6.57e-03  1.16e-02 -2.59e-02 -9.97e-03  3.95e-03 -1.85e-03 -1.07e-02
## 1084 -5.58e-03  1.03e-02 -5.80e-03  7.75e-03  2.12e-03  4.97e-03 -1.54e-04
## 1085 -6.55e-03 -9.72e-03 -1.59e-02  1.32e-02 -5.76e-03 -2.30e-03  8.06e-03
## 1086 -1.69e-02 -1.80e-02 -1.59e-02  1.07e-02  2.34e-03 -2.10e-04 -6.05e-03
## 1087  3.93e-03 -5.95e-03 -4.41e-03  7.82e-03  1.41e-03 -4.15e-03 -1.82e-03
## 1088  7.66e-03  7.67e-03 -1.92e-03  5.75e-03  2.78e-03 -4.17e-04 -3.93e-03
## 1089  3.03e-03 -7.07e-03  2.00e-03  8.19e-03 -1.15e-02 -5.67e-03 -2.28e-03
## 1090  1.35e-03  1.19e-03  2.48e-04 -1.56e-04  1.42e-03  9.41e-04 -6.46e-04
## 1091  2.86e-03  4.30e-03 -9.80e-04 -1.32e-03 -4.82e-03 -1.20e-03 -8.27e-03
## 1092 -1.90e-02  2.10e-02 -1.48e-02  6.81e-03  6.04e-03  3.74e-03  2.07e-02
## 1093  2.84e-02 -8.98e-03 -3.70e-03 -1.94e-02  1.47e-02  2.01e-03 -7.99e-03
## 1094  1.64e-02 -1.55e-02  7.50e-03  9.21e-03  1.93e-02  1.46e-03 -2.16e-02
## 1095  3.45e-04 -3.32e-04  1.05e-04  1.35e-05  4.14e-04 -7.05e-05 -1.44e-04
## 1096  6.39e-03  1.15e-02 -1.42e-03 -1.19e-02 -1.39e-02 -6.42e-03 -2.39e-02
## 1097  1.52e-02  7.16e-03  4.51e-04  1.18e-02 -1.56e-02 -3.52e-03 -1.40e-02
## 1098  5.90e-03 -3.71e-03  5.59e-05 -2.75e-03 -3.68e-03 -6.00e-04 -3.82e-04
## 1099 -1.92e-02 -1.95e-02  4.13e-03  1.99e-02  2.27e-02  1.00e-02  1.24e-02
## 1100  4.00e-04  8.03e-03 -4.16e-03 -1.35e-03 -1.08e-02 -2.21e-03 -2.94e-04
## 1101  1.10e-03  2.57e-03 -7.24e-04  2.08e-03  1.45e-03  3.75e-03 -4.14e-05
## 1102 -9.02e-03 -1.89e-02 -1.98e-02 -3.80e-02  2.35e-02  1.38e-04  2.12e-02
## 1103 -9.03e-03 -5.26e-03 -3.68e-03  7.05e-03  1.43e-03 -6.36e-03  1.12e-03
## 1104 -4.16e-04  1.75e-03  9.59e-04  2.02e-03 -2.93e-03 -3.46e-03  2.05e-03
## 1105  3.88e-04  1.59e-03  4.55e-04 -1.99e-03 -9.16e-04 -3.72e-03  1.83e-03
## 1106 -2.27e-03  6.65e-03 -5.70e-03 -1.18e-02  9.65e-03  8.09e-03 -1.72e-03
## 1107  9.74e-04 -6.15e-04  2.36e-04 -7.15e-04 -3.43e-04 -5.39e-04 -1.25e-03
## 1108 -2.91e-02  1.37e-02  7.92e-03 -6.91e-03 -3.64e-03 -1.05e-02 -1.17e-02
## 1109 -7.34e-04  2.40e-03 -6.31e-03 -3.89e-03  1.87e-04 -4.82e-04  3.76e-03
## 1110  5.51e-03  1.83e-02  2.13e-02  2.68e-02 -1.95e-02 -6.29e-03  4.96e-03
## 1111  1.20e-02  1.77e-02 -2.07e-02 -2.60e-02  1.97e-02  3.21e-03 -1.00e-02
## 1112 -5.85e-03  3.95e-03 -8.44e-04  3.34e-03  2.01e-03 -2.51e-03 -5.87e-03
## 1113  5.36e-03 -4.43e-03 -1.68e-03  3.68e-03  2.13e-03  2.80e-03 -7.33e-03
## 1114 -1.94e-02  8.96e-03 -7.33e-03  1.11e-02  1.88e-03 -6.68e-03  1.22e-03
## 1115  1.63e-02 -1.04e-02 -7.71e-03 -1.74e-03 -1.53e-02  2.27e-03 -3.39e-03
## 1116  6.62e-04 -2.14e-03  2.89e-05 -8.72e-05  2.27e-03 -1.74e-03 -4.45e-03
## 1117 -3.02e-02  1.32e-02 -9.48e-03  7.94e-03  3.09e-03  2.30e-03  2.02e-02
## 1118  6.27e-03 -3.11e-03 -9.71e-04  3.55e-03  9.99e-04  1.25e-03 -6.54e-03
## 1119  1.38e-02  1.86e-02  1.03e-02 -1.09e-02 -6.45e-03  1.79e-02 -2.69e-02
```

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## 1120    4.95e-03    4.43e-03 -3.10e-04 -2.46e-03 -4.26e-03 -3.06e-03 -1.00e-03
## 1121    3.68e-03    1.01e-02 -4.60e-03  4.36e-03  3.61e-03 -6.39e-03 -5.38e-03
## 1122 -1.13e-02 -1.52e-02 -2.48e-02  1.71e-02 -8.59e-03 -1.11e-03  1.01e-02
## 1123    2.52e-02 -1.46e-02  9.75e-03 -6.22e-03 -4.12e-03 -6.55e-03 -1.75e-02
## 1124    5.44e-03 -3.41e-03  4.88e-04 -2.47e-03 -3.40e-03  3.23e-04 -1.02e-03
## 1125    7.56e-03    4.98e-03 -1.73e-03  2.97e-03  2.18e-03  3.16e-03 -1.50e-03
## 1126 -2.14e-02  1.47e-02  2.97e-02  2.07e-02 -7.50e-03  1.01e-02 -3.59e-03
## 1127    8.62e-04    1.41e-03  2.19e-04 -9.07e-04 -1.11e-03 -1.91e-03  2.46e-04
## 1128 -3.53e-02  1.81e-02  1.41e-02  3.57e-02 -2.78e-02  1.32e-02  4.24e-02
## 1129 -2.03e-02  9.39e-03 -2.01e-02  1.58e-02 -6.67e-03 -2.96e-03  1.05e-02
## 1130    5.82e-03    4.70e-03  1.74e-03  6.91e-03 -1.01e-02 -6.61e-03 -1.38e-03
## 1131 -3.44e-03 -1.02e-02 -4.10e-03 -6.34e-03 -1.23e-02  6.57e-03  1.55e-02
## 1132    8.09e-04 -1.32e-03  2.93e-03 -8.38e-04  1.04e-03 -2.93e-03  1.45e-04
## 1133    1.80e-04    3.10e-03 -2.61e-04  4.69e-04  2.56e-03 -6.17e-03 -1.49e-03
## 1134    2.47e-03 -3.13e-03 -2.16e-04  3.70e-04  2.83e-03 -1.06e-02 -1.75e-03
## 1135    2.09e-02    1.25e-02 -2.79e-03 -8.87e-03 -1.33e-02 -8.49e-03 -2.55e-02
## 1136    1.14e-03    5.14e-03  1.36e-02 -8.91e-03  6.14e-03 -7.00e-03 -5.91e-04
## 1137    1.30e-02 -5.57e-03  2.97e-03  1.09e-02 -1.16e-02 -4.18e-03 -1.34e-02
## 1138    1.07e-02    6.26e-03  1.48e-03  9.35e-03 -1.36e-02 -6.35e-03 -2.11e-03
## 1139 -1.66e-02  1.97e-02  4.50e-02 -9.66e-03 -3.72e-02 -1.03e-02 -8.04e-03
## 1140    3.42e-06    1.01e-02 -7.85e-03 -1.87e-02  1.42e-02 -5.09e-03 -1.86e-02
## 1141    1.31e-02 -1.54e-02  1.01e-02 -4.40e-03 -4.18e-03  2.36e-02 -2.13e-02
## 1142 -3.61e-03 -1.11e-02 -1.13e-02 -1.89e-02  1.44e-02  3.22e-03  1.71e-02
## 1143 -8.22e-03    4.41e-03 -8.16e-04  2.66e-03  2.46e-03  9.71e-04  8.74e-03
## 1144    8.13e-03 -1.66e-02 -8.60e-03  6.32e-03  5.36e-03 -9.70e-03 -3.62e-02
## 1145 -2.10e-03    7.02e-03  6.54e-03 -3.28e-03 -1.28e-03 -3.78e-03  5.93e-03
## 1146 -4.28e-03 -1.15e-02  6.85e-03  8.73e-03  1.57e-02 -1.13e-02 -1.07e-02
## 1147 -3.18e-03 -1.09e-02 -8.46e-03  8.55e-03  1.86e-03  1.38e-02  1.55e-02
## 1148    8.17e-03 -5.74e-03 -7.31e-04  1.52e-03  2.92e-03 -9.23e-03 -1.83e-03
## 1149 -1.04e-02  1.13e-02 -3.91e-03  4.28e-03  5.43e-03 -9.23e-04 -6.05e-03
## 1150    9.24e-04 -3.49e-03 -1.92e-03 -4.51e-03  4.86e-03  3.02e-03 -5.49e-04
## 1151    1.44e-03 -1.22e-03 -6.35e-05 -3.88e-04 -1.16e-03 -2.41e-04 -1.63e-03
## 1152    1.20e-03 -2.46e-03  1.29e-03  2.78e-03 -3.94e-03 -2.31e-04  3.38e-03
## 1153    8.73e-04    1.30e-03  1.02e-04 -1.18e-03 -8.48e-04 -2.18e-03 -3.92e-04
## 1154 -6.91e-03 -1.02e-02  1.70e-02 -7.83e-03  6.19e-03 -5.00e-03  5.09e-04
## 1155    5.41e-03 -7.69e-03 -9.92e-03 -9.40e-03  8.75e-03  4.25e-03 -1.18e-03
## 1156    5.55e-03    9.39e-03 -1.86e-02  1.67e-02 -7.41e-03  1.48e-03 -9.06e-03
## 1157    8.00e-03 -1.69e-02  3.44e-02 -2.53e-02  1.28e-02  6.12e-03  1.71e-02
## 1158    1.42e-02 -1.74e-02  2.26e-03 -2.53e-02  4.13e-02  2.69e-02 -2.74e-02
## 1159 -1.42e-03  1.91e-03  5.68e-04 -2.41e-03 -4.44e-04 -1.84e-03 -1.42e-04
## 1160 -7.43e-03  1.14e-02  1.10e-02 -7.27e-03 -2.66e-03 -5.46e-04  8.12e-03
## 1161 -1.80e-03  1.69e-03 -4.17e-03  1.27e-03 -1.55e-03  9.03e-04  2.57e-03
## 1162    7.32e-04    2.09e-03 -2.51e-04  1.27e-03  1.28e-03 -8.65e-04  5.08e-05
## 1163    9.23e-03 -1.18e-02 -5.14e-03  4.86e-03  4.46e-03 -8.44e-03 -2.59e-02
## 1164 -1.27e-02  9.64e-03 -5.04e-03  6.85e-03  3.68e-03 -6.04e-03 -1.62e-02
## 1165    2.58e-03    3.77e-03  9.14e-04 -4.05e-03 -3.20e-03 -9.36e-03 -8.44e-05
## 1166 -5.73e-03  5.66e-03  1.33e-02  9.55e-03 -1.42e-03  1.34e-02  9.49e-03
## 1167 -1.30e-04 -3.40e-04  1.08e-04 -6.05e-05  4.19e-04  4.47e-04 -6.36e-05
## 1168    2.57e-02 -2.27e-02  2.51e-02  2.88e-02 -2.94e-02 -1.00e-03 -3.69e-02
## 1169    1.25e-02 -1.82e-02  3.90e-02 -2.43e-03 -3.56e-02  4.98e-03 -1.05e-02
```

```
## 1170 -4.15e-02 -2.46e-02  5.78e-03 -6.18e-03 -1.19e-02  4.09e-02  9.75e-03
## 1171 -4.42e-03 -1.11e-02 -4.88e-03  5.47e-03  4.98e-03 -9.06e-03 -2.11e-02
## 1172 -1.87e-03 -1.56e-02 -1.30e-02  9.57e-03  3.57e-03  4.79e-04 -6.59e-03
## 1173 -2.72e-02  9.80e-03  8.36e-03 -5.72e-03 -2.18e-03 -1.20e-02  1.22e-02
## 1174 -1.39e-03 -4.22e-03 -1.06e-03  4.43e-03  2.05e-03  3.29e-05 -6.92e-03
## 1175 -9.71e-03 -1.42e-02  8.91e-03 -7.64e-03 -2.45e-03 -1.61e-02 -1.14e-02
## 1176  2.67e-03  1.33e-02  2.46e-02 -1.60e-02  8.91e-03  7.24e-03 -5.76e-03
## 1177 -4.05e-03  2.45e-03 -2.60e-04  1.96e-03  1.32e-03 -1.17e-03  4.77e-04
## 1178 -1.05e-02 -1.87e-02 -4.68e-02 -1.81e-02  4.90e-03 -1.03e-04  1.43e-02
## 1179  4.11e-03  6.80e-03 -5.21e-03  8.04e-03  1.32e-03  1.46e-02  9.44e-03
## 1180 -6.41e-03 -8.90e-03 -7.16e-03 -1.17e-02  1.07e-02  2.21e-03  1.33e-02
## 1181  9.87e-03  1.46e-02 -5.92e-03 -1.01e-02 -1.77e-02  1.25e-02  1.36e-02
## 1182 -8.46e-03  1.52e-02  8.76e-03 -5.47e-03 -3.77e-03  1.04e-02  3.41e-02
## 1183  4.16e-04 -9.85e-04 -5.90e-04 -1.32e-03  1.42e-03  6.47e-04 -1.42e-03
## 1184 -1.63e-02 -7.04e-03  1.36e-02  1.18e-02 -2.67e-03 -9.72e-03  3.10e-03
## 1185 -1.22e-03 -1.20e-02 -6.37e-03  1.01e-02  2.49e-03  4.03e-03  1.41e-02
## 1186 -1.18e-02  1.87e-02 -1.29e-02  7.79e-03  3.86e-03  6.82e-03  1.77e-02
## 1187  1.41e-03  1.35e-02 -9.86e-03  1.22e-02  3.82e-03  4.62e-04 -4.41e-03
## 1188  8.11e-04  7.40e-04  8.06e-05 -3.08e-04 -6.31e-04 -6.29e-04 -1.18e-03
## 1189  6.07e-05 -1.05e-02  8.89e-03 -5.29e-03 -2.08e-03 -4.91e-03  7.67e-03
## 1190 -1.90e-03 -2.46e-03 -1.35e-04  2.19e-03  1.11e-03  9.14e-04 -1.38e-04
## 1191 -3.67e-03 -9.25e-03 -3.34e-03  3.93e-03  3.49e-03 -9.90e-04 -3.06e-03
## 1192  1.01e-02 -1.27e-02  2.70e-02 -2.00e-02  1.01e-02 -8.94e-04 -8.32e-03
## 1193 -3.52e-04 -2.53e-03  1.04e-03  2.82e-03 -3.95e-03  2.48e-04  3.46e-03
## 1194  1.19e-02  6.01e-03 -3.15e-03 -1.14e-02  8.79e-03 -5.60e-03 -1.81e-03
## 1195  3.53e-04 -9.29e-04 -1.60e-04  8.45e-04  6.00e-04  1.32e-04  2.46e-04
## 1196 -8.39e-03 -1.39e-02 -1.33e-02 -2.62e-02  1.92e-02  9.45e-04 -3.74e-03
## 1197  2.19e-03  1.32e-02 -8.68e-03  1.12e-02  3.11e-03 -3.26e-04 -4.57e-03
## 1198  2.43e-03 -1.08e-02 -4.79e-03  4.38e-03  3.76e-03 -2.79e-03 -5.42e-03
## 1199  1.31e-02 -2.29e-02  2.37e-02  2.87e-02 -2.84e-02  6.34e-03 -3.31e-02
## 1200  1.18e-04  2.24e-04  5.24e-05 -2.39e-04 -1.33e-04 -4.21e-04  2.55e-04
## 1201 -1.49e-02  8.85e-03 -3.13e-03 -7.85e-03 -1.16e-02 -8.33e-03  1.74e-02
## 1202  1.24e-02 -1.11e-02  9.09e-03 -3.85e-03 -2.35e-03  3.22e-03  5.33e-03
## 1203 -2.38e-02 -1.90e-02 -1.33e-02  6.28e-03  4.16e-03 -2.56e-03  2.22e-02
## 1204  2.13e-02 -1.24e-02  2.29e-03  1.90e-02 -2.76e-02  3.56e-03 -9.29e-03
## 1205  7.09e-03  1.08e-02  7.65e-03 -3.71e-03 -2.90e-03 -1.92e-03 -1.08e-02
## 1206 -3.97e-03  6.46e-03 -6.82e-03 -7.75e-03  8.09e-03 -1.50e-03  1.24e-03
## 1207  2.00e-02 -1.56e-02  8.42e-03  1.28e-02  2.13e-02 -9.22e-04 -2.18e-02
## 1208 -2.73e-02  1.91e-02  3.88e-03  1.60e-02  2.41e-02  3.10e-03  3.93e-02
## 1209 -2.74e-02  1.74e-02 -1.28e-02  6.64e-03  4.15e-03 -1.55e-03  2.10e-02
## 1210 -1.75e-04  3.94e-03 -2.14e-04  2.21e-04  3.39e-03 -8.91e-03 -2.09e-03
## 1211  6.56e-03 -1.32e-02  1.23e-02 -8.53e-03 -9.55e-04 -1.54e-03  5.48e-03
## 1212  2.62e-03  1.19e-02  6.32e-03  1.10e-02  1.58e-02  2.09e-04 -1.30e-02
## 1213  5.88e-04 -2.28e-03 -2.80e-04  6.73e-04  1.92e-03 -2.82e-03 -1.09e-03
## 1214  2.29e-03  1.91e-03 -1.36e-03 -2.38e-03  2.82e-03  4.12e-03 -2.85e-03
## 1215  1.48e-03 -1.52e-02  1.37e-02 -1.06e-02 -2.84e-03 -2.85e-03  7.17e-03
## 1216  5.96e-03 -7.99e-03 -4.07e-03 -3.50e-04 -1.05e-02  9.34e-03 -1.29e-02
## 1217  6.71e-03  1.07e-02 -4.73e-03  6.39e-03  3.33e-03 -1.45e-03 -2.09e-02
## 1218 -2.17e-02  1.21e-02 -7.90e-03  4.32e-03  4.07e-03 -1.35e-02  2.01e-02
## 1219  3.13e-03 -4.21e-03 -1.25e-03  5.29e-04  4.22e-03 -3.81e-03 -1.21e-03
```

```
## 1220   1.03e-02   1.07e-02   9.04e-03  -4.10e-03  -1.96e-03   2.40e-03   4.53e-03
## 1221   7.89e-03  -1.78e-02   3.16e-03   2.03e-02   2.19e-02   2.04e-02   6.69e-03
## 1222  -1.39e-02   1.80e-02   1.33e-02   3.50e-02  -2.38e-02   3.45e-03  -2.25e-02
## 1223  -3.63e-04   2.13e-03   1.19e-03   2.35e-03  -3.52e-03  -4.47e-03   2.38e-03
## 1224  -4.13e-03   9.60e-03  -5.72e-03   7.86e-03   3.21e-03  -4.38e-03  -1.41e-03
## 1225   3.02e-03  -1.30e-02  -1.53e-02  -1.71e-02   1.46e-02   8.52e-03  -2.80e-03
## 1226   4.88e-04  -2.49e-03   9.91e-04   2.93e-03  -3.74e-03   6.59e-04   3.35e-03
## 1227  -5.96e-03   9.49e-03  -6.45e-03  -2.80e-03  -1.34e-02   7.16e-03  -2.21e-03
## 1228   6.13e-03   7.49e-03  -2.49e-03   4.72e-03   2.55e-03   2.54e-03  -4.47e-03
## 1229   2.82e-02  -1.78e-02   9.12e-03   1.01e-02   2.49e-02  -1.56e-02  -2.76e-02
## 1230  -9.39e-04   2.59e-03   1.62e-04  -3.99e-05   2.38e-03  -5.25e-03   2.76e-03
## 1231   7.82e-04   4.35e-03  -2.07e-04   9.62e-03  -9.87e-03   5.16e-04   6.72e-03
## 1232  -3.01e-03   6.88e-03   1.42e-02  -6.63e-03   5.17e-03  -1.09e-03  -1.37e-03
## 1233   1.38e-02  -1.09e-02   9.29e-03  -4.12e-03  -2.15e-03   1.97e-03   4.12e-03
## 1234   4.17e-04   3.41e-03  -1.87e-04   1.44e-03   2.31e-03  -3.89e-03  -1.79e-04
## 1235   1.69e-03   8.38e-03  -1.67e-02  -7.91e-03   3.68e-03  -3.98e-03   5.95e-03
## 1236   2.00e-02  -1.24e-02  -2.25e-03  -1.18e-02  -1.36e-02  -1.02e-02  -8.85e-03
## 1237   7.18e-03   5.40e-03  -1.87e-03   3.03e-03   2.46e-03   3.40e-03  -1.51e-03
## 1238   5.68e-03   1.02e-02  -5.91e-03   7.58e-03   2.74e-03   9.17e-03  -2.15e-02
## 1239  -6.32e-03  -8.51e-03  -5.69e-03  -1.56e-02   1.19e-02  -2.90e-03   1.36e-02
## 1240   2.47e-02  -1.92e-02   6.31e-03  -5.28e-03  -8.45e-03   1.97e-02   7.08e-03
## 1241  -4.57e-02   2.73e-02   5.69e-03  -1.36e-02  -1.29e-02   2.06e-02   6.53e-03
## 1242  -1.16e-02   1.97e-02   3.62e-02  -2.89e-02   1.33e-02   6.59e-03   1.97e-02
## 1243   1.62e-02  -1.13e-02  -8.11e-03  -2.60e-03  -1.62e-02   4.28e-03  -4.09e-03
## 1244  -3.54e-03  -1.10e-02  -5.11e-03  -5.63e-03  -1.34e-02  -9.15e-03  -2.23e-03
## 1245   5.77e-03   1.43e-02   8.37e-03  -6.97e-03  -3.79e-03  -9.38e-03   6.62e-03
## 1246   2.79e-02  -1.87e-02   6.09e-03  -4.81e-03  -8.58e-03   1.57e-02   7.24e-03
## 1247  -4.32e-03  -5.32e-03  -3.92e-03  -6.05e-03   6.94e-03  -6.55e-03   7.25e-04
## 1248   1.62e-02   1.45e-02   9.43e-03  -4.54e-03  -4.76e-03  -1.04e-03  -1.73e-02
## 1249   6.64e-03   5.61e-03  -7.87e-04   1.44e-03   3.05e-03  -9.19e-03  -1.78e-03
## 1250   8.14e-03   1.20e-02   9.34e-03  -5.10e-03  -1.96e-03  -3.94e-03  -1.22e-02
## 1251  -1.03e-02  -5.40e-03   1.19e-02  -5.04e-03   4.54e-03  -2.84e-03   9.04e-03
## 1252   1.12e-02   2.02e-02   7.76e-03  -4.27e-03  -6.01e-03   2.75e-02  -2.93e-02
## 1253  -2.61e-03   2.49e-03   9.68e-05  -3.74e-04   2.80e-03   5.30e-04   3.36e-03
## 1254  -2.31e-02  -1.03e-02   2.19e-02   1.10e-02  -2.14e-03   7.78e-03   1.65e-02
## 1255   4.79e-04   6.66e-04   4.41e-05  -5.61e-04  -4.38e-04  -6.95e-04  -2.32e-04
## 1256   3.06e-02   2.14e-02  -4.58e-02  -2.76e-02   6.06e-03   2.11e-03  -2.97e-02
## 1257  -1.33e-03   1.20e-02  -5.20e-03   3.04e-03   5.10e-03  -7.07e-03  -6.97e-03
## 1258   7.20e-03  -1.40e-02  -1.04e-02  -3.28e-02   2.15e-02   1.69e-03   1.74e-02
## 1259   4.50e-03  -1.11e-02  -7.93e-03  -2.21e-02   1.56e-02  -5.35e-03  -4.41e-03
## 1260   6.21e-03   2.24e-02  -3.40e-02   1.68e-02  -9.28e-03  -2.80e-03   2.10e-03
## 1261  -5.01e-03   2.52e-03  -7.85e-04   5.91e-05  -3.43e-03  -2.32e-03   5.65e-03
## 1262  -1.13e-02   6.57e-03   1.95e-02   1.82e-02  -1.99e-02   8.67e-04   1.14e-02
## 1263  -6.46e-03  -1.91e-02   4.40e-02   1.47e-02  -5.92e-03  -1.42e-03  -1.19e-02
## 1264  -6.27e-05  -1.72e-04   9.91e-05   1.94e-04  -2.55e-04   5.74e-05   2.51e-04
## 1265  -1.39e-02  -2.53e-02   2.68e-02   2.71e-02  -3.04e-02   1.31e-02   4.09e-03
## 1266   2.63e-07   9.37e-07  -1.98e-07   7.38e-08  -1.05e-06  -1.47e-06   2.15e-07
## 1267  -1.14e-05  -1.85e-03   5.68e-05   2.09e-04   1.67e-03  -2.99e-03   2.13e-03
## 1268   2.14e-03  -2.40e-03  -8.79e-04   2.46e-03   1.05e-03   3.36e-03   3.64e-03
## 1269   6.87e-03   4.67e-03   4.27e-04  -4.92e-03  -4.72e-03  -6.34e-03  -1.07e-03
```

```
## 1270   4.41e-03   1.06e-02   1.82e-02  -1.08e-02   6.73e-03   7.08e-03  -4.61e-03
## 1271  -4.80e-03  -5.22e-03  -2.49e-03   5.16e-04  -6.62e-03  -1.01e-02   2.39e-03
## 1272   3.01e-03   3.94e-03   7.27e-04   5.66e-03  -6.80e-03  -2.99e-03  -7.68e-04
## 1273  -2.32e-05  -4.16e-05   9.42e-05  -3.13e-05   3.66e-05  -3.58e-05   7.40e-05
## 1274  -8.55e-04   2.08e-03   9.67e-05   8.46e-05   1.89e-03  -5.85e-03  -8.89e-04
## 1275   3.18e-03   4.64e-03  -1.28e-04  -2.12e-03  -4.94e-03   6.45e-04   7.43e-03
## 1276   4.94e-03   3.98e-03  -1.79e-03  -6.76e-03   6.09e-03  -3.41e-03   2.19e-08
## 1277   8.40e-04  -1.39e-03   3.08e-03  -8.82e-04   1.09e-03  -3.05e-03   1.63e-04
## 1278   3.24e-03  -2.48e-03  -6.57e-04   1.99e-03   1.30e-03   8.74e-04  -1.14e-04
## 1279   8.30e-03   1.57e-02  -6.85e-03   4.79e-03   5.96e-03  -1.82e-03  -1.46e-02
## 1280  -3.86e-03  -4.28e-03  -4.05e-03  -3.68e-03   5.18e-03  -5.18e-03   1.39e-03
## 1281   1.51e-03  -2.24e-03  -2.77e-04   6.35e-04   1.94e-03  -4.86e-03  -1.12e-03
## 1282   2.18e-03  -9.24e-03  -1.69e-02   1.51e-02  -6.62e-03  -1.42e-03  -6.93e-03
## 1283   1.16e-02  -1.09e-02  -5.10e-04   4.10e-03   5.67e-03  -5.31e-03  -8.21e-03
## 1284   3.29e-02  -1.37e-02  -7.69e-03  -6.51e-03  -1.96e-02   9.87e-03  -1.13e-02
## 1285   2.33e-03  -2.00e-03   3.02e-04  -2.32e-03  -1.46e-03  -5.84e-03  -8.34e-04
## 1286  -2.45e-03  -3.40e-03   8.72e-04  -4.07e-03  -1.37e-03  -4.05e-03   5.51e-03
## 1287  -8.32e-05  -6.24e-04  -1.42e-03   4.05e-04  -6.09e-04   1.83e-04   1.01e-03
## 1288   1.85e-02  -1.81e-02   1.36e-02   3.50e-02  -2.47e-02   6.95e-04  -2.28e-02
## 1289  -3.21e-04   7.37e-04   1.93e-04  -9.47e-04  -2.96e-04   1.93e-04   1.17e-03
## 1290  -1.93e-04   2.55e-03  -1.12e-03   3.33e-04  -3.38e-03  -4.65e-03   6.79e-04
## 1291   2.63e-02  -1.98e-02   6.84e-03  -6.88e-03  -8.52e-03   1.44e-02   7.08e-03
## 1292  -1.01e-03   1.41e-03   5.47e-05  -1.37e-04   1.59e-03   2.45e-04   1.85e-03
## 1293  -2.31e-02  -1.74e-02   3.77e-02   1.59e-02  -5.45e-03   2.22e-03   2.06e-02
## 1294  -2.90e-02  -1.91e-02  -1.41e-02   7.89e-03   4.14e-03  -2.25e-03  -5.54e-03
## 1295   8.88e-03  -7.42e-03  -1.15e-03  -4.34e-03  -7.53e-03  -2.17e-03   9.64e-03
## 1296   3.69e-03   2.12e-02   1.36e-02   4.11e-02  -2.81e-02   1.47e-02   7.72e-03
## 1297  -1.19e-03   2.45e-03  -2.28e-03  -2.36e-03   3.10e-03  -3.94e-03   6.19e-04
## 1298  -4.17e-04   4.95e-03  -6.92e-04   6.05e-04   4.71e-03  -4.06e-03  -1.45e-03
## 1299   1.66e-03  -1.91e-03   3.25e-04  -5.95e-04  -1.84e-03   2.74e-04  -1.42e-04
## 1300  -2.92e-04   4.03e-03  -2.39e-04   2.29e-04   3.47e-03  -9.13e-03  -2.05e-03
## 1301   3.56e-03  -1.13e-02  -1.83e-02   1.60e-02  -6.46e-03   5.55e-03   5.81e-03
## 1302   8.60e-03  -1.02e-02  -4.95e-03   7.38e-03   2.44e-03   4.23e-03  -5.70e-03
## 1303  -1.53e-02   3.15e-02   1.88e-02  -4.57e-02  -4.77e-03   2.08e-02  -2.60e-03
## 1304   5.08e-03  -3.20e-03  -6.20e-04   2.61e-03   1.42e-03   2.88e-03  -1.43e-03
## 1305   1.04e-02  -9.85e-03  -2.00e-02  -8.80e-03   3.55e-03  -3.41e-03   5.38e-03
## 1306   7.58e-03   1.24e-02   1.08e-02  -7.78e-03  -1.97e-03  -4.16e-03   5.51e-03
## 1307   2.34e-03   1.35e-02   1.68e-02   2.04e-02  -1.46e-02  -6.13e-03   3.84e-03
## 1308  -4.11e-04   6.89e-03  -3.22e-03  -2.76e-03  -8.66e-03   6.72e-04   1.15e-02
## 1309   1.65e-03   3.09e-03  -1.02e-03   3.01e-03   9.49e-04   9.44e-05  -4.87e-03
## 1310  -3.00e-02  -2.09e-02   2.26e-02   2.81e-02  -2.28e-02  -9.81e-03   1.12e-02
## 1311  -3.82e-03   2.33e-02   9.64e-03   8.98e-03   2.95e-02   1.13e-03   2.44e-03
## 1312   5.70e-04  -1.64e-03   4.96e-04  -1.37e-03  -1.24e-03  -4.22e-03   4.89e-04
## 1313   1.04e-02   7.01e-03  -1.83e-03   2.21e-03   3.43e-03  -6.82e-03  -2.61e-03
## 1314   1.20e-02  -7.89e-03  -2.05e-03   2.58e-03   3.71e-03  -1.03e-02  -1.48e-02
## 1315   1.49e-02   1.22e-02  -4.80e-03   5.34e-03   3.93e-03   1.51e-03  -8.50e-03
## 1316  -4.29e-02  -2.40e-02  -6.37e-03  -3.41e-02   5.17e-02   3.65e-02   9.37e-03
## 1317  -2.45e-03   8.22e-03  -2.58e-03  -3.83e-03  -9.28e-03   1.41e-03   1.13e-02
## 1318  -4.52e-03  -3.44e-03   1.65e-05   5.51e-04   3.72e-03  -3.04e-03  -3.13e-05
## 1319   1.58e-02  -5.97e-03  -3.35e-03  -1.26e-02   9.42e-03  -9.60e-03  -1.92e-03
```

```
## 1320 -2.33e-04  3.00e-04  2.01e-04  3.44e-04 -4.96e-04 -6.32e-04  3.81e-04
## 1321 -4.23e-02  2.77e-02 -2.26e-03  2.65e-02  2.62e-02  3.60e-02  4.48e-03
## 1322  1.53e-02  1.15e-02 -2.50e-02 -6.80e-03  3.54e-03  4.14e-03 -1.16e-02
## 1323  3.89e-03 -3.53e-03 -4.63e-04 -1.53e-03 -3.85e-03  1.08e-03  6.57e-03
## 1324  1.12e-02 -2.15e-02  2.60e-02  2.41e-02 -2.46e-02  1.86e-02  1.37e-03
## 1325  2.41e-03 -6.45e-03 -2.69e-03 -1.13e-02  8.46e-03  3.08e-03 -2.26e-03
## 1326  3.97e-04  3.56e-03  1.54e-03  4.11e-03 -6.01e-03 -8.92e-03 -1.73e-03
## 1327  7.43e-04  5.06e-03 -1.57e-03 -8.98e-03  7.61e-03 -3.09e-03 -3.84e-04
## 1328 -1.93e-02 -1.54e-02 -8.02e-03  3.38e-03  4.22e-03 -2.42e-02  2.15e-02
## 1329  5.97e-04 -2.16e-03  6.28e-04 -2.75e-03 -1.30e-03 -4.56e-03  2.59e-03
## 1330 -5.65e-03  3.75e-03 -1.39e-03  3.33e-03  1.70e-03  6.65e-03  7.49e-03
## 1331  2.17e-02  1.73e-02 -3.78e-02 -8.92e-03  4.18e-03  3.25e-02 -2.28e-02
## 1332  1.56e-02 -1.77e-02  7.50e-03 -4.71e-03 -6.97e-03  1.50e-02  8.57e-03
## 1333 -9.34e-03 -1.34e-02 -1.32e-02 -2.64e-02  1.86e-02 -3.16e-03  1.86e-02
## 1334 -3.91e-05  1.29e-04 -3.23e-06  9.14e-05  9.15e-05 -9.68e-05  3.50e-05
## 1335 -2.44e-02 -2.49e-02  3.60e-03 -6.00e-03 -1.39e-02  3.60e-02  7.29e-03
## 1336 -1.34e-02 -2.24e-02  3.13e-02  2.39e-02 -2.30e-02  5.79e-03  5.63e-03
## 1337 -5.62e-03 -1.77e-02 -1.40e-03 -2.73e-02  4.06e-02  1.34e-02  1.10e-02
## 1338 -1.12e-03 -2.95e-03  2.79e-04  1.10e-03  2.25e-03 -6.45e-03  4.81e-04
## 1339  7.53e-04  7.09e-04 -1.43e-04 -5.25e-06 -8.88e-04  6.13e-04 -1.61e-04
## 1340  4.88e-03 -4.16e-03 -2.01e-03 -7.32e-03  6.14e-03  2.94e-03 -3.71e-04
## 1341 -5.24e-03 -1.09e-02 -1.22e-02 -1.16e-02  1.13e-02 -8.86e-03  1.69e-05
## 1342 -9.76e-03  1.32e-02  8.70e-03  8.77e-03  1.87e-02 -2.35e-03  9.21e-03
## 1343 -5.65e-04  3.37e-03 -1.60e-04  1.71e-03  2.47e-03 -4.56e-03  3.34e-04
## 1344  9.72e-03 -1.28e-02  1.25e-02  2.51e-02 -1.69e-02 -6.15e-05 -1.41e-02
## 1345  4.31e-03 -1.06e-02 -1.10e-02 -1.46e-02  1.27e-02  1.57e-02  1.45e-02
## 1346  1.82e-03  2.22e-03  1.22e-03  2.38e-03 -3.34e-03 -1.43e-03  2.66e-03
## 1347  1.19e-02  5.82e-03 -2.81e-04 -5.33e-03 -6.13e-03 -6.17e-03 -1.46e-03
## 1348  1.17e-03 -2.53e-03  7.96e-05 -1.88e-04  2.77e-03 -1.58e-03 -5.60e-03
## 1349 -1.84e-04 -2.24e-04  3.54e-05  4.04e-05  2.40e-04 -7.26e-04 -4.99e-05
## 1350 -1.75e-03  1.45e-02  9.93e-03 -8.48e-03 -2.83e-03 -8.26e-03  8.16e-03
## 1351  1.27e-02 -6.71e-03 -1.78e-03  2.50e-03  3.00e-03 -6.53e-03 -2.44e-03
## 1352 -1.64e-02 -1.91e-02 -1.67e-02  9.58e-03  2.94e-03 -4.15e-03 -7.41e-03
## 1353  1.99e-02  1.17e-02 -1.32e-02 -1.34e-02  1.22e-02 -8.84e-04 -4.94e-03
## 1354 -3.78e-02  1.50e-02 -1.02e-02  6.34e-03  4.48e-03  4.58e-03  2.15e-02
## 1355 -1.53e-03  8.69e-03  8.11e-03 -4.86e-03 -1.31e-03 -4.43e-03  6.60e-03
## 1356  7.35e-04  8.05e-03 -1.63e-02 -7.30e-03  3.42e-03 -3.05e-03  6.38e-03
## 1357  1.31e-02 -1.45e-02  1.06e-02 -5.49e-03 -4.33e-03  2.74e-04  7.57e-03
## 1358  2.01e-02 -1.31e-02  9.51e-03 -4.42e-03 -3.22e-03  1.05e-03 -1.56e-02
## 1359 -5.11e-03  4.27e-03  2.05e-03  4.21e-03 -6.59e-03  2.44e-03  6.07e-03
## 1360 -3.50e-03  2.66e-03 -6.12e-04  5.20e-04  2.53e-03  8.67e-04  4.92e-05
## 1361  3.82e-03 -2.38e-02  2.74e-02  3.21e-02 -2.87e-02 -4.31e-02 -3.97e-02
## 1362  4.82e-03 -1.09e-02  1.18e-02  2.03e-02 -1.36e-02 -1.97e-04  5.34e-03
## 1363 -1.61e-02  1.07e-02  1.79e-02 -1.07e-02  6.12e-03  8.75e-03  4.57e-04
## 1364 -3.29e-03  2.02e-03 -7.81e-04  2.23e-03  6.69e-04  1.86e-03  3.68e-03
## 1365  6.26e-03 -7.86e-03 -4.45e-03  6.00e-03  2.56e-03  7.09e-03 -1.53e-02
## 1366  1.13e-03 -2.05e-03 -2.09e-04  1.47e-03  1.41e-03 -2.58e-03  3.52e-04
## 1367  7.26e-03  9.52e-03 -2.11e-02 -6.04e-03  2.61e-03 -2.35e-04 -8.05e-03
## 1368 -1.13e-02  1.58e-02 -1.21e-02  1.03e-02  4.13e-03  1.78e-02  1.67e-02
## 1369  5.99e-03  4.94e-03  1.82e-03  7.18e-03 -1.06e-02 -7.25e-03 -1.34e-03
```

```
## 1370   3.33e-04   2.38e-04   3.98e-05  -7.81e-05  -2.14e-04  -1.81e-05  -5.99e-05
## 1371   1.62e-04  -1.81e-04   1.74e-05  -8.25e-05  -1.60e-04  -8.79e-05   5.34e-05
## 1372  -4.17e-03  -1.69e-02   5.86e-03  -7.28e-03  -7.93e-03   6.73e-03   1.28e-02
## 1373  -3.25e-03  -5.98e-03  -3.56e-04  -7.49e-04   5.96e-03   1.08e-03   7.31e-03
## 1374   6.29e-03  -5.98e-03  -3.02e-03  -6.55e-04  -7.64e-03   4.80e-03  -9.64e-03
## 1375   6.46e-04   2.15e-03   7.30e-04  -2.81e-03  -1.06e-03  -3.53e-03  -4.43e-03
## 1376   2.27e-04   4.09e-03  -1.66e-03  -3.69e-04  -5.45e-03  -1.87e-03   6.57e-03
## 1377  -3.97e-02   1.67e-02  -1.08e-02   5.05e-03   5.38e-03   1.78e-03   2.26e-02
## 1378   1.37e-03  -1.83e-03  -1.36e-04  -6.52e-04  -1.71e-03   2.22e-03  -2.40e-03
## 1379  -5.49e-03   1.74e-02   9.29e-03  -6.47e-03  -4.92e-03   2.60e-02   3.64e-02
## 1380   2.04e-02   1.69e-02   1.66e-02   2.99e-02  -2.01e-02  -2.15e-03  -2.24e-02
## 1381  -2.73e-04  -4.90e-03  -1.71e-03   5.59e-03   1.86e-03  -2.52e-03   7.34e-03
## 1382   1.51e-04  -9.08e-04   2.70e-04  -1.23e-03  -3.94e-04   2.76e-04   1.41e-03
## 1383  -3.97e-04  -2.79e-03   2.04e-04  -7.13e-05   2.55e-03  -6.49e-03   3.13e-03
## 1384   1.63e-02  -1.20e-02  -2.17e-03  -8.84e-03  -1.36e-02  -4.65e-03  -7.81e-03
## 1385  -9.77e-03   1.49e-02  -2.51e-02   1.86e-02  -8.29e-03  -4.38e-03   9.85e-03
## 1386   2.38e-04   5.29e-03   1.37e-04  -5.00e-04   5.27e-03  -3.31e-03  -1.16e-03
## 1387   6.54e-05   1.51e-02  -1.79e-02  -2.45e-02   1.77e-02   5.40e-03  -6.00e-03
## 1388   5.99e-04   8.13e-04   6.69e-05  -4.82e-04  -7.53e-04   1.00e-04   1.19e-04
## 1389   7.40e-03  -6.46e-03  -8.71e-04   1.56e-03   3.25e-03  -8.72e-03  -1.64e-03
## 1390   4.19e-03  -6.15e-03  -3.14e-03   6.24e-05  -8.35e-03  -2.67e-03  -1.51e-04
## 1391  -1.26e-02  -2.16e-02   1.82e-02   3.21e-02  -3.03e-02  -4.68e-04   4.62e-02
## 1392   1.84e-02   2.41e-02   2.12e-02  -3.12e-02  -2.89e-04   2.80e-03   4.24e-04
## 1393   5.78e-03  -1.89e-02  -1.47e-02   8.64e-03   2.79e-03   4.92e-03   1.47e-02
## 1394   2.63e-03  -1.23e-02  -8.01e-03   8.45e-03   2.73e-03   1.01e-02  -4.48e-03
## 1395   2.26e-03  -3.00e-03   5.24e-04  -2.44e-03  -2.50e-03  -3.59e-03   1.47e-04
## 1396   5.71e-03   4.79e-03   1.72e-03   7.11e-03  -1.04e-02  -6.11e-03  -1.24e-03
## 1397  -1.23e-02   8.55e-03  -1.95e-02  -7.16e-03   3.03e-03  -6.11e-03  -4.07e-03
## 1398   1.02e-02   2.01e-02   3.91e-03  -3.04e-02   4.38e-02   2.72e-03  -2.71e-02
## 1399   6.26e-03   1.52e-02  -7.60e-03   6.45e-03   4.98e-03   4.97e-04  -1.08e-02
## 1400   3.74e-04  -1.10e-03  -1.58e-04   9.59e-04   7.46e-04  -7.36e-04  -1.58e-03
## 1401   1.83e-02   1.23e-02   9.05e-03  -4.48e-03  -2.86e-03   2.22e-03   3.92e-03
## 1402  -1.15e-04  -5.11e-04  -5.30e-05  -1.23e-03   1.05e-03  -1.06e-03   6.37e-04
## 1403  -7.48e-03   8.09e-03   3.04e-03   1.19e-02  -1.55e-02  -1.35e-02   1.36e-02
## 1404   5.69e-04  -5.29e-03  -5.69e-03  -4.69e-03   5.79e-03  -3.70e-03   2.93e-04
## 1405   3.58e-03  -1.38e-02  -1.08e-02  -2.93e-03  -2.11e-02   3.97e-04  -1.78e-03
## 1406  -1.16e-03   5.78e-03  -1.23e-02  -4.46e-03   2.21e-03  -2.31e-03   5.85e-03
## 1407   1.18e-02   1.77e-02   3.43e-02   1.93e-02  -7.30e-03   7.68e-03   1.37e-02
## 1408  -1.24e-03   1.41e-02   1.38e-02   2.57e-02  -1.75e-02  -4.23e-03  -1.37e-02
## 1409   1.89e-03  -2.05e-03   3.67e-04  -4.17e-05   2.28e-03   1.48e-03  -9.41e-04
## 1410  -5.58e-03   1.13e-02  -7.92e-03   1.02e-02   1.86e-03   1.00e-02  -3.92e-03
## 1411  -2.77e-03   4.70e-03  -3.47e-03   6.04e-03   1.02e-03  -1.29e-03   7.58e-03
## 1412  -1.35e-03  -4.23e-03  -6.66e-04  -6.00e-04  -4.53e-03   1.88e-03   7.59e-03
## 1413   1.69e-03  -1.14e-02   2.73e-02   9.13e-03  -2.46e-03  -2.07e-03  -6.30e-03
## 1414  -1.46e-03   6.58e-03  -6.04e-03   3.35e-04  -1.09e-02  -7.88e-04   3.87e-04
## 1415   6.62e-05  -1.11e-03  -1.08e-05   2.51e-04   1.01e-03  -2.79e-03  -4.00e-04
## 1416   1.92e-03  -1.15e-02  -1.47e-02  -1.30e-02   1.16e-02   3.48e-03  -2.18e-03
## 1417   5.71e-03  -9.74e-03  -1.88e-02  -7.58e-03   3.92e-03   5.79e-04   6.66e-03
## 1418  -1.93e-04   2.12e-04   6.52e-05  -3.94e-05   2.68e-04   3.21e-04  -2.89e-05
## 1419  -6.95e-03  -1.05e-02   1.21e-02   1.80e-02  -1.20e-02  -5.02e-03   7.64e-03
```

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## 1420   8.84e-06  -4.87e-05   1.24e-05   8.96e-05  -8.98e-05   9.36e-05   8.35e-06
## 1421   2.59e-02   1.28e-02  -6.97e-03  -2.47e-02   1.75e-02   7.11e-03  -1.17e-02
## 1422  -1.48e-04   1.75e-03   3.55e-03  -1.36e-03   1.26e-03  -1.67e-05  -6.88e-05
## 1423  -2.39e-02   9.91e-03   2.41e-02   1.36e-02  -4.64e-03   1.43e-02   1.50e-02
## 1424   5.38e-03  -1.66e-02   8.98e-03  -5.35e-03  -5.47e-03   1.85e-02   3.53e-02
## 1425  -5.21e-05   2.96e-04   1.79e-05  -1.19e-04  -2.54e-04   1.55e-04  -3.80e-04
## 1426   3.75e-03  -3.98e-03  -9.22e-04   2.63e-03   2.21e-03  -3.26e-03  -6.41e-03
## 1427   2.57e-03  -5.99e-03  -3.63e-03  -8.90e-03   8.43e-03  -1.66e-02  -1.00e-02
## 1428   2.89e-03   2.49e-03  -7.69e-04   1.84e-03   1.10e-03   2.52e-03  -2.40e-04
## 1429   2.00e-02   9.97e-03  -3.66e-03  -1.91e-02   1.48e-02   3.26e-03  -7.26e-03
## 1430  -3.74e-03  -1.15e-02   8.13e-03  -5.51e-03  -2.16e-03  -1.25e-02   8.36e-03
## 1431   1.22e-02  -8.13e-03   1.38e-02  -5.86e-03   4.09e-03  -2.86e-03  -3.32e-03
## 1432  -2.44e-03   8.90e-03   7.71e-03  -4.17e-03  -1.73e-03  -3.70e-03   6.71e-03
## 1433  -1.24e-02   8.60e-03  -4.89e-03   6.11e-03   2.97e-03   5.95e-03  -1.76e-02
## 1434  -7.45e-03  -7.00e-03  -2.59e-03   5.25e-03   2.14e-03   5.05e-03  -6.24e-04
## 1435   7.72e-03   1.21e-02  -2.62e-02  -8.72e-03   4.45e-03   1.48e-03  -1.15e-02
## 1436   2.73e-03   2.87e-03   5.48e-04  -2.60e-03  -2.46e-03  -6.17e-03   6.16e-05
## 1437  -2.34e-03  -1.12e-02   1.97e-02  -9.66e-03   7.28e-03  -6.99e-03  -2.67e-03
## 1438  -2.71e-03  -6.40e-03  -2.14e-03  -7.13e-04  -7.65e-03   1.69e-04   9.79e-03
## 1439   7.86e-03   1.07e-02  -5.24e-03  -2.38e-02   1.57e-02  -3.84e-03  -6.40e-03
## 1440   1.88e-03   6.02e-03   6.42e-04   1.21e-02  -1.22e-02  -1.64e-03   8.30e-03
## 1441   4.43e-03   1.86e-02  -1.36e-02   1.12e-02   3.00e-03   1.75e-02  -1.29e-02
## 1442  -1.72e-03   1.30e-02  -5.59e-04   2.00e-02  -3.11e-02  -1.47e-02  -2.83e-02
## 1443   1.24e-02  -1.57e-02   1.49e-03  -2.35e-02   3.62e-02  -1.14e-03   4.88e-03
## 1444   3.68e-03   3.97e-03  -1.01e-03   2.21e-03   1.98e-03   1.48e-03  -6.17e-04
## 1445   1.02e-02  -6.41e-03   1.78e-02   4.35e-03  -3.96e-04  -1.08e-02  -2.47e-03
## 1446   1.20e-02   6.03e-03  -1.16e-04  -5.99e-03  -6.32e-03  -6.89e-03  -1.93e-03
## 1447   8.28e-03   1.00e-02  -3.96e-03   6.40e-03   4.27e-03   6.83e-03  -2.31e-02
## 1448   3.57e-04   9.80e-03   2.19e-02   1.32e-02  -3.18e-03   1.63e-02   1.31e-02
## 1449  -1.27e-03   1.56e-02  -1.35e-02   1.20e-02   2.60e-03   1.26e-02   1.55e-02
## 1450   7.63e-03   4.36e-03  -5.51e-04  -3.16e-03  -4.90e-03   3.20e-03  -6.87e-04
## 1451   5.72e-03  -6.85e-03  -5.76e-03  -1.15e-02   1.13e-02  -8.20e-03  -6.68e-04
## 1452  -1.12e-02   1.01e-02   1.30e-02   1.94e-02  -1.34e-02  -5.17e-03   7.99e-03
## 1453  -1.65e-03   1.24e-02  -1.21e-02  -1.76e-02   1.50e-02  -3.59e-03  -1.52e-03
## 1454  -2.87e-02  -2.55e-02   3.87e-03  -6.58e-03  -1.38e-02   4.09e-02   6.90e-03
## 1455  -8.22e-03  -6.71e-03  -4.43e-03   8.15e-03   1.68e-03  -3.25e-03   1.04e-02
## 1456  -2.16e-03  -1.30e-02   1.09e-02  -5.58e-03  -2.71e-03  -2.96e-03   8.91e-03
## 1457   4.44e-03   1.39e-02  -1.00e-02  -2.26e-02   1.77e-02   3.39e-03  -3.99e-03
## 1458   3.12e-04   1.77e-03  -7.35e-04  -3.12e-03   3.05e-03   1.37e-03   2.00e-04
## 1459   2.73e-02   1.52e-02   9.17e-03  -5.15e-03  -3.93e-03   6.47e-04  -1.93e-02
## 1460   5.03e-03   8.61e-03  -8.83e-04   2.92e-03   3.82e-03   5.05e-03  -4.76e-03
## 1461  -1.02e-02   1.60e-02  -6.26e-03  -1.53e-02  -1.81e-02  -6.32e-03   1.86e-02
## 1462   4.54e-03   8.52e-03  -8.37e-04  -7.48e-03  -9.41e-03  -3.63e-03  -3.33e-03
## 1463   6.37e-03  -1.14e-02  -3.55e-03   7.19e-03   4.33e-03   4.54e-04  -2.36e-02
## 1464  -2.01e-03   5.59e-03  -4.52e-03   6.93e-03   9.10e-04  -1.35e-03  -1.99e-04
## 1465   1.62e-03  -1.91e-02   1.36e-02  -1.71e-02  -2.26e-03  -1.34e-02   7.62e-03
## 1466   6.37e-03  -5.59e-03  -8.48e-04   1.83e-03   2.74e-03  -4.33e-03  -1.49e-03
## 1467  -6.34e-03   1.41e-02  -1.55e-02  -2.25e-02   1.77e-02   4.64e-03  -5.95e-03
## 1468   9.28e-03  -1.40e-02   8.88e-03   1.06e-02   1.87e-02   4.74e-03   4.45e-03
## 1469  -7.51e-03   1.28e-02   1.19e-02  -1.01e-02  -7.49e-04  -8.56e-03   9.58e-03
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## 1470   8.84e-03   1.14e-02  -9.44e-03  -2.37e-03  -1.74e-02  -8.58e-04  -3.38e-03
## 1471  -6.53e-03  -4.52e-03   9.29e-03  -3.28e-03   3.51e-03  -5.09e-03   1.42e-03
## 1472   5.66e-03   5.84e-03  -8.79e-04   1.49e-03   3.27e-03  -7.90e-03  -1.66e-03
## 1473   9.07e-05  -2.52e-02   1.56e-02  -2.04e-04   3.31e-02   1.59e-02  -2.35e-03
## 1474  -1.15e-02  -1.71e-02   1.76e-02  -1.75e-02  -8.25e-04  -1.02e-02   1.08e-02
## 1475  -5.61e-03  -1.07e-02  -6.44e-03   9.53e-03   2.62e-03   6.72e-03   1.47e-02
## 1476  -1.06e-02   4.64e-03  -1.68e-03   3.83e-03   2.14e-03   5.59e-03   9.61e-03
## 1477  -1.28e-03  -1.91e-03   2.48e-04  -9.54e-05   1.99e-03  -1.26e-03  -3.58e-03
## 1478   3.34e-03  -2.21e-02   4.60e-02   1.94e-02  -9.08e-03   1.80e-02   1.66e-02
## 1479  -2.89e-04   1.85e-04   1.06e-07   5.76e-05   2.12e-04  -1.19e-04   1.84e-05
## 1480  -7.31e-03  -5.61e-03   1.02e-02  -3.64e-03   3.84e-03  -5.99e-03   8.91e-03
## 1481   5.63e-03  -9.69e-03  -1.88e-02  -9.72e-03   4.24e-03  -5.04e-03   6.05e-03
## 1482  -2.50e-02   2.08e-02   5.33e-03  -5.42e-03  -8.67e-03   1.28e-02   1.30e-02
## 1483  -2.83e-03  -1.08e-02  -9.92e-03   1.32e-02   8.72e-04  -1.87e-03  -1.32e-03
## 1484  -6.21e-03   9.67e-03  -2.12e-03   2.56e-03   4.88e-03  -4.83e-03  -3.52e-03
## 1485   3.58e-03  -3.12e-03   5.71e-04  -2.44e-03  -2.97e-03   2.25e-06  -9.47e-04
## 1486   2.64e-03  -4.79e-03   9.29e-03  -3.59e-03   3.52e-03   9.62e-04  -8.08e-03
## 1487   7.44e-03  -6.27e-03  -7.95e-04   1.51e-03   3.17e-03  -8.60e-03  -1.79e-03
## 1488   2.74e-03  -1.26e-02  -2.48e-02  -1.14e-02   3.84e-03  -2.60e-03   9.29e-03
## 1489   3.38e-03   1.57e-02  -9.64e-03   7.88e-03   3.73e-03   2.66e-03   1.48e-02
## 1490  -3.71e-02   2.72e-02  -2.97e-03   2.48e-02   2.42e-02   4.85e-02   1.99e-03
## 1491   8.19e-03  -6.17e-03  -3.95e-03  -4.98e-04  -9.05e-03   2.14e-03  -1.74e-03
## 1492   1.21e-02   7.34e-03  -1.82e-03   2.04e-03   3.50e-03  -1.09e-02  -2.72e-03
## 1493   1.95e-03  -6.05e-03  -3.44e-03  -1.47e-03  -8.32e-03   4.12e-03   9.53e-03
## 1494   2.82e-02  -1.28e-02  -2.82e-02  -1.11e-02   4.48e-03  -3.03e-04   4.20e-03
## 1495  -1.69e-03   9.63e-03   1.59e-02  -8.40e-03   4.54e-03   3.76e-03  -3.13e-03
## 1496  -1.40e-03  -1.19e-02  -8.70e-03   9.27e-03   1.19e-03   1.08e-02   1.57e-02
## 1497  -1.55e-03   2.27e-03   1.68e-04   9.95e-04   1.84e-03  -4.17e-03   4.01e-04
## 1498  -3.08e-03   4.81e-03  -3.48e-03  -6.89e-03   7.04e-03   2.75e-03  -7.29e-03
## 1499  -8.79e-03  -1.50e-02   2.93e-02   2.13e-02  -7.06e-03  -1.12e-02  -3.44e-03
## 1500  -2.55e-02  -1.71e-02  -1.27e-02   8.87e-03   2.72e-03   6.03e-03   2.25e-02
## 1501   1.21e-02  -9.50e-03  -1.96e-02  -6.08e-03   3.12e-03   3.96e-03   5.66e-03
## 1502  -1.21e-03   2.52e-03  -1.92e-03  -2.68e-03   3.68e-03   1.17e-03   4.69e-03
## 1503   1.09e-03  -1.66e-03   1.88e-04  -1.68e-03  -1.16e-03  -2.55e-03  -5.85e-04
## 1504   1.71e-02  -1.52e-02   3.59e-02  -4.18e-03  -3.05e-02  -2.89e-04   1.34e-02
## 1505   1.79e-02  -1.49e-02   1.21e-02  -8.66e-03  -2.49e-03  -7.13e-03  -1.88e-02
## 1506  -1.75e-03  -5.34e-03   2.36e-03   5.45e-03  -7.89e-03   4.21e-04   7.06e-03
## 1507  -1.54e-03   2.31e-03   4.63e-05   1.95e-04   2.13e-03  -4.69e-03  -9.00e-04
## 1508  -1.52e-03  -1.98e-02  -1.22e-02  -1.38e-02  -2.57e-02   7.58e-04  -8.38e-03
## 1509   2.45e-02   1.72e-02  -3.69e-02  -8.40e-03   3.98e-03   2.84e-02  -2.26e-02
## 1510   9.84e-04   3.35e-03  -1.07e-03  -7.18e-03   6.10e-03  -7.36e-03  -1.40e-03
## 1511   3.52e-03  -6.46e-03  -2.42e-03   5.67e-03   1.56e-03   2.73e-03  -1.20e-02
## 1512  -2.63e-03  -1.90e-02  -2.03e-02  -3.39e-02   2.37e-02   6.32e-03  -1.15e-02
## 1513  -6.88e-03   9.81e-03  -1.04e-02  -1.16e-02   1.21e-02  -2.58e-03   4.48e-04
## 1514   8.20e-03  -5.46e-03  -9.28e-04   1.87e-03   2.69e-03  -7.73e-03  -1.28e-03
## 1515  -2.09e-02   1.78e-02   1.01e-02  -6.06e-03  -7.08e-03   1.97e-02  -2.00e-02
## 1516   1.54e-02  -7.53e-03  -3.63e-03  -1.63e-02   1.16e-02  -1.20e-02  -2.66e-03
## 1517   8.12e-04   1.00e-03  -1.42e-04   8.09e-04   5.10e-04   5.43e-04  -1.89e-03
## 1518  -6.05e-02   2.33e-02   1.20e-02  -1.96e-02  -6.96e-03  -1.55e-02   1.89e-02
## 1519  -1.39e-02   9.18e-03  -3.15e-03   3.31e-03   4.14e-03  -3.73e-03  -3.76e-03
```

```
## 1520   8.83e-03 -7.35e-03 -6.44e-03  9.39e-03 -4.75e-04  1.60e-03 -2.36e-03
## 1521   7.91e-03 -5.34e-03  3.56e-04 -4.89e-03 -5.07e-03 -5.65e-03 -7.15e-04
## 1522   1.79e-03 -1.92e-02 -1.41e-02  8.08e-03  6.18e-03  1.72e-02  1.66e-02
## 1523   1.09e-03 -3.97e-03 -1.29e-04  1.31e-04  3.54e-03 -1.05e-02 -2.35e-03
## 1524  -1.05e-03 -1.29e-02 -6.50e-03  6.70e-03  2.78e-03  2.92e-03 -5.23e-03
## 1525  -1.94e-04  2.36e-03  8.82e-04  3.17e-03 -4.12e-03 -3.63e-03 -8.74e-04
## 1526  -8.03e-03 -1.61e-02  4.14e-03  1.47e-02  1.98e-02 -7.10e-03 -1.50e-02
## 1527   1.34e-02 -5.77e-03 -1.54e-03 -2.95e-03 -6.60e-03  4.95e-03 -9.78e-03
## 1528   5.28e-03  4.29e-03 -8.66e-04  1.91e-03  2.16e-03 -2.92e-03 -1.05e-03
## 1529   2.24e-02  1.76e-02  1.10e-02 -8.84e-03 -3.41e-03 -8.16e-03 -2.06e-02
## 1530   4.37e-04  3.89e-03 -2.45e-04  2.91e-04  3.26e-03 -9.21e-03 -1.97e-03
## 1531   1.31e-02  1.02e-02  2.33e-02 -1.66e-02  9.63e-03 -4.00e-03 -2.11e-02
## 1532  -5.34e-03 -5.86e-03 -6.50e-04 -1.26e-04  5.69e-03  5.39e-04 -1.15e-03
## 1533  -2.29e-04  7.80e-04  1.00e-04 -4.41e-05  8.34e-04 -2.07e-05  1.05e-03
## 1534  -6.53e-04 -1.15e-02  9.17e-03 -5.58e-03 -2.90e-03 -8.31e-03  8.01e-03
## 1535   2.10e-03 -8.64e-03  1.68e-04 -8.06e-03 -8.83e-03 -6.72e-03 -2.34e-03
## 1536  -3.01e-03  5.56e-03 -4.30e-03 -5.12e-04 -8.89e-03  7.54e-03  9.57e-03
## 1537   2.28e-03 -3.51e-03  6.92e-04 -4.45e-03 -2.27e-03 -1.01e-02 -1.58e-03
## 1538  -5.70e-05 -1.18e-03 -2.07e-04  1.05e-03  7.42e-04  1.03e-03  3.40e-04
## 1539   2.34e-02  1.52e-02  1.29e-02  3.07e-02 -1.98e-02  4.15e-03 -1.99e-02
## 1540  -2.11e-03  8.17e-03 -6.74e-03 -1.57e-02  1.19e-02  6.76e-03 -3.35e-03
## 1541  -6.11e-03  6.51e-03 -5.48e-03  9.21e-03  1.36e-03 -8.49e-03  3.75e-04
## 1542   6.55e-04  2.28e-03  3.23e-04 -2.53e-03 -1.46e-03 -4.25e-03 -9.07e-04
## 1543   4.76e-03  2.40e-02  2.82e-02  2.43e-02 -2.56e-02  1.72e-02 -1.15e-03
## 1544  -9.96e-03  1.15e-02 -3.33e-03 -8.27e-03 -1.49e-02  8.11e-03  1.72e-02
## 1545   1.59e-02 -1.74e-02  7.46e-03 -4.39e-03 -6.83e-03  1.52e-02  7.90e-03
## 1546  -1.04e-02  2.19e-02  3.89e-02 -3.59e-02  1.48e-02 -5.86e-03 -1.37e-02
## 1547  -1.46e-03  3.25e-03 -2.98e-04  1.99e-03  2.39e-03 -3.96e-03 -4.56e-03
## 1548   3.67e-03 -4.88e-03  3.25e-04 -2.33e-03 -4.84e-03 -5.61e-03 -8.51e-03
## 1549   1.57e-03 -9.62e-03 -4.07e-03 -3.95e-03 -1.34e-02  5.85e-03  1.38e-02
## 1550   2.85e-03  3.91e-03 -1.05e-03  2.30e-03  2.01e-03  3.46e-03 -5.61e-04
## 1551  -2.28e-02  2.36e-02  2.44e-02  3.00e-02 -3.17e-02  1.82e-02 -3.62e-02
## 1552  -1.31e-03  1.37e-02  6.77e-03 -4.20e-03 -5.57e-03 -1.25e-02 -1.44e-02
## 1553   1.47e-02  9.98e-03 -3.01e-03  3.97e-03  3.92e-03  1.33e-03 -1.94e-02
## 1554  -1.27e-02  1.22e-02  1.26e-02 -8.75e-03 -1.13e-03 -5.46e-03  9.56e-03
## 1555   7.23e-03 -6.37e-03 -8.84e-04  1.62e-03  3.18e-03 -8.07e-03 -1.58e-03
## 1556  -1.90e-03  3.00e-03  7.93e-04  5.92e-03 -6.26e-03  1.09e-03  5.64e-03
## 1557   1.24e-02 -1.11e-02  9.09e-03 -3.85e-03 -2.35e-03  3.20e-03  5.30e-03
## 1558  -3.76e-04 -7.96e-03  2.21e-04 -7.70e-03 -8.16e-03 -6.37e-03  1.24e-02
## 1559  -4.02e-02  1.76e-02  4.18e-02  1.15e-02 -4.55e-03 -3.32e-03  2.09e-02
## 1560   2.04e-03 -7.63e-03 -1.48e-02 -6.20e-03  2.82e-03 -3.62e-03  6.15e-03
## 1561  -7.20e-03 -9.16e-03 -7.83e-03  9.29e-03  3.20e-04  1.08e-02  1.28e-02
## 1562  -6.12e-05 -8.45e-04  2.09e-04 -1.11e-04  1.02e-03  8.14e-05 -9.97e-05
## 1563   2.73e-02 -1.40e-02 -1.01e-02 -2.69e-02  1.89e-02 -2.37e-03 -1.34e-02
## 1564   3.61e-02  2.35e-02  4.60e-02  1.82e-02 -7.47e-03  2.51e-02 -2.35e-02
## 1565  -6.67e-03 -9.99e-03 -1.19e-03 -7.56e-03 -1.05e-02 -2.48e-03 -1.04e-03
## 1566   8.31e-05 -1.86e-04  4.70e-05 -1.23e-04 -1.48e-04 -3.28e-04  6.30e-05
## 1567   5.99e-03  4.98e-03  1.82e-03  7.24e-03 -1.07e-02 -7.28e-03 -1.31e-03
## 1568   2.17e-02  2.06e-02 -4.99e-02 -1.13e-02  3.14e-03  1.82e-02  8.33e-03
## 1569   7.38e-04  7.06e-03 -3.32e-03 -1.68e-03 -8.76e-03  1.30e-03  1.04e-02
```

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## 1570  1.43e-03 -3.01e-03  1.19e-03  4.46e-03 -5.47e-03 -2.36e-03  5.50e-05
## 1571  1.79e-02 -2.33e-02  2.29e-02 -3.41e-02 -9.00e-04 -2.12e-02 -3.63e-02
## 1572  9.76e-05 -2.56e-04  5.73e-04 -2.26e-04  2.02e-04  3.31e-04 -1.35e-05
## 1573 -1.02e-02  1.85e-02  3.08e-03  1.22e-02  2.24e-02  3.01e-03 -2.14e-02
## 1574 -1.21e-02  2.04e-02  4.39e-03 -6.11e-03 -7.77e-03 -3.49e-03  1.25e-02
## 1575  1.07e-02 -1.14e-02 -2.10e-02  1.86e-02 -7.67e-03 -3.43e-04 -1.16e-02
## 1576  7.80e-03 -1.06e-02  2.41e-02 -1.53e-02  9.69e-03 -1.11e-02 -2.25e-02
## 1577 -4.69e-03  9.34e-03 -4.80e-03  4.18e-03  3.29e-03  2.68e-03  1.44e-02
## 1578  3.88e-05 -2.16e-03 -3.46e-04 -2.18e-04 -2.30e-03  9.99e-04 -2.97e-03
## 1579  7.34e-03 -1.33e-02 -3.80e-03 -1.13e-02 -1.57e-02 -1.61e-02 -2.58e-02
## 1580 -3.89e-03 -5.95e-03  1.32e-02  9.22e-03 -1.05e-03  3.12e-03  9.29e-03
## 1581  3.22e-03  4.28e-03 -1.89e-03 -6.03e-03  6.16e-03  1.13e-04 -7.15e-03
## 1582  3.73e-04 -1.06e-03 -3.08e-04  1.86e-04 -1.37e-03 -1.76e-03  2.77e-04
## 1583 -9.68e-05 -4.15e-04 -4.57e-06  1.17e-04  3.57e-04 -5.70e-05  4.65e-04
## 1584 -4.00e-03 -1.17e-02  2.52e-02  1.61e-02 -4.48e-03 -2.48e-03 -2.06e-03
## 1585  1.94e-02 -1.46e-02  3.56e-02  1.04e-02 -2.45e-03 -1.73e-03 -1.39e-02
## 1586  6.37e-04  3.15e-03 -3.00e-04  5.29e-04  2.53e-03 -6.50e-03 -1.42e-03
## 1587  4.87e-03  4.34e-03 -9.99e-04  2.11e-03  2.12e-03 -1.71e-03 -7.21e-04
## 1588  1.20e-02  2.15e-02  1.16e-02  7.35e-03  2.77e-02 -9.73e-03 -2.81e-02
## 1589  6.93e-03  4.59e-03  4.72e-04 -4.90e-03 -4.61e-03 -6.85e-03 -1.18e-03
## 1590 -1.38e-04  1.85e-03 -3.69e-04 -4.21e-03  3.59e-03 -2.75e-03  1.96e-03
## 1591  1.10e-02 -1.25e-02 -2.64e-02 -7.26e-03  2.99e-03  1.85e-03 -1.11e-02
## 1592 -1.88e-02 -1.89e-02 -1.82e-02 -3.99e-02  2.45e-02 -8.25e-03  2.32e-02
## 1593  3.41e-04  7.16e-03 -5.66e-03 -8.14e-03  9.77e-03 -7.54e-03 -8.87e-04
## 1594  1.60e-05  3.51e-04 -8.24e-05 -5.89e-04  6.08e-04 -4.77e-04  8.71e-05
## 1595 -2.64e-03  2.92e-03  9.62e-05 -1.80e-04  3.19e-03  5.53e-04 -2.88e-04
## 1596 -1.73e-04 -8.14e-03 -1.67e-02 -5.77e-03  2.52e-03 -1.66e-03  7.85e-03
## 1597 -5.15e-03  1.10e-02 -1.23e-02 -1.50e-02  1.44e-02 -2.66e-03 -2.18e-03
## 1598  1.23e-02 -1.46e-02  1.28e-02 -1.14e-02 -1.87e-03 -1.17e-02 -1.71e-02
## 1599 -3.05e-02  1.84e-02  1.06e-02 -1.21e-02 -5.20e-03  6.57e-03  4.34e-02
## 1600 -4.61e-03  3.57e-03 -2.42e-03  4.83e-04 -5.29e-03 -8.91e-04  1.07e-03
## 1601  1.88e-04 -1.04e-03  2.63e-04 -1.19e-03 -6.43e-04 -2.53e-03 -3.03e-04
## 1602 -4.53e-04  7.38e-04  2.09e-03  3.29e-04 -1.36e-03 -7.92e-04  1.37e-03
## 1603 -1.23e-02 -1.65e-02 -3.01e-02  2.45e-02 -1.10e-02 -7.14e-04 -1.23e-02
## 1604  3.09e-03  4.98e-03 -8.68e-04  2.32e-03  3.01e-03 -3.64e-03 -5.80e-04
## 1605  4.45e-03  8.23e-03 -6.99e-03 -1.01e-02  9.92e-03 -3.00e-03 -9.05e-04
## 1606  2.75e-03 -4.26e-03 -1.11e-03  1.41e-03  3.55e-03 -2.70e-04 -1.56e-03
## 1607 -5.43e-03  2.90e-03  1.68e-03  2.93e-03 -4.43e-03  2.00e-03  4.67e-03
## 1608  5.40e-02 -2.47e-02  1.74e-02 -1.07e-03  3.78e-02 -1.85e-03 -1.27e-02
## 1609  2.16e-03  2.97e-03 -8.72e-04  2.08e-03  1.50e-03  4.77e-03 -4.71e-04
## 1610  2.39e-04 -6.08e-04  3.51e-04  6.88e-04 -8.68e-04 -3.60e-04 -1.19e-03
## 1611  2.37e-03 -1.64e-03 -9.65e-04 -2.50e-03  2.63e-03  2.15e-03  1.44e-04
## 1612 -1.53e-07 -4.48e-04 -2.43e-05  1.61e-04  3.96e-04 -6.34e-04 -1.49e-04
## 1613  9.05e-04  6.55e-03 -2.38e-03  4.59e-03  2.04e-03  5.10e-03 -1.40e-02
## 1614 -1.57e-03  1.27e-02 -2.67e-02 -1.26e-02  4.81e-03 -7.70e-03 -1.08e-02
## 1615 -1.79e-03 -3.12e-03  9.30e-04 -4.09e-03 -1.21e-03 -4.01e-04  4.44e-03
## 1616 -2.02e-03 -9.44e-03 -5.33e-04 -9.38e-03 -1.05e-02 -1.83e-02  1.47e-02
## 1617  1.51e-02  1.61e-02  1.45e-02 -1.33e-02 -1.35e-03 -9.12e-03  3.18e-03
## 1618  2.16e-04 -4.71e-04 -1.77e-04 -7.37e-04  7.38e-04  4.26e-04 -2.16e-05
## 1619 -8.82e-03 -8.78e-03 -7.06e-03  1.12e-02  2.47e-03 -9.37e-03 -2.49e-04
```

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## 1620   8.95e-03   2.15e-02   2.48e-02   2.57e-02  -2.56e-02   7.95e-03   2.37e-03
## 1621   1.37e-03   1.41e-02   1.45e-02   2.78e-02  -1.77e-02   5.33e-03  -1.66e-02
## 1622   4.40e-03   6.22e-03  -1.31e-03   3.44e-03   2.39e-03   1.02e-04  -1.16e-02
## 1623  -1.93e-02   1.69e-02  -1.30e-02   6.93e-03   4.56e-03   6.84e-03   1.97e-02
## 1624   2.30e-04  -1.78e-02   3.11e-02  -2.40e-02   1.23e-02   4.66e-03  -9.30e-03
## 1625   1.30e-03  -3.77e-03   1.95e-03   4.00e-03  -5.74e-03  -7.65e-04  -8.92e-04
## 1626   1.56e-02   1.66e-02   2.73e-02  -1.88e-02   9.66e-03   2.95e-03  -1.35e-02
## 1627  -1.09e-02   1.34e-02  -2.72e-02   2.09e-02  -9.89e-03   4.81e-03   8.21e-03
## 1628   2.68e-03  -2.01e-02   1.87e-02  -2.33e-02  -2.77e-03   6.96e-03   5.47e-03
## 1629  -9.60e-03  -1.17e-02  -3.15e-03   2.95e-03   4.29e-03  -1.09e-02  -4.29e-03
## 1630  -2.03e-04   4.31e-04  -7.97e-05  -2.03e-05  -4.34e-04   3.14e-04   8.32e-04
## 1631   1.01e-02  -1.47e-02  -4.85e-03   6.24e-03   6.28e-03  -9.54e-03  -1.09e-02
## 1632   1.36e-03  -1.48e-03  -5.03e-04   1.49e-03   7.29e-04   1.77e-03  -2.23e-03
## 1633  -5.19e-03   1.86e-03  -8.82e-04   2.22e-03   7.46e-04   5.40e-03   4.32e-03
## 1634  -5.39e-03  -3.72e-03  -1.98e-03   3.49e-04  -4.49e-03  -2.49e-03   1.51e-03
## 1635   1.93e-02  -1.81e-02  -4.77e-02  -1.49e-02   4.47e-03   3.86e-03   8.77e-03
## 1636   3.00e-03  -3.92e-03   7.56e-04  -3.55e-03  -3.24e-03  -6.84e-03   2.35e-04
## 1637  -6.56e-03  -3.95e-03   1.91e-03   3.62e-03  -5.54e-03   1.88e-03   6.39e-03
## 1638   4.71e-03  -3.94e-03  -1.89e-03  -6.87e-03   5.80e-03   3.08e-03  -4.40e-04
## 1639   5.53e-04   1.14e-02  -1.09e-02  -1.86e-02   1.30e-02   8.99e-03   1.43e-02
## 1640  -2.83e-02   1.61e-02   1.52e-02  -1.59e-02  -2.38e-03  -1.92e-02   1.27e-02
## 1641   1.80e-02   1.64e-02  -3.01e-02  -1.93e-02   7.31e-03  -9.48e-03   4.92e-03
## 1642  -3.59e-04   1.96e-03   5.71e-06   3.98e-04   1.99e-03  -2.37e-03   2.58e-03
## 1643   3.05e-03  -1.43e-02   7.19e-03   1.12e-02   1.79e-02   3.68e-03  -1.61e-02
## 1644  -1.02e-02   8.62e-03   2.04e-02   1.71e-03  -1.83e-02   7.07e-03   9.25e-04
## 1645   2.94e-03  -7.57e-03  -2.48e-03   3.99e-03   2.47e-03   8.01e-03  -2.63e-03
## 1646   1.07e-02   1.02e-02   8.04e-03  -3.85e-03  -1.99e-03  -4.16e-03   5.18e-03
## 1647   9.65e-03  -9.68e-03  -2.14e-02  -5.99e-03   2.41e-03  -1.47e-04  -7.99e-03
## 1648  -4.68e-03   8.36e-03  -5.97e-03  -1.68e-02   1.27e-02  -2.38e-03   1.30e-02
## 1649   1.15e-03  -1.33e-03   5.13e-04   1.94e-03  -2.42e-03  -2.62e-03  -6.30e-04
## 1650   2.62e-03   3.58e-03   9.00e-04  -3.85e-03  -3.03e-03  -8.97e-03  -2.12e-04
## 1651   1.42e-02   2.36e-02   1.24e-03   2.17e-02   2.37e-02   1.94e-02   5.98e-03
## 1652  -1.67e-03  -6.51e-03  -5.26e-03   7.30e-03   7.65e-04   5.22e-03  -4.28e-04
## 1653   1.04e-02   6.18e-03  -3.16e-03   4.67e-03   2.26e-03   6.67e-03  -1.13e-02
## 1654  -1.27e-02  -2.20e-02   1.40e-02   2.23e-03   3.25e-02  -4.40e-03   4.49e-03
## 1655   2.09e-03  -2.33e-03   1.62e-04   6.41e-05   2.64e-03  -2.43e-04   2.85e-03
## 1656   4.65e-03   3.52e-03  -2.54e-03  -5.39e-03   5.20e-03   6.91e-03  -5.83e-03
## 1657   7.08e-03  -1.13e-02   1.68e-02  -7.78e-03   4.33e-03  -5.40e-03  -1.99e-03
## 1658   2.05e-02  -1.33e-02   9.70e-03  -4.70e-03  -3.27e-03   1.09e-03  -1.58e-02
## 1659   1.02e-02  -1.70e-02   2.27e-02   2.33e-02  -1.89e-02  -7.61e-03   4.03e-03
## 1660   1.47e-02   1.92e-02   1.75e-02  -2.03e-02  -3.43e-04  -6.55e-03   2.59e-03
## 1661  -2.24e-02  -2.00e-02  -1.74e-02   9.51e-03   3.04e-03  -8.46e-05  -6.21e-03
## 1662  -1.17e-03  -2.95e-03   2.74e-04   1.10e-03   2.25e-03  -6.55e-03   5.21e-04
## 1663   8.67e-03   6.76e-03  -1.87e-03   3.36e-03   3.53e-03  -1.01e-02  -1.14e-02
## 1664   2.16e-02  -9.32e-03  -7.50e-03   1.05e-02   9.48e-04   8.16e-03  -5.73e-03
## 1665  -1.55e-02  -1.91e-02  -1.65e-02   9.33e-03   3.08e-03  -4.81e-03  -8.13e-03
## 1666   2.64e-03  -1.63e-02  -5.42e-02  -3.09e-02   5.02e-02   1.20e-02   1.24e-02
## 1667   1.66e-03   2.24e-03  -1.11e-03   2.30e-04  -2.96e-03  -1.72e-03   3.35e-03
## 1668   7.27e-04  -6.18e-03  -3.32e-04  -3.90e-04   6.31e-03  -3.24e-03   7.09e-03
## 1669  -6.56e-02   1.90e-02   2.13e-02   2.98e-02  -2.54e-02  -5.54e-03   1.50e-02
```

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## 1670  6.01e-04 -2.61e-03  3.76e-04 -1.67e-03 -2.04e-03 -3.52e-03 -3.29e-03
## 1671  1.75e-02  1.73e-02  1.28e-02 -1.19e-02 -2.73e-03 -1.05e-02 -2.03e-02
## 1672 -2.78e-03 -1.75e-02 -1.38e-02  8.00e-03  4.76e-03  5.49e-04 -8.97e-03
## 1673  6.04e-04  4.11e-03  8.81e-04 -3.71e-03 -3.06e-03 -1.14e-02 -5.76e-03
## 1674  2.77e-03 -3.61e-03  7.40e-03 -2.83e-03  2.32e-03 -2.38e-03 -1.16e-04
## 1675 -1.21e-02  1.17e-02  3.90e-02  2.29e-02 -3.63e-02 -7.59e-03 -5.88e-03
## 1676  2.19e-03  2.02e-03 -4.49e-04 -5.55e-04 -2.19e-03  4.23e-03 -3.12e-03
## 1677  6.33e-05  1.87e-03  1.02e-03  2.06e-03 -3.05e-03 -4.19e-03  2.02e-03
## 1678 -2.92e-04 -4.83e-04  3.46e-04  4.63e-04 -7.08e-04  1.13e-04  7.51e-04
## 1679  1.46e-05  2.05e-04  5.35e-05 -1.42e-04 -1.54e-04 -3.14e-04  5.80e-05
## 1680 -8.60e-03 -9.37e-03 -5.54e-04  1.55e-02 -1.89e-02  9.65e-03 -1.37e-02
## 1681 -2.92e-02  1.55e-02  3.02e-02 -2.39e-02  1.10e-02  2.57e-03  2.19e-02
## 1682 -3.37e-02  2.43e-02  5.08e-03  1.63e-02  2.91e-02 -6.23e-03  4.66e-02
## 1683  4.11e-03  5.03e-03  2.35e-04 -4.30e-03 -4.60e-03 -7.75e-03 -7.83e-03
## 1684 -9.18e-05 -1.41e-04 -5.60e-06  1.07e-04  9.57e-05  7.98e-05  4.38e-05
## 1685  1.97e-02  1.19e-02 -2.71e-03 -1.00e-02 -1.24e-02 -2.33e-03  1.15e-02
## 1686  9.22e-04  5.33e-03 -4.13e-03  5.15e-04 -7.83e-03  2.24e-03  9.27e-04
## 1687  7.61e-04 -2.86e-03 -2.98e-04  6.24e-04  2.44e-03 -5.23e-03 -1.35e-03
## 1688 -1.54e-02  7.38e-03 -2.97e-03 -4.11e-03 -9.22e-03  1.03e-03  1.59e-02
## 1689  4.05e-04 -1.82e-03  1.27e-03  1.66e-03 -2.45e-03  3.16e-03 -5.24e-04
## 1690  8.97e-03  1.69e-02  9.07e-03 -4.66e-03 -5.28e-03  2.43e-02 -2.11e-02
## 1691  1.61e-03  3.10e-03 -5.88e-04 -8.33e-04 -3.61e-03  1.99e-03 -5.23e-03
## 1692  5.39e-03 -9.76e-03  8.46e-03 -3.88e-03 -1.47e-03 -1.35e-03  5.91e-03
## 1693 -3.17e-03  5.78e-03 -1.32e-03  3.86e-04  5.17e-03 -1.57e-03 -1.27e-03
## 1694 -2.64e-03  1.19e-03 -4.93e-04  1.39e-05 -1.55e-03 -6.71e-04  7.73e-04
## 1695  1.65e-03 -2.95e-03 -7.94e-04  2.28e-03  1.46e-03  3.75e-03  1.61e-04
## 1696  5.75e-04 -1.27e-03  1.19e-04 -1.18e-03 -8.71e-04 -8.06e-04 -4.48e-04
## 1697 -1.07e-02  2.63e-02  1.78e-02 -3.20e-03  3.61e-02  1.07e-02  3.40e-03
## 1698 -2.90e-02  1.26e-02  1.55e-02  2.27e-02 -1.69e-02 -2.70e-03  1.10e-02
## 1699 -1.84e-03  1.04e-02 -4.79e-03  3.36e-03  3.74e-03 -6.67e-03  1.48e-02
## 1700 -7.64e-03 -8.43e-03  3.38e-03 -1.32e-02  1.98e-02 -6.62e-03  8.07e-03
## 1701 -2.41e-03 -7.95e-03  1.45e-02 -7.71e-03  4.41e-03  4.73e-03 -9.30e-04
## 1702 -2.10e-03  1.96e-03 -1.20e-03  2.79e-03  5.81e-04 -1.56e-03  2.96e-04
## 1703 -2.29e-02 -1.90e-02  4.20e-02  1.23e-02 -5.39e-03  7.35e-04  1.76e-02
## 1704 -3.38e-02 -1.82e-02  5.08e-03 -6.37e-03 -6.19e-03 -8.25e-03  1.83e-02
## 1705 -2.41e-03  7.96e-03  2.19e-02  8.71e-03 -1.48e-04 -7.60e-03 -1.55e-02
## 1706  8.35e-03 -1.73e-02 -1.13e-02  7.29e-03  3.27e-03  6.21e-03 -1.28e-02
## 1707 -8.59e-05  1.46e-04  9.46e-05  1.67e-04 -2.38e-04 -3.26e-04  1.83e-04
## 1708 -4.22e-03 -8.91e-03 -4.52e-03  6.31e-03  3.45e-03 -2.44e-03 -1.54e-02
## 1709  9.75e-04  2.67e-03 -1.94e-03 -3.84e-03  3.55e-03  2.89e-03 -4.35e-03
## 1710 -1.63e-04 -8.58e-04  4.64e-04 -1.20e-03 -2.59e-04 -7.17e-04  1.36e-03
## 1711  3.37e-04  1.42e-03 -2.39e-04  5.57e-04  1.07e-03 -1.08e-03 -5.38e-04
## 1712  1.16e-03  1.31e-02 -6.39e-03  5.31e-03  3.76e-03 -6.44e-03 -7.85e-03
## 1713  1.75e-03 -3.22e-03  1.41e-03  3.86e-03 -5.59e-03 -9.04e-03 -1.55e-03
## 1714  2.29e-03 -2.65e-03 -2.40e-04  1.45e-03  1.61e-03 -3.46e-03 -2.45e-06
## 1715  3.21e-02  2.22e-02 -1.31e-02  7.73e-03  5.47e-03  3.00e-02  1.23e-02
## 1716  6.92e-03 -1.93e-02  4.55e-02  1.43e-02 -5.15e-03 -3.22e-03  1.49e-02
## 1717  5.38e-03  1.53e-02  1.02e-02 -7.42e-03 -4.43e-03 -9.47e-04 -1.87e-02
## 1718  7.10e-04 -8.47e-03 -5.93e-03  8.83e-03  2.16e-03  6.45e-03  1.26e-02
## 1719  1.72e-04 -2.46e-03  8.16e-04 -2.24e-03 -1.72e-03 -6.31e-03  5.71e-04
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## 1720  5.15e-05 -2.17e-02 -2.35e-02 -4.43e-02  2.91e-02  7.39e-03 -1.51e-02
## 1721 -2.53e-03 -2.24e-02  4.49e-02  2.14e-02 -9.72e-03  9.74e-03 -1.75e-02
## 1722 -8.55e-03  8.55e-03 -7.17e-03 -1.58e-02  1.24e-02  3.16e-03 -1.60e-02
## 1723  1.07e-02  9.27e-03 -4.40e-03  6.47e-03  3.01e-03  7.92e-03 -1.94e-02
## 1724  9.37e-05 -2.39e-04  2.14e-06  2.54e-04  1.31e-04 -4.82e-05 -3.67e-06
## 1725 -1.63e-03  2.28e-03 -2.19e-03 -2.40e-03  2.90e-03 -6.07e-04  4.65e-04
## 1726 -4.74e-03 -1.52e-02  8.01e-03 -5.33e-03 -5.57e-03  1.10e-02  3.50e-02
## 1727  1.54e-02  1.14e-02 -2.48e-02 -6.75e-03  3.53e-03  3.99e-03 -1.17e-02
## 1728 -1.17e-02  8.03e-03  2.00e-02  2.37e-03 -1.62e-02 -2.91e-03  2.53e-05
## 1729  5.89e-03  5.65e-03 -7.52e-04  1.36e-03  3.20e-03 -8.38e-03 -1.93e-03
## 1730  4.85e-03 -1.47e-02  1.01e-02 -6.31e-03 -4.24e-03  9.52e-03 -1.84e-02
## 1731 -3.76e-04 -2.37e-03  5.55e-04 -5.12e-04  2.80e-03  3.78e-03 -7.23e-04
## 1732 -3.15e-02  2.65e-02  3.35e-03 -6.37e-03 -1.34e-02  3.64e-02  7.62e-03
## 1733 -3.96e-03 -1.29e-02 -7.90e-03 -2.54e-02  1.70e-02 -9.43e-03 -4.85e-03
## 1734 -7.39e-04 -3.37e-03 -3.35e-03 -3.69e-03  3.86e-03 -1.51e-03  7.51e-04
## 1735  1.89e-02 -1.28e-02  9.07e-03 -3.77e-03 -3.27e-03  2.99e-03 -1.47e-02
## 1736  6.51e-03  3.05e-03 -5.57e-04 -1.48e-03 -3.39e-03  3.76e-03 -3.68e-04
## 1737  2.26e-02  1.35e-02 -8.79e-03  8.17e-03  2.78e-03 -2.59e-03 -3.02e-02
## 1738 -3.69e-03  1.07e-02  8.93e-03 -4.65e-03 -3.33e-03 -5.63e-04 -1.13e-02
## 1739  2.64e-04 -1.33e-03  7.02e-04  1.57e-03 -2.21e-03 -2.61e-03  1.51e-03
## 1740  1.22e-02 -8.54e-03 -8.77e-03 -1.29e-02  1.26e-02 -2.69e-03  1.12e-02
## 1741 -5.16e-04  9.30e-04 -2.41e-05  2.28e-04  8.22e-04 -1.20e-03 -3.30e-04
## 1742  2.93e-04 -6.72e-04 -4.14e-04  1.07e-03  1.59e-04 -9.01e-04  1.53e-04
## 1743 -5.39e-03  1.01e-02  7.04e-03  8.76e-03  1.48e-02  5.25e-03  5.92e-03
## 1744  2.55e-04  1.56e-03  5.56e-04  2.19e-03 -2.70e-03 -1.80e-03 -6.63e-04
## 1745  9.57e-03  1.13e-02  2.35e-02  1.64e-02 -6.19e-03  4.90e-03 -6.44e-03
## 1746 -8.10e-03 -6.18e-03 -2.96e-03  6.68e-03  1.50e-03 -2.28e-03  1.05e-02
## 1747  1.60e-03 -1.37e-02  9.23e-03 -6.84e-03 -3.08e-03 -9.20e-03  7.52e-03
## 1748 -3.72e-03  3.88e-03 -1.58e-03 -6.79e-03  6.22e-03 -2.41e-03 -6.56e-05
## 1749 -3.50e-04 -6.29e-04  1.39e-03 -4.48e-04  5.17e-04 -7.53e-04  2.63e-04
## 1750  7.97e-04  1.41e-03 -6.31e-04  1.70e-03  5.40e-04  1.12e-03 -2.89e-04
## 1751  7.66e-03 -8.67e-03 -2.35e-03  3.17e-03  3.33e-03  5.62e-04 -4.82e-03
## 1752  1.66e-03 -5.35e-03  1.38e-02  6.49e-03 -1.05e-03  2.02e-03 -1.98e-03
## 1753 -4.74e-03  2.75e-03 -6.30e-04 -6.72e-04 -3.09e-03 -1.96e-03  5.59e-03
## 1754  1.18e-03  3.11e-03  5.43e-04 -3.75e-03 -1.92e-03 -7.61e-03 -1.40e-03
## 1755  3.50e-03  4.06e-03 -9.08e-04  2.04e-03  2.15e-03  1.02e-03 -9.58e-04
## 1756 -2.67e-03  3.14e-03 -8.82e-04 -7.40e-04 -4.07e-03  1.47e-03 -5.12e-03
## 1757  1.20e-04  7.34e-04 -2.44e-04  8.06e-04  4.20e-04  9.04e-04 -9.65e-04
## 1758  5.37e-03  1.41e-02 -1.01e-02 -5.50e-03 -1.88e-02 -5.45e-04 -4.62e-03
## 1759 -5.37e-03 -1.34e-02 -5.15e-03  3.63e-03  4.26e-03 -1.21e-02 -5.40e-03
## 1760  1.10e-03 -2.51e-03 -2.16e-04  1.75e-04  2.81e-03 -1.21e-03  3.47e-03
## 1761  6.80e-03 -6.79e-03 -7.78e-03 -7.69e-03  8.56e-03 -6.44e-03 -8.95e-04
## 1762  4.15e-03 -3.66e-03  8.13e-05 -2.41e-03 -3.37e-03 -6.09e-04  1.89e-04
## 1763  3.73e-04 -6.16e-04 -5.21e-04 -5.99e-04  8.42e-04 -1.02e-03  1.31e-04
## 1764 -2.01e-03 -2.21e-03 -8.96e-04  2.43e-03  5.07e-04  3.46e-03 -8.44e-05
## 1765  1.90e-03  6.33e-03 -8.87e-03 -6.40e-03  6.19e-03  1.21e-03 -1.09e-03
## 1766 -2.23e-02  1.63e-02 -3.31e-02 -2.30e-02  7.98e-03 -7.65e-03  1.00e-02
## 1767  6.77e-03 -9.96e-03 -2.09e-02 -8.15e-03  3.52e-03 -5.35e-03 -8.41e-03
## 1768  1.82e-02 -1.28e-02  7.88e-03 -4.42e-03 -4.48e-03 -3.17e-03 -1.36e-02
## 1769 -1.47e-03  2.20e-03  5.98e-05  1.61e-04  2.03e-03 -4.93e-03 -8.58e-04
```

```
## 1770   5.19e-03   1.00e-02  -4.61e-04  -1.06e-02  -1.07e-02  -8.93e-03  -4.96e-03
## 1771  -3.58e-03   4.47e-03   1.09e-02   7.55e-03  -1.27e-03  -4.77e-03   7.87e-05
## 1772   3.13e-04   1.07e-03   2.33e-03  -8.36e-04   1.09e-03   1.97e-03  -1.36e-03
## 1773   3.74e-03  -9.05e-03  -3.90e-03   5.82e-03   2.07e-03   3.96e-03  -1.69e-02
## 1774   2.62e-04  -2.73e-03   1.91e-04  -2.23e-05   2.55e-03  -6.37e-03   3.01e-03
## 1775   1.52e-02  -1.66e-02  -1.20e-02   6.99e-03   7.16e-03   1.25e-02   1.61e-02
## 1776  -2.95e-02   3.03e-02  -1.16e-02  -5.03e-02   5.91e-02   3.59e-02  -1.82e-03
## 1777  -3.69e-03   1.01e-02   1.79e-02  -8.57e-03   6.47e-03  -7.27e-03  -2.73e-03
## 1778   7.95e-03  -1.30e-02   3.07e-02   1.19e-02  -4.55e-03   7.40e-03  -2.71e-02
## 1779   1.84e-02  -1.27e-02   3.18e-03  -1.88e-02   3.07e-02   1.89e-03  -1.66e-02
## 1780  -2.97e-02   2.66e-02   3.91e-03  -7.41e-03  -1.32e-02   2.89e-02   6.37e-03
## 1781  -4.56e-03  -3.11e-03   1.75e-04  -2.81e-04   3.34e-03   2.30e-03   4.48e-03
## 1782  -8.64e-03   2.29e-02   1.52e-02  -1.89e-02  -2.90e-03  -2.07e-02  -2.75e-02
## 1783   8.08e-03  -1.22e-02   2.43e-02  -1.29e-02   8.81e-03  -1.33e-02  -4.57e-03
## 1784  -3.07e-04   5.14e-04   2.48e-04   7.18e-04  -8.88e-04  -6.24e-04  -1.67e-04
## 1785  -9.63e-03   5.87e-03  -6.14e-03  -9.42e-03   8.55e-03   1.40e-02   1.16e-02
## 1786   1.38e-02   1.53e-02   1.07e-02  -8.19e-03  -2.78e-03  -7.77e-04  -1.73e-02
## 1787   1.32e-03  -3.00e-03  -1.80e-03  -4.49e-03   4.47e-03   2.01e-03  -3.30e-04
## 1788   1.14e-02   5.86e-03  -1.99e-03  -1.84e-03  -6.64e-03   1.51e-03  -1.12e-02
## 1789  -2.92e-04  -2.89e-03   2.18e-04  -7.97e-05   2.66e-03  -6.34e-03   3.15e-03
## 1790  -3.73e-03   4.52e-03  -2.06e-04  -4.40e-04   4.50e-03  -5.48e-04   6.01e-03
## 1791   5.53e-03   1.46e-02   1.54e-02   2.49e-02  -1.66e-02  -6.66e-03   6.82e-03
## 1792   2.45e-02  -1.19e-02  -8.68e-03  -2.17e-02   1.60e-02   2.95e-03  -2.81e-02
## 1793  -6.81e-05  -3.65e-04  -8.60e-07   2.57e-04   2.62e-04  -2.47e-04   8.91e-05
## 1794   1.89e-03   2.86e-03  -8.43e-04   2.28e-03   1.48e-03  -3.20e-05  -4.14e-03
## 1795  -1.13e-02   1.01e-02   8.90e-03  -6.41e-03  -2.50e-03  -8.13e-03   9.14e-03
## 1796  -2.45e-03   1.18e-02  -4.73e-03   3.52e-03   4.17e-03  -1.74e-02  -6.06e-03
## 1797  -3.05e-02   1.46e-02  -1.20e-02   8.70e-03   3.00e-03   1.06e-02   2.07e-02
## 1798  -5.63e-03   5.52e-03   4.87e-04  -4.91e-03  -4.26e-03  -1.27e-02   9.52e-03
## 1799   8.62e-04  -3.61e-03  -8.13e-04   2.95e-03   2.06e-03   2.31e-04   5.80e-03
## 1800   3.59e-03  -2.93e-03  -1.23e-04  -1.67e-03  -2.88e-03   3.46e-03  -3.49e-05
## 1801   2.75e-03  -4.51e-03   5.07e-04  -5.08e-04   4.73e-03  -1.82e-03   5.75e-03
## 1802   1.65e-04   7.05e-04   5.58e-05  -3.25e-04  -5.80e-04  -4.85e-04  -8.76e-04
## 1803   1.69e-02   1.46e-02   8.90e-03  -5.03e-03  -3.49e-03  -2.16e-03  -1.63e-02
## 1804   7.25e-03   1.52e-02   1.41e-02  -1.02e-02  -2.51e-03  -8.06e-03   6.40e-03
## 1805   1.26e-02  -1.32e-02  -2.23e-02   1.75e-02  -7.53e-03  -3.54e-03   5.33e-03
## 1806  -1.36e-04   2.87e-04   1.20e-04  -2.85e-05   3.85e-04   4.31e-05  -7.76e-05
## 1807  -1.68e-02  -1.95e-02   3.71e-02   1.81e-02  -8.35e-03   8.95e-03  -9.89e-03
## 1808  -1.98e-03   1.87e-02  -1.69e-02  -3.06e-02   2.35e-02  -7.55e-03   1.99e-02
## 1809   2.72e-02   1.48e-02  -4.12e-03   4.57e-03   5.09e-03   6.01e-03  -1.46e-02
## 1810  -3.26e-04   1.53e-03   5.04e-04  -1.39e-03  -1.12e-03  -3.45e-03   3.80e-04
## 1811   1.08e-03   3.12e-03   1.34e-03   3.59e-03  -5.18e-03  -8.35e-03  -1.63e-03
## 1812   5.88e-03   5.68e-03  -7.66e-04   1.37e-03   3.21e-03  -8.41e-03  -1.90e-03
## 1813  -1.10e-02   5.17e-03   1.01e-02  -3.42e-03   4.15e-03  -7.28e-03   1.39e-03
## 1814  -1.35e-02   6.78e-03  -5.25e-03  -7.03e-04  -1.10e-02   5.52e-03   1.91e-03
## 1815   1.28e-04   1.60e-04   9.12e-06   2.15e-05   1.49e-04  -9.01e-05  -3.16e-04
## 1816  -1.04e-02  -1.18e-02  -6.18e-03  -2.30e-02   1.58e-02  -8.56e-03  -2.61e-03
## 1817   2.26e-02  -1.44e-02  -2.63e-02   1.96e-02  -9.13e-03  -4.85e-03   4.21e-03
## 1818   8.91e-03   1.64e-02   7.14e-03  -3.06e-02   3.85e-02  -5.81e-03   3.18e-03
## 1819   1.36e-02  -1.75e-02   1.34e-02  -9.53e-03  -3.99e-03  -3.63e-03  -1.97e-02
```

```
## 1820   8.88e-04 -3.99e-03 -1.52e-04  1.39e-04  3.53e-03 -1.09e-02 -2.21e-03
## 1821   2.88e-03 -9.80e-03 -6.16e-03  7.04e-03  2.42e-03  5.90e-03 -1.89e-02
## 1822  -6.74e-03  8.86e-03 -1.25e-02 -1.07e-02  9.39e-03  5.07e-03  1.11e-04
## 1823   9.05e-03 -8.84e-03 -4.17e-03 -2.78e-03 -1.14e-02  7.59e-03  1.37e-02
## 1824   8.89e-04  2.61e-03 -8.25e-04  2.29e-03  1.44e-03  2.98e-03 -4.00e-03
## 1825  -2.42e-02  1.95e-02 -1.67e-02  8.72e-03  3.72e-03 -1.58e-03 -8.23e-03
## 1826   4.36e-05 -5.76e-05 -2.90e-05 -1.12e-04  1.12e-04  8.50e-06 -2.06e-05
## 1827   1.63e-02 -8.36e-03  2.09e-02 -1.40e-02  8.15e-03  2.87e-03 -1.99e-02
## 1828   1.51e-02 -1.82e-02 -3.62e-02  2.13e-02 -1.32e-02 -3.70e-02 -2.89e-02
## 1829  -2.40e-03  8.82e-03 -1.65e-03  2.44e-03  4.43e-03 -6.92e-03 -4.39e-03
## 1830   2.58e-02 -1.77e-02 -4.96e-02 -1.05e-02  2.56e-03  2.06e-02  8.73e-03
## 1831  -1.44e-03 -1.32e-02 -8.22e-03 -2.76e-02  1.80e-02 -1.68e-02 -5.26e-03
## 1832   1.28e-03 -1.54e-02  1.01e-02 -9.54e-03 -2.66e-03 -1.88e-02 -1.60e-02
## 1833  -3.96e-02 -2.71e-02  4.12e-03 -7.81e-03 -1.37e-02  5.25e-02  7.62e-03
## 1834  -1.20e-02  1.23e-02  2.36e-02  1.81e-02 -7.06e-03  7.66e-03 -3.62e-03
## 1835   5.48e-03 -5.85e-03 -7.34e-04  2.65e-03  4.21e-03 -1.96e-02 -9.76e-03
## 1836   1.03e-02 -3.12e-02  6.06e-03 -3.67e-03  3.76e-02  4.09e-02 -8.53e-03
## 1837   1.07e-03 -1.41e-03 -8.44e-04 -1.90e-03  2.17e-03  2.85e-03 -1.99e-03
## 1838   9.21e-03  6.89e-03 -3.69e-03  6.99e-03  1.71e-03  1.11e-02 -4.02e-03
## 1839   4.63e-04  3.99e-03 -2.19e-04  2.02e-04  3.35e-03 -1.04e-02 -2.02e-03
## 1840  -8.93e-04 -1.45e-03  7.57e-04  1.82e-03 -2.28e-03 -1.26e-03  3.70e-04
## 1841  -4.50e-03  3.55e-03 -2.85e-03  4.65e-03  1.03e-03  8.43e-03  6.96e-03
## 1842   3.49e-04  2.93e-03 -2.24e-04  1.47e-03  1.97e-03 -1.42e-03 -1.84e-04
## 1843  -9.43e-05  2.58e-03 -3.21e-04  6.51e-04  2.10e-03 -3.24e-03 -1.10e-03
## 1844   2.20e-04 -1.55e-03 -2.30e-04  1.10e-03  8.58e-04  1.67e-03  1.08e-04
## 1845   1.52e-02 -1.89e-02  8.77e-03 -7.49e-03 -6.71e-03  8.46e-03  7.55e-03
## 1846   1.04e-02 -6.38e-03  1.32e-02 -7.10e-03  4.81e-03  3.97e-03 -1.28e-02
## 1847   4.61e-03  1.64e-02  1.40e-02  3.39e-02 -2.08e-02  2.71e-02 -2.19e-02
## 1848   2.20e-02 -1.96e-02  6.63e-03 -5.73e-03 -8.20e-03  2.31e-02  6.32e-03
## 1849   1.95e-02  2.19e-02  6.19e-03 -5.56e-03 -7.93e-03  1.96e-02  6.88e-03
## 1850  -8.35e-03 -1.56e-02 -3.55e-02 -9.56e-03  3.96e-03  1.89e-02 -1.32e-02
## 1851   1.04e-05  3.41e-04  2.62e-05 -1.54e-04 -2.95e-04  2.80e-04  1.11e-04
## 1852  -1.31e-02  2.47e-02 -6.06e-02 -2.76e-02  5.51e-03 -1.99e-02  8.13e-03
## 1853   3.88e-03  5.40e-03  1.22e-03  6.37e-03 -8.36e-03 -4.05e-03 -1.80e-03
## 1854   6.30e-03  1.74e-02  1.61e-02  3.33e-02 -2.37e-02 -2.62e-03 -2.26e-02
## 1855   2.19e-02 -2.03e-02  2.02e-02 -2.18e-02 -1.17e-03 -2.62e-02 -2.98e-02
## 1856   2.43e-03 -3.19e-03 -2.31e-04  3.78e-04  2.87e-03 -1.08e-02 -1.72e-03
## 1857   2.35e-02  2.18e-02  6.11e-03 -5.05e-03 -7.86e-03  1.48e-02  6.07e-03
## 1858   5.09e-03 -8.61e-03  1.86e-02  1.02e-02 -2.62e-03  1.67e-02  1.05e-02
## 1859   4.65e-03  6.24e-03 -2.45e-03 -1.26e-02  1.04e-02 -1.29e-02 -1.01e-02
## 1860  -8.71e-03 -1.06e-02  2.28e-02 -1.41e-02  8.71e-03 -1.64e-03 -2.99e-03
## 1861  -1.36e-02  1.35e-02  2.74e-02  1.89e-02 -4.86e-03 -3.06e-03 -4.55e-03
## 1862   2.33e-03 -4.10e-03 -1.73e-03  2.15e-04 -5.72e-03 -3.08e-03  6.32e-04
## 1863   5.99e-03  1.35e-02  8.62e-03 -5.05e-03 -5.01e-03 -6.04e-03 -1.28e-02
## 1864  -2.58e-03  1.19e-02 -4.78e-03  3.54e-03  4.18e-03 -1.74e-02 -5.98e-03
## 1865   1.15e-04 -2.69e-03  1.75e-04 -1.59e-05  2.49e-03 -6.60e-03  3.07e-03
## 1866  -1.09e-02  1.22e-02 -5.20e-03  3.08e-03  4.81e-03 -1.08e-02 -5.71e-03
## 1867   8.15e-03 -9.33e-03 -6.78e-03 -1.74e-03 -1.36e-02  7.69e-03 -2.21e-03
## 1868  -4.79e-04  1.47e-03 -2.64e-04  6.20e-04  1.21e-03  1.89e-04 -5.69e-04
## 1869  -1.19e-03  3.38e-03  2.66e-04 -3.33e-04  3.31e-03 -1.59e-03 -7.20e-04
```

```
## 1870  1.94e-03 -1.95e-03 -7.76e-04 -3.05e-03  3.54e-03 -1.24e-03 -3.40e-03
## 1871  7.85e-05  2.12e-04 -1.63e-04 -1.89e-04  2.71e-04 -3.10e-04  3.00e-05
## 1872 -1.48e-02  1.30e-02 -1.50e-02 -1.74e-02  1.58e-02 -8.44e-03 -4.35e-04
## 1873 -3.28e-03 -5.01e-03  9.08e-04 -7.13e-03 -2.37e-03  3.49e-04  7.89e-03
## 1874  1.30e-02  7.34e-03 -1.86e-03  2.15e-03  3.35e-03 -1.20e-02 -2.52e-03
## 1875  1.89e-02 -1.27e-02  9.06e-03 -3.77e-03 -3.25e-03  2.92e-03 -1.47e-02
## 1876  5.33e-03 -9.39e-03  8.16e-03 -3.61e-03 -1.42e-03 -1.50e-03  5.52e-03
## 1877  7.91e-03  1.03e-02 -6.34e-03  6.41e-03  2.92e-03  7.33e-04  1.25e-02
## 1878  5.09e-03  7.71e-03 -1.72e-03 -4.98e-03 -9.57e-03  5.43e-03 -2.86e-03
## 1879 -3.19e-02  1.72e-02 -3.86e-02  2.42e-02 -1.42e-02  1.74e-03  9.26e-03
## 1880 -1.42e-03  3.46e-03 -6.97e-04  2.26e-03  1.90e-03 -1.14e-03 -3.34e-04
## 1881  1.37e-02  6.09e-03 -2.74e-04 -3.97e-03 -6.39e-03  2.66e-03 -3.09e-03
## 1882  8.47e-04 -4.59e-03 -5.76e-04  2.45e-04  4.78e-03 -3.27e-03 -1.61e-03
## 1883  2.45e-02  1.62e-02  1.18e-02 -8.87e-03 -3.06e-03 -1.77e-03  4.90e-03
## 1884 -1.66e-03 -5.63e-03 -1.65e-03  3.72e-03  2.52e-03 -3.26e-03 -1.18e-03
## 1885 -1.30e-02  1.18e-02 -8.11e-03  4.86e-03  4.14e-03 -5.85e-03  1.84e-02
## 1886 -5.75e-02  2.48e-02  1.95e-04  2.52e-02  2.58e-02  4.63e-02  6.39e-03
## 1887  2.42e-02  2.04e-02 -4.88e-02 -1.02e-02  2.80e-03  1.65e-02  8.29e-03
## 1888  8.24e-03  1.86e-02  4.03e-02  1.19e-02 -3.93e-03 -1.87e-02  1.74e-02
## 1889  1.97e-02  1.12e-02 -7.07e-04  1.81e-02 -2.37e-02  2.99e-03 -2.46e-02
## 1890 -1.95e-03 -1.26e-02 -1.22e-02 -1.77e-02  1.44e-02  1.63e-02  1.71e-02
## 1891 -2.12e-03 -2.63e-03 -4.77e-04 -6.35e-03  5.43e-03  9.60e-04  3.60e-03
## 1892  3.60e-03  2.56e-03 -7.67e-04  2.09e-03  9.30e-04  3.12e-03 -5.10e-03
## 1893 -3.90e-03 -2.26e-02 -4.74e-02  3.23e-02 -1.84e-02  1.26e-03  9.34e-03
## 1894  1.59e-02  1.20e-02 -2.65e-02 -8.15e-03  3.85e-03 -2.46e-03 -1.16e-02
## 1895  6.10e-03  1.73e-02 -1.42e-02  1.02e-02  2.44e-03  8.75e-03  1.50e-02
## 1896 -3.37e-04  2.30e-03  8.25e-04 -2.31e-03 -1.63e-03 -6.73e-03  4.92e-04
## 1897  1.85e-03 -3.67e-03 -2.11e-04  1.57e-03  2.26e-03 -4.97e-03 -3.83e-05
## 1898 -5.76e-03 -3.78e-03  2.18e-04 -5.30e-04  4.08e-03  1.53e-03  5.65e-03
## 1899 -9.20e-03  2.33e-02 -1.79e-02  8.78e-03  5.13e-03  1.48e-02  2.03e-02
## 1900  2.91e-03 -2.25e-02  2.03e-02 -2.48e-02 -4.19e-04 -2.47e-02  4.95e-03
## 1901  4.45e-03 -4.68e-03 -1.80e-03  3.90e-03  2.20e-03  5.16e-03 -7.41e-03
## 1902 -6.91e-03  4.09e-03 -1.51e-03  3.13e-03  1.94e-03  2.79e-03  8.05e-03
## 1903  3.25e-02 -9.71e-03 -2.18e-03  4.18e-03  5.05e-03  7.10e-03 -1.11e-02
## 1904  2.46e-03 -2.97e-03  5.42e-04 -3.65e-03 -2.00e-03 -8.40e-03 -1.34e-03
## 1905  2.00e-03  3.47e-03  7.15e-04 -3.46e-03 -3.02e-03 -6.65e-03  1.78e-04
## 1906 -7.40e-04 -1.28e-02 -4.62e-03 -1.21e-02 -1.45e-02 -2.01e-02  1.85e-02
## 1907  1.15e-03  2.78e-03  5.31e-04 -4.80e-04  3.13e-03  3.46e-03 -1.44e-03
## 1908  1.72e-03  1.30e-03 -9.02e-05 -5.37e-04 -1.28e-03  1.05e-03  1.43e-04
## 1909 -6.70e-03 -7.91e-03 -6.79e-03  9.95e-03  8.65e-04  6.92e-04  3.47e-04
## 1910  8.02e-03 -1.29e-02 -3.13e-03  4.29e-03  5.22e-03 -2.14e-03 -2.80e-02
## 1911 -1.26e-03  7.45e-03 -2.45e-03  4.10e-03  2.35e-03  2.75e-03 -2.11e-03
## 1912 -2.05e-03  2.07e-02  2.06e-02 -2.15e-02 -4.77e-04 -5.81e-03  5.92e-03
## 1913 -3.02e-03  3.04e-03 -7.63e-03  2.10e-03 -2.98e-03  1.33e-03  4.96e-03
## 1914 -1.86e-04  4.18e-03 -4.58e-04  2.26e-03  1.89e-03  3.18e-03 -1.11e-03
## 1915  1.52e-02 -1.86e-02  6.38e-03 -5.73e-03 -7.95e-03  9.84e-03  9.88e-03
## 1916  1.11e-02  5.46e-03 -3.06e-03 -9.65e-03  7.74e-03 -2.57e-03 -1.24e-03
## 1917 -8.01e-04 -9.65e-04  1.59e-04 -8.98e-05  1.16e-03  2.94e-04  1.51e-03
## 1918 -1.68e-03  9.79e-03 -3.00e-03 -6.63e-03 -1.25e-02  3.03e-03 -2.00e-02
## 1919 -1.41e-04 -1.23e-03 -2.37e-04  6.01e-04  9.69e-04  6.02e-04 -4.41e-04
```

```
## 1920 -1.08e-02 -1.79e-02  4.06e-02 -4.61e-03 -3.26e-02 -6.05e-03 -5.49e-03
## 1921  1.44e-04 -1.38e-03 -9.29e-05 -8.58e-05 -1.47e-03 -4.11e-04 -1.74e-03
## 1922 -4.79e-03 -1.71e-02  1.47e-02  2.97e-03  2.85e-02 -8.33e-03  6.43e-03
## 1923 -2.28e-02 -2.02e-02  1.30e-02  3.93e-03  3.16e-02 -3.90e-04  5.36e-03
## 1924 -5.37e-02  2.88e-02  3.16e-03  1.79e-02  3.00e-02 -2.44e-02  4.82e-03
## 1925 -9.45e-03  2.04e-02 -1.09e-02 -1.95e-02 -2.64e-02 -6.36e-04  2.21e-02
## 1926  1.21e-02  7.38e-03 -1.84e-03  2.05e-03  3.51e-03 -1.10e-02 -2.65e-03
## 1927  8.94e-03 -8.15e-03 -8.67e-03 -1.03e-02  9.95e-03 -5.77e-03 -1.27e-03
## 1928  5.79e-03  5.91e-03 -8.59e-04  1.43e-03  3.32e-03 -8.56e-03 -1.72e-03
## 1929  2.73e-03  4.49e-03 -8.19e-04  2.28e-03  2.70e-03 -2.54e-03 -5.04e-04
## 1930 -4.92e-03  1.42e-02  9.80e-03 -5.54e-03 -5.48e-03 -3.56e-03 -1.51e-02
## 1931  1.52e-03 -1.35e-03 -4.50e-04  1.34e-03  6.52e-04  2.30e-03  7.16e-05
## 1932 -6.20e-04  6.31e-04  3.02e-04  9.78e-04 -1.02e-03 -3.22e-04 -2.32e-05
## 1933  5.82e-05 -1.67e-03  5.13e-04 -1.36e-03 -1.18e-03 -3.33e-03  4.05e-04
## 1934  7.37e-03 -6.59e-03 -9.26e-04  1.60e-03  3.30e-03 -8.79e-03 -1.52e-03
## 1935  1.16e-02  6.86e-03  1.70e-03  9.75e-03 -1.48e-02 -1.01e-02 -2.20e-03
## 1936 -5.00e-04 -2.88e-03  8.00e-04 -3.52e-03 -1.20e-03 -3.42e-03  4.43e-03
## 1937 -9.69e-03  1.20e-02 -4.58e-03  3.77e-03  4.69e-03 -3.93e-03 -6.81e-03
## 1938  6.71e-04 -1.19e-03  8.62e-05 -1.08e-03 -8.49e-04 -8.65e-04 -3.56e-04
## 1939 -1.43e-03  1.42e-02 -7.51e-03  4.76e-03  4.49e-03 -1.85e-02 -3.00e-02
## 1940  4.26e-02 -1.77e-02  4.70e-04 -2.98e-02  4.57e-02  2.11e-02 -3.49e-02
## 1941 -2.13e-05  4.13e-03 -1.81e-04  1.23e-04  3.58e-03 -9.86e-03 -2.29e-03
## 1942 -2.93e-03  9.50e-03 -8.07e-03 -9.62e-04 -1.58e-02  2.81e-03 -1.06e-03
## 1943 -1.40e-03 -2.67e-03 -1.99e-03  3.56e-03  1.93e-04 -7.37e-05  5.46e-04
## 1944  1.53e-02  1.25e-02  8.44e-03 -4.44e-03 -2.79e-03 -3.74e-03 -1.41e-02
## 1945 -7.20e-04  6.84e-04 -1.42e-04  6.70e-05 -8.07e-04 -8.62e-04  3.28e-04
## 1946  1.05e-02 -2.24e-02  3.01e-02  2.53e-02 -2.46e-02 -4.01e-03 -1.51e-03
## 1947 -2.13e-03  8.63e-03 -5.55e-03 -1.75e-02  1.27e-02 -3.81e-03 -3.48e-03
## 1948  2.30e-02 -1.51e-02 -8.55e-03 -9.36e-03 -2.30e-02  3.11e-03 -8.31e-03
## 1949  8.36e-03 -1.42e-02  3.55e-03 -2.01e-02  3.20e-02 -2.20e-04 -1.52e-02
## 1950  1.26e-02 -1.10e-02  9.05e-03 -3.81e-03 -2.30e-03  3.01e-03  5.02e-03
## 1951  2.62e-03 -1.40e-02 -1.08e-02 -2.04e-03 -2.08e-02  1.52e-03 -2.20e-03
## 1952 -1.34e-03 -1.79e-03 -1.31e-03  2.76e-03  4.84e-04 -2.21e-03  6.50e-04
## 1953 -1.17e-04 -4.81e-03 -3.34e-03 -6.83e-03  6.32e-03  5.45e-03 -7.94e-03
## 1954  3.37e-03  1.57e-02 -1.42e-02  1.13e-02  1.94e-03  1.66e-03 -7.97e-03
## 1955  8.76e-04 -9.01e-03 -7.42e-04 -8.99e-03 -9.53e-03 -1.06e-02  1.31e-02
## 1956  6.66e-03 -9.31e-03 -3.99e-03 -4.35e-03 -1.24e-02  4.91e-03 -2.96e-03
## 1957  2.26e-03 -4.24e-03 -2.15e-03  4.32e-03  1.86e-03  5.58e-04 -7.67e-03
## 1958  2.79e-03  1.52e-02 -8.70e-03  1.10e-02  4.68e-03  1.57e-03  1.50e-02
## 1959 -2.86e-02  1.57e-02 -1.03e-02  6.80e-03  4.09e-03 -4.58e-03  2.13e-02
## 1960 -1.33e-04  1.44e-04 -6.41e-05  1.71e-04  6.57e-05  3.35e-04  9.91e-06
## 1961 -6.47e-03 -2.50e-02  9.65e-03 -1.53e-02 -8.72e-03 -1.36e-03  8.70e-03
## 1962 -4.18e-03  1.02e-02  2.47e-02  9.75e-03 -2.13e-03  9.81e-05 -2.13e-02
## 1963 -5.19e-02 -3.46e-02  1.39e-02 -4.48e-02 -9.51e-03 -3.38e-02  6.13e-02
## 1964 -5.80e-03 -1.03e-02 -7.85e-03  1.11e-02  1.59e-03  4.86e-03  1.33e-02
## 1965 -3.47e-03 -2.85e-03 -1.02e-03  3.28e-03  1.29e-03  2.52e-03  5.01e-03
## 1966  6.19e-03  1.16e-02  1.15e-02  2.34e-02 -1.53e-02 -3.72e-04 -1.33e-02
## 1967  4.96e-03 -4.00e-03 -7.48e-04  2.26e-03  2.24e-03 -3.94e-03 -4.42e-04
## 1968 -1.31e-02 -1.72e-02 -1.04e-02 -9.71e-03 -2.31e-02  6.55e-03 -3.45e-03
## 1969 -1.36e-03 -3.39e-03 -2.91e-04 -2.05e-04  3.85e-03 -1.64e-03 -6.70e-04
```

```
## 1970  1.29e-02 -1.28e-02  1.40e-02  2.45e-02 -1.57e-02  3.89e-03  4.41e-03
## 1971 -1.13e-03  1.53e-03  6.54e-05  8.35e-04  1.22e-03 -1.70e-03  3.05e-04
## 1972  9.26e-05 -6.34e-03 -1.23e-02 -4.29e-03  2.03e-03 -2.08e-03  6.09e-03
## 1973 -1.01e-02  1.76e-02  3.45e-02  1.93e-02 -6.55e-03  7.25e-03 -9.07e-03
## 1974  1.11e-03  1.40e-03  8.89e-05 -1.38e-03 -7.24e-04 -1.13e-03 -8.98e-05
## 1975 -1.25e-04  1.49e-04 -9.88e-06  5.59e-05  1.33e-04 -2.44e-05 -4.76e-05
## 1976  1.36e-02  2.11e-02 -1.89e-02  1.10e-02  2.91e-03  1.06e-02 -1.66e-02
## 1977 -2.50e-02  2.32e-02  2.45e-02  2.67e-02 -2.26e-02 -8.39e-03  9.10e-03
## 1978  4.27e-03  3.88e-03  1.21e-03  6.41e-03 -8.57e-03 -8.67e-04 -8.00e-04
## 1979  4.85e-03  7.69e-03 -3.01e-03 -1.27e-02  1.17e-02  6.33e-04 -1.40e-02
## 1980 -1.28e-02  1.22e-02  9.63e-03  8.85e-03  1.83e-02  2.08e-03  6.71e-03
## 1981  1.71e-02  2.36e-02  6.32e-03  1.98e-02  2.45e-02  1.71e-02 -3.44e-02
## 1982 -1.68e-03 -2.12e-03 -8.91e-04  1.57e-04 -2.75e-03 -2.19e-03  8.37e-04
## 1983 -2.09e-02  1.77e-02  1.02e-02  9.55e-03  2.37e-02 -3.39e-03 -1.81e-02
## 1984 -1.14e-02 -2.36e-02 -4.20e-02  1.90e-02 -1.62e-02  1.43e-02  7.91e-03
## 1985 -2.32e-03 -4.39e-03  2.84e-04 -2.30e-03 -4.06e-03 -3.50e-03  9.05e-03
## 1986  7.45e-03  1.05e-02 -2.11e-02 -9.32e-03  3.89e-03 -2.21e-03  6.20e-03
## 1987  4.84e-03  4.94e-03 -1.44e-03 -1.16e-03 -5.93e-03 -3.72e-04 -1.00e-02
## 1988 -1.70e-03 -1.67e-02 -1.30e-02  9.46e-03  4.47e-03  1.17e-02  1.63e-02
## 1989 -4.00e-04  2.06e-02  3.20e-03  1.98e-02  2.27e-02  2.43e-02  6.58e-03
## 1990  9.89e-05  2.72e-03 -2.64e-04  1.48e-03  1.80e-03 -7.66e-04 -1.52e-05
## 1991  1.55e-02  1.13e-02 -2.45e-02 -6.71e-03  3.52e-03  3.84e-03 -1.17e-02
## 1992  3.32e-03 -4.93e-03 -1.16e-03  4.07e-04  5.39e-03 -4.96e-03 -1.21e-03
## 1993 -1.91e-03 -4.70e-03 -1.87e-03  6.07e-04 -6.10e-03 -4.88e-03  1.36e-03
## 1994  3.64e-03  1.65e-02  1.23e-02  3.32e-02 -2.22e-02  2.01e-02 -2.04e-02
## 1995  2.20e-02 -1.44e-02  1.34e-02 -9.64e-03 -2.00e-03 -4.45e-03  3.95e-03
## 1996 -2.19e-02 -1.80e-02  3.92e-02  1.35e-02 -5.78e-03  1.16e-03  1.90e-02
## 1997  6.75e-03 -6.05e-03 -8.99e-04  1.76e-03  2.98e-03 -6.21e-03 -1.46e-03
## 1998 -1.60e-03  8.20e-04 -1.21e-04  8.40e-04  5.15e-04  5.77e-04  1.77e-03
## 1999  4.66e-02  2.57e-02  1.59e-02 -2.93e-02 -5.44e-03  1.15e-02 -4.10e-02
## 2000  6.46e-03 -1.31e-02  1.23e-02 -9.97e-03 -1.96e-03 -1.04e-02  7.82e-03
## 2001  2.13e-02  2.31e-02  1.25e-02  4.11e-03  2.79e-02  3.01e-03 -1.13e-03
## 2002  1.48e-02 -1.89e-02  8.25e-03 -7.25e-03 -7.46e-03  1.73e-02  4.14e-02
## 2003  9.89e-03 -1.14e-02  8.58e-03 -3.80e-03 -2.23e-03 -2.00e-03 -1.10e-02
## 2004 -3.27e-03  1.36e-02  2.59e-03 -2.02e-02  3.19e-02 -9.23e-03  6.83e-03
## 2005 -6.28e-03 -4.98e-03 -2.09e-05 -4.63e-04  5.00e-03  2.33e-03  7.15e-03
## 2006  1.05e-02 -1.24e-02  1.03e-02 -5.33e-03 -2.12e-03  6.23e-03  4.83e-03
## 2007  4.39e-03  2.13e-03 -3.18e-04 -4.02e-04 -2.85e-03  2.43e-03 -4.29e-03
## 2008 -2.92e-02  2.07e-02  2.42e-02  2.83e-02 -2.59e-02 -1.26e-02  9.71e-03
## 2009  7.44e-04 -1.10e-03  3.57e-04  1.94e-03 -2.11e-03  2.29e-04  1.20e-04
## 2010  8.49e-03  6.08e-03  8.08e-05 -5.07e-03 -6.68e-03 -8.79e-04 -2.64e-03
## 2011 -6.14e-03 -1.00e-02 -2.52e-03 -5.56e-03 -1.10e-02  3.52e-03 -1.52e-02
## 2012  1.27e-02  1.20e-02  9.95e-03 -6.26e-03 -1.79e-03 -4.70e-03  4.62e-03
## 2013  3.93e-05 -4.27e-04  1.24e-04  6.62e-04 -7.33e-04  1.71e-04 -1.43e-04
## 2014  1.09e-02  1.98e-02  7.30e-03 -4.66e-03 -6.42e-03  1.54e-02  8.06e-03
## 2015  2.27e-02 -2.43e-02  2.90e-02  2.65e-02 -3.10e-02  1.38e-02 -6.01e-04
## 2016  2.46e-03  4.16e-03 -2.73e-03 -5.70e-03  6.18e-03  3.19e-03 -9.53e-04
## 2017  4.91e-04 -1.14e-03  6.96e-05  5.18e-05  1.27e-03  8.10e-04 -2.05e-03
## 2018 -3.79e-03 -1.72e-02 -1.49e-02  9.67e-03  2.92e-03  1.18e-02  1.89e-02
## 2019  1.77e-03  9.62e-03 -1.83e-02  1.74e-02 -7.54e-03  3.46e-03  5.95e-03
```

```
## 2020 -2.01e-02  1.71e-02 -1.00e-02  9.96e-03  6.09e-03  3.09e-03  1.89e-02
## 2021 -5.19e-04  6.52e-04  2.31e-04 -1.60e-04  8.61e-04  1.36e-03 -2.38e-04
## 2022 -5.31e-03  4.57e-03  1.03e-02  8.01e-03 -1.94e-03 -2.54e-03  5.71e-04
## 2023  1.50e-03 -3.03e-03 -1.04e-03 -5.50e-03  4.96e-03 -1.01e-03  2.30e-04
## 2024 -9.15e-04 -2.17e-03  1.51e-04  9.92e-04  1.61e-03 -3.54e-03  3.95e-04
## 2025  2.45e-02 -2.88e-02  2.85e-02  3.15e-02 -3.52e-02 -2.92e-04 -5.09e-02
## 2026  1.09e-02  1.01e-02  9.78e-04  1.44e-02 -1.99e-02 -8.29e-03 -1.96e-02
## 2027 -1.73e-02 -1.29e-02 -2.85e-03 -1.15e-02 -1.34e-02 -1.77e-02  1.97e-02
## 2028  6.50e-03  1.40e-02  1.30e-02  2.58e-02 -1.79e-02 -5.51e-03 -1.44e-02
## 2029 -3.62e-02 -2.38e-02  5.65e-03 -5.61e-03 -1.19e-02  3.55e-02  9.27e-03
## 2030  1.61e-03  1.62e-03 -1.87e-04 -5.83e-04 -1.66e-03 -1.05e-05 -2.55e-04
## 2031  6.46e-03 -4.80e-03 -1.56e-04  9.51e-03 -1.08e-02  6.92e-03 -2.04e-03
## 2032 -3.19e-02  2.08e-02  4.00e-02 -3.67e-02  1.63e-02 -1.32e-02 -9.87e-03
## 2033 -3.38e-02 -2.17e-02  4.63e-02  1.22e-02 -6.52e-03 -2.79e-03  2.27e-02
## 2034  1.18e-03  1.52e-02  8.88e-03  8.34e-03  2.03e-02 -8.26e-03 -1.76e-02
## 2035  1.12e-02 -1.57e-02  1.42e-02 -9.87e-03 -2.90e-03 -5.44e-03  6.51e-03
## 2036 -4.77e-03 -4.91e-03  2.11e-03  4.64e-03 -7.20e-03  3.00e-03  6.89e-03
## 2037 -1.58e-03  2.61e-03  2.76e-04  9.30e-04  2.14e-03 -6.34e-03  3.39e-04
## 2038  9.01e-03 -7.16e-03  1.82e-02  7.32e-03 -1.85e-03  1.81e-03 -1.57e-02
## 2039 -3.93e-02  1.55e-02  3.69e-02  1.30e-02 -4.77e-03  4.54e-03  2.08e-02
## 2040  7.01e-04  3.97e-03 -1.15e-04  1.35e-03  2.73e-03 -6.58e-03 -3.23e-04
## 2041 -7.99e-04 -3.28e-03 -2.19e-03  4.76e-03  5.64e-04 -4.13e-03  5.48e-04
## 2042 -2.02e-02 -1.34e-02  2.10e-04  1.61e-02 -2.61e-02 -1.89e-02  1.93e-02
## 2043  2.79e-02  1.55e-02 -5.82e-03  6.13e-03  5.67e-03  6.17e-03 -1.35e-02
## 2044 -1.44e-03 -1.23e-02 -2.48e-02 -1.23e-02  5.31e-03 -4.96e-03 -1.01e-02
## 2045 -5.39e-04 -6.95e-03 -8.91e-03 -6.93e-03  6.64e-03  3.55e-03  2.38e-04
## 2046  4.55e-04  1.94e-03  1.23e-03  2.31e-03 -3.09e-03 -2.34e-03 -4.45e-03
## 2047  1.41e-03  3.43e-03 -2.52e-04  3.83e-04  2.71e-03 -9.37e-03 -1.60e-03
## 2048  8.92e-03 -1.24e-02 -9.87e-03  1.29e-02 -2.56e-04  1.01e-02 -5.78e-03
## 2049 -3.59e-03 -2.17e-02  2.67e-02  2.91e-02 -2.39e-02 -1.26e-03  6.43e-03
## 2050  5.64e-04  1.78e-02  8.94e-03 -5.90e-03 -5.15e-03  1.84e-02  3.62e-02
## 2051  1.51e-02  1.03e-02 -7.12e-03  1.05e-02  7.66e-04  5.28e-03 -5.66e-03
## 2052 -1.37e-02  8.84e-03 -8.58e-03  9.80e-03  9.24e-04  5.86e-03  5.38e-04
## 2053 -5.38e-02  1.93e-02  1.25e-02  3.70e-02 -2.89e-02 -9.96e-03  4.81e-02
## 2054 -5.24e-03 -5.60e-03  9.30e-04 -7.90e-03 -2.61e-03  9.04e-04  9.14e-03
## 2055  9.80e-03  1.29e-02 -9.42e-03 -4.86e-03 -1.82e-02  6.59e-03 -7.20e-03
## 2056 -4.11e-03 -4.77e-03 -2.29e-04 -5.26e-04  5.03e-03  6.37e-04  7.03e-03
## 2057  1.76e-03 -2.06e-02  1.84e-03  2.06e-02  2.55e-02  1.46e-02  1.03e-02
## 2058  9.20e-05 -3.08e-04 -1.16e-04  3.82e-04  1.66e-04  6.13e-04 -3.88e-04
## 2059  1.83e-03  1.59e-03  7.38e-06 -3.99e-04 -1.75e-03  3.40e-04 -8.46e-05
## 2060  9.02e-04 -7.60e-04  7.39e-05 -4.42e-04 -7.06e-04 -3.06e-04  9.53e-05
## 2061 -2.16e-02 -1.58e-02 -1.24e-02  1.27e-02  2.19e-03  9.96e-03 -2.46e-03
## 2062  5.39e-05  2.67e-04 -3.34e-05 -3.87e-05 -2.53e-04  5.75e-04 -3.40e-04
## 2063 -1.74e-04  8.57e-03  1.48e-02 -6.16e-03  5.08e-03 -9.31e-03 -2.20e-03
## 2064 -2.78e-04  7.45e-03 -4.55e-03  7.19e-03  1.94e-03  8.44e-03 -1.31e-03
## 2065 -7.98e-03  9.68e-03  7.13e-03 -4.21e-03 -3.13e-03 -8.96e-03 -8.31e-03
## 2066 -2.68e-02  2.65e-02  1.67e-02 -2.73e-02 -7.03e-03 -3.33e-02  5.00e-02
## 2067 -1.85e-03 -1.24e-03 -3.12e-04  3.46e-05 -1.35e-03 -1.03e-03  6.11e-04
## 2068 -1.39e-04 -2.23e-04 -6.92e-05 -4.44e-04  4.56e-04 -1.53e-04 -2.47e-05
## 2069  4.17e-03  4.70e-03 -9.48e-04  1.97e-03  2.54e-03 -1.29e-03 -1.15e-03
```

```
## 2070 -2.36e-02  1.93e-02 -4.66e-02 -2.58e-02  8.02e-03 -1.55e-02 -2.41e-02
## 2071 -7.94e-03  1.29e-02  2.61e-02  2.16e-02 -8.64e-03  8.00e-03 -5.50e-03
## 2072 -2.96e-03 -7.67e-03 -6.69e-04  3.54e-03  3.48e-03 -3.76e-03 -2.21e-03
## 2073  2.60e-02  1.44e-02  8.71e-03 -4.34e-03 -3.82e-03  1.54e-03 -1.85e-02
## 2074  1.07e-03  6.74e-03 -9.80e-05 -5.41e-03 -6.11e-03 -3.90e-03 -1.33e-03
## 2075  3.26e-03  5.56e-03 -4.47e-03  6.63e-04 -8.58e-03 -1.99e-04  6.18e-05
## 2076  5.27e-04  7.71e-04  1.66e-03 -4.91e-04  7.00e-04 -3.55e-04 -1.30e-03
## 2077 -4.37e-03 -1.48e-02 -7.82e-03 -8.70e-03 -1.96e-02  3.09e-03  1.84e-02
## 2078  6.93e-03  5.02e-03  7.33e-04  8.96e-03 -1.12e-02  1.51e-03 -9.56e-03
## 2079 -4.18e-02  2.42e-02  5.53e-03 -5.94e-03 -1.12e-02  3.52e-02  8.92e-03
## 2080  2.34e-02 -1.54e-02  2.18e-03 -2.31e-02  3.59e-02  8.09e-03 -2.02e-02
## 2081  6.51e-04  1.24e-02 -2.09e-02  1.56e-02 -7.12e-03 -3.57e-03  7.50e-03
## 2082  2.12e-02 -1.52e-02  7.01e-03  1.20e-02  1.98e-02 -4.91e-03 -2.20e-02
## 2083 -8.48e-03  2.01e-02  1.02e-02 -6.54e-03 -8.57e-03  2.65e-02 -2.68e-02
## 2084 -8.29e-03 -7.46e-03 -2.98e-03  5.88e-03  2.37e-03  1.98e-03 -1.11e-02
## 2085 -1.70e-03 -1.13e-03 -2.76e-04  1.04e-03  5.67e-04  7.10e-04  2.16e-03
## 2086 -2.15e-03 -6.83e-03 -2.16e-03 -2.84e-03 -8.27e-03  1.07e-02  1.13e-02
## 2087  4.47e-04  2.01e-03 -7.43e-04 -4.03e-03  3.65e-03 -2.25e-03 -7.89e-04
## 2088 -2.03e-03 -5.73e-03  2.51e-03  5.78e-03 -8.49e-03  5.11e-04  7.73e-03
## 2089  1.03e-02  5.77e-03  1.01e-03  9.23e-03 -1.23e-02 -6.13e-03 -1.08e-02
## 2090  4.88e-03 -4.79e-03 -9.34e-04  2.15e-03  2.22e-03  2.70e-04 -9.53e-04
## 2091  9.70e-03 -1.11e-02  7.79e-03 -3.61e-03 -3.24e-03 -1.78e-03 -1.07e-02
## 2092 -3.68e-02  2.63e-02  3.47e-03 -6.97e-03 -1.34e-02  4.20e-02  7.93e-03
## 2093  6.33e-03  2.08e-02 -1.61e-02  1.05e-02  3.89e-03  1.81e-02  1.39e-02
## 2094 -9.94e-03  2.07e-02 -1.37e-02  7.81e-03  5.76e-03  1.30e-02 -1.11e-02
## 2095 -4.39e-03 -1.16e-02 -1.17e-02 -1.80e-02  1.31e-02  5.44e-03 -1.38e-03
## 2096 -7.54e-03  5.64e-03 -6.76e-03 -5.77e-03  6.81e-03 -3.98e-03  9.30e-04
## 2097 -1.51e-02  2.07e-02  1.81e-02  3.28e-02 -2.79e-02  3.78e-03  5.43e-03
## 2098 -7.18e-03  1.61e-02 -7.02e-03  2.97e-02 -4.09e-02  3.66e-03 -6.83e-03
## 2099 -2.89e-02  1.86e-02  3.61e-02 -3.19e-02  1.38e-02 -7.04e-03  2.23e-02
## 2100 -5.39e-04  9.78e-03  1.20e-02  1.98e-02 -1.22e-02  1.85e-03  5.52e-03
## 2101  1.91e-02  1.29e-02  9.45e-03 -5.02e-03 -2.94e-03  2.19e-03  4.23e-03
## 2102 -4.99e-04  7.66e-04 -7.28e-05 -1.73e-04 -8.86e-04  8.07e-04  9.59e-05
## 2103  9.56e-03  1.53e-02 -1.85e-02 -2.31e-02  1.68e-02  6.07e-03 -9.13e-03
## 2104 -5.50e-03 -5.26e-03 -2.32e-03  4.39e-03  1.16e-03  6.06e-03 -7.87e-05
## 2105 -1.12e-04  1.47e-03 -2.34e-04  1.17e-03  9.50e-04 -1.27e-03 -1.82e-03
## 2106  7.84e-03 -5.88e-03 -8.78e-04  1.71e-03  2.93e-03 -8.22e-03 -1.49e-03
## 2107 -1.16e-04  2.40e-04  5.71e-05 -1.61e-04 -1.91e-04 -1.59e-04  1.00e-04
## 2108 -1.12e-03 -3.32e-03 -4.07e-04  2.47e-03  1.62e-03  8.76e-04 -5.33e-03
## 2109 -1.09e-03  1.01e-02 -6.97e-03 -2.15e-03 -1.40e-02 -5.58e-03 -1.42e-03
## 2110  2.04e-03  2.99e-03 -8.72e-04  2.18e-03  1.14e-03  4.30e-03 -7.23e-04
## 2111 -1.21e-04 -1.01e-03 -5.95e-04  1.50e-03  2.26e-04 -1.49e-03  3.56e-04
## 2112  2.77e-03 -1.81e-02  8.15e-03 -6.83e-03 -6.65e-03  1.50e-02  4.16e-02
## 2113 -2.06e-03  3.38e-03  1.22e-04 -2.81e-04  3.49e-03 -2.68e-03 -6.66e-03
## 2114 -8.73e-03 -1.69e-02 -9.61e-03 -1.07e-02 -2.28e-02  5.59e-03  2.10e-02
## 2115  1.53e-03  1.15e-03 -8.74e-05 -4.48e-04 -1.13e-03  1.20e-03  1.17e-04
## 2116  7.80e-04  1.96e-03 -2.29e-04  5.47e-04  1.52e-03 -2.91e-03 -9.49e-04
## 2117  5.77e-03  5.97e-03 -8.84e-04  1.44e-03  3.34e-03 -8.60e-03 -1.67e-03
## 2118  8.89e-03 -1.37e-02 -4.18e-03  6.78e-03  5.76e-03 -1.31e-03 -2.94e-02
## 2119 -1.38e-02  1.48e-02 -1.42e-02  1.13e-02  2.20e-03  8.81e-03 -4.18e-03
```

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## 2120   2.12e-02 -1.74e-02  1.52e-02  3.87e-02 -2.50e-02  3.32e-02 -2.81e-02
## 2121 -3.33e-04 -1.41e-03 -2.67e-04  8.96e-05 -1.49e-03 -3.26e-04 -1.74e-03
## 2122 -1.49e-02  1.02e-02 -3.28e-03  2.64e-03  4.74e-03 -8.84e-03 -4.26e-03
## 2123  7.38e-03 -2.65e-02  2.06e-02  4.09e-02 -3.89e-02 -8.10e-03 -4.56e-02
## 2124  1.48e-02  6.00e-03 -2.07e-03 -1.85e-03 -7.02e-03  3.89e-03 -1.27e-02
## 2125  1.25e-02 -1.10e-02  9.06e-03 -3.82e-03 -2.31e-03  3.06e-03  5.10e-03
## 2126  1.66e-02 -2.39e-02  1.80e-02 -2.60e-02 -7.16e-03  3.09e-04  1.08e-03
## 2127 -4.80e-04  8.24e-04  1.31e-04 -3.32e-04 -7.31e-04 -1.62e-04  1.57e-03
## 2128  9.64e-04  1.95e-03  2.86e-04 -1.54e-03 -1.78e-03 -8.50e-04  1.62e-04
## 2129  1.57e-02  1.11e-02 -2.42e-02 -6.63e-03  3.51e-03  3.60e-03 -1.19e-02
## 2130  7.41e-03 -6.41e-03 -8.52e-04  1.55e-03  3.23e-03 -8.69e-03 -1.68e-03
## 2131  8.18e-03 -9.60e-03 -9.80e-03  1.23e-02  4.37e-04  3.61e-03 -2.26e-03
## 2132  6.32e-04  1.86e-02 -7.85e-03  3.17e-02 -4.32e-02  7.49e-03 -9.91e-03
## 2133  5.24e-03  4.69e-03  3.39e-04 -3.34e-03 -3.67e-03 -1.29e-02 -6.45e-03
## 2134 -8.48e-04  3.62e-03 -8.11e-04  6.14e-04  3.64e-03  6.32e-04 -7.84e-04
## 2135  1.01e-02 -1.62e-02 -7.83e-03  6.67e-03  4.76e-03  7.37e-04 -1.07e-02
## 2136  1.43e-02  1.81e-02  1.16e-02  7.45e-03  2.51e-02 -5.87e-03  1.28e-03
## 2137  5.50e-03  3.67e-03  1.07e-04 -3.20e-03 -3.81e-03 -2.02e-03 -5.10e-04
## 2138  5.13e-04 -6.48e-03  1.74e-03  1.08e-02 -1.29e-02  1.42e-03 -1.97e-03
## 2139 -8.76e-03  1.00e-02  2.43e-02 -1.32e-02  1.06e-02 -1.04e-02 -1.96e-02
## 2140 -2.34e-03  1.06e-02 -2.46e-03  2.32e-03  4.30e-03 -3.77e-03 -5.12e-03
## 2141 -2.10e-02  1.41e-02 -9.37e-03  7.05e-03  3.73e-03  4.60e-03  1.63e-02
## 2142  4.96e-03 -3.80e-03 -2.64e-03  5.31e-03  5.71e-04 -2.02e-03 -6.27e-04
## 2143  4.31e-03  4.02e-03 -8.53e-04  1.95e-03  2.08e-03 -4.60e-04 -1.05e-03
## 2144  5.26e-03  4.43e-03  1.55e-03  6.78e-03 -9.64e-03 -4.52e-03 -1.16e-03
## 2145 -9.85e-03 -1.41e-02 -1.20e-02  1.51e-02  1.19e-03 -1.46e-03 -2.36e-03
## 2146 -1.52e-02  1.86e-02 -1.75e-02  1.22e-02  1.73e-03  8.14e-03 -9.05e-03
## 2147 -3.15e-05 -1.07e-04  4.02e-05 -1.31e-04 -5.80e-05 -2.27e-04  1.37e-04
## 2148 -8.27e-04 -1.51e-02 -7.65e-03  4.83e-03  4.38e-03 -1.60e-02 -3.05e-02
## 2149 -9.52e-03 -1.53e-02 -1.52e-02 -2.56e-02  1.74e-02  6.89e-03  1.83e-02
## 2150 -2.23e-04 -6.78e-04  3.28e-04  1.09e-03 -1.16e-03 -5.23e-04  1.76e-04
## 2151  7.65e-03  1.48e-02  1.78e-02  2.37e-02 -1.60e-02 -2.79e-03  4.21e-03
## 2152  1.53e-02  1.26e-02  8.47e-03 -4.47e-03 -2.81e-03 -3.33e-03 -1.41e-02
## 2153  2.27e-03  1.11e-02 -1.29e-02 -1.29e-02  1.27e-02 -1.01e-02 -1.71e-03
## 2154  4.57e-04 -3.76e-04  1.01e-05 -2.72e-05 -4.00e-04 -1.12e-04 -5.95e-04
## 2155  1.38e-03 -3.16e-03 -2.42e-04  1.96e-03  2.30e-03 -7.76e-03 -4.71e-03
## 2156 -1.00e-02  5.58e-03 -4.38e-04 -6.40e-04  6.02e-03  1.16e-03 -1.23e-04
## 2157  8.04e-03  1.30e-02  9.27e-03 -4.74e-03 -2.51e-03 -1.01e-03 -1.34e-02
## 2158  2.24e-03  1.50e-02 -1.64e-02 -2.35e-02  1.86e-02  4.13e-03 -6.23e-03
## 2159 -4.56e-03 -1.23e-02 -2.12e-02  1.58e-02 -7.21e-03 -1.80e-03  9.72e-03
## 2160  6.72e-04 -1.93e-03  3.33e-04 -1.38e-04  2.18e-03  1.49e-03 -3.83e-03
## 2161  1.22e-03 -3.94e-03 -2.19e-04  1.62e-03  2.40e-03 -4.12e-03 -1.78e-05
## 2162  1.29e-03 -4.67e-03  9.87e-03 -4.45e-03  3.54e-03 -1.18e-04 -3.73e-04
## 2163  4.66e-04 -8.41e-03 -1.41e-02  1.25e-02 -5.45e-03 -1.31e-03  6.13e-03
## 2164  1.30e-02 -1.02e-02 -1.87e-02  1.76e-02 -7.42e-03  3.69e-03  5.30e-03
## 2165  3.12e-04  2.37e-03  6.05e-04  2.75e-03 -3.55e-03 -9.64e-04 -3.89e-04
## 2166  3.25e-03 -4.77e-03 -3.13e-04  2.78e-03  2.35e-03 -2.33e-05 -1.53e-03
## 2167  3.66e-03 -1.36e-02 -4.88e-03  4.70e-03  3.96e-03 -2.74e-03 -8.37e-03
## 2168 -7.57e-03 -1.13e-02 -3.16e-03  3.11e-03  4.11e-03 -1.27e-02 -4.14e-03
## 2169 -1.59e-02  1.85e-02 -1.30e-02  7.74e-03  3.99e-03  1.17e-02  1.83e-02
```

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## 2170   1.77e-03 -2.83e-03 -2.68e-04  1.54e-03  1.69e-03 -2.60e-03  7.04e-05
## 2171   2.12e-02  2.09e-02  1.03e-02 -1.37e-02 -4.58e-03 -2.07e-02 -2.72e-02
## 2172  -5.04e-04 -1.96e-03  4.19e-05  2.42e-04  1.78e-03 -4.65e-03 -7.46e-04
## 2173  -3.93e-03  3.50e-03  6.48e-03 -2.15e-03  2.49e-03 -5.91e-03  1.24e-03
## 2174   6.57e-04 -1.69e-03  5.94e-04  2.41e-03 -2.95e-03 -1.71e-03 -6.75e-04
## 2175   2.50e-03 -4.15e-03 -9.20e-05  1.40e-03  2.64e-03 -8.19e-03 -2.90e-04
## 2176  -3.41e-03  2.39e-03  5.12e-03 -1.90e-03  1.81e-03 -1.82e-03  4.46e-03
## 2177   9.07e-03 -4.06e-03 -8.27e-04 -7.76e-04 -4.92e-03  6.90e-04 -7.99e-03
## 2178  -4.47e-03  5.90e-03 -2.16e-03 -4.60e-04 -7.90e-03 -6.56e-03  4.61e-04
## 2179   1.86e-03  1.05e-02 -2.40e-03  2.51e-03  3.97e-03 -8.51e-03 -5.11e-03
## 2180  -2.29e-03  7.88e-03 -1.64e-02 -6.07e-03  3.48e-03 -1.85e-03  7.84e-03
## 2181  -2.51e-03 -2.37e-02  4.30e-03  1.59e-02  2.76e-02 -1.93e-03  4.38e-02
## 2182   2.43e-04 -1.61e-03 -2.60e-04  6.47e-04  1.31e-03 -9.19e-04 -6.63e-04
## 2183   7.49e-06  2.33e-04 -1.85e-04 -2.20e-04  3.03e-04 -4.40e-04  6.43e-05
## 2184  -8.30e-03 -1.01e-02 -4.86e-03  5.45e-03  2.29e-03  5.89e-03  1.60e-02
## 2185  -3.88e-04 -2.72e-03  1.61e-04  3.25e-05  2.48e-03 -5.18e-03  3.03e-03
## 2186  -3.64e-04 -2.28e-03  1.25e-03  2.42e-03 -3.47e-03  5.40e-04  3.55e-03
## 2187   1.86e-03  6.99e-03 -1.53e-02 -4.80e-03  2.39e-03 -3.54e-03 -5.41e-03
## 2188  -3.35e-05 -2.64e-05 -6.23e-05  2.35e-05 -2.54e-05  1.59e-05  5.53e-06
## 2189   3.18e-04  8.25e-04  1.20e-04  1.87e-03 -1.84e-03  2.32e-03  1.54e-04
## 2190   9.53e-03 -1.12e-02  7.82e-03 -3.64e-03 -3.29e-03 -1.65e-03 -1.06e-02
## 2191   3.38e-03 -4.44e-03 -2.17e-03 -7.66e-03  7.12e-03 -8.03e-04 -6.61e-03
## 2192   5.86e-03 -4.21e-03  9.18e-05 -3.20e-03 -4.05e-03 -1.62e-04 -4.17e-04
## 2193  -5.21e-04  2.27e-03 -1.90e-03 -3.10e-03  2.99e-03  4.76e-03 -4.07e-03
## 2194   3.82e-03 -9.41e-03 -3.99e-04 -6.71e-03 -1.00e-02 -4.83e-03 -1.59e-02
## 2195   5.61e-05 -1.69e-04 -2.94e-06  5.20e-05  1.50e-04 -1.83e-04  2.01e-04
## 2196  -4.31e-03 -8.31e-03 -1.94e-03  4.52e-03  4.54e-03 -2.20e-03 -2.99e-03
## 2197   4.77e-03 -2.15e-03 -2.49e-04  2.07e-03  1.12e-03  9.56e-04 -1.08e-03
## 2198   1.95e-02 -1.16e-02 -2.31e-02  2.11e-02 -9.06e-03  2.54e-03 -1.35e-02
## 2199   5.78e-05  7.63e-05 -3.59e-05  1.06e-05 -1.06e-04 -3.87e-05  1.09e-05
## 2200  -1.32e-02 -2.65e-02  1.74e-02 -3.83e-03  3.73e-02  2.02e-02 -1.22e-03
## 2201  -6.41e-03  1.49e-02  3.21e-02  1.75e-02 -4.25e-03  2.39e-03  1.48e-02
## 2202  -5.57e-03 -2.04e-02 -3.20e-02  1.80e-02 -9.24e-03  4.12e-04  7.08e-03
## 2203  -1.56e-03  1.18e-02  1.17e-02  2.31e-02 -1.52e-02 -3.48e-03 -1.15e-02
## 2204  -5.77e-03  5.17e-03 -9.72e-03  9.07e-03 -3.68e-03 -2.22e-03  5.65e-03
## 2205   1.44e-02  6.62e-03 -3.25e-03 -1.27e-02  9.51e-03 -1.08e-02 -2.15e-03
## 2206  -5.43e-03 -3.39e-03 -1.65e-03  4.37e-03  6.52e-04 -1.76e-03  9.09e-04
## 2207   1.62e-03 -1.05e-02 -1.08e-02 -1.29e-02  1.28e-02 -1.90e-03 -2.07e-03
## 2208   5.28e-04  3.65e-03 -1.52e-04  1.39e-03  2.49e-03 -5.22e-03 -2.31e-04
## 2209   2.26e-03 -3.16e-03  5.82e-04 -2.45e-03 -2.56e-03 -8.41e-03 -4.36e-03
## 2210   2.50e-03  1.32e-02  1.14e-02 -7.08e-03 -2.35e-03 -8.52e-03 -1.44e-02
## 2211   3.17e-05  1.70e-04  1.05e-04  1.95e-04 -2.51e-04 -2.06e-04 -3.52e-04
## 2212   9.37e-03 -6.92e-03  1.47e-02  1.15e-02 -4.10e-03 -5.52e-04 -2.67e-03
## 2213  -5.82e-03  4.28e-03 -2.81e-04 -3.16e-04  4.43e-03  2.01e-03  6.34e-03
## 2214  -2.69e-03  4.00e-03 -2.89e-04 -3.21e-04  4.27e-03  4.36e-04 -1.05e-03
## 2215  -2.48e-02  1.83e-02  4.13e-02  1.73e-02 -6.16e-03  1.64e-02  1.87e-02
## 2216  -2.93e-03 -4.40e-03  1.73e-03  4.50e-03 -6.49e-03  4.37e-04 -5.26e-04
## 2217  -2.19e-04  8.17e-03 -1.64e-03  2.53e-05  7.54e-03 -7.62e-03 -2.70e-03
## 2218   8.52e-03  1.47e-02 -1.19e-02 -4.42e-03 -2.30e-02  1.71e-03 -6.22e-03
## 2219   8.23e-04  1.49e-02  1.50e-02 -1.17e-02 -1.17e-03 -6.74e-03  6.95e-03
```

```
## 2220   1.37e-02 -1.45e-02 -2.65e-02   2.29e-02 -1.08e-02 -1.18e-03 -1.66e-02
## 2221  -1.13e-02   9.33e-03 -5.61e-03   6.92e-03   4.40e-03   4.93e-04   1.51e-02
## 2222  -5.51e-03 -3.27e-03   7.17e-04 -2.38e-03 -2.62e-03 -3.65e-03   6.69e-03
## 2223   3.74e-04   3.97e-04 -4.53e-05 -1.15e-04 -4.12e-04   1.01e-03   5.48e-05
## 2224  -3.64e-03 -4.86e-03   9.88e-03 -3.47e-03   3.57e-03 -8.53e-03   1.06e-03
## 2225  -3.09e-02   1.67e-02 -1.48e-02 -3.53e-02   2.30e-02 -5.73e-03   2.27e-02
## 2226   5.95e-04 -1.05e-03 -1.90e-04   4.96e-04   8.72e-04 -8.56e-04 -4.71e-04
## 2227   2.33e-02 -1.41e-02   1.06e-02 -6.00e-03 -3.19e-03 -1.75e-04 -1.78e-02
## 2228   4.74e-05 -1.04e-03 -2.19e-04   5.52e-04   8.22e-04   4.78e-04 -3.63e-04
## 2229   1.75e-03   1.53e-03 -4.88e-04   1.48e-03   5.81e-04   3.01e-03 -5.38e-04
## 2230  -4.13e-03   3.89e-03   6.45e-04 -2.85e-03 -3.37e-03 -4.26e-03 -5.93e-03
## 2231   9.21e-03 -5.13e-03 -1.33e-03 -1.44e-03 -5.79e-03 -8.46e-04 -9.23e-03
## 2232  -3.99e-02   1.96e-02   4.44e-02   1.27e-02 -6.20e-03 -1.87e-04   2.33e-02
## 2233   9.73e-04   9.31e-03 -3.80e-03 -5.53e-03 -1.10e-02 -6.08e-03   1.44e-02
## 2234   1.22e-02 -1.99e-02 -1.24e-02   6.80e-03   5.11e-03   2.06e-02   1.69e-02
## 2235   4.45e-03   2.40e-03 -7.30e-05   3.01e-04   2.22e-03 -3.25e-03 -5.61e-03
## 2236  -3.83e-03   2.29e-03 -6.56e-03 -1.03e-03   3.79e-03   1.29e-03   3.77e-03
## 2237   3.74e-04 -4.43e-04 -4.15e-05 -8.25e-05 -4.18e-04   3.82e-04 -5.46e-04
## 2238   1.30e-03   1.63e-03 -1.35e-04 -6.73e-04 -1.63e-03   1.74e-03 -2.41e-03
## 2239  -2.05e-03 -1.21e-02   1.80e-02 -9.09e-03   5.30e-03   1.03e-03 -2.01e-03
## 2240  -2.04e-02   2.64e-02   6.53e-03 -2.03e-02 -1.35e-02 -1.50e-02   5.02e-02
## 2241  -3.20e-03 -2.74e-03 -2.10e-03 -2.53e-03   3.27e-03 -3.76e-03   1.07e-03
## 2242  -2.46e-02   9.41e-03   5.49e-03   8.25e-03   1.31e-02 -7.35e-03   1.11e-02
## 2243   1.54e-04   5.25e-04   2.44e-05 -4.35e-04 -3.61e-04 -8.37e-05 -1.59e-04
## 2244   7.20e-03   7.59e-03 -2.24e-03 -3.93e-03 -9.00e-03 -3.05e-05 -1.39e-02
## 2245   6.33e-03 -1.22e-02 -2.43e-03   4.68e-03   4.37e-03   7.87e-03 -7.22e-03
## 2246   2.10e-03 -3.13e-03 -2.39e-04   1.54e-03   1.91e-03 -4.01e-03 -6.31e-07
## 2247   1.64e-02   1.41e-02 -7.06e-03   7.22e-03   4.26e-03   5.59e-03 -1.33e-02
## 2248  -1.91e-03   2.26e-03   1.09e-04   3.11e-04   2.21e-03 -5.62e-03 -6.57e-04
## 2249  -4.58e-04 -5.57e-03 -1.45e-02   4.29e-03 -6.05e-03 -8.05e-04 -5.66e-04
## 2250   9.10e-05 -1.67e-04 -3.42e-04   1.12e-04 -1.32e-04   1.84e-04 -3.63e-05
## 2251  -1.98e-03 -9.80e-03   2.52e-03   1.30e-02 -1.94e-02 -4.14e-03 -2.79e-03
## 2252   3.08e-03 -2.39e-03   1.24e-03   4.06e-03 -4.88e-03 -6.45e-04 -7.99e-04
## 2253   7.14e-04 -2.57e-03 -8.94e-04   2.95e-03   5.72e-04   1.58e-03 -4.03e-03
## 2254   3.09e-04 -2.19e-04   6.20e-05 -2.57e-04 -1.10e-04 -4.12e-04   7.12e-06
## 2255  -1.33e-03 -3.12e-03   2.70e-04   1.16e-03   2.37e-03 -6.81e-03   6.24e-04
## 2256   5.50e-03   1.67e-02   7.49e-03 -5.87e-03 -4.42e-03 -6.12e-03 -1.82e-02
## 2257  -2.87e-03 -8.80e-03 -8.05e-03 -1.19e-02   9.96e-03   8.11e-03 -1.31e-02
## 2258   7.34e-03   1.10e-02   7.81e-03 -3.91e-03 -2.91e-03 -2.34e-03 -1.11e-02
## 2259  -4.45e-02   1.42e-02   8.86e-03 -7.89e-03 -4.72e-03 -1.45e-02 -9.93e-03
## 2260   2.55e-04   8.71e-04 -4.72e-04   1.22e-03   2.22e-04 -1.00e-03   8.73e-05
## 2261  -1.78e-02 -1.24e-02   9.11e-03 -6.30e-03 -2.26e-03 -1.62e-02   1.03e-02
## 2262   3.89e-03   7.36e-03   1.51e-02 -6.88e-03   5.15e-03 -3.57e-03   9.15e-03
## 2263   1.03e-04 -1.53e-04 -1.27e-04 -1.46e-04   2.09e-04 -2.51e-04   2.35e-05
## 2264   4.14e-04 -1.02e-03 -1.66e-04   9.05e-04   6.66e-04 -7.49e-05   2.57e-04
## 2265   2.79e-02   1.45e-02   8.48e-03 -4.01e-03 -3.94e-03 -9.52e-04 -1.80e-02
## 2266   2.51e-03   9.43e-03 -2.04e-02 -6.65e-03   3.00e-03 -4.10e-03 -7.58e-03
## 2267  -1.66e-02 -1.77e-02   3.36e-02   2.01e-02 -8.22e-03   1.29e-02   2.03e-02
## 2268   2.54e-03   1.08e-02   9.37e-04   1.68e-02 -2.62e-02 -8.72e-03 -6.94e-03
## 2269   1.03e-03   1.77e-03 -6.74e-04 -3.06e-03   2.92e-03 -3.67e-04   1.34e-04
```

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## 2270 -2.20e-02 -1.92e-02  5.62e-03  1.20e-02  2.28e-02 -1.58e-02 -1.91e-02
## 2271  7.80e-03 -1.18e-02  6.91e-03  1.10e-02  1.51e-02  6.42e-03  5.00e-03
## 2272  4.84e-03 -1.35e-02  2.52e-02 -1.43e-02  7.34e-03  7.80e-03 -6.40e-03
## 2273 -2.09e-02 -2.36e-02  2.23e-02 -3.21e-02  7.75e-04 -1.68e-02  9.26e-03
## 2274  3.11e-03 -1.15e-02  2.99e-02  7.60e-03 -1.61e-03 -7.13e-03 -7.25e-03
## 2275 -2.00e-04  1.27e-03  3.18e-03  2.02e-03  2.55e-06  3.05e-03 -1.71e-03
## 2276  1.84e-02 -2.09e-02  4.91e-02  1.78e-02 -8.61e-03  9.92e-03 -1.95e-02
## 2277 -2.12e-02  1.82e-02  1.15e-02 -1.13e-02 -2.92e-03  9.18e-04  4.09e-02
## 2278  1.69e-03 -1.91e-02 -4.44e-02 -8.46e-03  4.65e-02  4.25e-03  4.93e-03
## 2279  2.12e-02 -1.19e-02  8.76e-03 -3.36e-03 -3.13e-03 -1.21e-04 -1.48e-02
## 2280  1.75e-03  8.13e-03  2.23e-03  1.26e-02 -1.82e-02 -7.93e-04 -4.15e-03
## 2281  5.99e-03 -2.31e-02  2.58e-02  2.96e-02 -2.65e-02 -1.36e-02  4.01e-03
## 2282  1.92e-02  1.30e-02  2.99e-02 -2.19e-02  1.01e-02 -5.19e-03 -1.10e-02
## 2283  6.64e-03 -2.77e-02 -5.47e-02  1.87e-02 -1.99e-02  4.29e-02  4.73e-04
## 2284 -3.53e-03 -1.94e-02 -1.46e-02  7.41e-03  6.10e-03  1.25e-02  1.81e-02
## 2285  3.49e-04  5.43e-04  9.16e-05 -8.35e-05  6.13e-04  3.53e-04 -1.59e-04
## 2286 -2.10e-02  1.65e-02  1.53e-02  3.09e-02 -2.12e-02  1.44e-02 -1.76e-02
## 2287  3.66e-03  9.25e-03  7.94e-03 -4.15e-03 -2.02e-03 -1.82e-03  5.52e-03
## 2288 -2.49e-03  1.63e-03 -1.49e-04  1.49e-04  1.66e-03  1.06e-03  2.59e-03
## 2289 -5.36e-04 -2.52e-03  1.43e-03  2.54e-03 -3.71e-03  1.22e-03  3.61e-03
## 2290 -1.17e-02 -1.08e-02  9.77e-03 -6.23e-03 -1.71e-03 -9.52e-03  9.31e-03
## 2291  2.53e-02 -1.68e-02  1.02e-02 -4.35e-03 -5.59e-03  3.40e-02 -2.68e-02
## 2292 -1.73e-02  1.18e-02  3.31e-02  7.01e-03 -1.72e-03 -1.38e-02 -5.78e-03
## 2293 -4.70e-03  2.52e-02  2.23e-02  3.06e-02 -3.07e-02  6.14e-03  2.39e-03
## 2294 -1.08e-02  3.94e-03 -2.43e-03  4.19e-04 -5.70e-03 -1.95e-03  2.22e-03
## 2295  9.56e-04  6.71e-04  9.98e-05 -6.60e-04 -4.24e-04 -1.05e-04 -1.95e-04
## 2296 -1.94e-02  2.17e-02  1.28e-02  3.27e-03  2.90e-02  1.44e-02  4.29e-03
## 2297  9.88e-03 -1.84e-02 -1.91e-02 -3.89e-02  2.37e-02  5.22e-03 -1.10e-02
## 2298 -3.71e-03 -3.19e-03  1.53e-04 -2.97e-04  3.54e-03  9.27e-04  4.84e-03
## 2299 -6.03e-03 -2.17e-02  6.05e-03 -6.16e-03 -9.57e-03  1.70e-02  1.28e-02
## 2300 -1.73e-03  4.58e-03 -4.51e-03 -4.84e-03  5.70e-03 -1.55e-03  7.66e-03
## 2301  1.61e-02  1.55e-02 -1.12e-02 -5.61e-03 -2.09e-02 -1.15e-03 -8.56e-03
## 2302 -2.34e-02 -1.89e-02 -1.32e-02  6.25e-03  4.17e-03 -2.84e-03  2.19e-02
## 2303  8.65e-03 -9.32e-03  9.73e-04 -8.67e-03 -8.71e-03 -5.00e-03 -3.79e-03
## 2304  1.14e-03  1.89e-03 -1.01e-03  3.26e-04 -2.56e-03 -8.74e-04  3.04e-03
## 2305 -1.51e-02  6.31e-03 -3.70e-03  7.64e-03  2.05e-03 -5.06e-03  2.48e-03
## 2306 -6.81e-04 -1.35e-03  4.73e-04 -1.76e-03 -5.92e-04 -1.29e-03 -2.24e-03
## 2307  1.32e-02 -9.35e-03  2.32e-02  4.51e-04 -1.79e-02  6.22e-03  1.01e-02
## 2308  1.14e-04  3.07e-03 -2.57e-04  1.51e-03  2.05e-03 -2.16e-03  8.12e-06
## 2309  4.73e-03  1.05e-02 -4.88e-03 -2.71e-03 -1.44e-02 -3.24e-03 -2.75e-03
## 2310 -6.50e-03  3.57e-03  3.04e-04 -6.65e-04  4.16e-03  2.89e-03  4.96e-03
## 2311  8.48e-03  7.53e-03 -1.01e-03 -3.29e-03 -8.69e-03 -3.62e-03 -1.44e-02
## 2312  5.36e-03  5.78e-03 -9.50e-04  1.63e-03  3.20e-03 -6.65e-03 -1.48e-03
## 2313 -2.51e-06 -2.19e-04  7.63e-06 -6.65e-05 -1.79e-04  1.75e-04 -2.42e-04
## 2314  2.00e-04  2.65e-04  9.96e-05 -5.95e-05  3.04e-04  3.29e-04 -1.25e-04
## 2315 -1.09e-02  1.79e-02 -8.56e-03 -1.45e-02 -2.29e-02  8.74e-03  2.04e-02
## 2316 -3.83e-03 -2.23e-03  4.08e-05 -3.37e-05  2.26e-03  1.06e-03  3.61e-03
## 2317  4.33e-04 -1.02e-02  1.79e-02  1.62e-02 -5.68e-03  2.34e-03 -2.52e-03
## 2318  4.71e-04  1.97e-03 -7.34e-04 -3.93e-03  3.58e-03 -1.90e-03 -8.02e-04
## 2319 -9.58e-03  1.41e-02  1.35e-02 -1.24e-02 -4.05e-04 -6.17e-03  9.84e-03
```

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## 2320 -5.58e-03  1.40e-02 -2.83e-02  2.25e-02 -9.45e-03 -1.74e-03  9.60e-03
## 2321  1.55e-02 -6.61e-03 -6.44e-05 -6.43e-03 -6.86e-03 -1.08e-02 -1.89e-03
## 2322  1.56e-04 -2.40e-03 -2.17e-03 -2.21e-03  2.65e-03 -1.44e-03  1.96e-04
## 2323 -2.48e-03 -1.79e-02  3.29e-02 -2.43e-02  1.16e-02  7.02e-03  1.83e-02
## 2324  2.16e-03 -1.72e-02  2.98e-02 -1.94e-02  9.42e-03  1.84e-03 -7.80e-03
## 2325 -7.09e-03 -5.77e-03 -3.69e-03  6.36e-03  9.35e-04  8.57e-04  8.50e-04
## 2326  5.24e-03  8.77e-03 -3.27e-03 -5.29e-03 -1.11e-02  3.21e-03 -1.82e-02
## 2327  8.05e-03 -6.27e-03 -3.71e-03 -1.13e-02  9.95e-03 -3.94e-03 -9.89e-03
## 2328  2.61e-03 -4.16e-03 -2.46e-03 -5.74e-03  6.04e-03  1.93e-03 -5.93e-04
## 2329 -1.62e-03  1.04e-03  1.48e-04  2.07e-04  1.28e-03 -1.38e-03  1.69e-03
## 2330 -1.10e-02  2.16e-02  3.75e-02 -3.19e-02  1.48e-02 -6.31e-03 -1.18e-02
## 2331  6.04e-03  1.06e-02 -3.47e-03  3.80e-03  4.34e-03 -1.21e-03 -6.54e-03
## 2332  1.76e-02 -1.62e-02  1.62e-02  2.97e-02 -1.98e-02  6.29e-03 -2.16e-02
## 2333 -1.75e-03  2.00e-02 -3.93e-02 -3.20e-02  9.23e-03  5.82e-03  7.16e-03
## 2334  7.59e-04 -3.95e-03 -1.60e-04  1.43e-04  3.47e-03 -1.11e-02 -2.09e-03
## 2335  1.87e-03  9.93e-03 -1.96e-02 -9.93e-03  4.42e-03 -4.58e-03  7.20e-03
## 2336 -1.38e-03 -4.16e-03 -1.01e-03 -1.07e-03 -4.64e-03  2.86e-03  7.27e-03
## 2337 -1.90e-04  6.80e-04  5.05e-04  6.79e-04 -9.71e-04  1.28e-03 -1.89e-04
## 2338  1.14e-02 -1.17e-02 -7.81e-03  1.08e-02  2.27e-03  7.18e-03 -4.75e-03
## 2339 -4.92e-03 -1.38e-02 -8.57e-03 -2.81e-02  1.84e-02 -1.25e-02 -4.59e-03
## 2340 -9.78e-03 -6.16e-03  1.76e-02  4.56e-03  6.85e-04 -9.84e-03  1.05e-02
## 2341  1.47e-02 -5.96e-03  1.34e-03  8.91e-03 -1.28e-02 -1.06e-02 -1.93e-03
## 2342 -4.31e-03 -3.93e-03 -2.34e-03  6.84e-04 -5.08e-03 -4.34e-03  1.56e-03
## 2343  4.79e-03  4.97e-03  4.21e-04 -4.51e-03 -4.44e-03 -9.58e-03 -8.25e-03
## 2344 -5.64e-04  2.05e-03 -8.49e-04 -3.34e-04 -2.76e-03  5.14e-03  3.88e-03
## 2345  2.63e-03 -1.46e-03  4.86e-04 -1.79e-04  1.90e-03  1.41e-03 -9.50e-04
## 2346 -6.96e-03 -2.14e-02 -1.80e-02  9.83e-03  4.71e-03  2.95e-03 -1.39e-02
## 2347  4.29e-04  3.42e-03 -3.55e-05 -3.59e-03 -2.10e-03 -3.75e-05 -8.12e-04
## 2348  1.25e-02  6.47e-03 -1.72e-03  2.40e-03  2.83e-03 -9.07e-03 -2.32e-03
## 2349 -1.86e-02  2.07e-02 -1.58e-02  7.23e-03  4.00e-03  4.34e-03  2.05e-02
## 2350 -3.16e-04  1.77e-03  6.05e-04 -1.66e-03 -1.28e-03 -4.45e-03  4.03e-04
## 2351  2.39e-03 -3.46e-03  2.31e-04  1.71e-04  3.34e-03 -1.20e-03 -1.26e-03
## 2352 -6.81e-03  6.20e-03 -3.92e-03  5.91e-03  1.53e-03  1.01e-02 -9.07e-04
## 2353 -1.20e-04  2.72e-04  1.94e-04  2.86e-04 -3.58e-04 -2.52e-04  4.16e-04
## 2354 -6.71e-05  1.61e-04  7.55e-05  2.24e-04 -2.50e-04 -3.35e-04 -3.29e-05
## 2355  2.01e-02  7.96e-03 -5.83e-03 -1.13e-02  1.03e-02  1.02e-03 -1.73e-02
## 2356  9.56e-04 -3.03e-03 -2.80e-04  5.76e-04  2.62e-03 -5.92e-03 -1.53e-03
## 2357  2.09e-02  2.33e-02 -3.69e-03 -2.88e-02  4.53e-02  1.46e-02  5.43e-03
## 2358 -2.44e-04  7.22e-03 -3.59e-03 -2.73e-03 -9.68e-03  1.35e-02  1.21e-02
## 2359 -7.75e-03  1.20e-02 -4.99e-03  3.22e-03  4.59e-03 -1.32e-02 -5.94e-03
## 2360  7.40e-03  1.78e-02 -1.91e-02 -3.15e-02  2.15e-02  3.15e-04 -1.19e-02
## 2361  2.34e-03  1.67e-02  3.75e-02  1.55e-02 -5.36e-03  4.75e-03 -1.16e-02
## 2362  1.56e-02  1.12e-02 -2.44e-02 -6.68e-03  3.52e-03  3.76e-03 -1.18e-02
## 2363 -1.99e-03  1.10e-02  8.05e-03 -4.56e-03 -2.57e-03 -2.86e-03 -9.42e-03
## 2364  1.31e-04 -3.14e-04 -2.68e-04 -2.96e-04  4.17e-04 -6.27e-04  1.08e-04
## 2365 -4.60e-04  2.98e-04 -1.31e-04  4.05e-04  8.62e-05 -2.80e-04  1.08e-04
## 2366  1.46e-04  2.21e-04 -1.62e-04 -1.97e-04  2.78e-04 -3.68e-04  9.91e-06
## 2367  2.14e-02 -9.33e-03 -3.52e-03  3.13e-03  4.01e-03 -1.64e-02 -1.90e-02
## 2368 -5.24e-03 -5.06e-03 -2.10e-04 -6.49e-04  5.27e-03  1.43e-03  7.34e-03
## 2369  8.51e-05  1.38e-04  1.10e-05  2.09e-05  1.51e-04 -2.23e-04 -3.27e-05
```

```
## 2370   5.70e-03   5.62e-03  -7.94e-04   1.43e-03   3.16e-03  -7.85e-03  -1.80e-03
## 2371   8.08e-05  -2.55e-04   5.91e-04  -1.80e-04   2.12e-04  -4.42e-04   4.50e-04
## 2372  -3.26e-03   1.12e-02  -3.79e-03   4.97e-03   6.11e-03  -8.85e-03  -4.64e-03
## 2373   1.26e-03   2.84e-03  -3.92e-05   6.00e-03  -6.60e-03   4.83e-03  -6.14e-04
## 2374   2.73e-02   1.92e-02   1.95e-02   3.01e-02  -2.15e-02  -1.15e-02  -2.79e-02
## 2375  -1.02e-02  -1.61e-02  -2.68e-02   1.83e-02  -9.71e-03   2.00e-03   9.70e-03
## 2376   9.14e-03   7.83e-03  -5.15e-03  -5.15e-04  -1.16e-02   2.53e-03  -1.98e-03
## 2377   4.97e-04   3.60e-03  -1.67e-04   1.42e-03   2.45e-03  -4.74e-03  -2.17e-04
## 2378  -1.36e-03  -3.21e-03  -6.63e-04   2.12e-03   1.83e-03  -3.03e-05   5.86e-03
## 2379  -1.38e-02   1.03e-02  -4.87e-03  -8.95e-03  -1.42e-02  -5.63e-03   1.96e-02
## 2380  -7.03e-03   1.41e-02   2.35e-02  -1.50e-02   6.61e-03   2.80e-03  -4.57e-03
## 2381  -1.10e-02  -1.20e-02  -1.50e-04   1.53e-02  -2.39e-02  -1.37e-02   1.67e-02
## 2382  -2.27e-03  -5.02e-03  -1.08e-03  -2.16e-03  -5.32e-03   6.62e-03  -2.83e-04
## 2383   1.73e-02   2.25e-02  -1.78e-02   1.10e-02   5.42e-03   2.10e-02  -2.04e-02
## 2384   3.03e-03  -1.51e-02  -6.74e-03   4.48e-03   4.24e-03  -9.03e-03  -8.95e-03
## 2385  -2.53e-03  -2.68e-03   1.81e-04  -2.59e-04   3.51e-03  -1.25e-03   4.39e-03
## 2386   3.26e-03  -3.29e-03   6.44e-04  -2.93e-03  -2.80e-03  -6.29e-03   1.04e-04
## 2387   3.74e-03   1.49e-02  -8.21e-03   6.68e-03   5.22e-03  -5.75e-03  -3.41e-02
## 2388  -1.46e-03   1.86e-02  -1.68e-02   1.32e-02   2.56e-03   7.20e-03  -1.08e-02
## 2389  -1.30e-02   1.83e-02   9.10e-03   6.38e-03   2.33e-02   9.90e-04   7.39e-03
## 2390  -1.19e-02   5.34e-03  -5.35e-03   7.60e-03   7.56e-04   3.00e-03   1.56e-03
## 2391  -1.49e-02  -1.73e-02   3.15e-02  -2.11e-02   1.24e-02  -8.73e-03  -5.06e-03
## 2392  -5.28e-03  -1.03e-02   2.19e-02  -1.29e-02   9.04e-03  -6.00e-03  -1.64e-03
## 2393   1.69e-03  -9.89e-03   7.15e-03  -3.42e-03  -2.41e-03  -4.98e-03  -6.91e-03
## 2394  -2.51e-03  -1.36e-02  -4.56e-03  -1.34e-02  -1.49e-02  -2.14e-02   1.89e-02
## 2395   1.87e-02  -1.53e-02  -1.43e-02  -2.88e-02   1.96e-02  -1.42e-02   1.70e-02
## 2396   1.75e-02  -1.14e-02   9.29e-04   2.00e-02  -2.82e-02   9.05e-03   1.08e-02
## 2397   6.20e-03   9.39e-03   3.01e-02   1.70e-02  -2.61e-02  -6.66e-04  -6.07e-03
## 2398   5.30e-03   4.49e-03   1.56e-03   6.87e-03  -9.77e-03  -4.47e-03  -1.15e-03
## 2399  -7.29e-03   3.03e-03   1.71e-03   3.30e-03  -4.29e-03  -1.49e-03   5.88e-04
## 2400   3.35e-03  -9.03e-03  -4.81e-03  -2.50e-03  -1.13e-02  -3.93e-03  -7.61e-04
## 2401  -1.16e-02   1.16e-02   6.27e-03   8.99e-03   1.55e-02  -6.71e-03  -8.92e-03
## 2402  -5.72e-03   9.61e-03   8.29e-03  -4.41e-03  -2.50e-03  -8.04e-03  -8.03e-03
## 2403   1.28e-02   1.26e-02   1.21e-02   2.65e-02  -1.63e-02   5.66e-03  -1.57e-02
## 2404   2.55e-04   8.61e-04  -1.36e-04   3.49e-04   6.55e-04  -6.75e-04  -3.68e-04
## 2405   1.13e-02   8.67e-03  -1.78e-03  -5.02e-03  -9.50e-03  -2.30e-03   1.12e-02
## 2406  -1.32e-02  -1.16e-02  -1.28e-02  -1.66e-02   1.34e-02   7.07e-03  -1.19e-05
## 2407  -6.04e-05  -8.86e-05  -2.32e-05  -2.18e-04   1.96e-04  -1.44e-05   1.49e-04
## 2408   3.81e-02   2.92e-02   1.59e-02   4.65e-02  -4.23e-02  -2.37e-02  -5.18e-02
## 2409  -1.06e-03   6.21e-03   1.28e-03  -5.13e-03  -5.13e-03  -1.23e-02   9.95e-03
## 2410   5.87e-03  -3.50e-03  -1.72e-03  -6.58e-03   5.89e-03  -3.46e-03  -5.72e-05
## 2411  -1.17e-03   1.51e-02  -3.12e-02   7.58e-05   2.96e-02  -3.82e-03   6.15e-03
## 2412  -3.33e-03   1.75e-02  -1.44e-02   1.50e-02   3.09e-03  -6.13e-03  -7.79e-03
## 2413  -6.53e-03   8.76e-03  -3.25e-03   2.78e-03   3.69e-03  -5.70e-03   1.36e-02
## 2414   2.43e-03  -1.60e-02   3.20e-02   1.81e-02  -7.62e-03  -3.33e-04  -8.39e-03
## 2415  -6.12e-04  -5.73e-03  -1.55e-04   2.59e-03   2.71e-03  -5.88e-03  -1.74e-03
## 2416   1.11e-03   1.06e-02  -1.53e-03  -9.97e-03  -1.10e-02  -1.56e-02   1.50e-02
## 2417  -3.71e-03   6.33e-03  -6.25e-03   8.61e-03   2.69e-04   1.88e-02   1.10e-02
## 2418  -3.36e-02   2.03e-02   4.51e-02   1.20e-02  -5.99e-03  -7.14e-03   2.14e-02
## 2419   9.10e-04  -3.42e-03  -2.55e-04   1.62e-03   2.04e-03  -2.24e-03   5.86e-05
```

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## 2420   3.12e-04   2.41e-02   1.90e-02 -3.50e-02 -6.61e-03   3.90e-02 -3.36e-03
## 2421   7.80e-03   5.28e-03 -1.86e-03   3.08e-03   2.30e-03   3.01e-03 -1.41e-03
## 2422   5.35e-03 -1.14e-02 -1.04e-02 -2.14e-02   1.50e-02 -8.99e-03   1.56e-02
## 2423   2.43e-02 -1.65e-02   9.49e-03 -4.83e-03 -5.42e-03   2.44e-02 -2.54e-02
## 2424 -9.94e-03 -1.63e-02   8.81e-03 -3.63e-02   4.33e-02 -5.76e-03   9.13e-03
## 2425 -3.19e-03   5.06e-03   9.90e-03 -4.65e-03   3.91e-03   3.89e-04   7.35e-03
## 2426 -5.60e-03   4.20e-03 -6.59e-04   3.16e-03   2.61e-03 -1.59e-03 -2.58e-05
## 2427   2.83e-02 -1.49e-02 -3.83e-02 -8.63e-03   3.65e-03   2.88e-02 -2.23e-02
## 2428   2.01e-03 -3.50e-03   8.01e-03 -3.93e-03   3.49e-03   4.23e-03 -5.18e-03
## 2429 -2.66e-03   8.47e-03 -1.36e-03   3.33e-03   4.28e-03 -5.33e-03   1.23e-02
## 2430   8.60e-03 -5.47e-03   5.08e-04 -5.30e-03 -5.14e-03 -7.71e-03 -1.06e-03
## 2431   1.20e-02 -1.23e-02   3.64e-04   1.92e-02 -2.60e-02   4.72e-04 -7.41e-03
## 2432 -1.06e-02 -1.32e-02   2.95e-02   1.40e-02 -4.61e-03   9.56e-03   1.63e-02
## 2433   8.91e-03 -7.95e-03 -2.19e-03   3.40e-03   3.75e-03   2.47e-04 -4.68e-03
## 2434 -2.73e-02   1.11e-02   8.14e-03 -7.07e-03 -3.18e-03 -8.37e-03   1.18e-02
## 2435   1.96e-03   1.88e-03   2.72e-04 -1.43e-03 -1.64e-03 -2.86e-03   1.18e-04
## 2436   7.46e-03   3.56e-03 -4.77e-04 -2.20e-03 -3.92e-03   2.12e-03 -6.84e-04
## 2437 -3.48e-02 -2.21e-02   4.86e-02   1.34e-02 -4.89e-03   8.03e-03   2.24e-02
## 2438   6.93e-03 -8.76e-03 -1.79e-02 -6.60e-03   2.73e-03 -1.03e-03   6.18e-03
## 2439 -6.51e-05 -1.66e-04 -6.67e-05   4.23e-05 -1.98e-04 -2.49e-04   5.59e-05
## 2440 -3.58e-03   1.27e-02 -2.46e-02 -1.47e-02   5.79e-03 -5.44e-03   8.73e-03
## 2441 -1.17e-02 -1.11e-02 -3.71e-03 -6.64e-03 -1.30e-02   8.19e-03   1.61e-02
## 2442 -4.04e-03   1.25e-02   1.19e-02 -8.55e-03 -2.64e-03 -4.90e-03   7.69e-03
## 2443 -1.58e-02   1.74e-02 -1.30e-02   7.44e-03   3.67e-03   4.01e-03   1.83e-02
## 2444 -1.20e-02   8.93e-03 -1.84e-02 -8.95e-03   3.80e-03 -6.36e-03   9.93e-03
## 2445   1.51e-02   1.12e-02 -2.40e-03 -8.98e-03 -1.35e-02 -7.04e-03 -7.51e-03
## 2446   4.87e-05 -2.74e-04 -8.55e-05   6.38e-05 -3.58e-04 -4.89e-04   1.04e-04
## 2447 -2.60e-03 -2.02e-02   8.33e-03   8.65e-03   2.11e-02   4.48e-04   4.66e-03
## 2448   1.60e-02 -1.23e-02 -2.50e-02 -1.05e-02   4.77e-03   3.35e-03   5.90e-03
## 2449 -2.36e-02 -2.19e-02   4.54e-02   1.53e-02 -7.97e-03 -7.37e-03 -1.24e-02
## 2450   6.67e-04   1.56e-03   4.41e-04 -1.92e-03 -8.87e-04 -4.13e-03   1.74e-03
## 2451 -1.03e-02   1.31e-02   8.63e-03 -4.86e-03 -3.43e-03 -1.08e-02 -1.19e-02
## 2452 -2.11e-05   1.03e-04   5.27e-06 -3.88e-05 -8.91e-05   6.97e-05 -1.31e-04
## 2453 -1.09e-02   8.53e-03   1.70e-02 -8.68e-03   6.66e-03 -4.99e-04   1.34e-02
## 2454 -7.02e-03   1.07e-02   2.05e-02 -9.29e-03   8.50e-03 -1.37e-02 -9.48e-04
## 2455   1.19e-02   6.81e-03 -1.85e-03   2.43e-03   3.06e-03 -8.21e-03 -2.27e-03
## 2456   3.31e-04   1.34e-03 -2.11e-04   4.97e-04   1.02e-03 -1.44e-03 -5.15e-04
## 2457 -7.25e-04   1.87e-03   5.77e-04 -2.25e-03 -8.92e-04 -6.38e-03 -4.31e-04
## 2458   2.50e-02   1.04e-02   2.49e-03   1.33e-02 -1.98e-02 -1.37e-03 -7.42e-03
## 2459 -7.67e-04   2.27e-02 -2.47e-02 -3.99e-02   2.49e-02 -8.40e-03 -1.10e-02
## 2460   1.04e-02   1.02e-02   8.76e-03 -3.80e-03 -1.85e-03   2.27e-03   3.89e-03
## 2461   7.29e-03 -1.65e-02   1.06e-02 -5.23e-03 -4.06e-03   3.10e-02 -2.18e-02
## 2462   1.56e-03 -2.16e-03 -2.40e-04   5.81e-04   1.89e-03 -4.95e-03 -1.16e-03
## 2463 -4.17e-03   9.24e-03 -4.36e-03 -2.30e-03 -1.29e-02 -2.73e-03 -8.35e-04
## 2464 -1.32e-02 -1.61e-02   1.39e-02   3.24e-02 -2.20e-02   1.66e-02 -1.57e-02
## 2465   4.46e-04 -2.48e-03 -2.94e-04   1.50e-03   1.42e-03   7.77e-04   1.48e-04
## 2466   1.41e-04 -2.47e-04 -1.58e-04 -2.97e-04   4.05e-04   4.46e-04 -3.05e-04
## 2467 -1.13e-02   1.93e-02   2.51e-02   2.42e-02 -2.08e-02 -4.79e-03   6.86e-03
## 2468   7.25e-04 -5.12e-03   2.01e-03   5.72e-03 -8.00e-03 -1.34e-03   6.33e-03
## 2469   8.07e-03 -5.26e-03   4.12e-04 -4.89e-03 -4.97e-03 -6.03e-03 -9.06e-04
```

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## 2470   9.92e-03 -1.42e-02 -1.47e-02   1.55e-02 -1.01e-04   1.04e-02 -6.64e-03
## 2471  -9.74e-04 -9.38e-04 -2.72e-04   1.03e-03   3.86e-04 -1.98e-04   1.63e-03
## 2472  -2.86e-03 -3.51e-03   1.38e-03   3.99e-03 -5.50e-03 -9.68e-04   7.97e-05
## 2473  -6.16e-03   2.03e-02 -1.30e-02   6.80e-03   5.35e-03   1.32e-02   1.88e-02
## 2474  -1.49e-02   9.81e-03 -3.28e-03   2.97e-03   4.46e-03 -7.03e-03 -3.78e-03
## 2475  -6.09e-04 -9.72e-04   1.77e-05   1.54e-04   9.43e-04   3.48e-04   1.30e-03
## 2476   9.07e-03 -1.80e-02 -2.97e-02   1.60e-02 -8.70e-03   1.43e-03   5.01e-03
## 2477  -7.47e-05   5.28e-04   1.23e-03 -4.90e-04   5.84e-04   5.66e-04 -6.54e-04
## 2478  -1.58e-03 -1.31e-02 -8.19e-03 -2.72e-02   1.78e-02 -1.59e-02 -5.12e-03
## 2479  -2.08e-02 -2.03e-02 -4.55e-02 -1.62e-03   3.84e-02 -8.86e-03   9.14e-03
## 2480   5.76e-03   4.26e-03   2.11e-04 -4.10e-03 -4.42e-03 -3.03e-03 -6.23e-04
## 2481   6.14e-03   1.34e-02   1.16e-02 -7.77e-03 -1.50e-03 -4.13e-03   6.38e-03
## 2482  -6.32e-03 -1.36e-02 -5.73e-03 -7.50e-03 -1.78e-02 -2.78e-03 -1.06e-03
## 2483   3.16e-03   3.34e-03 -4.59e-04   1.80e-03   1.47e-03   1.50e-03 -1.12e-03
## 2484  -6.72e-03 -2.36e-02   8.44e-03 -1.64e-02 -6.78e-03 -2.69e-02   1.05e-02
## 2485  -4.76e-03   2.34e-03   3.69e-04 -3.96e-05   2.85e-03 -2.01e-03   4.00e-03
## 2486  -2.09e-02   9.10e-03   2.41e-04   1.99e-02 -2.11e-02 -3.38e-03   1.65e-03
## 2487   3.26e-03 -2.26e-03 -1.28e-03 -3.58e-03   3.31e-03   3.48e-03 -6.76e-05
## 2488  -2.74e-02 -2.08e-02   1.24e-02   3.88e-02 -2.82e-02   3.49e-03 -2.25e-02
## 2489   1.29e-02 -1.96e-02 -2.52e-02 -4.19e-02   2.64e-02   3.08e-03 -1.40e-02
## 2490   3.90e-02 -1.77e-02   1.61e-02 -1.57e-02 -2.44e-03 -8.94e-03   4.62e-04
## 2491   3.54e-03 -2.70e-03 -1.42e-03 -4.50e-03   4.34e-03   9.94e-04   1.43e-04
## 2492  -4.88e-04   1.36e-03   5.36e-05   7.19e-04   1.02e-03 -2.40e-03   2.76e-04
## 2493   8.61e-03 -5.96e-03 -2.28e-03 -1.25e-02   9.26e-03 -8.44e-03 -1.41e-03
## 2494   4.89e-03   6.56e-03 -3.71e-03 -1.22e-02   9.33e-03   3.93e-03 -2.88e-03
## 2495   3.59e-04   1.72e-03   4.50e-04   3.72e-03 -3.70e-03   1.62e-03 -4.42e-04
## 2496   6.14e-05   1.97e-04   2.57e-05 -6.34e-05 -2.16e-04   9.62e-05   2.90e-06
## 2497   2.01e-03 -3.29e-03 -1.65e-04   2.64e-04   2.96e-03 -1.09e-02 -1.88e-03
## 2498  -8.71e-05   2.19e-04   9.31e-05 -2.70e-04 -9.24e-05 -6.51e-04   2.74e-04
## 2499  -2.95e-04 -3.80e-04 -9.33e-06   1.60e-04   3.63e-04 -3.17e-04 -8.63e-05
## 2500   1.06e-02 -1.54e-02   9.07e-03 -4.82e-03 -4.73e-03 -3.17e-04 -1.67e-02
## 2501   3.62e-03 -2.12e-03 -4.20e-05 -1.14e-03 -2.14e-03 -2.06e-04   1.37e-04
## 2502  -1.59e-05   5.61e-04 -1.34e-03   4.51e-04 -6.17e-04 -1.13e-03   6.97e-04
## 2503  -2.09e-05 -1.52e-04   9.61e-05   1.76e-04 -2.47e-04 -3.46e-04   1.87e-04
## 2504  -1.51e-03 -4.47e-03 -2.87e-03   6.04e-03   8.82e-04 -5.25e-03   5.15e-04
## 2505  -3.03e-04   4.22e-04   2.86e-04   4.77e-04 -6.92e-04 -8.78e-04   5.18e-04
## 2506   1.39e-02 -1.08e-02   8.88e-03 -3.59e-03 -2.46e-03   1.31e-03   5.58e-03
## 2507  -8.60e-03   1.20e-02   2.41e-02 -1.46e-02   9.44e-03 -6.28e-03   1.50e-02
## 2508   9.86e-03 -4.65e-03 -1.85e-03 -8.88e-03   7.52e-03 -2.87e-03 -2.43e-03
## 2509   1.05e-03 -1.84e-03 -2.99e-04   6.99e-04   1.56e-03 -2.69e-03 -7.97e-04
## 2510   1.65e-03   1.25e-02 -2.46e-02 -1.30e-02   5.77e-03 -6.12e-03   7.98e-03
## 2511   1.21e-03 -1.81e-03 -1.06e-03   2.72e-03   5.06e-04 -2.78e-03   1.43e-04
## 2512   1.87e-03   8.41e-03 -1.67e-02 -7.94e-03   3.72e-03 -3.55e-03   5.84e-03
## 2513   1.48e-02 -1.22e-02 -2.61e-02 -7.45e-03   3.65e-03   8.90e-03 -1.21e-02
## 2514   1.33e-02   1.96e-02 -1.80e-02   1.42e-02   2.49e-03   4.59e-03 -1.27e-02
## 2515   6.90e-03   2.36e-02 -2.49e-02 -4.48e-02   2.90e-02   3.45e-03 -1.63e-02
## 2516   1.44e-03 -1.10e-03   3.31e-04 -5.25e-04 -9.44e-04 -6.03e-05 -2.78e-04
## 2517   1.26e-02 -1.45e-02 -2.41e-02   1.80e-02 -7.78e-03   4.50e-04   4.82e-03
## 2518   4.88e-03   4.66e-03 -9.56e-04 -1.08e-03 -6.24e-03   4.69e-03 -9.70e-03
## 2519  -1.06e-04   1.56e-03 -2.33e-04   5.55e-04   1.26e-03 -1.02e-03 -6.60e-04
```

```
## 2520   2.81e-03 -3.94e-03 -1.23e-03 -9.94e-03  8.07e-03 -1.25e-02 -2.10e-03
## 2521   3.64e-04 -7.71e-04  2.42e-04 -7.90e-05  9.10e-04  7.20e-04 -2.80e-04
## 2522  -2.56e-02 -2.50e-02  3.42e-03 -6.02e-03 -1.41e-02  3.69e-02  8.16e-03
## 2523   3.66e-03  1.08e-02  9.79e-03 -5.57e-03 -1.28e-03 -1.57e-03  6.89e-03
## 2524   5.20e-03  1.24e-02  9.39e-03 -6.10e-03 -2.84e-03  1.45e-03 -1.36e-02
## 2525   1.01e-02 -2.73e-02 -7.40e-02 -3.60e-02  3.89e-03 -1.79e-02  1.03e-02
## 2526   2.25e-02 -1.88e-02 -1.18e-02  8.80e-03  3.73e-03  2.33e-02  1.35e-02
## 2527  -3.77e-05  6.36e-05  4.14e-05  7.31e-05 -1.04e-04 -1.46e-04  8.01e-05
## 2528  -1.33e-03 -1.22e-02  2.82e-02  1.56e-02 -4.67e-03  1.55e-04  1.50e-02
## 2529  -3.25e-03  1.77e-03 -3.73e-04 -3.82e-05 -1.88e-03  1.92e-03  4.12e-03
## 2530   9.80e-04  1.98e-03 -1.84e-03 -1.96e-03  2.23e-03 -1.06e-03  3.20e-04
## 2531  -1.68e-03  1.03e-03 -2.56e-03  7.42e-04 -9.71e-04  1.05e-03  1.71e-03
## 2532  -2.32e-02 -2.91e-02  7.07e-03 -1.93e-02 -1.57e-02  2.36e-02  4.43e-02
## 2533   4.73e-04 -2.04e-03  9.21e-04 -3.00e-03 -6.17e-04  2.95e-03 -3.84e-04
## 2534  -1.11e-02  6.33e-03 -1.58e-04 -3.96e-03 -6.32e-03 -4.07e-03  1.34e-02
## 2535  -2.56e-04  1.73e-03  8.19e-05  1.14e-04  1.55e-03 -2.97e-03  1.76e-03
## 2536   1.80e-04 -3.36e-04 -1.84e-04  5.10e-04  9.16e-05 -4.17e-04  9.67e-07
## 2537  -4.48e-04 -1.66e-03 -4.51e-04  1.71e-04 -1.77e-03  1.51e-03  3.06e-03
## 2538  -1.44e-03  6.81e-03  1.56e-03  1.38e-02 -1.61e-02  5.40e-03 -1.45e-03
## 2539  -1.76e-04 -1.39e-02  9.42e-03 -7.75e-03 -3.98e-03 -1.35e-02  9.63e-03
## 2540   1.68e-02 -1.08e-02 -6.04e-03 -2.05e-02  1.78e-02 -5.00e-03 -2.56e-02
## 2541  -2.14e-03  1.58e-03 -3.10e-05  1.30e-04  1.76e-03 -1.45e-03 -9.45e-06
## 2542   1.70e-02 -8.14e-03 -2.29e-03  5.61e-03  2.80e-03  6.23e-03 -5.10e-03
## 2543   5.64e-04  3.23e-04  4.53e-05 -2.91e-04 -2.04e-04 -3.73e-04 -6.65e-04
## 2544  -2.98e-02  1.89e-02  4.14e-02  1.34e-02 -6.19e-03 -6.17e-03  2.11e-02
## 2545   5.69e-03  5.80e-03 -8.61e-04  1.48e-03  3.25e-03 -7.86e-03 -1.70e-03
## 2546   6.98e-04  2.04e-03 -2.45e-04  5.51e-04  1.58e-03 -3.46e-03 -8.98e-04
## 2547   7.34e-03 -4.31e-03 -8.48e-04  1.98e-03  2.07e-03 -4.41e-03 -1.09e-03
## 2548   1.71e-03 -2.53e-03 -1.48e-03 -3.69e-03  3.91e-03  2.83e-03 -3.36e-03
## 2549   7.20e-03  7.01e-03  1.97e-02  4.00e-03 -6.35e-05 -1.18e-02 -3.03e-03
## 2550  -1.26e-03 -1.16e-02 -4.87e-03  5.54e-03  2.87e-03  3.83e-03 -5.14e-03
## 2551   1.07e-02 -1.16e-02 -3.81e-03  4.95e-03  5.09e-03 -1.15e-03 -7.25e-03
## 2552  -3.29e-03  1.06e-02 -1.20e-02 -1.53e-02  1.27e-02  9.73e-03 -2.30e-03
## 2553  -1.58e-02  1.02e-02 -3.47e-03  2.94e-03  4.62e-03 -7.22e-03 -3.61e-03
## 2554   2.12e-04 -1.87e-03 -2.93e-04  1.33e-03  1.03e-03  2.21e-03  1.73e-04
## 2555   1.98e-05  2.44e-04 -1.93e-04 -2.26e-04  3.16e-04 -3.99e-04  5.75e-05
## 2556  -5.42e-03 -2.17e-02  1.95e-02 -2.13e-02 -2.39e-03 -1.91e-02  7.91e-03
## 2557  -3.78e-04 -1.20e-03 -5.38e-04  2.44e-04 -1.42e-03 -1.45e-03  3.78e-04
## 2558  -2.40e-03  1.32e-03 -1.55e-04 -1.21e-04 -1.50e-03  1.05e-03  3.12e-03
## 2559  -3.22e-04 -1.29e-02 -2.63e-02 -1.40e-02  4.88e-03 -1.20e-02  1.02e-02
## 2560  -2.47e-02 -2.03e-02  6.94e-03 -1.27e-02 -7.23e-03  3.20e-03  4.31e-02
## 2561   6.28e-03 -4.12e-03  3.48e-04 -3.17e-03 -3.73e-03 -1.24e-02 -6.36e-03
## 2562  -5.96e-03  4.01e-03 -1.96e-04 -3.41e-04  4.30e-03  2.98e-03  5.78e-03
## 2563   8.04e-04 -2.09e-02  2.84e-02  2.59e-02 -2.41e-02 -1.02e-02  3.97e-03
## 2564  -2.72e-04  1.26e-03  4.04e-04 -1.09e-03 -9.32e-04 -2.45e-03  3.08e-04
## 2565   5.62e-05  1.94e-03  1.06e-03  2.14e-03 -3.17e-03 -4.29e-03  2.11e-03
## 2566  -3.87e-04 -1.41e-02  1.68e-02  2.18e-02 -1.58e-02 -1.24e-03  6.86e-03
## 2567  -5.26e-03 -8.68e-03 -1.69e-03 -2.59e-03 -9.93e-03 -5.77e-03  1.35e-02
## 2568  -3.14e-04  1.86e-03  1.05e-03  2.09e-03 -3.10e-03 -3.90e-03  2.08e-03
## 2569  -1.05e-03  1.76e-02  7.50e-03 -4.77e-03 -5.05e-03  7.44e-03  1.07e-02
```

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## 2570   6.96e-03 -1.40e-02 -2.67e-02 -1.80e-02  7.37e-03 -1.28e-03  6.50e-03
## 2571   3.69e-03 -2.47e-03 -7.18e-04  1.85e-03  1.05e-03  2.73e-03 -3.84e-04
## 2572   1.14e-02 -7.51e-03 -4.08e-03 -1.10e-03 -1.11e-02  3.93e-04  1.03e-02
## 2573  -2.43e-03  6.91e-03  6.40e-03 -3.13e-03 -1.32e-03 -3.65e-03  6.12e-03
## 2574  -1.77e-02  1.71e-02 -4.12e-02  3.56e-03  3.23e-02 -1.60e-02 -1.46e-02
## 2575   7.61e-04 -1.19e-03  1.08e-04 -1.11e-03 -8.40e-04 -1.07e-03 -4.20e-04
## 2576   5.85e-03 -1.82e-02  4.59e-02  3.91e-02 -5.38e-02  1.43e-02 -9.16e-03
## 2577   5.94e-03  4.78e-03 -9.01e-04  1.87e-03  2.43e-03 -4.76e-03 -1.19e-03
## 2578   3.38e-02 -2.00e-02 -9.59e-03  3.63e-02 -4.99e-02  1.89e-02 -1.90e-02
## 2579   7.42e-04  1.76e-03 -5.07e-03 -2.50e-03 -2.93e-05 -1.91e-04 -9.45e-05
## 2580   4.00e-03 -2.98e-03 -2.33e-03 -3.93e-03  4.11e-03  4.41e-03 -7.17e-04
## 2581  -1.27e-04 -2.06e-04 -4.70e-06  1.49e-04  1.41e-04  4.65e-05  5.97e-05
## 2582   2.40e-03 -1.99e-03 -1.46e-04 -8.93e-04 -1.97e-03  4.20e-03 -4.25e-05
## 2583   5.90e-04  1.15e-03  4.21e-04  2.11e-03 -2.34e-03 -2.35e-04  9.80e-05
## 2584  -2.95e-03 -8.78e-03 -1.15e-03  2.60e-03  3.31e-03 -1.92e-03 -2.95e-03
## 2585   1.32e-02 -9.51e-03 -1.95e-02 -6.38e-03  3.26e-03  3.16e-03  4.95e-03
## 2586   5.13e-03 -1.41e-02  2.77e-02 -2.00e-02  9.70e-03  2.47e-03  1.35e-02
## 2587   4.19e-03 -1.20e-02 -9.53e-03 -9.12e-04 -1.72e-02  5.28e-03 -1.87e-03
## 2588   5.76e-03 -5.30e-03 -9.00e-04  1.99e-03  2.54e-03 -2.30e-03 -1.26e-03
## 2589  -3.21e-04  3.32e-03 -2.77e-04  4.81e-04  2.83e-03 -5.44e-03 -1.68e-03
## 2590   8.97e-04 -3.39e-03 -3.03e-03 -3.54e-03  4.40e-03 -5.72e-03  1.31e-04
## 2591   1.81e-04 -4.98e-04 -3.01e-04 -4.81e-04  6.49e-04 -1.53e-04 -6.97e-04
## 2592   4.89e-03 -8.55e-03 -9.76e-04 -5.77e-03 -8.55e-03 -6.17e-03 -2.94e-03
## 2593   1.36e-03  4.10e-03 -4.60e-03 -3.85e-03  4.88e-03 -3.34e-03 -8.91e-05
## 2594  -1.19e-02 -1.82e-02 -1.30e-02  7.77e-03  3.22e-03  3.60e-03  1.89e-02
## 2595  -3.74e-03  5.26e-03  8.64e-04 -7.13e-03 -2.31e-03 -3.98e-03 -6.54e-05
## 2596  -3.12e-02 -1.80e-02 -1.06e-02  5.39e-03  4.86e-03 -2.58e-03  2.21e-02
## 2597  -1.82e-04 -6.99e-04 -2.96e-04  1.14e-04 -9.26e-04 -8.58e-04  2.21e-04
## 2598   3.18e-03 -5.51e-03 -2.84e-03  2.19e-04 -7.51e-03 -3.63e-03  2.49e-04
## 2599   2.74e-06 -3.79e-05 -2.09e-05  5.63e-05  8.98e-06 -5.65e-05  7.53e-06
## 2600   3.44e-03 -1.65e-02 -1.46e-02  1.49e-02  1.02e-03  7.23e-03 -8.53e-03
## 2601   4.18e-04 -4.13e-03 -9.40e-05  1.83e-03  2.95e-03 -7.70e-03  4.33e-04
## 2602   9.98e-03 -1.30e-02 -1.10e-02  1.20e-02  3.11e-03  1.14e-02 -7.53e-03
## 2603   1.84e-02 -1.12e-02 -2.49e-02 -6.64e-03  3.29e-03  4.04e-03 -1.17e-02
## 2604  -1.04e-02 -2.31e-02  1.66e-03  2.30e-02  2.53e-02  2.63e-02 -3.44e-02
## 2605  -1.09e-02 -2.04e-02  2.83e-02  2.38e-02 -2.17e-02 -7.90e-03  6.67e-03
## 2606   2.66e-02  2.78e-02  3.90e-03 -4.76e-02  5.75e-02 -3.10e-02 -4.15e-02
## 2607   1.94e-02 -1.42e-02  1.41e-02  2.86e-02 -1.84e-02  3.61e-03 -1.84e-02
## 2608   2.63e-02 -1.07e-02 -1.52e-03 -8.36e-03 -1.28e-02  2.00e-03 -2.52e-02
## 2609   3.97e-03  1.07e-02  9.42e-03 -3.83e-03 -2.73e-03 -1.24e-03  6.51e-03
## 2610   5.05e-03  2.91e-02  1.24e-02 -9.29e-04  4.03e-02  5.42e-03 -8.62e-03
## 2611  -4.90e-03  3.29e-03  1.03e-03 -5.01e-03 -1.26e-03  2.12e-03  5.17e-03
## 2612  -2.94e-03 -2.04e-02  3.91e-03  1.94e-02  2.45e-02  2.86e-02  7.64e-03
## 2613  -4.28e-02  2.43e-02  5.43e-03 -5.96e-03 -1.14e-02  3.58e-02  9.53e-03
## 2614   1.01e-03  1.59e-03  2.02e-04 -1.16e-03 -1.45e-03 -7.47e-04  1.67e-04
## 2615  -2.32e-02  1.51e-02 -3.24e-02 -1.81e-02  7.27e-03 -1.21e-02  1.27e-02
## 2616   1.43e-02  7.70e-03 -1.24e-03  4.01e-03  3.21e-03  5.17e-03 -6.02e-03
## 2617  -8.80e-04 -2.00e-03  1.04e-03  2.23e-03 -3.00e-03 -4.04e-04  4.21e-05
## 2618  -1.26e-02  9.96e-03  2.84e-02 -3.24e-03 -1.80e-02 -7.15e-03 -1.79e-02
## 2619  -5.71e-03 -1.59e-02 -2.77e-03  2.56e-02 -3.74e-02 -1.90e-03 -5.56e-03
```

```
## 2620   1.61e-02   9.36e-03  -1.91e-03  -7.50e-03  -1.13e-02   3.57e-03  -2.03e-02
## 2621  -5.29e-03   7.92e-03  -7.47e-03   8.97e-03   9.07e-04   6.57e-03   1.19e-04
## 2622  -3.67e-04  -2.62e-03  -2.07e-03  -3.26e-03   3.67e-03   4.16e-03   4.57e-03
## 2623   5.94e-05  -1.98e-03  -3.00e-04   1.61e-03   1.32e-03  -1.28e-03  -2.61e-03
## 2624   1.27e-02  -1.33e-02  -6.31e-03   3.76e-03   5.89e-03   1.10e-02   1.30e-02
## 2625   2.79e-02  -1.45e-02   9.22e-03  -4.83e-03  -4.23e-03   4.36e-03  -1.89e-02
## 2626  -4.24e-03   2.37e-03  -1.69e-03  -2.75e-03   3.26e-03  -1.67e-03   1.25e-03
## 2627  -5.63e-03  -7.60e-03  -1.27e-02   1.15e-02  -4.89e-03  -2.72e-03   7.50e-03
## 2628  -2.35e-03  -2.87e-03  -1.07e-03   2.93e-03   1.10e-03   1.43e-03  -7.45e-05
## 2629   1.27e-03  -2.55e-03  -2.39e-03  -2.99e-03   3.49e-03  -2.09e-03   5.20e-04
## 2630  -6.94e-04  -1.35e-02   9.81e-03   2.75e-02  -1.77e-02  -3.28e-03  -1.23e-02
## 2631   4.40e-04  -5.05e-04   1.39e-04  -6.03e-04  -3.37e-04  -1.18e-03   6.25e-04
## 2632   1.05e-03  -1.85e-03   4.10e-03  -1.26e-03   1.49e-03  -3.44e-03  -7.73e-06
## 2633  -8.18e-04  -8.75e-04   1.31e-04  -4.23e-04  -7.90e-04  -5.39e-04   1.81e-03
## 2634  -8.67e-03  -2.55e-02   1.58e-02  -2.81e-02  -4.62e-03   2.06e-03  -3.29e-02
## 2635  -5.89e-03  -2.20e-02   1.09e-02  -1.34e-02  -7.44e-03  -5.54e-03   4.38e-02
## 2636   1.52e-02   1.42e-02  -9.05e-03   8.61e-03   1.94e-03   8.45e-03   1.18e-02
## 2637   9.49e-03  -7.33e-03   2.24e-02   4.78e-03  -2.20e-04  -2.12e-03  -5.01e-03
## 2638   1.00e-02   2.12e-02   2.30e-02   2.78e-02  -2.06e-02  -1.60e-02  -2.73e-02
## 2639   1.15e-02   1.59e-02   1.50e-02  -1.29e-02  -3.85e-04  -9.24e-03   5.75e-03
## 2640  -1.50e-03  -2.07e-02   1.39e-02  -1.12e-02  -6.12e-03   9.04e-03  -2.61e-02
## 2641   8.87e-03  -5.61e-03  -8.14e-04   1.63e-03   2.84e-03  -1.01e-02  -1.60e-03
## 2642   2.52e-04   1.03e-03  -2.50e-04   1.17e-03   4.65e-04   5.98e-05  -8.74e-05
## 2643   1.34e-02  -7.78e-03  -1.80e-03   2.01e-03   3.60e-03  -1.07e-02  -2.88e-03
## 2644   5.36e-03   7.30e-03  -4.09e-03   6.24e-03   1.98e-03   6.53e-03  -1.52e-02
## 2645  -5.06e-05   9.94e-04   5.17e-04   1.21e-03  -1.66e-03  -1.66e-03   1.13e-03
## 2646   8.61e-03  -1.50e-02  -1.24e-02   1.02e-02   2.85e-03   3.00e-03  -8.84e-03
## 2647   9.90e-03  -1.36e-02   1.16e-02  -9.39e-03  -2.04e-03  -9.71e-03  -1.49e-02
## 2648  -1.03e-02   1.25e-02  -4.80e-03   3.58e-03   4.92e-03  -4.67e-03  -6.84e-03
## 2649   1.64e-03   4.95e-03  -8.82e-04  -8.65e-05   4.76e-03  -7.82e-04  -1.97e-03
## 2650   2.55e-04  -9.42e-03   9.11e-03   1.85e-02  -1.17e-02  -2.83e-03  -7.70e-03
## 2651   2.19e-03   1.26e-02   3.40e-03  -1.93e-02   2.79e-02  -7.66e-03   7.56e-03
## 2652  -3.91e-03  -4.49e-03  -7.38e-04   3.29e-03   1.63e-03   3.62e-03  -3.16e-04
## 2653   9.41e-03  -1.04e-02  -6.21e-03   8.04e-03   2.40e-03   6.51e-03  -2.12e-02
## 2654   9.96e-05  -1.45e-03   4.48e-04  -1.17e-03  -1.02e-03  -2.75e-03   3.10e-04
## 2655  -2.57e-04   1.08e-03   1.64e-04  -1.38e-03  -4.66e-04   5.60e-05   1.55e-03
## 2656   2.26e-03   8.68e-03   9.60e-04   1.40e-02  -1.92e-02  -2.19e-03  -2.54e-03
## 2657   7.71e-04   8.11e-04   2.54e-04  -9.15e-04  -3.93e-04  -1.32e-03  -1.67e-03
## 2658  -7.34e-03  -1.43e-02   9.28e-03  -5.38e-03  -4.08e-03   1.18e-02  -1.39e-02
## 2659   6.82e-03  -6.36e-03  -7.20e-03  -7.11e-03   8.03e-03  -5.82e-03  -1.22e-03
## 2660  -1.55e-03   5.38e-03  -3.08e-03  -5.67e-06  -6.68e-03  -1.60e-03   8.57e-04
## 2661   1.55e-03   1.11e-02   2.22e-02  -1.38e-02   8.92e-03   2.16e-04   1.20e-02
## 2662  -7.24e-04  -1.77e-03  -4.36e-04  -4.51e-03   4.04e-03  -7.26e-04   8.95e-05
## 2663   4.84e-04   1.62e-03   7.57e-04  -2.44e-03  -4.54e-04   2.44e-03  -4.86e-04
## 2664  -3.03e-02  -2.49e-02  -9.17e-03  -3.61e-02   5.36e-02   3.66e-02   6.87e-03
## 2665  -1.36e-02   1.35e-02   1.30e-02  -1.00e-02  -2.86e-03  -9.77e-03   9.09e-03
## 2666  -2.20e-03  -6.94e-03  -2.16e-03  -1.53e-03  -8.34e-03  -3.37e-04   1.10e-03
## 2667  -2.57e-03   6.06e-03  -5.20e-03   7.92e-03   3.13e-04   3.60e-03  -5.17e-04
## 2668   8.51e-04   1.72e-03  -2.31e-04   1.11e-03   1.02e-03  -7.41e-04   7.36e-05
## 2669  -1.03e-02  -1.53e-02   1.22e-02  -1.08e-02  -2.29e-03  -3.23e-03   7.86e-03
```

```
## 2670   7.55e-03 -7.81e-03  2.07e-02  4.37e-03 -2.48e-04 -9.53e-03 -2.74e-03
## 2671   3.68e-04 -6.69e-04 -1.27e-04  3.43e-04  5.49e-04 -3.95e-04 -2.97e-04
## 2672   4.05e-04 -2.54e-03 -3.09e-04  1.54e-03  1.44e-03  7.71e-04  1.91e-04
## 2673   1.47e-02  1.34e-02  9.66e-03 -4.96e-03 -2.82e-03  4.07e-03 -1.60e-02
## 2674  -9.71e-05  1.99e-03 -2.67e-04  1.31e-03  1.29e-03  8.20e-04  8.41e-05
## 2675   1.02e-02 -1.18e-02  1.24e-02  2.33e-02 -1.46e-02  5.76e-03  4.95e-03
## 2676  -6.09e-03 -6.77e-03 -1.04e-03 -5.93e-04  6.76e-03  8.15e-04 -1.19e-03
## 2677  -5.98e-04  4.13e-04 -1.53e-04 -6.21e-04  6.78e-04  4.08e-05  8.63e-04
## 2678   2.05e-02 -1.75e-02  8.24e-03 -6.29e-03 -6.98e-03  1.25e-02  3.67e-02
## 2679   4.88e-03  1.30e-02  1.00e-02 -6.09e-03 -3.44e-03 -2.94e-03  6.32e-03
## 2680  -1.70e-03  4.66e-03 -3.74e-03  6.45e-03  4.24e-04 -3.44e-03  4.45e-04
## 2681   1.71e-05  1.71e-05  1.49e-05  1.52e-05 -2.38e-05  2.63e-05 -8.24e-06
## 2682   1.18e-02 -1.24e-02 -2.58e-02 -1.20e-02  5.43e-03 -3.46e-03  7.38e-03
## 2683  -7.79e-03  1.14e-02 -6.92e-03  8.24e-03  1.65e-03  1.24e-02  1.45e-02
## 2684   1.67e-03 -1.34e-02  1.38e-02  2.53e-02 -1.65e-02  4.27e-03  7.29e-03
## 2685   6.59e-04 -2.16e-03  4.66e-03 -1.38e-03  1.67e-03 -3.97e-03  4.17e-04
## 2686   6.39e-03 -1.14e-02 -2.77e-02  6.36e-03  2.06e-02  1.93e-03 -1.18e-02
## 2687   2.52e-03 -1.01e-02 -2.50e-03  4.45e-03  5.15e-03 -8.67e-03 -4.87e-03
## 2688   1.36e-03 -8.40e-03 -3.11e-03  4.72e-03  2.94e-03  3.44e-03 -2.91e-03
## 2689   2.23e-03 -3.61e-03  6.92e-04 -4.57e-03 -2.34e-03 -1.04e-02 -1.54e-03
## 2690   7.16e-03  4.10e-03  2.56e-04 -3.84e-03 -4.11e-03 -5.96e-03 -8.02e-04
## 2691   2.35e-03  1.32e-03 -7.72e-04 -1.63e-03  1.72e-03  6.82e-05 -2.23e-03
## 2692   4.03e-03  2.16e-03  3.67e-04 -2.34e-03 -1.04e-03 -4.34e-03 -4.30e-03
## 2693  -7.18e-03  4.97e-03  2.15e-03  5.00e-03 -7.79e-03  3.43e-03  8.02e-03
## 2694   5.66e-03  5.73e-03 -8.36e-04  1.46e-03  3.21e-03 -7.91e-03 -1.72e-03
## 2695   3.34e-03 -1.52e-02  3.29e-02  1.69e-02 -5.96e-03  1.18e-02 -7.28e-03
## 2696  -1.80e-02 -1.01e-02 -5.50e-03  6.32e-03  2.41e-03  9.46e-03  1.57e-02
## 2697  -1.26e-03  1.70e-03  4.29e-05  3.32e-04  1.61e-03 -4.28e-03 -3.97e-04
## 2698  -1.23e-02  1.01e-02 -3.18e-03  2.77e-03  4.52e-03 -1.08e-02 -4.33e-03
## 2699   3.97e-03  1.75e-02  8.62e-03 -5.16e-03 -5.14e-03  1.50e-02  3.47e-02
## 2700  -1.55e-03 -2.96e-03 -5.04e-04 -5.28e-04 -3.27e-03  1.80e-03  1.97e-04
## 2701  -2.15e-04  1.99e-03  1.13e-03  2.19e-03 -3.28e-03 -4.10e-03  2.13e-03
## 2702   1.69e-02 -1.42e-02  1.27e-02  2.97e-02 -1.92e-02  1.48e-03 -1.71e-02
## 2703  -1.28e-02 -1.25e-02  6.86e-03 -4.48e-03 -2.86e-03 -1.39e-02 -6.56e-03
## 2704  -6.56e-03  9.00e-03 -2.03e-02 -8.91e-03  3.37e-03 -6.14e-03  7.78e-03
## 2705   1.03e-02  1.21e-02  2.33e-02 -1.54e-02  9.03e-03  1.16e-02  1.30e-02
## 2706   2.12e-03 -2.45e-03 -9.02e-04 -4.51e-03  4.11e-03 -1.86e-03  2.26e-04
## 2707   8.42e-03  1.71e-02  8.31e-03  8.27e-03  2.19e-02  1.07e-02 -2.42e-02
## 2708  -1.36e-02  9.44e-03 -3.93e-03  3.32e-03  4.32e-03 -8.35e-03  1.54e-02
## 2709   1.16e-02  7.69e-03 -1.84e-03  1.81e-03  3.82e-03 -1.14e-02 -2.91e-03
## 2710  -7.54e-03 -6.70e-03 -4.11e-03  8.04e-03  1.17e-03 -5.57e-03  1.23e-03
## 2711   1.03e-02  5.30e-03 -2.80e-03  4.49e-03  1.73e-03  6.39e-03 -9.29e-03
## 2712  -9.78e-03 -1.01e-02 -5.61e-03 -1.78e-02  1.30e-02  5.31e-04 -1.70e-03
## 2713  -6.85e-03  5.46e-03 -9.66e-05 -9.98e-04  5.94e-03  4.31e-03  6.97e-03
## 2714   5.28e-04 -1.47e-03  4.14e-04 -1.61e-03 -7.50e-04 -1.64e-03 -2.65e-03
## 2715   3.69e-04 -8.14e-04  2.49e-03  9.27e-05 -1.25e-03 -1.08e-04 -5.95e-05
## 2716   2.26e-02 -1.90e-02  1.01e-02 -1.02e-02 -6.58e-03  4.70e-03  3.68e-02
## 2717   1.27e-02 -1.12e-02 -2.39e-02 -8.34e-03  4.17e-03 -2.52e-03 -1.04e-02
## 2718   8.04e-05 -2.28e-04 -5.73e-05  1.47e-04  1.78e-04  8.80e-05 -7.12e-05
## 2719   4.46e-03  3.95e-03 -9.59e-04  2.13e-03  1.92e-03  6.25e-05 -7.07e-04
```

```
## 2720 -1.31e-03 -1.97e-03  9.45e-05  3.70e-04  1.98e-03 -4.95e-03 -5.60e-04
## 2721 -2.07e-02 -1.32e-02 -5.73e-03  3.28e-03  4.11e-03 -2.13e-02  1.93e-02
## 2722 -2.77e-04  3.90e-04  2.04e-04  7.26e-04 -7.54e-04 -2.34e-04  1.31e-04
## 2723 -3.18e-03 -9.34e-03  7.86e-03 -4.43e-03 -1.48e-03 -1.25e-03  6.91e-03
## 2724  4.54e-03 -8.50e-03 -3.73e-03  6.38e-03  4.18e-03 -2.31e-04  1.19e-02
## 2725  3.00e-03  8.69e-03  8.06e-03 -3.72e-03 -1.20e-03 -1.42e-03  5.47e-03
## 2726 -1.82e-04  1.02e-02 -7.39e-03  1.07e-02  1.71e-03 -3.85e-03 -1.09e-03
## 2727  5.30e-03 -5.64e-03 -4.90e-03  7.71e-03  2.64e-04  2.07e-03 -1.82e-03
## 2728  7.97e-03 -4.88e-03  1.51e-03  6.92e-03 -9.83e-03 -7.06e-03 -9.56e-04
## 2729  4.24e-03 -1.55e-02 -9.55e-03 -3.20e-02  2.17e-02 -1.07e-02 -8.60e-03
## 2730  4.54e-03  5.07e-03 -9.72e-04  1.92e-03  2.75e-03 -2.64e-03 -1.24e-03
## 2731 -2.06e-02  1.19e-02  2.40e-02  1.72e-02 -6.55e-03  6.95e-03 -2.16e-03
## 2732 -1.07e-02 -1.10e-02  1.74e-02 -9.52e-03  5.46e-03  6.61e-03 -1.05e-03
## 2733 -3.03e-03  5.96e-03 -4.77e-03  8.43e-03  3.09e-04 -3.07e-03 -1.89e-04
## 2734  5.26e-04 -1.67e-03  1.36e-04 -3.87e-04 -1.61e-03 -1.11e-03  4.17e-06
## 2735 -6.15e-03 -6.35e-03 -5.61e-03 -7.01e-03  7.20e-03 -5.28e-03  1.83e-03
## 2736  2.23e-02  2.22e-02  5.90e-03 -5.10e-03 -8.15e-03  1.60e-02  7.50e-03
## 2737  4.11e-03 -8.73e-03 -1.83e-02 -6.07e-03  2.72e-03 -3.75e-03 -6.11e-03
## 2738  4.74e-04 -5.53e-03  7.48e-04 -6.95e-03 -2.90e-03 -2.34e-03  7.64e-03
## 2739 -5.46e-05  5.51e-04 -3.68e-04 -5.81e-04  7.53e-04 -4.85e-04  9.52e-04
## 2740 -4.59e-03 -8.69e-03 -5.98e-03 -1.25e-02  1.21e-02 -6.80e-03  1.32e-02
## 2741  3.56e-03 -7.54e-03 -1.32e-02  1.26e-02 -5.57e-03  1.91e-03  4.97e-03
## 2742 -6.05e-05 -3.03e-04  6.55e-05 -1.76e-04 -2.25e-04 -1.45e-04  1.16e-04
## 2743  1.04e-02  6.84e-03 -1.75e-03  2.16e-03  3.36e-03 -6.95e-03 -2.70e-03
## 2744  3.09e-03 -1.44e-02  9.36e-03 -5.12e-03 -4.38e-03  1.37e-02 -1.68e-02
## 2745  3.23e-03  7.92e-03 -2.16e-03 -2.90e-03 -9.80e-03 -5.17e-03 -1.48e-02
## 2746  4.56e-03  5.97e-03 -6.25e-04  1.66e-03  3.76e-03 -1.23e-02 -1.20e-03
## 2747 -1.25e-02 -1.32e-02 -4.71e-03 -9.68e-03 -1.47e-02 -4.80e-03  1.97e-02
## 2748  1.29e-03 -2.73e-02  2.62e-03  1.76e-02  3.11e-02 -9.35e-03 -4.89e-02
## 2749  3.84e-03  8.30e-03  6.63e-03 -3.45e-03 -1.97e-03 -6.68e-03  5.81e-03
## 2750 -1.03e-03  8.77e-03 -1.97e-03  2.36e-03  3.92e-03 -5.04e-03  1.26e-02
## 2751  2.11e-03  1.95e-03 -1.16e-03 -3.17e-03  3.03e-03  4.38e-03 -1.35e-04
## 2752 -2.91e-02  2.61e-02  3.68e-03 -6.32e-03 -1.31e-02  3.48e-02  5.98e-03
## 2753 -1.83e-03 -1.77e-03 -8.19e-04  2.30e-04 -2.25e-03 -8.60e-05  6.98e-04
## 2754  5.24e-03  5.56e-03 -9.11e-04  1.65e-03  3.07e-03 -6.08e-03 -1.50e-03
## 2755  7.96e-03  5.36e-03 -7.94e-04  1.54e-03  2.72e-03 -1.05e-02 -1.59e-03
## 2756  3.12e-03  3.73e-03 -8.27e-04  2.28e-03  2.04e-03 -1.64e-03 -1.35e-04
## 2757  1.22e-02  1.62e-02 -3.47e-02 -1.08e-02  5.05e-03  1.47e-02 -1.94e-02
## 2758 -1.15e-02  1.08e-02 -3.15e-03  7.98e-03  4.67e-03 -6.94e-03  1.42e-02
## 2759 -3.37e-03  2.69e-03 -1.48e-03 -3.22e-04 -3.78e-03  3.90e-03  5.33e-03
## 2760  5.91e-03  2.81e-03 -4.53e-05 -1.59e-03 -3.02e-03  2.16e-03 -5.89e-03
## 2761 -2.81e-02  1.64e-02 -1.26e-02  7.70e-03  3.56e-03  2.25e-03  2.14e-02
## 2762  4.84e-03 -3.58e-03 -3.38e-03 -3.96e-03  4.48e-03 -2.49e-03 -3.48e-04
## 2763  1.47e-03 -9.45e-03 -2.84e-03  1.92e-02 -2.30e-02  5.46e-03 -1.29e-03
## 2764  1.33e-03 -3.89e-03 -1.81e-04  1.55e-03  2.39e-03 -4.50e-03 -1.11e-04
## 2765 -4.50e-02  2.72e-02  5.77e-03 -1.35e-02 -1.28e-02  2.05e-02  6.09e-03
## 2766 -4.23e-03 -1.18e-02  7.92e-03  7.71e-03  1.59e-02 -4.24e-03  8.04e-03
## 2767  1.89e-02 -1.02e-02 -1.41e-03 -7.83e-03 -1.19e-02  2.64e-03 -7.38e-03
## 2768 -1.19e-03  4.48e-03 -5.12e-04  1.98e-05  4.15e-03 -7.50e-04  5.69e-03
## 2769 -1.15e-02  8.73e-03 -7.81e-03 -1.76e-02  1.30e-02 -5.30e-04  1.49e-02
```

```
## 2770 -6.97e-03  8.34e-03 -1.21e-03  2.23e-03  3.87e-03 -9.82e-04 -3.20e-03
## 2771  6.84e-03 -2.84e-02 -6.71e-02  3.19e-02 -2.59e-02 -1.67e-02  4.52e-02
## 2772  9.71e-03 -1.54e-02 -2.79e-02  2.39e-02 -1.13e-02  3.34e-03 -1.59e-02
## 2773  5.37e-03  4.96e-03 -9.25e-04  1.87e-03  2.61e-03 -3.97e-03 -1.26e-03
## 2774 -2.46e-02 -1.51e-02 -9.48e-03  7.10e-03  5.76e-03 -3.83e-03  2.04e-02
## 2775  7.45e-03 -1.07e-02  9.10e-03 -5.24e-03 -2.33e-03 -2.52e-03  5.91e-03
## 2776 -3.42e-02  2.80e-02 -3.82e-04 -1.83e-02 -1.75e-02 -1.69e-02  1.39e-02
## 2777  5.49e-03  1.44e-02  3.41e-02  8.37e-03 -3.11e-03 -9.10e-03  1.48e-02
## 2778  5.75e-03  3.74e-03  2.27e-04 -1.08e-03 -3.54e-03 -3.60e-03 -6.29e-03
## 2779  8.94e-03 -1.08e-02 -1.34e-02 -1.63e-02  1.33e-02  4.37e-03 -3.73e-03
## 2780 -2.49e-02  1.27e-02  1.35e-03 -2.11e-02  3.17e-02 -1.07e-02 -7.99e-03
## 2781 -2.11e-03 -1.12e-02 -5.03e-03  9.41e-03  5.22e-03 -5.60e-03 -4.28e-03
## 2782 -2.84e-03  3.18e-03  9.37e-04  5.84e-03 -6.56e-03  6.36e-04 -6.55e-05
## 2783  1.05e-03 -1.86e-03  1.41e-04  6.31e-05  1.78e-03 -5.37e-03  2.02e-03
## 2784 -3.47e-03  2.64e-03 -1.02e-03  6.83e-03 -6.48e-03  8.80e-04  1.01e-03
## 2785  3.37e-03 -1.78e-02 -1.58e-02  1.37e-02  1.88e-03  7.99e-03 -1.06e-02
## 2786  1.27e-03  2.38e-02  1.26e-02 -2.88e-02 -9.73e-03  2.23e-02 -3.14e-04
## 2787  3.54e-06  1.14e-03 -3.30e-04  1.40e-03  5.19e-04 -2.09e-04 -1.01e-04
## 2788 -2.81e-03 -8.85e-03 -3.09e-03  3.85e-03  3.39e-03 -1.48e-04 -3.49e-03
## 2789 -7.20e-03  1.98e-02 -1.38e-02  7.66e-03  5.17e-03  5.39e-05 -9.18e-03
## 2790  9.02e-04 -5.32e-03 -1.79e-03  3.46e-03  2.25e-03  4.56e-03 -1.38e-03
## 2791  1.24e-02  1.08e-02 -2.19e-02 -8.19e-03  4.07e-03  1.60e-03  5.51e-03
## 2792  1.54e-03 -9.44e-03 -1.11e-02 -1.17e-02  1.09e-02  1.64e-03 -4.93e-04
## 2793 -4.98e-03 -8.06e-03  7.01e-03 -3.79e-03 -1.26e-03 -5.87e-03  7.24e-03
## 2794 -2.56e-03 -1.15e-02  9.05e-03 -6.05e-03 -2.03e-03 -8.53e-03 -8.40e-03
## 2795 -7.43e-04 -1.45e-03 -3.54e-04 -3.23e-03  3.04e-03 -3.30e-03 -2.45e-04
## 2796  5.60e-03 -4.09e-03  6.94e-05 -3.06e-03 -3.95e-03  2.52e-05 -3.48e-04
## 2797  1.40e-03 -6.20e-03 -3.26e-03 -9.26e-05 -8.49e-03 -4.55e-03  8.39e-04
## 2798 -1.28e-02 -1.48e-02 -2.72e-02  1.87e-02 -8.55e-03 -7.42e-03  1.05e-02
## 2799  3.23e-04 -7.28e-04 -1.21e-04  6.71e-04  4.74e-04  2.17e-04  1.55e-04
## 2800  4.75e-02 -2.18e-02  1.40e-02  4.51e-02 -3.43e-02  5.89e-02 -4.13e-02
## 2801  2.26e-03  4.61e-03  1.20e-03  6.31e-03 -8.07e-03 -1.99e-03 -1.80e-03
## 2802  1.96e-03  2.51e-03 -1.66e-03 -2.80e-03  3.70e-03 -1.00e-03 -4.07e-03
## 2803  1.13e-03  3.11e-03  1.50e-03  4.82e-03 -6.25e-03 -5.23e-03 -1.27e-04
## 2804  5.65e-03  1.99e-02 -6.77e-03 -1.68e-02 -2.16e-02  1.37e-02  1.92e-02
## 2805 -1.15e-02  8.63e-03  2.12e-02  9.98e-03 -2.47e-03  1.06e-02  1.40e-02
## 2806  1.93e-03 -7.48e-03  1.69e-02  2.70e-03 -1.43e-02 -5.69e-03 -5.84e-04
## 2807  1.07e-04  5.63e-04 -1.09e-04  2.71e-04  4.20e-04 -1.50e-04 -2.02e-04
## 2808  7.79e-03 -2.55e-02  2.62e-02  2.92e-02 -3.09e-02  1.11e-02 -6.95e-04
## 2809  9.41e-04 -1.07e-03  3.12e-04 -1.35e-03 -7.06e-04 -2.99e-03  1.33e-03
## 2810  8.44e-04  2.23e-03 -1.24e-04  3.18e-04  2.02e-03 -1.57e-03 -4.76e-03
## 2811 -4.14e-03 -1.36e-02  6.93e-03 -4.38e-03 -4.07e-03 -1.31e-02 -9.68e-03
## 2812 -5.48e-04 -2.32e-03 -2.27e-03 -2.04e-03  2.97e-03 -4.12e-03  5.29e-04
## 2813  3.03e-05  3.53e-04  1.09e-04  5.60e-04 -6.24e-04  8.57e-06 -1.40e-04
## 2814 -2.18e-03 -1.95e-02  8.10e-03  9.66e-03  2.41e-02 -1.28e-02 -2.37e-02
## 2815  4.58e-03 -8.25e-03 -2.05e-03  2.82e-03  4.28e-03 -3.08e-03 -4.15e-03
## 2816  4.79e-04  7.61e-04 -2.69e-04  7.92e-04  3.78e-04  1.16e-03 -1.12e-03
## 2817  9.38e-03 -9.69e-03 -1.74e-02  1.68e-02 -6.95e-03  6.67e-03  5.44e-03
## 2818 -8.28e-02  2.87e-02  3.75e-03  1.03e-02  3.65e-02 -2.36e-02  6.02e-02
## 2819  4.75e-04  1.12e-03 -4.25e-04 -1.70e-03  1.84e-03 -4.55e-04  2.68e-04
```

```
## 2820   1.66e-03 -2.00e-03  7.90e-04  2.80e-03 -3.66e-03 -4.91e-03 -8.62e-04
## 2821   1.52e-02  8.43e-03 -3.61e-03  4.10e-03  3.38e-03 -4.43e-03 -1.57e-02
## 2822  -1.22e-02 -8.55e-03 -3.62e-03 -1.59e-02  1.26e-02 -1.04e-02 -5.25e-04
## 2823  -1.09e-03  1.21e-02 -5.17e-03  2.89e-03  5.18e-03 -7.96e-03 -7.18e-03
## 2824  -2.04e-03  3.41e-03  4.10e-04  9.44e-04  2.81e-03 -9.87e-03  4.81e-04
## 2825   2.16e-02 -1.22e-02 -2.72e-02 -8.53e-03  3.94e-03  1.71e-03 -1.37e-02
## 2826   3.98e-03 -2.67e-03  5.54e-04 -3.22e-03 -1.63e-03 -2.30e-03 -7.66e-04
## 2827  -8.03e-03  9.05e-03 -1.67e-02  1.46e-02 -6.80e-03 -3.80e-03  7.21e-03
## 2828   6.44e-04  4.34e-03 -2.26e-03 -6.69e-03  6.60e-03 -5.86e-04 -7.20e-03
## 2829   8.91e-04  2.54e-03  8.18e-04 -3.30e-03 -1.22e-03 -1.55e-03 -5.87e-04
## 2830   1.32e-04  4.65e-04  2.61e-05 -2.51e-04 -4.54e-04  6.22e-04  9.80e-05
## 2831   6.33e-05 -1.27e-04  3.29e-04  1.94e-04 -2.31e-05  1.57e-04 -2.15e-04
## 2832  -7.22e-03  1.10e-02 -1.08e-02  1.24e-02  1.15e-03  6.93e-03 -3.69e-03
## 2833  -2.99e-02  2.62e-02  3.58e-03 -6.34e-03 -1.32e-02  3.53e-02  6.49e-03
## 2834  -2.53e-05 -3.89e-05 -1.66e-06  3.01e-05  2.64e-05  2.58e-05  1.20e-05
## 2835  -5.32e-04  1.52e-03 -2.78e-04  6.39e-04  1.24e-03  1.58e-04 -5.56e-04
## 2836   2.62e-03 -8.36e-03 -1.48e-03 -6.26e-03 -9.78e-03  8.13e-03  1.14e-02
## 2837  -2.39e-02  1.10e-02 -5.85e-03  3.25e-03  4.31e-03 -2.01e-02  1.94e-02
## 2838   8.89e-03 -9.98e-03 -2.44e-03  3.22e-03  3.74e-03 -2.33e-03  1.12e-02
## 2839   5.61e-04  1.83e-03 -2.55e-04  5.82e-04  1.40e-03 -2.36e-03 -7.69e-04
## 2840  -9.50e-03  7.00e-03 -1.48e-02  1.29e-02 -6.07e-03 -3.21e-03  7.37e-03
## 2841   2.08e-02 -1.52e-02 -1.02e-02  7.58e-03  3.10e-03  1.74e-02  1.18e-02
## 2842   1.36e-02 -1.31e-02 -8.44e-03 -2.86e-02  1.94e-02 -4.68e-03 -7.38e-03
## 2843  -6.28e-03 -1.31e-02 -1.48e-02 -2.28e-02  1.70e-02 -1.53e-03 -3.11e-03
## 2844   1.63e-03  5.23e-03 -2.04e-04 -3.25e-03 -5.50e-03 -3.59e-03 -7.57e-04
## 2845   5.75e-03 -5.51e-03 -9.82e-04  2.07e-03  2.62e-03 -2.25e-03 -1.12e-03
## 2846  -3.09e-03  1.07e-02  2.02e-02 -1.06e-02  5.61e-03  3.38e-03 -2.92e-03
## 2847  -2.60e-03  1.70e-03  2.98e-05 -1.02e-05  1.78e-03  3.31e-04  2.64e-03
## 2848  -4.52e-03 -3.56e-03  1.38e-03  3.73e-03 -5.17e-03  9.32e-04  2.45e-05
## 2849  -1.25e-02 -8.38e-03 -7.06e-03  1.01e-02  5.06e-04  6.60e-04  1.19e-03
## 2850   1.44e-02  9.80e-03 -1.22e-03 -5.59e-03 -9.61e-03 -9.78e-03 -1.90e-02
## 2851   4.94e-04 -1.03e-03 -2.11e-04  5.29e-04  8.41e-04 -5.15e-04 -4.00e-04
## 2852  -4.37e-03  1.42e-02 -7.65e-03  4.58e-03  4.70e-03 -1.60e-02 -3.04e-02
## 2853   2.24e-04  7.89e-04 -1.11e-04  2.66e-04  7.68e-04  2.56e-04 -1.25e-04
## 2854   1.36e-02 -7.11e-03 -3.68e-03 -1.46e-02  1.07e-02 -7.07e-03 -1.94e-03
## 2855  -2.09e-03 -1.62e-03 -3.73e-03  1.13e-03 -1.47e-03  1.09e-03  2.74e-03
## 2856  -7.21e-03  1.03e-02  2.06e-02  1.93e-02 -7.64e-03  2.17e-03 -2.54e-03
## 2857   7.49e-03  1.02e-02  8.12e-03 -3.57e-03 -1.79e-03 -2.51e-03 -1.11e-02
## 2858   1.73e-02 -1.39e-02  1.34e-02  2.84e-02 -1.81e-02  4.03e-03 -1.68e-02
## 2859  -1.51e-02  1.03e-02 -3.31e-03  2.65e-03  4.75e-03 -8.82e-03 -4.20e-03
## 2860   1.89e-02  1.17e-02 -2.71e-03  3.43e-03  4.96e-03 -3.78e-03 -9.09e-03
## 2861  -9.40e-05 -1.48e-03 -6.00e-04  2.93e-04 -1.79e-03 -2.24e-03  3.59e-04
## 2862  -1.04e-03 -1.74e-02 -1.47e-02  8.85e-03  3.39e-03  9.64e-03  1.73e-02
## 2863   1.34e-03 -2.38e-03 -2.79e-04  1.44e-03  1.39e-03 -1.23e-03  1.44e-04
## 2864  -9.71e-03  1.55e-02 -1.27e-02  1.04e-02  3.76e-03  1.29e-02  1.78e-02
## 2865   1.57e-03  9.47e-03  7.62e-03 -4.28e-03 -1.90e-03 -7.27e-03 -8.71e-03
## 2866  -1.09e-02  6.04e-03 -4.98e-03 -7.51e-03  8.44e-03 -5.47e-03  2.19e-03
## 2867   6.41e-03 -1.16e-02  1.29e-02  2.12e-02 -1.44e-02 -4.60e-06  4.91e-03
## 2868   4.02e-05 -1.14e-04  9.34e-06 -4.36e-05 -9.38e-05  2.11e-06 -1.44e-04
## 2869   4.27e-05 -1.33e-02  1.24e-02 -1.02e-02 -1.13e-03 -2.70e-03  7.30e-03
```

```
## 2870   5.10e-04   2.46e-03   9.61e-04   3.11e-03  -4.17e-03  -5.14e-03  -1.07e-03
## 2871   8.09e-03  -1.32e-02   1.57e-02   2.29e-02  -1.50e-02  -1.95e-03   5.13e-03
## 2872   4.04e-03   4.26e-03  -7.77e-04   2.19e-03   2.40e-03  -4.25e-03  -4.82e-04
## 2873  -7.93e-03   2.30e-02   1.80e-02   5.62e-04   3.30e-02  -8.91e-03   3.79e-03
## 2874  -8.36e-04   1.68e-02  -1.75e-02  -2.84e-02   2.03e-02   2.65e-03   1.91e-02
## 2875  -7.09e-03  -2.07e-02  -3.47e-02   1.56e-02  -1.00e-02  -5.33e-03   9.39e-03
## 2876  -1.24e-02   1.87e-02  -1.46e-02   9.36e-03   2.60e-03  -1.44e-03   1.97e-02
## 2877   4.07e-03  -4.78e-03  -1.91e-03  -8.63e-03   7.51e-03   1.01e-03  -1.28e-03
## 2878   1.00e-02  -1.52e-02  -7.19e-03   6.98e-03   4.37e-03   2.05e-03  -1.06e-02
## 2879   7.30e-04  -1.49e-03   8.19e-05   1.35e-04   1.40e-03  -3.86e-03   1.68e-03
## 2880  -5.06e-03   2.79e-03  -8.11e-03  -1.34e-03   4.75e-03   2.95e-03   4.52e-03
## 2881  -2.82e-04   2.98e-03   6.77e-03   4.96e-03  -7.88e-04  -4.58e-03   1.51e-04
## 2882   6.75e-03  -5.28e-03  -3.52e-03   6.65e-03   1.00e-04   3.60e-03   6.89e-03
## 2883   1.52e-02  -1.76e-02   7.38e-03  -4.42e-03  -6.97e-03   1.58e-02   8.61e-03
## 2884   1.49e-02   1.22e-02  -3.12e-02  -2.02e-02   3.37e-02   3.23e-03  -1.33e-02
## 2885  -8.09e-04   1.85e-03  -4.95e-04  -3.79e-04  -2.05e-03   3.16e-03   3.57e-03
## 2886   4.09e-02   2.36e-02  -5.11e-02   4.40e-04   4.21e-02  -1.22e-02  -3.67e-02
## 2887   6.55e-03   1.08e-02   8.28e-03  -3.73e-03  -1.99e-03  -1.90e-03  -1.06e-02
## 2888   5.77e-03   5.97e-03  -8.84e-04   1.44e-03   3.34e-03  -8.60e-03  -1.67e-03
## 2889  -1.10e-02  -2.50e-02   1.03e-02  -1.50e-02  -1.06e-02  -9.02e-03   4.96e-02
## 2890  -1.44e-02   3.16e-02   5.23e-03  -2.99e-02  -1.22e-02  -2.98e-02   2.53e-03
## 2891   3.96e-03  -2.52e-03  -1.35e-03  -4.27e-03   4.13e-03   4.05e-04   6.07e-05
## 2892   4.16e-03   5.06e-03  -7.93e-04   2.15e-03   2.99e-03  -6.70e-03  -6.75e-04
## 2893  -1.38e-04   8.36e-04  -1.69e-04   7.67e-04   5.28e-04  -1.77e-05  -1.00e-03
## 2894   1.18e-02  -8.89e-03  -1.06e-03   4.11e-03   6.63e-03  -1.08e-02   1.13e-02
## 2895   2.14e-03  -3.73e-03   8.18e-04  -4.82e-03  -2.11e-03  -4.46e-03  -7.25e-03
## 2896   1.09e-02   1.23e-02  -2.94e-02   8.26e-03   2.18e-02   7.27e-03  -1.33e-02
## 2897  -2.58e-03  -2.21e-03  -9.95e-04   3.27e-04  -2.51e-03  -1.95e-03   1.10e-03
## 2898  -1.11e-02  -1.71e-02   4.08e-02   1.23e-02  -4.51e-03   1.04e-04   1.81e-02
## 2899  -3.87e-03   7.81e-03  -1.03e-03  -8.10e-03  -9.02e-03  -4.27e-03   1.32e-02
## 2900   4.75e-02  -1.64e-02   1.26e-02  -1.08e-02  -4.05e-03  -1.46e-02  -2.74e-02
## 2901  -1.29e-02  -1.04e-02  -6.15e-03  -1.87e-02   1.44e-02  -2.14e-03   1.52e-02
## 2902   5.07e-03  -1.02e-02   2.35e-04  -9.89e-03  -1.10e-02  -4.47e-03  -4.05e-03
## 2903   6.05e-03  -1.29e-02   1.36e-02   2.36e-02  -1.62e-02  -7.85e-03  -1.30e-02
## 2904  -1.09e-02  -1.39e-02   1.37e-02   2.22e-02  -1.63e-02  -6.19e-03   8.58e-03
## 2905  -1.35e-03  -1.52e-03  -2.43e-04   1.16e-03   6.73e-04   1.24e-03   8.82e-05
## 2906   2.57e-03  -2.47e-03  -2.53e-05  -1.16e-03  -2.26e-03  -2.21e-03  -3.33e-03
## 2907   1.04e-02   1.53e-02   9.35e-03  -6.03e-03  -3.71e-03   4.88e-03  -1.59e-02
## 2908   8.23e-03   1.72e-02   2.80e-02  -2.14e-02   9.83e-03   5.33e-03  -1.22e-02
## 2909   1.72e-05   3.35e-04  -6.28e-05   3.46e-04   1.87e-04   1.05e-04   5.41e-04
## 2910  -2.57e-03   9.49e-03  -4.24e-03   7.67e-03   3.54e-03  -1.15e-03  -3.31e-03
## 2911  -2.60e-03   2.16e-03   2.67e-04  -1.84e-04   2.38e-03  -1.15e-03  -4.08e-03
## 2912   1.58e-03   5.68e-03  -3.06e-03   5.22e-03   1.26e-03   1.16e-02   8.67e-03
## 2913  -8.68e-04  -2.20e-03   8.02e-05   1.92e-04   1.98e-03  -4.93e-03  -8.83e-04
## 2914   8.37e-03   1.54e-02   3.11e-02  -2.70e-02   1.24e-02  -1.37e-02   1.44e-02
## 2915  -9.90e-03   5.78e-03  -4.23e-03  -8.28e-03   9.32e-03  -6.64e-04   1.11e-02
## 2916  -2.32e-03   5.70e-03   1.70e-03   5.93e-03  -8.67e-03  -2.13e-03  -8.10e-04
## 2917   9.01e-04  -9.11e-03   8.08e-03  -4.65e-03  -1.49e-03  -5.11e-03   6.39e-03
## 2918  -8.57e-03   1.62e-02   1.59e-02   2.79e-02  -2.12e-02  -1.36e-02  -1.66e-02
## 2919  -7.65e-03   6.47e-03  -4.81e-03   7.82e-03   1.38e-03   1.16e-02   1.02e-02
```

```
## 2920   1.35e-02 -1.56e-02   1.16e-02 -6.54e-03 -4.09e-03 -3.31e-03 -1.69e-02
## 2921  -6.50e-03 -7.94e-03 -2.03e-03 -1.69e-03 -9.42e-03   2.25e-03   1.24e-02
## 2922   3.61e-04 -1.00e-03 -8.23e-04 -1.00e-03   1.35e-03 -1.76e-03   2.50e-04
## 2923  -2.76e-02   1.87e-02 -1.33e-02   5.53e-03   4.80e-03 -4.38e-03   2.15e-02
## 2924   4.05e-03 -3.26e-03   3.87e-04 -5.32e-05   3.63e-03   3.37e-03 -6.98e-03
## 2925  -1.78e-03   1.69e-03   4.25e-04   3.26e-03 -3.54e-03   1.95e-03   3.32e-03
## 2926  -2.05e-04   1.85e-03   1.97e-04 -1.08e-03 -1.52e-03 -1.22e-03 -2.38e-03
## 2927   2.39e-02 -1.69e-02   4.04e-02   4.07e-02 -5.24e-02   4.45e-03 -1.29e-02
## 2928  -5.72e-03   8.73e-03   1.75e-02 -7.93e-03   6.71e-03 -1.23e-02   5.48e-04
## 2929  -8.19e-04 -1.13e-03   1.61e-04   2.93e-05   1.06e-03 -1.95e-03   1.38e-03
## 2930   7.91e-03 -3.71e-03   1.64e-04 -3.11e-03 -3.82e-03 -4.51e-03 -6.50e-04
## 2931  -5.37e-03 -4.53e-03   1.85e-03   4.50e-03 -6.55e-03   9.78e-04 -2.51e-04
## 2932   9.33e-03   1.44e-02 -1.47e-02   1.44e-02   1.09e-03   1.30e-02 -1.09e-02
## 2933  -1.71e-03 -6.87e-03 -4.56e-03   2.72e-04 -9.33e-03 -8.29e-04 -5.08e-05
## 2934  -6.36e-03   6.85e-03 -6.25e-03 -8.66e-03   8.26e-03 -2.53e-03   1.66e-03
## 2935  -1.52e-03 -1.62e-02 -3.73e-02 -1.13e-02   4.36e-03 -1.27e-02 -1.24e-02
## 2936  -7.68e-03 -1.96e-02 -4.33e-02 -2.81e-02   7.94e-03 -3.84e-02 -2.36e-02
## 2937  -9.79e-04   1.44e-03 -1.33e-03 -1.32e-03   1.97e-03 -1.78e-03   3.24e-04
## 2938   6.02e-04 -7.51e-04   5.72e-05 -6.77e-04 -5.51e-04 -7.25e-04 -2.53e-04
## 2939  -6.36e-05   3.09e-03 -7.89e-04   2.60e-03   1.99e-03   7.65e-04 -4.43e-03
## 2940   1.50e-02   1.08e-02 -3.69e-03   4.22e-03   4.40e-03 -4.42e-03   1.19e-02
## 2941  -1.98e-02   1.46e-02 -7.85e-03   6.09e-03   5.01e-03   4.78e-03   1.87e-02
## 2942  -6.46e-03 -1.01e-02 -5.37e-03 -2.71e-03 -1.38e-02   8.01e-03   1.19e-03
## 2943   2.15e-03   8.79e-03 -6.07e-03 -2.19e-03 -1.30e-02   5.08e-03   1.24e-02
## 2944  -8.05e-04 -1.43e-02 -2.46e-02   1.64e-02 -7.72e-03 -1.41e-03   8.50e-03
## 2945  -2.17e-04   6.08e-04   1.17e-04 -6.34e-04 -2.18e-04 -8.36e-04   1.54e-05
## 2946   1.20e-02   7.29e-03 -1.84e-03   2.12e-03   3.46e-03 -9.93e-03 -2.70e-03
## 2947   3.66e-03   7.10e-03 -2.32e-03 -1.30e-02   1.07e-02 -7.48e-04 -2.42e-03
## 2948   1.06e-02 -4.56e-03 -5.12e-04 -3.06e-03 -4.99e-03   7.11e-04 -7.96e-04
## 2949  -2.78e-02   1.26e-02   1.00e-02   6.80e-03   1.90e-02 -8.88e-04   1.00e-02
## 2950   2.28e-02   1.36e-02   9.82e-03 -5.58e-03 -2.95e-03 -2.63e-03   3.78e-03
## 2951  -2.12e-04 -9.12e-03   7.85e-03 -4.37e-03 -1.62e-03 -4.61e-03   7.19e-03
## 2952   2.29e-03   1.03e-02 -1.00e-02   1.18e-02   6.05e-04   1.03e-02   1.15e-02
## 2953  -8.31e-03 -1.95e-02 -1.72e-02   7.74e-03   4.69e-03   3.45e-03 -1.10e-02
## 2954   8.85e-03 -5.55e-03 -7.92e-04   1.61e-03   2.81e-03 -1.01e-02 -1.64e-03
## 2955   1.02e-02   1.12e-02 -3.43e-03 -6.08e-03 -1.24e-02   6.50e-03 -3.53e-03
## 2956  -5.81e-03 -1.41e-02   1.14e-02 -9.66e-03 -2.52e-03 -1.13e-02   8.07e-03
## 2957   4.25e-03   8.63e-03 -2.28e-03   2.85e-03   3.64e-03   2.09e-03 -5.16e-03
## 2958   6.52e-03   2.15e-02   3.21e-03   2.16e-02   2.38e-02   2.78e-02 -3.20e-02
## 2959   7.18e-03 -3.99e-03 -5.62e-04 -1.98e-03 -4.16e-03 -8.51e-04 -6.14e-03
## 2960   2.71e-03   6.39e-03 -2.57e-03 -1.10e-02   9.48e-03 -2.65e-03 -1.10e-02
## 2961   3.85e-02 -2.03e-02   2.04e-02 -2.48e-02 -8.14e-04 -1.55e-02   1.83e-04
## 2962  -6.38e-03 -1.87e-02   3.95e-02   1.41e-02 -5.55e-03 -7.84e-03   2.13e-02
## 2963  -8.98e-05   2.05e-03 -1.32e-03 -2.24e-03   2.87e-03 -1.94e-03   1.07e-04
## 2964  -1.32e-03   1.87e-02 -1.28e-02   7.21e-03   4.83e-03   1.34e-02   1.48e-02
## 2965  -2.44e-04 -4.79e-04 -8.11e-05   4.37e-05 -5.54e-04 -6.11e-04   1.60e-04
## 2966   2.19e-02 -1.12e-02 -2.54e-02 -7.20e-03   3.45e-03   1.67e-05 -1.26e-02
## 2967  -3.79e-03   2.50e-03 -2.06e-04   6.08e-05   2.57e-03   9.39e-04   3.97e-03
## 2968  -9.93e-04 -1.42e-03   1.93e-04 -6.64e-05   1.47e-03 -1.38e-03 -2.63e-03
## 2969  -1.44e-02   2.61e-02   1.74e-02   5.15e-04   3.65e-02 -1.36e-02 -3.25e-02
```

```
## 2970 -1.24e-02 -1.92e-02  1.56e-02 -1.39e-02 -2.99e-03 -7.77e-03  9.41e-03
## 2971 -1.85e-03  1.08e-02 -2.10e-03  2.74e-03  4.38e-03  1.07e-03 -5.97e-03
## 2972  1.46e-02  6.45e-03  3.05e-04  1.09e-02 -1.40e-02 -2.47e-03 -1.24e-02
## 2973  1.16e-02  7.46e-03 -1.72e-03  1.75e-03  3.74e-03 -1.13e-02 -3.13e-03
## 2974  1.30e-03  1.22e-02 -7.66e-03  7.28e-03  2.49e-03  1.09e-02  1.34e-02
## 2975 -2.51e-03  2.50e-03  7.28e-03  3.63e-03 -5.84e-04  4.31e-03 -5.24e-04
## 2976  6.18e-04  1.87e-03  5.68e-04 -2.41e-03 -1.05e-03 -4.63e-03  2.02e-03
## 2977  2.02e-03 -3.09e-03  5.58e-04 -3.72e-03 -2.01e-03 -7.22e-03 -1.43e-03
## 2978  9.05e-04  8.40e-04 -8.67e-05 -2.84e-04 -8.56e-04  1.43e-03  1.43e-04
## 2979 -5.61e-03 -5.41e-03 -2.64e-04 -7.06e-04  5.67e-03  2.67e-03  7.88e-03
## 2980  3.46e-03 -4.63e-03 -2.24e-03 -8.11e-03  7.44e-03 -1.86e-03 -6.84e-03
## 2981  7.77e-03 -8.57e-03 -4.12e-03  8.81e-03  4.10e-03 -2.49e-03 -3.89e-03
## 2982 -1.77e-02 -6.56e-03 -2.32e-03 -1.15e-03 -7.23e-03 -2.56e-03  1.29e-02
## 2983 -2.24e-06 -1.38e-05  2.98e-06 -7.70e-06 -1.02e-05 -3.65e-06  4.84e-06
## 2984 -1.19e-03  2.69e-03 -2.65e-03 -2.41e-03  3.53e-03 -3.91e-03  5.12e-04
## 2985  1.16e-02  6.43e-03  1.73e-03  9.14e-03 -1.39e-02 -9.85e-03 -2.59e-03
## 2986  1.70e-02 -1.59e-02  1.10e-02 -6.32e-03 -4.37e-03  1.08e-02 -2.24e-02
## 2987 -5.06e-03 -1.24e-02  2.48e-02 -1.51e-02  8.06e-03  8.91e-03  1.43e-02
## 2988 -7.19e-03  8.23e-03 -2.98e-03  2.70e-03  3.64e-03 -2.87e-03  1.25e-02
## 2989  2.54e-03  3.95e-03  9.24e-04 -4.23e-03 -3.36e-03 -9.69e-03  4.04e-05
## 2990  4.85e-04 -5.65e-04  2.84e-04  7.23e-04 -8.80e-04 -6.00e-04 -1.10e-03
## 2991 -1.64e-02 -1.25e-02 -5.80e-03  3.57e-03  3.81e-03 -2.62e-02  1.93e-02
## 2992  1.01e-02 -1.07e-02 -5.14e-03  6.35e-03  3.14e-03  2.92e-03 -2.23e-02
## 2993  2.03e-02 -2.03e-02 -3.47e-02  1.75e-02 -1.19e-02 -1.30e-02  1.92e-03
## 2994 -1.35e-02  1.87e-02 -1.32e-02  5.52e-03  5.41e-03 -1.32e-04  1.84e-02
## 2995  4.70e-03  3.66e-03  6.33e-05 -3.19e-03 -3.88e-03 -2.80e-04 -3.88e-04
## 2996  8.18e-03 -1.15e-02  9.83e-03 -6.13e-03 -2.42e-03 -2.32e-03  6.40e-03
## 2997  4.74e-03  5.26e-03 -9.66e-04  1.84e-03  2.87e-03 -3.76e-03 -1.29e-03
## 2998  4.42e-03  5.33e-03 -2.98e-04  3.75e-03  2.67e-03  2.68e-03 -2.20e-03
## 2999  1.35e-02 -1.76e-02  4.50e-03 -3.29e-02  4.47e-02 -1.13e-02  4.20e-03
## 3000  5.84e-03 -1.12e-02  4.77e-03  1.09e-02  1.37e-02 -6.52e-03 -1.07e-02
## 3001  1.03e-02 -7.74e-03  1.93e-02  6.30e-03 -9.44e-04  3.58e-03 -2.75e-03
## 3002  1.75e-02 -1.14e-02 -2.37e-02 -9.57e-03  4.41e-03  6.70e-04  5.37e-03
## 3003  1.92e-02  1.76e-02 -3.57e-02 -1.75e-02  6.43e-03 -1.35e-02 -2.06e-02
## 3004  1.39e-03 -4.09e-03 -1.88e-04  1.58e-03  2.52e-03 -4.93e-03 -9.71e-05
## 3005  1.77e-02  9.64e-03 -3.41e-03  2.78e-03  4.34e-03 -1.47e-02 -1.93e-02
## 3006 -1.55e-02  1.25e-02  3.36e-02  3.03e-02 -3.92e-02  9.25e-03 -2.39e-03
## 3007  1.12e-04 -2.03e-03  6.55e-04 -1.76e-03 -1.43e-03 -4.80e-03  4.78e-04
## 3008 -2.48e-04 -1.64e-03 -5.89e-05  3.67e-04  1.50e-03  3.67e-04  2.07e-03
## 3009  9.41e-04 -1.23e-02 -6.76e-03  9.93e-03  3.80e-03 -4.32e-03 -2.33e-02
## 3010 -7.87e-03  1.42e-02  2.58e-02 -1.67e-02  8.66e-03  3.68e-03 -6.51e-03
## 3011 -2.86e-03 -2.38e-03 -2.32e-04  2.75e-04  2.35e-03  3.42e-04 -2.69e-05
## 3012 -3.16e-03  1.78e-02  8.01e-03 -5.73e-03 -4.87e-03  9.61e-03  1.03e-02
## 3013  4.56e-03 -4.53e-03  7.44e-04 -3.85e-03 -4.36e-03 -1.02e-03 -8.00e-04
## 3014 -8.83e-05  1.30e-04  3.47e-04  2.02e-04  8.35e-06  2.71e-04 -1.68e-04
## 3015 -1.56e-02  2.77e-02 -4.55e-04  2.10e-02  2.94e-02 -1.09e-02  6.79e-03
## 3016 -3.24e-03  2.58e-03  7.79e-04  4.81e-03 -5.48e-03  5.73e-04  5.08e-03
## 3017  5.27e-03  5.49e-03 -8.83e-04  1.62e-03  3.05e-03 -6.05e-03 -1.55e-03
## 3018  7.27e-03 -6.28e-03 -8.48e-04  1.59e-03  3.15e-03 -7.99e-03 -1.66e-03
## 3019 -5.63e-03 -5.33e-03 -2.35e-04 -7.54e-04  5.56e-03  1.33e-03  7.83e-03
```

```
## 3020   4.87e-03   4.38e-03   1.43e-03   6.89e-03 -9.58e-03 -3.08e-03 -9.12e-04
## 3021   6.81e-04 -1.32e-03   7.41e-05   1.37e-04   1.24e-03 -3.29e-03   1.46e-03
## 3022   3.47e-03   1.18e-02   1.33e-02   2.16e-02 -1.47e-02 -3.76e-04   5.29e-03
## 3023   1.22e-02 -7.49e-03 -1.97e-03   2.50e-03   3.34e-03 -5.95e-03 -2.36e-03
## 3024 -2.99e-02 -2.38e-02   7.16e-03 -6.53e-03 -1.01e-02   9.90e-03 -2.42e-02
## 3025   1.39e-02 -2.18e-02   5.12e-03   1.47e-02   2.52e-02   2.32e-02   3.90e-02
## 3026   9.55e-03 -1.12e-02   7.81e-03 -3.63e-03 -3.28e-03 -1.67e-03 -1.06e-02
## 3027   3.67e-02   2.05e-02 -3.38e-02   2.19e-02 -1.09e-02 -1.97e-02 -3.03e-02
## 3028 -4.15e-04   1.30e-03   6.48e-05   6.71e-04   9.88e-04 -2.44e-03   2.26e-04
## 3029   5.46e-04 -3.17e-03 -3.32e-03 -3.00e-03   4.28e-03 -6.25e-03   7.06e-04
## 3030   1.17e-02 -1.09e-02   7.94e-03 -4.17e-03 -3.31e-03 -1.72e-03   6.27e-03
## 3031 -2.40e-02 -1.70e-02   3.09e-02 -2.44e-02   1.09e-02   8.50e-04   2.12e-02
## 3032   9.99e-05   1.08e-03 -4.55e-04   1.34e-03   3.88e-04   2.04e-03   1.88e-03
## 3033   3.86e-04   1.49e-03 -2.31e-04   1.05e-03   8.92e-04   2.37e-04   1.22e-04
## 3034 -1.45e-03 -7.58e-03   1.37e-02 -5.59e-03   5.07e-03 -5.86e-03   1.09e-04
## 3035   1.90e-04   5.04e-04   1.12e-03 -3.83e-04   4.75e-04   3.00e-04   8.29e-04
## 3036   9.72e-03 -2.90e-02   2.63e-02   2.84e-02 -3.71e-02   4.26e-02 -4.02e-03
## 3037   3.12e-03   1.09e-02   6.96e-04   1.57e-02 -2.44e-02 -9.12e-03 -6.21e-03
## 3038   3.39e-02 -2.40e-02   1.76e-02 -2.20e-02 -7.14e-03 -3.71e-02 -4.37e-02
## 3039   1.14e-02   1.76e-02 -3.82e-02 -1.00e-02   4.75e-03   2.77e-02 -2.06e-02
## 3040   1.10e-02   1.98e-02   7.31e-03 -4.65e-03 -6.41e-03   1.54e-02   7.97e-03
## 3041   2.14e-03 -5.45e-03 -4.05e-03 -7.49e-03   7.14e-03   3.38e-03 -1.21e-03
## 3042   2.41e-03 -6.81e-03 -6.57e-03 -7.35e-03   7.39e-03 -6.05e-03 -5.30e-04
## 3043   5.59e-03   1.89e-02   2.02e-02   3.15e-02 -2.36e-02 -7.34e-03 -2.51e-02
## 3044 -1.01e-02 -1.17e-02 -3.28e-03   3.11e-03   4.25e-03 -9.95e-03 -3.93e-03
## 3045 -3.59e-02   2.64e-02   3.83e-03 -7.67e-03 -1.32e-02   3.71e-02   7.21e-03
## 3046 -1.66e-03   1.28e-02   8.14e-03 -4.94e-03 -2.46e-03 -5.92e-03 -1.36e-02
## 3047 -7.91e-03   5.38e-03 -2.38e-04 -8.81e-04   5.77e-03   2.94e-03   7.76e-03
## 3048   9.49e-04   7.86e-03 -6.39e-03 -1.30e-02   1.09e-02   6.68e-03 -1.45e-02
## 3049 -2.35e-03   3.98e-03 -1.63e-03   3.85e-04 -5.47e-03 -5.56e-03   8.94e-04
## 3050   1.67e-05 -4.90e-03 -1.51e-03   1.18e-02 -1.18e-02 -3.36e-03   9.05e-04
## 3051   4.69e-02 -1.95e-02   9.25e-03 -4.75e-02   5.47e-02 -1.95e-02 -3.29e-03
## 3052   7.04e-05   1.14e-03   9.00e-05 -2.81e-04 -1.07e-03 -4.40e-04 -1.56e-03
## 3053   1.11e-03   1.67e-03   2.15e-04 -1.22e-03 -1.52e-03 -6.16e-04   1.39e-04
## 3054   8.93e-03   2.32e-02 -5.67e-04 -3.64e-02   4.67e-02   1.12e-02   3.88e-02
## 3055   7.10e-05 -1.58e-04 -1.64e-05 -1.89e-05 -1.42e-04   3.04e-04 -1.87e-04
## 3056 -6.68e-03   1.03e-02 -8.22e-03 -1.86e-02   1.56e-02 -9.51e-03   1.56e-02
## 3057 -8.66e-03 -1.16e-02 -2.15e-02 -1.19e-02   4.78e-03 -7.15e-03   9.97e-03
## 3058 -8.78e-03   8.65e-03   2.17e-02 -1.53e-02   7.95e-03   2.31e-03   1.36e-02
## 3059   4.20e-03 -1.71e-02 -1.63e-02   1.60e-02 -8.69e-05   9.36e-03 -8.74e-03
## 3060 -2.25e-02 -1.60e-02 -1.16e-02   8.84e-03   2.52e-03   5.29e-03   1.98e-02
## 3061 -1.12e-02   1.23e-02 -5.26e-03   3.10e-03   4.82e-03 -1.08e-02 -5.60e-03
## 3062 -2.49e-02 -2.02e-02 -1.69e-02   9.24e-03   3.19e-03   2.68e-03 -6.77e-03
## 3063   2.41e-03 -1.34e-02   1.02e-02 -5.02e-03 -3.00e-03 -4.81e-03 -1.12e-02
## 3064 -2.76e-03   9.14e-03 -9.33e-03 -1.09e-02   1.08e-02 -4.28e-03   5.24e-04
## 3065   1.18e-02 -7.28e-03 -1.96e-03   2.61e-03   3.21e-03 -4.61e-03 -2.26e-03
## 3066   1.08e-02 -8.65e-03 -2.91e-03   3.25e-03   3.89e-03 -4.67e-03   1.21e-02
## 3067   2.51e-03   1.59e-03   5.00e-05 -3.76e-04 -1.51e-03 -6.15e-04 -2.76e-03
## 3068 -1.84e-03   8.67e-04   1.27e-04   6.71e-05   1.05e-03 -6.11e-04   1.53e-03
## 3069   1.72e-03 -3.80e-03 -1.91e-03   4.61e-03   1.91e-03   6.93e-05   6.37e-03
```

```
## 3070   1.00e-02 -5.93e-03 -2.00e-03 -2.83e-03 -7.28e-03  2.02e-03 -1.16e-02
## 3071  -7.42e-04  6.10e-03 -7.73e-03 -5.72e-03  6.81e-03 -6.11e-03  2.46e-04
## 3072  -1.04e-02  2.27e-02  6.02e-03 -8.39e-03 -1.14e-02  6.95e-03  9.84e-03
## 3073   1.58e-04 -1.23e-04  4.35e-05  1.82e-04 -2.09e-04  1.10e-05 -1.73e-05
## 3074   3.90e-03  7.40e-03 -1.56e-02 -5.32e-03  2.44e-03  5.88e-06  5.37e-03
## 3075  -3.33e-02  1.60e-02  8.30e-03 -7.11e-03 -6.08e-03  5.95e-03  1.65e-02
## 3076  -2.58e-02  1.10e-02 -5.72e-03  2.87e-03  4.56e-03 -1.91e-02  1.92e-02
## 3077   1.87e-02 -1.34e-02  8.19e-03 -5.00e-03 -4.67e-03 -3.46e-03 -1.38e-02
## 3078  -2.07e-04  3.00e-04 -6.11e-05  3.02e-04  1.35e-04  2.57e-04 -4.41e-04
## 3079  -3.62e-04 -4.20e-04  6.12e-05  7.34e-05  4.37e-04 -8.81e-04  5.96e-04
## 3080   3.83e-03  5.63e-03 -7.81e-04  2.02e-03  3.48e-03 -8.40e-03 -8.29e-04
## 3081  -1.58e-02 -1.00e-02  8.38e-03 -4.73e-03 -1.76e-03 -5.08e-03  9.74e-03
## 3082   1.39e-02  1.81e-02 -1.32e-02  1.09e-02  1.31e-03  7.04e-03 -1.10e-02
## 3083   5.48e-03  9.94e-03  8.70e-03 -4.99e-03 -1.90e-03 -1.82e-03  4.75e-03
## 3084  -1.83e-05 -4.02e-04 -1.12e-04  1.34e-04  3.88e-04  1.36e-05 -1.92e-05
## 3085  -5.25e-03  3.97e-03  5.31e-04 -5.36e-03 -1.90e-03 -1.03e-03  6.60e-04
## 3086   2.39e-03 -1.65e-02  6.54e-03 -4.63e-03 -7.23e-03  8.64e-03  1.22e-02
## 3087   4.81e-03 -3.81e-03 -1.13e-03 -8.20e-03  6.74e-03 -1.08e-02  5.18e-06
## 3088   2.37e-02  1.90e-02  9.87e-03 -4.16e-03 -5.21e-03  2.98e-02 -2.65e-02
## 3089   1.87e-05  3.91e-03  1.10e-03  6.91e-03 -8.31e-03 -9.96e-05 -7.55e-04
## 3090  -6.61e-04 -6.65e-03 -2.71e-03  5.53e-03  2.85e-03  2.37e-03 -1.88e-03
## 3091  -1.54e-02  1.67e-02 -1.21e-02  8.69e-03  3.28e-03  1.21e-02  1.71e-02
## 3092  -1.10e-04 -1.82e-03 -1.30e-03 -1.98e-03  2.55e-03  1.46e-03  3.45e-03
## 3093   5.83e-03  4.97e-03  1.78e-03  7.30e-03 -1.07e-02 -6.76e-03 -1.20e-03
## 3094   1.05e-02 -1.66e-02 -3.15e-02  2.41e-02 -1.19e-02 -1.11e-02 -1.83e-02
## 3095   9.89e-04 -3.58e-03 -2.56e-04  1.65e-03  2.15e-03 -2.51e-03  4.14e-05
## 3096   6.09e-03 -1.08e-02 -1.34e-02 -1.28e-02  1.15e-02  4.67e-03 -3.15e-03
## 3097  -5.55e-03 -8.34e-03 -7.69e-03  1.00e-02  3.22e-04  7.22e-03  4.76e-04
## 3098  -1.23e-02  2.45e-02  6.77e-04 -7.27e-03 -1.20e-02  5.06e-03  1.07e-02
## 3099  -4.10e-02  2.27e-02 -6.10e-02 -1.28e-02  1.88e-03  4.11e-02  1.16e-02
## 3100  -2.86e-02  2.06e-02  4.27e-02  1.56e-02 -7.40e-03 -4.88e-03 -1.13e-02
## 3101  -2.36e-03  5.15e-03 -1.17e-03  3.08e-03  1.89e-03  2.33e-03 -1.33e-03
## 3102   5.28e-04  1.45e-03  1.25e-04 -1.38e-03 -9.61e-04 -1.50e-03 -4.89e-04
## 3103  -1.51e-04  1.74e-04  1.48e-04  1.66e-04 -2.40e-04  3.39e-04 -2.83e-05
## 3104   5.82e-03 -6.60e-03 -1.63e-04  1.46e-02 -1.57e-02  1.28e-03  9.87e-03
## 3105   3.03e-04  1.09e-03 -3.69e-04  1.17e-03  6.00e-04  1.01e-03 -1.35e-03
## 3106   7.45e-03 -6.16e-03 -7.53e-04  1.48e-03  3.13e-03 -8.53e-03 -1.87e-03
## 3107   2.61e-02 -2.55e-02  1.66e-02 -5.49e-03  3.61e-02  3.15e-02 -5.07e-03
## 3108   8.25e-05 -1.32e-04  1.03e-04  1.23e-04 -1.64e-04  1.83e-04 -5.94e-05
## 3109  -5.89e-03  1.70e-02 -2.12e-02 -2.60e-02  1.92e-02  5.18e-03 -6.27e-03
## 3110   1.89e-02  1.19e-02 -2.44e-03  4.77e-03  4.29e-03  2.03e-03 -1.01e-02
## 3111  -4.54e-03  1.36e-02  1.24e-02 -7.99e-03 -2.34e-03 -5.43e-03  9.15e-03
## 3112  -1.22e-02 -9.96e-03  2.13e-02  1.26e-02 -3.24e-03 -9.72e-06  1.30e-02
## 3113   3.02e-03 -5.67e-03  1.26e-02  2.18e-03 -1.05e-02 -2.63e-03 -9.01e-04
## 3114   9.58e-05  4.46e-04 -8.99e-05  3.86e-04  2.61e-04  6.00e-04  4.13e-05
## 3115   7.89e-03  1.33e-02 -2.28e-02  1.69e-02 -8.14e-03 -1.47e-03  4.55e-03
## 3116   5.60e-05 -9.76e-05 -6.31e-05 -1.15e-04  1.59e-04  1.99e-04 -1.21e-04
## 3117   1.27e-03  2.27e-02 -5.89e-02 -1.60e-02  3.02e-03 -5.25e-03  1.19e-02
## 3118  -3.69e-04 -7.49e-04 -2.19e-03 -1.44e-04  1.18e-03 -2.35e-03 -1.27e-04
## 3119  -2.45e-02  1.57e-02 -1.21e-02  8.27e-03  3.04e-03 -6.79e-04  2.07e-02
```

```
## 3120  -8.41e-04  -5.54e-03  -7.95e-04  -1.90e-05   5.33e-03   1.98e-03  -2.26e-03
## 3121   5.49e-03   5.38e-03  -7.86e-04   1.51e-03   3.02e-03  -6.52e-03  -1.77e-03
## 3122   3.54e-03  -4.02e-03  -2.96e-04  -2.93e-03  -4.44e-03   8.04e-04   6.50e-03
## 3123   1.58e-02   2.21e-02   1.50e-02  -1.31e-02  -5.63e-03  -1.06e-02  -3.29e-02
## 3124   6.46e-03   4.38e-03   1.41e-03   6.56e-03  -9.24e-03  -6.38e-03  -9.60e-04
## 3125  -3.28e-03   5.52e-03  -6.76e-03  -5.54e-03   6.66e-03  -3.08e-03   5.96e-04
## 3126   5.50e-03   5.84e-03  -1.50e-03  -9.48e-03   8.70e-03  -1.39e-03  -1.98e-03
## 3127  -2.92e-03   4.06e-03  -1.04e-02   2.95e-03  -3.95e-03   1.20e-03   6.41e-03
## 3128  -1.66e-02   1.72e-02  -8.80e-03   3.79e-03   5.04e-03   5.46e-03   1.86e-02
## 3129   3.40e-04   2.03e-03  -1.77e-03  -2.39e-03   2.62e-03   3.25e-03   3.67e-03
## 3130   3.00e-03  -1.58e-03  -8.74e-05  -8.20e-04  -1.68e-03   1.37e-03  -1.07e-04
## 3131  -1.59e-03   1.57e-02  -3.24e-02  -1.83e-02   7.64e-03  -1.15e-02   8.29e-03
## 3132   2.26e-02   1.59e-02   1.16e-02  -8.04e-03  -2.68e-03  -5.19e-03  -2.01e-02
## 3133   1.62e-02  -9.55e-03  -4.73e-03  -2.46e-03  -1.34e-02  -5.20e-03  -3.84e-03
## 3134   7.61e-03   1.97e-02   7.50e-03  -5.10e-03  -6.34e-03   1.93e-02   8.16e-03
## 3135   2.10e-02  -2.15e-02   6.76e-03  -5.38e-03  -8.13e-03   3.92e-02  -3.42e-02
## 3136  -2.50e-02   1.42e-02  -1.02e-02   7.82e-03   3.35e-03   6.25e-03   1.93e-02
## 3137  -1.46e-02  -1.36e-02  -2.83e-02  -7.98e-03   3.79e-03  -8.86e-03  -6.73e-03
## 3138  -2.50e-02  -2.49e-02   3.52e-03  -6.01e-03  -1.40e-02   3.64e-02   7.69e-03
## 3139   2.89e-02   1.08e-02  -1.59e-03  -8.41e-03  -1.20e-02   1.98e-03  -2.65e-02
## 3140   5.25e-03   5.20e-03  -8.06e-04   1.60e-03   2.90e-03  -5.32e-03  -1.68e-03
## 3141   3.96e-03   1.31e-02   1.07e-02  -5.47e-03  -3.36e-03   4.46e-03  -1.59e-02
## 3142  -2.05e-02   1.22e-02   4.67e-03   1.21e-02   1.57e-02  -1.43e-02  -9.40e-03
## 3143   1.27e-02  -1.56e-02  -1.43e-02  -2.91e-02   2.15e-02   1.16e-02   1.62e-02
## 3144  -1.17e-02  -7.69e-03  -5.00e-03   7.25e-03   1.32e-03   8.16e-03   1.25e-02
## 3145   7.61e-03  -1.06e-02  -1.93e-03   3.72e-03   3.32e-03   5.35e-03  -7.11e-03
## 3146  -2.25e-02   1.15e-02  -8.10e-03   5.47e-03   3.58e-03  -4.79e-03   2.03e-02
## 3147  -1.51e-02   1.23e-02  -4.03e-03  -1.01e-02  -1.47e-02   4.84e-03   1.80e-02
## 3148   6.03e-03  -9.40e-03  -4.65e-03   7.89e-03   2.77e-03   5.74e-04   1.31e-02
## 3149  -5.36e-04  -8.28e-03  -3.26e-03   5.22e-03   2.92e-03   2.45e-03  -1.52e-02
## 3150  -2.00e-02  -1.73e-02   3.97e-02   1.11e-02  -3.82e-03  -1.49e-03   1.68e-02
## 3151   2.09e-04   1.45e-03   5.57e-04   2.73e-03  -3.04e-03   6.66e-04   1.21e-04
## 3152   4.13e-03  -4.15e-03  -9.05e-04   2.21e-03   1.87e-03   2.93e-03  -8.19e-04
## 3153   3.14e-02  -1.94e-02   7.04e-03  -7.35e-03  -8.55e-03   6.90e-03   6.44e-03
## 3154   1.23e-03  -1.98e-02   1.50e-02   4.07e-02  -2.90e-02  -1.73e-03   1.03e-02
## 3155  -3.30e-03   2.65e-02   5.14e-02   1.88e-02  -8.96e-03   8.44e-03  -2.35e-02
## 3156   2.05e-03   4.20e-03   3.47e-05   1.48e-04   4.10e-03  -5.39e-03  -9.40e-03
## 3157   3.70e-04   3.24e-03  -1.86e-04   1.41e-03   2.19e-03  -3.55e-03  -1.58e-04
## 3158  -1.20e-03   1.28e-02  -7.30e-03   8.23e-03   4.21e-03   6.16e-03  -2.98e-02
## 3159  -1.81e-02   1.44e-02   2.89e-02   1.77e-02  -6.43e-03   1.09e-02  -4.97e-03
## 3160   7.18e-03   1.55e-02  -1.39e-02   1.28e-02   1.99e-03   1.48e-02   1.45e-02
## 3161   9.22e-04   2.03e-03   2.74e-04  -1.58e-03  -1.86e-03  -6.14e-04   2.29e-04
## 3162   2.30e-05   6.88e-03  -2.86e-03  -1.38e-02   1.00e-02  -3.72e-03  -2.18e-03
## 3163  -2.11e-03   3.18e-03   1.22e-03   3.93e-03  -4.91e-03  -1.86e-03  -1.10e-04
## 3164   1.18e-03  -2.07e-03  -5.99e-04   1.80e-03   1.00e-03   4.15e-03   6.25e-05
## 3165   1.28e-03   1.23e-03  -5.12e-05  -3.92e-04  -1.41e-03   1.28e-03  -3.52e-04
## 3166  -1.59e-02   1.56e-02  -1.17e-02   1.23e-02   4.94e-03   1.76e-03  -4.96e-03
## 3167   1.11e-03  -2.93e-03  -2.19e-04   1.78e-03   2.05e-03  -4.66e-03   4.92e-04
## 3168  -1.88e-03  -1.53e-02   5.94e-03  -2.82e-02   3.69e-02  -1.29e-02  -1.60e-02
## 3169   2.08e-03  -3.45e-03  -1.06e-03  -6.61e-03   5.75e-03  -3.31e-03   3.51e-05
```

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## 3170 -1.03e-02  8.09e-03 -8.23e-03 -1.12e-02  1.14e-02  8.90e-03  1.52e-02
## 3171  1.80e-02 -1.43e-02 -2.68e-02  2.15e-02 -9.67e-03  1.73e-03 -1.72e-02
## 3172 -1.75e-04 -8.22e-04 -3.68e-04 -1.15e-03  1.37e-03  7.69e-04 -9.49e-04
## 3173  3.46e-03 -2.30e-03 -1.19e-04  9.25e-05  2.40e-03 -4.74e-03 -5.43e-03
## 3174  2.91e-02 -2.33e-02  2.21e-02  3.33e-02 -3.14e-02 -2.47e-02 -3.81e-02
## 3175  4.82e-05 -2.73e-03 -1.99e-04  1.68e-03  1.85e-03 -1.81e-03  3.74e-04
## 3176  7.10e-03 -6.20e-03 -8.64e-04  1.65e-03  3.09e-03 -7.38e-03 -1.60e-03
## 3177 -1.21e-03  1.41e-03  7.47e-04  1.67e-03 -2.12e-03 -2.40e-04  2.13e-03
## 3178 -1.14e-02 -8.73e-03 -6.15e-03 -1.26e-02  1.23e-02 -7.42e-03  1.54e-02
## 3179  1.39e-02 -1.33e-02 -2.93e-02  2.60e-02 -1.23e-02  2.14e-02 -1.86e-02
## 3180 -7.50e-04  7.53e-04  4.58e-04  7.56e-04 -1.04e-03  1.87e-04  1.22e-03
## 3181  3.64e-02  1.95e-02 -4.29e-02 -9.34e-03  3.50e-03  3.08e-02 -2.64e-02
## 3182  1.01e-04  2.66e-03 -2.74e-04  5.67e-04  2.19e-03 -4.04e-03 -1.27e-03
## 3183  4.52e-03  1.20e-02 -7.47e-03 -5.81e-03 -1.66e-02  8.07e-03  1.41e-02
## 3184 -7.32e-03  2.15e-02  6.97e-03 -8.29e-03 -8.54e-03  7.91e-03  9.77e-03
## 3185  6.56e-03 -4.51e-03  1.87e-04 -3.67e-03 -4.31e-03 -1.60e-03 -6.11e-04
## 3186 -6.25e-04  5.66e-04 -6.24e-05 -2.33e-05 -6.70e-04  4.18e-04  1.24e-03
## 3187 -9.83e-03  1.30e-02  3.01e-02  9.27e-03 -2.90e-03 -1.61e-02  1.72e-02
## 3188 -6.36e-05 -7.29e-04  1.60e-04 -7.62e-04 -4.46e-04 -1.17e-03 -1.69e-04
## 3189  3.59e-04 -2.46e-03  8.73e-04 -2.33e-03 -1.70e-03 -7.05e-03  4.41e-04
## 3190 -1.22e-02  2.18e-02 -4.07e-02  2.47e-02 -1.53e-02 -1.98e-02 -2.62e-02
## 3191 -8.45e-03 -1.55e-02 -1.04e-02  7.13e-03  4.17e-03  8.74e-03  1.66e-02
## 3192  1.90e-03 -4.80e-03 -7.18e-05  1.38e-03  3.05e-03 -9.21e-03 -2.32e-04
## 3193 -2.86e-02  2.14e-02  4.06e-03  1.35e-02  2.38e-02  1.53e-02  1.04e-02
## 3194  6.67e-03  1.41e-02 -1.55e-02 -1.81e-02  1.64e-02 -9.11e-03 -4.66e-03
## 3195  2.28e-04  1.79e-03  5.31e-04 -2.29e-03 -1.02e-03 -3.45e-03  1.99e-03
## 3196 -1.48e-02 -1.92e-02  2.55e-02  2.38e-02 -2.08e-02 -1.35e-02  9.40e-03
## 3197  6.16e-05 -4.42e-03 -1.32e-03  4.47e-03  2.00e-03 -1.41e-04 -7.35e-03
## 3198 -3.60e-04  1.43e-02 -6.67e-03  4.20e-03  4.56e-03 -9.11e-03 -9.18e-03
## 3199 -7.40e-03  5.26e-03  2.29e-03  5.19e-03 -8.19e-03  3.96e-03  8.34e-03
## 3200  1.57e-03  1.43e-03  2.79e-04  2.81e-03 -2.95e-03  9.44e-04  8.41e-05
## 3201 -1.61e-04  2.06e-04  7.55e-05 -5.05e-05  2.73e-04  3.85e-04 -7.88e-05
## 3202  6.68e-03 -5.97e-03 -9.06e-04  1.81e-03  2.94e-03 -5.46e-03 -1.46e-03
## 3203  1.44e-02 -6.71e-03 -1.75e-03  2.34e-03  3.06e-03 -1.03e-02 -2.58e-03
## 3204  4.03e-03  6.26e-03 -5.58e-03 -8.45e-03  8.25e-03  6.99e-05 -1.15e-02
## 3205 -2.79e-03  7.08e-03  6.50e-03 -3.20e-03 -1.38e-03 -3.57e-03  6.50e-03
## 3206  7.45e-04  2.22e-03 -2.51e-04  3.38e-04  2.11e-03 -3.59e-03 -5.36e-04
## 3207  1.94e-03 -2.96e-03 -2.50e-04  1.53e-03  1.79e-03 -3.25e-03  1.96e-05
## 3208 -5.04e-03  1.08e-02 -1.22e-02 -1.71e-02  1.32e-02  8.74e-03  1.43e-02
## 3209 -3.24e-03 -4.08e-03 -7.11e-04 -1.54e-03 -4.21e-03  1.65e-03  7.48e-03
## 3210 -1.92e-02  1.08e-02  2.17e-02  1.49e-02 -3.76e-03 -2.16e-03 -1.42e-04
## 3211 -1.07e-02  1.25e-02 -1.55e-02 -1.92e-02  1.48e-02  3.52e-03 -1.63e-03
## 3212  7.43e-04  2.32e-02  1.43e-03  2.09e-02  2.39e-02  1.54e-02  8.66e-03
## 3213  1.34e-02 -7.88e-03 -1.86e-03  2.04e-03  3.63e-03 -1.07e-02 -2.77e-03
## 3214 -5.70e-03  2.21e-03 -1.78e-03  3.16e-03  4.93e-04  1.74e-03  4.52e-03
## 3215  6.32e-04 -2.53e-03  3.61e-04 -1.59e-03 -1.97e-03 -3.05e-03 -3.23e-03
## 3216  1.73e-03 -3.70e-03  1.68e-03  3.97e-03 -5.50e-03  2.85e-04  4.40e-03
## 3217 -9.01e-03  1.13e-02 -4.64e-03  2.55e-03  3.96e-03 -1.64e-02  1.71e-02
## 3218 -8.66e-03  1.01e-02 -3.30e-03  3.23e-03  4.08e-03 -1.37e-02 -3.66e-03
## 3219 -8.79e-03  1.11e-02 -8.46e-03 -2.39e-02  1.64e-02 -2.19e-02  1.69e-02
```

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## 3220 -2.81e-02  1.59e-02  6.68e-03 -6.88e-03 -4.80e-03 -3.76e-03  3.96e-02
## 3221  1.75e-02 -1.27e-02 -5.47e-03  6.86e-03  4.66e-03  5.82e-03 -8.64e-03
## 3222  4.95e-03  5.51e-03 -9.84e-04  1.78e-03  3.02e-03 -4.88e-03 -1.32e-03
## 3223  1.75e-04  1.18e-02 -2.68e-03 -1.12e-02 -1.45e-02 -9.93e-04 -5.37e-03
## 3224  7.87e-04  9.50e-03 -6.90e-03 -8.15e-04 -1.36e-02 -4.20e-03 -1.68e-03
## 3225 -1.52e-03  9.27e-03  8.65e-03 -5.53e-03 -1.33e-03 -6.02e-03  7.00e-03
## 3226  1.79e-03 -2.58e-03 -2.80e-04  5.92e-04  2.27e-03 -6.66e-03 -1.30e-03
## 3227  2.18e-02 -7.63e-03 -1.13e-03  4.18e-03  3.69e-03  1.04e-02 -7.65e-03
## 3228 -9.19e-04  1.62e-03  4.82e-05 -9.21e-04 -1.55e-03  7.00e-04 -4.99e-05
## 3229 -9.79e-03  1.42e-02  3.11e-02 -2.70e-02  1.20e-02 -2.71e-02  1.90e-02
## 3230 -4.87e-05 -7.88e-04  2.03e-04 -5.31e-04 -5.71e-04 -7.90e-04  2.31e-04
## 3231  1.50e-04  1.36e-03  4.26e-04 -1.49e-03 -5.80e-04 -2.66e-03 -2.42e-03
## 3232 -3.48e-03  1.00e-02 -5.26e-03  5.29e-03  3.85e-03 -8.33e-04 -2.04e-02
## 3233 -4.26e-04 -1.73e-03  2.93e-05  2.57e-04  1.56e-03 -3.76e-03 -6.77e-04
## 3234  2.01e-05 -7.20e-05  1.78e-05 -4.54e-05 -5.55e-05 -8.98e-05  2.24e-05
## 3235 -2.92e-03  8.49e-03 -2.35e-03  3.44e-03  3.21e-03  3.01e-03 -3.70e-03
## 3236  1.93e-04  2.31e-02  2.47e-02  2.87e-02 -3.19e-02  2.08e-02 -2.42e-03
## 3237 -2.45e-02 -2.49e-02  3.59e-03 -6.00e-03 -1.40e-02  3.61e-02  7.35e-03
## 3238 -1.07e-03  2.23e-03  1.36e-03  3.40e-03 -4.11e-03 -5.79e-03  4.68e-04
## 3239 -4.88e-05 -1.33e-02 -9.37e-03  6.86e-03  3.17e-03 -7.40e-04  1.70e-02
## 3240  6.65e-03  1.16e-02 -5.12e-03  5.30e-03  4.08e-03 -7.15e-03 -2.33e-02
## 3241 -8.51e-03  2.25e-02  6.07e-03  1.51e-02  2.76e-02 -1.75e-02 -2.63e-02
## 3242  1.52e-02 -1.74e-02  5.79e-03 -5.57e-03 -8.54e-03  5.12e-03  9.66e-03
## 3243 -9.74e-04 -2.49e-03 -1.68e-03  3.69e-03  3.62e-04 -3.75e-03  6.76e-04
## 3244  5.78e-03 -9.11e-03 -1.53e-02  1.43e-02 -5.66e-03  9.23e-04  4.97e-03
## 3245  1.17e-02 -1.10e-02 -2.30e-03 -9.14e-03 -1.22e-02 -1.69e-03 -5.90e-03
## 3246  5.20e-03  5.74e-03 -2.24e-03 -1.16e-02  9.50e-03 -8.78e-03 -4.86e-04
## 3247 -1.96e-02  1.49e-02 -3.23e-02 -2.12e-02  7.08e-03 -4.27e-04  9.10e-03
## 3248  2.26e-03  7.32e-03  3.88e-04 -5.71e-03 -7.18e-03 -4.24e-03 -1.20e-02
## 3249  2.41e-02 -1.35e-02 -9.08e-03 -3.93e-03 -1.99e-02  5.64e-03 -7.55e-03
## 3250  1.11e-02  2.09e-02  4.16e-02  1.87e-02 -7.29e-03  1.76e-02  1.36e-02
## 3251  3.84e-03 -4.68e-03  1.18e-02  1.70e-03 -9.03e-03 -3.65e-03  1.08e-04
## 3252 -7.01e-03 -3.80e-03 -2.31e-04  2.63e-04  4.13e-03 -1.33e-03  5.87e-04
## 3253 -4.67e-04  1.74e-02 -1.42e-02  1.08e-02  3.79e-03  1.55e-02  1.46e-02
## 3254 -1.88e-02  1.28e-02 -7.72e-03  3.31e-03  4.32e-03 -2.63e-02  2.00e-02
## 3255 -2.82e-02 -1.68e-02 -1.05e-02  6.54e-03  4.11e-03 -3.00e-03  2.20e-02
## 3256  1.08e-02 -2.11e-02  1.32e-02 -1.36e-02 -4.71e-03 -2.02e-02 -2.58e-02
## 3257 -6.57e-03  4.05e-03 -3.24e-04 -1.52e-04  4.25e-03 -5.66e-04 -7.42e-05
## 3258  3.48e-03  2.00e-02  1.07e-02  7.26e-03  2.52e-02 -1.17e-02  6.97e-03
## 3259  4.94e-04 -4.24e-03 -1.61e-03 -9.97e-04 -5.66e-03  3.35e-03  6.50e-03
## 3260  1.01e-02 -1.69e-02 -1.35e-03  2.63e-02 -3.87e-02  1.47e-02  1.61e-02
## 3261  2.69e-02 -1.67e-02  1.03e-02  1.11e-02  2.42e-02 -9.18e-03 -2.73e-02
## 3262 -1.06e-04  4.22e-03 -1.79e-04  7.72e-05  3.65e-03 -1.07e-02 -2.27e-03
## 3263  6.10e-06  2.44e-05  8.67e-07 -1.15e-05 -2.42e-05  4.44e-05  5.55e-06
## 3264  2.69e-03  8.84e-03 -7.80e-04 -5.16e-03 -8.96e-03 -1.70e-03 -1.69e-02
## 3265  1.53e-05  4.99e-05 -2.08e-05  6.03e-05  2.44e-05  1.40e-04 -7.10e-05
## 3266  1.53e-02 -2.15e-02 -1.61e-02  9.07e-03  4.48e-03  2.49e-02 -1.79e-02
## 3267 -5.19e-03 -9.04e-03 -1.43e-02  1.30e-02 -5.99e-03 -2.54e-03  7.02e-03
## 3268  5.18e-03 -1.32e-02  9.22e-03 -4.59e-03 -3.48e-03 -9.49e-05  5.66e-03
## 3269  4.83e-02 -1.83e-02  1.41e-02 -1.45e-02 -4.08e-03 -1.93e-02 -2.93e-02
```

```
## 3270   1.69e-02 -1.25e-02 -8.82e-03  1.04e-02  1.49e-03  1.36e-02  1.14e-02
## 3271  -4.67e-04 -2.49e-03 -4.39e-04 -4.86e-03  4.53e-03 -4.94e-03  6.20e-04
## 3272   7.20e-03  1.15e-02  8.84e-03 -4.43e-03 -2.01e-03 -2.57e-03 -1.14e-02
## 3273   1.64e-03  2.90e-03  5.39e-04 -2.66e-03 -2.56e-03 -3.84e-03  1.37e-04
## 3274   2.55e-04 -3.28e-04 -4.26e-05  1.32e-06 -3.66e-04 -1.23e-04 -4.84e-04
## 3275  -7.33e-04  2.40e-03  5.71e-04 -1.74e-03 -2.26e-03 -1.30e-03  2.88e-04
## 3276   1.97e-03 -2.17e-03  8.80e-04  2.93e-03 -3.70e-03 -1.22e-03 -2.76e-04
## 3277  -1.55e-02  9.15e-03 -8.30e-03 -1.24e-02  1.31e-02 -7.85e-03  1.53e-02
## 3278  -1.71e-03  6.54e-03 -7.19e-03 -7.12e-03  8.01e-03 -4.89e-03 -9.76e-04
## 3279  -7.67e-04  6.75e-04  1.08e-04  6.39e-05  6.95e-04 -2.06e-03 -1.59e-04
## 3280  -1.84e-02  1.42e-02 -1.44e-02  1.39e-02  1.54e-03  1.07e-02 -3.63e-03
## 3281  -4.32e-04 -3.91e-03  1.50e-03  4.51e-03 -5.84e-03 -1.31e-03 -6.72e-04
## 3282   1.01e-02 -1.25e-02 -2.49e-02 -1.54e-02  6.35e-03 -4.51e-03  6.58e-03
## 3283  -2.81e-05 -1.53e-02  5.88e-03  9.67e-03  1.80e-02  1.09e-03  4.96e-03
## 3284  -6.54e-05 -1.98e-03  5.82e-04 -1.61e-03 -1.41e-03 -3.88e-03  5.85e-04
## 3285   3.90e-03 -1.28e-02 -6.11e-03  2.66e-02 -3.09e-02  4.10e-03 -4.27e-03
## 3286  -4.80e-03 -1.09e-02 -4.05e-03  3.57e-03  4.06e-03 -9.38e-03  1.47e-02
## 3287   2.39e-03 -3.87e-03  4.90e-04 -2.79e-03 -4.07e-03  2.09e-03 -6.16e-04
## 3288   1.41e-02 -1.60e-02 -1.12e-02  6.52e-03  4.97e-03 -1.35e-02  1.80e-02
## 3289   1.93e-02 -1.45e-02 -9.04e-03  6.19e-03  4.31e-03 -6.33e-03 -3.58e-02
## 3290   1.23e-02  1.39e-02  6.03e-03  1.34e-02  1.69e-02  3.97e-03 -1.61e-02
## 3291  -5.64e-03  6.27e-03 -5.13e-04 -8.47e-04  6.24e-03  7.69e-04  8.08e-03
## 3292   1.79e-03 -9.66e-03 -4.40e-03  5.83e-03  2.15e-03  2.14e-03 -4.21e-03
## 3293   2.06e-03 -2.05e-03 -6.80e-04 -2.97e-03  3.40e-03 -1.47e-03 -3.68e-03
## 3294   6.94e-03 -6.13e-03 -8.82e-04  1.70e-03  3.04e-03 -6.75e-03 -1.54e-03
## 3295   1.88e-03  2.59e-03 -1.79e-03  3.60e-03  3.18e-04 -2.05e-03  5.03e-05
## 3296   9.20e-04 -1.61e-03  1.43e-04 -9.21e-04 -1.39e-03  8.49e-04  2.34e-04
## 3297   1.54e-02  1.14e-02 -2.48e-02 -6.75e-03  3.53e-03  3.99e-03 -1.17e-02
## 3298  -3.30e-03 -1.67e-02  1.39e-02 -1.45e-02 -3.90e-03 -2.62e-03  1.01e-02
## 3299   4.36e-03  1.36e-02  1.10e-02 -6.46e-03 -3.89e-03  5.61e-03  7.93e-03
## 3300  -3.55e-03  4.73e-03  9.77e-03 -3.52e-03  3.56e-03 -7.30e-03  3.77e-04
## 3301  -2.22e-02  1.56e-02  3.33e-02  2.03e-02 -7.39e-03  8.76e-03 -6.76e-03
## 3302   8.70e-03 -1.49e-02 -4.89e-03 -1.57e-02 -1.88e-02  2.34e-03  1.71e-02
## 3303   2.49e-04 -2.23e-03  6.50e-05 -5.78e-04 -2.15e-03 -9.51e-04 -3.31e-03
## 3304   5.79e-04 -4.08e-03 -1.25e-03 -7.79e-03  7.36e-03 -8.47e-03 -5.67e-03
## 3305   1.29e-03 -2.20e-03 -2.55e-04  1.36e-03  1.29e-03 -9.33e-04  8.88e-05
## 3306   1.44e-02  1.15e-02 -2.61e-02 -7.16e-03  2.50e-03 -8.37e-04 -1.04e-02
## 3307   3.04e-03 -7.57e-03 -5.06e-03  7.00e-03  2.42e-03  1.38e-02  1.10e-02
## 3308   5.78e-03  5.94e-03 -8.69e-04  1.43e-03  3.33e-03 -8.58e-03 -1.70e-03
## 3309   6.65e-03  5.55e-03 -7.64e-04  1.42e-03  3.03e-03 -9.13e-03 -1.82e-03
## 3310  -1.52e-02 -9.05e-03 -5.35e-03  7.43e-03  2.57e-03  2.13e-03  1.34e-02
## 3311   3.92e-03  6.29e-03  1.18e-02 -4.66e-03  3.79e-03 -5.63e-03 -1.87e-03
## 3312   4.65e-03 -5.82e-03 -3.73e-03 -1.03e-02  9.88e-03 -4.30e-03  8.76e-03
## 3313  -8.15e-04 -3.08e-03  1.17e-03  3.90e-03 -4.79e-03 -3.05e-03 -3.51e-04
## 3314   3.13e-02 -1.81e-02  1.04e-02 -7.85e-03 -6.68e-03  1.31e-02 -2.96e-02
## 3315  -2.67e-02  1.61e-02  6.22e-03 -6.31e-03 -6.77e-03 -1.05e-03  1.38e-02
## 3316   1.04e-02  1.21e-02  2.59e-02 -1.81e-02  9.83e-03 -2.17e-03 -7.61e-03
## 3317   2.10e-04  6.07e-04  2.99e-04  7.35e-04 -9.80e-04 -1.12e-03  6.45e-04
## 3318   5.02e-03  8.93e-03 -1.82e-02 -7.26e-03  3.93e-03 -9.50e-04  6.24e-03
## 3319   3.59e-03 -3.47e-03  7.30e-04  5.53e-03 -6.73e-03  3.41e-03 -3.19e-04
```

```
## 3320 -2.00e-02 -1.80e-02 -1.08e-02  6.17e-03  4.35e-03  2.23e-03  1.95e-02
## 3321  5.77e-03 -9.84e-03  8.61e-03 -4.05e-03 -1.44e-03 -1.72e-03  5.74e-03
## 3322 -1.79e-02 -2.56e-02 -6.84e-02 -2.87e-02  2.46e-03 -1.32e-02  1.36e-02
## 3323 -7.71e-03  5.10e-03 -6.16e-03 -5.83e-03  6.35e-03 -7.29e-04  9.53e-04
## 3324 -2.37e-02 -1.92e-02 -1.34e-02  5.88e-03  4.35e-03 -4.11e-03  2.23e-02
## 3325  1.10e-03 -9.52e-03 -4.72e-03 -1.82e-02  1.26e-02  1.72e-03 -2.80e-03
## 3326  4.49e-03 -1.57e-02 -3.21e-02 -2.46e-02  9.65e-03 -1.15e-02  1.02e-02
## 3327  2.88e-02 -1.84e-02  6.26e-03 -4.77e-03 -8.34e-03  1.47e-02  6.08e-03
## 3328  6.68e-05  7.86e-04  4.29e-04  1.26e-03 -1.41e-03 -1.90e-03  1.44e-04
## 3329 -1.36e-02  1.71e-02  1.75e-02 -1.75e-02 -2.28e-04 -9.09e-03  9.04e-03
## 3330  9.10e-03  6.62e-03 -2.09e-03  3.02e-03  3.12e-03 -5.10e-03 -1.23e-02
## 3331  6.61e-04  1.90e-03 -2.32e-04  5.36e-04  1.47e-03 -3.06e-03 -8.49e-04
## 3332 -2.02e-02 -1.99e-02 -1.69e-02  8.91e-03  3.28e-03 -3.21e-03 -7.73e-03
## 3333 -8.04e-03  1.49e-02  9.27e-03 -7.36e-03 -2.10e-03 -1.34e-02 -1.33e-02
## 3334 -7.35e-03  5.20e-03 -4.12e-04 -5.16e-04  5.36e-03  2.78e-03  7.94e-03
## 3335  2.35e-03  8.68e-03 -1.86e-02 -6.84e-03  2.99e-03  2.03e-03  6.98e-03
## 3336 -1.23e-02 -7.87e-03  1.67e-02  8.06e-03 -1.89e-03  1.42e-02 -1.15e-03
## 3337  1.14e-03  6.31e-03 -3.08e-03  5.81e-03  2.73e-03  2.31e-03  9.44e-03
## 3338  2.37e-03 -2.75e-03 -2.42e-04  1.47e-03  1.68e-03 -3.88e-03  1.20e-05
## 3339  1.79e-02 -1.23e-02  1.06e-02 -5.71e-03 -2.42e-03 -5.11e-04  5.31e-03
## 3340  3.69e-05 -6.34e-03 -7.15e-03 -5.63e-03  6.66e-03 -2.67e-03 -8.39e-04
## 3341 -9.86e-03 -2.32e-02  4.85e-02  1.69e-02 -9.69e-03 -7.77e-04 -1.86e-02
## 3342 -3.51e-04  9.25e-04  2.49e-04 -7.04e-04 -7.10e-04 -1.09e-03  3.27e-04
## 3343 -5.83e-03 -9.04e-03  1.61e-02  1.48e-02 -4.39e-03 -4.05e-03 -6.25e-04
## 3344 -1.04e-02  9.11e-03  1.10e-02  1.72e-02 -1.12e-02 -4.86e-03  8.13e-03
## 3345  1.45e-02 -1.78e-02  7.29e-03 -4.45e-03 -7.13e-03  1.65e-02  9.42e-03
## 3346 -1.57e-02  2.38e-02  6.43e-03 -9.24e-03 -8.91e-03 -1.14e-02  1.27e-02
## 3347  4.16e-03  8.47e-03  7.62e-03 -3.26e-03 -1.27e-03 -2.82e-03  5.42e-03
## 3348  2.44e-03  1.93e-02 -1.92e-02 -3.44e-02  2.27e-02  1.66e-03  1.78e-02
## 3349 -1.29e-03 -1.98e-03 -6.51e-04  2.04e-03  7.36e-04  2.64e-03  3.74e-03
## 3350 -3.14e-04 -1.88e-04 -1.39e-04 -1.94e-04  2.42e-04 -1.62e-04  9.75e-05
## 3351  8.35e-03  2.10e-02  3.89e-03  1.82e-02  2.24e-02  1.79e-02  3.55e-02
## 3352 -1.10e-02  2.13e-02 -2.52e-03 -2.93e-02  4.46e-02  5.51e-03  1.35e-02
## 3353 -6.74e-04  3.65e-03 -3.75e-04  2.09e-03  1.71e-03  4.17e-03 -1.16e-03
## 3354  7.95e-03  5.78e-03 -1.88e-03  2.92e-03  2.68e-03  1.75e-03 -1.79e-03
## 3355  4.48e-03 -1.36e-02  1.01e-02 -7.40e-03 -3.17e-03 -8.29e-03 -1.19e-02
## 3356  2.61e-03 -2.63e-03  5.87e-03  3.78e-03 -1.08e-03  3.64e-03 -4.88e-03
## 3357 -2.45e-02  2.01e-02  6.82e-03 -6.16e-03 -9.85e-03  1.25e-02  1.33e-02
## 3358  9.28e-04  3.05e-03 -1.91e-03 -3.82e-03  4.45e-03  3.62e-04  4.75e-03
## 3359 -2.37e-02  1.28e-02  1.50e-02  2.28e-02 -1.68e-02 -6.91e-03  1.10e-02
## 3360 -1.23e-03  1.70e-03  8.68e-05  8.81e-04  1.36e-03 -2.20e-03  3.27e-04
## 3361 -8.55e-03  1.43e-02 -1.39e-02 -2.30e-02  1.89e-02 -1.55e-03  1.70e-02
## 3362  1.33e-03  1.17e-03 -2.39e-04  1.27e-03  5.89e-04 -2.26e-05 -2.13e-03
## 3363 -5.03e-03 -1.12e-02 -9.94e-03  1.19e-02  1.25e-03 -7.44e-04 -2.55e-03
## 3364  5.65e-03 -1.31e-02  3.25e-02  1.04e-02 -2.72e-03 -5.74e-03 -2.84e-02
## 3365  9.47e-03 -4.95e-03 -2.59e-03 -1.03e-03 -6.67e-03  7.91e-03  6.96e-03
## 3366 -5.54e-02  2.65e-02  7.12e-04  2.34e-02  2.69e-02  2.06e-02  7.42e-03
## 3367  5.57e-03  1.08e-02  2.14e-02  1.57e-02 -5.66e-03  2.20e-03 -4.29e-03
## 3368  1.16e-02  9.20e-03 -1.88e-02 -5.93e-03  3.21e-03  1.65e-03  4.93e-03
## 3369 -5.06e-03  2.10e-02 -5.69e-02 -1.22e-02  5.68e-04  8.29e-03  1.32e-02
```

```
## 3370 -2.09e-04  4.08e-03 -1.96e-04  1.30e-04  3.52e-03 -1.02e-02 -2.13e-03
## 3371  1.55e-02 -7.11e-03  9.81e-05 -7.22e-03 -7.13e-03 -1.20e-02 -2.26e-03
## 3372  3.12e-04 -1.41e-03  7.54e-04  1.65e-03 -2.34e-03 -2.87e-03  1.58e-03
## 3373 -1.29e-03 -5.44e-03  1.71e-03  6.11e-03 -8.96e-03 -2.79e-03 -5.22e-04
## 3374  7.27e-03 -6.11e-03 -7.84e-04  1.54e-03  3.08e-03 -7.94e-03 -1.78e-03
## 3375 -1.00e-03 -6.01e-03 -1.00e-02  9.64e-03 -4.07e-03 -6.40e-04  5.10e-03
## 3376  6.47e-03 -3.33e-03 -6.42e-04  3.33e-03  1.29e-03  1.05e-03 -1.53e-03
## 3377  3.61e-04 -2.56e-03  2.00e-04 -2.33e-05  2.40e-03 -6.02e-03  2.73e-03
## 3378  1.12e-02 -1.19e-02  1.28e-02  2.33e-02 -1.47e-02  4.73e-03  4.38e-03
## 3379  1.51e-03  1.49e-02  6.76e-03  1.29e-02  1.89e-02  2.73e-03 -1.52e-02
## 3380  1.81e-03 -9.62e-03  8.71e-03 -5.34e-03 -1.43e-03 -5.32e-03  6.22e-03
## 3381  1.43e-03 -1.91e-03 -1.14e-03 -2.51e-03  2.64e-03  1.53e-03 -3.17e-03
## 3382  6.43e-03 -6.00e-03 -9.71e-04  1.90e-03  2.92e-03 -5.03e-03 -1.27e-03
## 3383  5.60e-04 -2.09e-03 -1.50e-03 -2.40e-03  2.43e-03  4.66e-03 -1.87e-04
## 3384 -3.25e-02  1.88e-02 -1.36e-02  5.28e-03  5.01e-03 -3.60e-04  2.26e-02
## 3385 -1.76e-04 -4.98e-04  2.50e-04  7.09e-04 -8.09e-04 -1.04e-03 -1.04e-04
## 3386  5.50e-03  5.38e-03 -7.87e-04  1.51e-03  3.02e-03 -6.50e-03 -1.78e-03
## 3387 -5.82e-03 -4.40e-03 -9.01e-04 -1.03e-03 -4.52e-03  7.04e-03  7.13e-04
## 3388 -5.18e-03  5.48e-03 -4.96e-03 -5.93e-03  6.83e-03 -1.02e-02  1.84e-03
## 3389 -3.04e-03  6.00e-03 -1.92e-03  4.04e-03  3.19e-03 -1.23e-03 -9.81e-03
## 3390 -1.16e-03  4.10e-03 -3.60e-03  5.36e-03  3.94e-04  2.78e-03  1.05e-05
## 3391 -1.02e-03 -3.83e-03 -1.46e-03 -2.35e-04 -4.64e-03 -1.06e-03  6.42e-03
## 3392 -2.95e-03  2.06e-03  1.11e-03  2.21e-03 -3.09e-03  1.35e-03  3.18e-03
## 3393  3.03e-03 -5.18e-03 -3.32e-03  2.56e-04 -7.29e-03 -1.87e-03  2.91e-04
## 3394  2.82e-03 -5.57e-03 -1.42e-03  5.54e-03  2.22e-03 -2.98e-03 -1.03e-02
## 3395 -1.71e-02  1.71e-02 -1.35e-02  1.12e-02  3.78e-03  1.56e-04 -6.79e-03
## 3396 -1.44e-04  4.49e-04  9.87e-05 -4.87e-04 -2.76e-04 -6.39e-04 -1.23e-04
## 3397 -4.72e-03  9.66e-03  9.44e-03 -4.55e-03 -1.89e-03 -3.33e-03  8.17e-03
## 3398  8.35e-03 -5.51e-03 -9.06e-04  1.82e-03  2.73e-03 -8.35e-03 -1.34e-03
## 3399 -5.42e-04 -1.68e-03  4.14e-04  3.16e-03 -3.35e-03  2.89e-04  5.82e-05
## 3400  8.24e-04 -4.74e-03 -2.53e-03 -2.20e-04 -6.94e-03  3.91e-03  1.28e-03
## 3401  2.67e-04 -2.47e-03 -3.34e-04  1.55e-03  1.38e-03  1.14e-03  2.73e-04
## 3402  1.29e-04 -4.10e-04  1.01e-03 -3.88e-04  4.61e-04  8.55e-04  1.12e-04
## 3403  2.23e-03  2.17e-02  7.52e-03 -7.10e-03 -8.95e-03  1.53e-02  9.06e-03
## 3404  1.02e-03 -2.70e-03  5.89e-03 -1.88e-03  2.18e-03 -3.51e-03 -8.66e-06
## 3405  7.07e-03 -1.90e-02  5.93e-03 -6.64e-03 -8.76e-03  1.48e-02  1.15e-02
## 3406  4.27e-03 -1.71e-02 -2.78e-02  1.72e-02 -9.32e-03  5.90e-04  5.06e-03
## 3407 -9.06e-04  3.74e-03  1.63e-03 -3.68e-03 -2.34e-03 -5.86e-03 -3.42e-04
## 3408  3.21e-03 -1.60e-02 -9.16e-03 -7.93e-03 -2.17e-02  4.92e-03  1.73e-02
## 3409 -2.39e-03 -1.30e-03 -1.63e-04  1.11e-03  6.95e-04  1.09e-03  2.64e-03
## 3410  4.10e-02  2.73e-02  1.58e-02 -1.15e-03  3.38e-02 -4.19e-03 -6.76e-03
## 3411  1.48e-02  1.21e-02  1.15e-03  1.96e-02 -2.65e-02  7.17e-03 -8.91e-03
## 3412  7.61e-03 -6.93e-03  3.16e-04 -6.59e-03 -7.63e-03 -4.11e-03 -2.27e-03
## 3413  6.72e-03  7.69e-03 -8.43e-03 -9.09e-03  8.94e-03  5.40e-04 -2.59e-03
## 3414 -3.38e-03  1.42e-03 -4.17e-04 -8.37e-05 -1.79e-03 -6.25e-04  3.42e-03
## 3415  1.95e-02 -8.65e-03 -5.05e-03  7.15e-03  3.38e-03  1.54e-03 -2.09e-02
## 3416  5.50e-04  1.24e-03  1.03e-03  1.26e-03 -1.71e-03  1.71e-03 -7.10e-04
## 3417 -1.55e-05  1.53e-04  5.05e-05 -2.06e-04 -6.07e-05 -1.31e-04 -2.80e-04
## 3418  9.61e-03 -2.15e-02 -6.25e-03 -3.16e-02  4.71e-02  1.07e-02  7.76e-03
## 3419  4.39e-03 -1.12e-02  8.69e-03 -5.33e-03 -2.33e-03 -7.49e-03 -9.61e-03
```

```
## 3420 -1.96e-02 -1.23e-02 -5.27e-03 -6.62e-03 -1.50e-02 -8.91e-03  2.06e-02
## 3421  1.88e-02 -1.28e-02  9.07e-03 -3.78e-03 -3.28e-03  3.03e-03 -1.47e-02
## 3422  5.16e-03 -1.99e-02 -2.40e-02 -3.48e-02  2.37e-02  6.86e-03 -1.19e-02
## 3423 -1.08e-02 -2.09e-02 -3.64e-02  1.93e-02 -1.24e-02 -1.46e-03  8.43e-03
## 3424 -1.12e-03  1.15e-03  2.05e-06  3.21e-04  1.10e-03 -1.92e-03 -2.56e-04
## 3425 -3.28e-03  3.74e-03 -5.94e-04  8.83e-03 -8.97e-03  1.82e-03  6.36e-03
## 3426 -6.18e-03 -1.23e-02  1.47e-02  1.99e-02 -1.38e-02 -5.88e-03  7.79e-03
## 3427 -3.28e-03  2.36e-03  1.38e-03  2.42e-03 -3.49e-03  2.46e-03  3.24e-03
## 3428  2.51e-03  6.40e-03 -5.27e-03  8.49e-03  1.14e-03 -1.22e-03 -1.84e-03
## 3429  3.14e-05 -6.56e-03 -7.51e-05  2.48e-03  3.72e-03 -3.25e-03 -1.77e-03
## 3430 -2.58e-02  1.89e-02 -1.37e-02  6.17e-03  4.41e-03 -6.93e-03  2.27e-02
## 3431  3.69e-03  3.46e-03 -7.19e-04  2.09e-03  1.85e-03 -2.33e-03 -3.17e-04
## 3432 -3.66e-03 -7.02e-03 -3.96e-03  6.23e-03  2.35e-03  3.65e-04 -1.11e-02
## 3433 -4.91e-04 -1.12e-02  1.28e-02  1.92e-02 -1.30e-02 -3.31e-03  6.67e-03
## 3434  2.61e-02 -2.56e-02 -4.72e-02  1.54e-02 -1.78e-02  5.27e-02 -2.57e-03
## 3435 -5.89e-03  3.21e-03  1.73e-04 -4.58e-04  3.59e-03  9.20e-04  4.93e-03
## 3436  2.97e-03 -3.79e-03 -2.95e-04 -1.89e-03 -3.82e-03  1.29e-03 -7.08e-04
## 3437  1.07e-02  1.43e-02 -9.37e-03  1.08e-02  1.73e-03  1.44e-02  1.23e-02
## 3438  6.01e-03  7.98e-03  1.66e-02 -8.92e-03  6.67e-03 -2.63e-03  8.43e-03
## 3439 -8.46e-03  5.11e-03 -3.44e-03 -8.92e-03  8.28e-03  1.72e-03  1.00e-02
## 3440  4.48e-03 -1.03e-02 -1.01e-02 -1.49e-02  1.36e-02 -7.57e-04 -2.90e-03
## 3441  4.72e-03 -6.85e-03 -5.67e-03  9.11e-03  1.14e-03 -2.12e-03 -2.10e-03
## 3442 -2.31e-02  1.00e-02 -7.81e-03  9.27e-03  2.92e-03 -2.35e-03  1.67e-03
## 3443 -1.27e-02 -2.14e-02 -6.02e-04  2.14e-02  2.46e-02  9.30e-03  8.94e-03
## 3444 -4.96e-04 -9.46e-03 -5.92e-03 -8.96e-04 -1.22e-02 -4.02e-03 -1.36e-04
## 3445 -4.80e-03  7.93e-03  1.42e-02 -5.74e-03  4.85e-03 -5.65e-03 -1.03e-03
## 3446 -2.29e-02  7.64e-03  1.51e-02 -7.34e-03  5.40e-03  2.60e-03  1.57e-02
## 3447 -1.04e-02  1.21e-02 -5.06e-03  3.04e-03  4.80e-03 -1.09e-02 -5.97e-03
## 3448 -5.55e-03 -8.26e-03 -8.90e-03 -7.30e-03  8.08e-03 -3.35e-03  2.34e-05
## 3449 -1.02e-04 -1.24e-02  2.77e-02 -3.94e-03 -2.06e-02  4.72e-03  1.58e-02
## 3450  2.66e-03 -9.36e-03  6.97e-03 -3.26e-03 -2.19e-03 -5.31e-03 -7.37e-03
## 3451 -1.80e-04  4.80e-04  1.12e-04 -6.14e-04 -1.79e-04 -1.29e-04  7.12e-04
## 3452  1.37e-02 -7.74e-03 -1.72e-03  1.90e-03  3.62e-03 -1.14e-02 -3.07e-03
## 3453  6.86e-04  1.46e-02  1.23e-02 -1.12e-02 -1.59e-03 -6.73e-03 -1.53e-02
## 3454  2.52e-03 -3.52e-03  8.49e-05 -1.97e-03 -3.01e-03 -3.05e-03 -4.73e-03
## 3455  8.43e-03 -1.05e-02 -9.97e-03 -1.42e-02  1.10e-02  6.19e-03  1.26e-02
## 3456  1.09e-04 -4.59e-04 -8.36e-05 -1.18e-04 -5.03e-04  7.75e-04  1.39e-05
## 3457  8.15e-03 -1.01e-02  9.01e-03 -4.45e-03 -1.49e-03 -3.93e-03  5.86e-03
## 3458 -6.43e-03  1.39e-02 -1.18e-02  1.25e-02  2.47e-03  9.25e-03 -3.43e-03
## 3459  3.83e-03 -1.30e-02 -1.54e-02 -2.23e-02  1.59e-02  1.14e-03  1.61e-02
## 3460 -8.92e-03  1.19e-02 -5.22e-03  3.70e-03  4.36e-03 -1.06e-02 -4.98e-03
## 3461 -4.66e-04 -1.02e-03  1.71e-04 -7.02e-06  9.80e-04 -2.34e-03  1.20e-03
## 3462  4.67e-03 -8.24e-03 -1.71e-02 -5.73e-03  2.62e-03 -4.27e-03 -6.38e-03
## 3463  7.51e-03  5.05e-03  5.39e-04 -5.57e-03 -5.05e-03 -8.75e-03 -1.19e-03
## 3464 -1.15e-02 -2.18e-02  4.54e-02  1.87e-02 -8.50e-03  1.24e-02  2.01e-02
## 3465  6.00e-03  9.46e-03 -1.02e-03 -8.39e-03 -1.03e-02 -7.60e-03 -3.03e-03
## 3466  1.52e-04 -2.19e-03 -3.35e-04  1.48e-03  1.21e-03  1.81e-03  2.89e-04
## 3467 -1.26e-03 -1.22e-02  2.21e-02  1.75e-02 -6.13e-03  5.98e-03 -4.88e-03
## 3468 -2.10e-02 -1.93e-02  2.05e-02  2.62e-02 -2.00e-02 -1.45e-03  7.99e-03
## 3469 -3.54e-03  6.66e-03  1.51e-02  1.79e-03 -1.36e-02  4.02e-03  4.08e-04
```

```
## 3470   3.54e-03 -4.27e-03  9.30e-04 -4.15e-03 -3.49e-03 -9.34e-03  9.99e-05
## 3471  -9.84e-03  8.78e-03  1.63e-02 -6.95e-03  5.86e-03 -6.24e-03  7.63e-04
## 3472  -1.99e-02 -1.81e-02 -1.55e-02  1.06e-02  2.34e-03  2.46e-03 -5.92e-03
## 3473   1.68e-02 -1.03e-02 -4.38e-03  8.34e-03  4.27e-03 -1.24e-03 -2.44e-02
## 3474   1.18e-02  2.03e-02  7.67e-03 -5.52e-03 -6.40e-03  1.27e-02  7.80e-03
## 3475   1.68e-03 -3.10e-03  1.33e-03  3.79e-03 -5.38e-03 -7.97e-03 -1.49e-03
## 3476  -8.79e-03 -1.35e-02 -5.69e-03  4.75e-03  4.31e-03 -1.09e-02 -2.46e-02
## 3477  -4.82e-03  9.57e-03 -4.72e-03  5.29e-03  2.90e-03 -3.45e-03 -3.28e-03
## 3478  -7.24e-03 -1.34e-02 -8.84e-03  7.65e-03  3.27e-03  8.97e-03  1.38e-02
## 3479  -3.45e-03 -1.32e-02  2.55e-02 -1.69e-02  8.62e-03  8.43e-03  1.60e-02
## 3480   1.03e-02 -1.21e-02  9.65e-03 -4.50e-03 -2.47e-03  5.76e-03  6.43e-03
## 3481  -5.92e-03  7.37e-03 -4.75e-03  7.76e-03  2.49e-03 -3.02e-03  1.22e-04
## 3482  -4.82e-04  2.44e-03 -3.12e-04  6.70e-04  2.04e-03 -1.93e-03 -1.11e-03
## 3483  -7.19e-03  1.31e-02 -7.01e-03  5.99e-03  4.25e-03 -1.23e-03 -2.91e-02
## 3484   2.47e-02 -6.62e-03 -3.98e-03 -1.24e-02  1.15e-02 -1.16e-03 -1.74e-02
## 3485  -6.94e-03 -1.92e-02  4.19e-03  1.84e-02  2.46e-02  1.27e-02  9.29e-03
## 3486   2.63e-03  3.33e-03 -1.73e-03 -5.20e-03  5.06e-03  1.31e-03 -8.97e-04
## 3487  -1.34e-02 -1.24e-02 -5.70e-03  3.03e-03  4.57e-03 -1.52e-02  1.69e-02
## 3488  -4.53e-03  1.23e-02 -5.34e-03  3.88e-03  4.16e-03 -1.63e-02 -4.80e-03
## 3489  -4.03e-03  1.13e-02  7.34e-03  8.63e-03  1.55e-02  4.38e-03  5.42e-03
## 3490   1.22e-02 -9.35e-03 -1.92e-02 -5.99e-03  3.09e-03  3.72e-03  5.31e-03
## 3491  -1.29e-02  1.08e-02 -6.30e-03  7.21e-03  2.93e-03  2.36e-03  1.50e-02
## 3492  -2.24e-02 -2.03e-02  3.99e-02 -3.66e-02  1.52e-02 -1.27e-02  2.18e-02
## 3493   2.97e-02 -2.14e-02  1.64e-02 -1.94e-02 -3.92e-03 -2.53e-02 -3.33e-02
## 3494  -2.92e-02  2.61e-02  3.67e-03 -6.33e-03 -1.31e-02  3.49e-02  6.04e-03
## 3495  -3.60e-03 -8.69e-03 -1.00e-02 -9.86e-03  9.51e-03 -3.11e-03 -3.48e-04
## 3496  -1.27e-04  3.68e-04 -1.91e-05  3.58e-05  3.58e-04 -4.44e-05  4.79e-04
## 3497  -1.71e-04  7.63e-03 -4.30e-03  7.54e-03  2.81e-03  5.63e-03  1.11e-02
## 3498  -3.50e-03  5.80e-03 -4.62e-03  7.72e-03  7.87e-04 -6.86e-04 -2.30e-05
## 3499   6.69e-04 -3.83e-03 -2.31e-04  3.35e-04  3.35e-03 -8.74e-03 -2.01e-03
## 3500  -1.93e-02  1.22e-02 -7.92e-03  4.54e-03  3.88e-03 -1.57e-02  2.00e-02
## 3501   4.26e-04  1.58e-02 -1.22e-02  1.02e-02  2.99e-03  6.69e-03 -7.82e-03
## 3502   5.44e-03  5.55e-03 -8.55e-04  1.56e-03  3.09e-03 -6.59e-03 -1.65e-03
## 3503   1.57e-04 -2.55e-04 -1.47e-04  4.00e-04  6.52e-05 -4.03e-04  2.35e-05
## 3504  -1.04e-02  1.21e-02 -5.05e-03  3.03e-03  4.80e-03 -1.09e-02 -5.99e-03
## 3505  -2.01e-02 -1.98e-02 -1.69e-02  9.12e-03  3.24e-03 -1.32e-03 -7.69e-03
## 3506  -2.16e-04  2.98e-04 -6.65e-05  3.12e-04  2.05e-04  4.40e-04 -3.90e-04
## 3507   1.20e-03  2.76e-03  7.01e-03  3.62e-03 -1.24e-04  3.48e-03 -4.30e-03
## 3508   7.02e-03  3.91e-03  1.19e-04 -3.36e-03 -3.94e-03 -5.31e-03 -4.71e-04
## 3509  -5.90e-04  3.69e-03 -1.04e-03  3.53e-05 -4.56e-03 -4.05e-03  7.55e-04
## 3510   6.69e-03  8.37e-03 -3.13e-03  4.05e-03  3.39e-03  1.17e-04 -3.88e-03
## 3511   1.10e-02 -1.87e-02  7.64e-03 -5.52e-03 -7.18e-03  1.88e-02  1.02e-02
## 3512  -3.31e-02 -3.27e-02  2.57e-02  3.19e-02 -3.89e-02  1.60e-02 -4.78e-02
## 3513   5.86e-03  5.74e-03 -7.89e-04  1.38e-03  3.24e-03 -8.45e-03 -1.86e-03
## 3514  -2.31e-02  1.50e-02  3.13e-02  2.02e-02 -7.33e-03  9.78e-03 -5.04e-03
## 3515   6.64e-03 -4.98e-03 -2.14e-03 -9.60e-03  7.55e-03 -1.72e-03 -9.07e-04
## 3516   5.66e-04  1.51e-03  7.06e-05  3.33e-04  1.46e-03 -1.87e-03 -2.03e-04
## 3517   3.20e-04  4.43e-04  3.00e-05 -2.40e-04 -4.15e-04  2.24e-04  6.69e-05
## 3518  -3.00e-04  1.51e-03  1.06e-03  1.42e-03 -2.12e-03  2.12e-03 -2.63e-04
## 3519   4.06e-03  9.28e-03 -1.90e-02 -8.13e-03  4.32e-03  1.73e-04  6.26e-03
```

```
## 3520 -4.70e-03  1.93e-02 -3.09e-02  1.86e-02 -1.04e-02 -3.42e-03  7.62e-03
## 3521  1.48e-02 -1.81e-02 -5.07e-02 -1.28e-02  3.41e-03  1.14e-02  1.15e-02
## 3522  5.48e-03 -1.23e-02  1.24e-02  2.33e-02 -1.45e-02  1.11e-02  5.31e-03
## 3523 -3.56e-02 -2.49e-02  7.48e-03 -1.09e-02 -1.18e-02  4.71e-03  8.52e-03
## 3524 -1.34e-02  2.01e-02  3.92e-02 -3.56e-02  1.50e-02 -7.03e-03  1.78e-02
## 3525  1.80e-02 -1.25e-02 -4.61e-03  6.61e-03  3.57e-03  8.47e-03 -2.84e-02
## 3526  2.05e-03 -2.91e-03 -2.14e-04  1.47e-03  1.78e-03 -3.45e-03 -8.61e-05
## 3527 -1.42e-02  2.04e-02  9.79e-03 -1.04e-02 -4.29e-03 -4.56e-03  1.36e-02
## 3528  5.17e-03 -5.65e-03 -7.56e-04  2.15e-03  3.29e-03 -7.92e-03 -7.84e-04
## 3529 -2.59e-02  2.43e-02  7.60e-04 -5.60e-02  5.90e-02  7.75e-04 -3.68e-02
## 3530 -8.98e-05  3.75e-03 -1.55e-03  2.23e-04 -4.82e-03 -4.20e-03  3.60e-04
## 3531 -6.13e-03 -1.97e-02 -1.70e-02  6.99e-03  5.10e-03  1.63e-03 -1.28e-02
## 3532 -2.58e-03  4.39e-03 -1.60e-04 -3.22e-03 -4.75e-03 -6.28e-04 -1.11e-03
## 3533  3.70e-03 -4.02e-03  2.87e-04 -3.58e-04  4.47e-03  3.57e-03 -8.58e-03
## 3534  1.81e-02 -1.83e-02  8.30e-03 -6.51e-03 -6.90e-03  1.00e-02  7.85e-03
## 3535 -1.49e-03  2.06e-03  4.23e-04 -3.57e-04  2.55e-03  2.56e-03 -3.73e-03
## 3536 -1.82e-03 -6.36e-03 -5.16e-03 -8.96e-03  8.56e-03  7.63e-03  1.11e-02
## 3537  7.78e-03  5.44e-03 -6.16e-04 -3.00e-03 -5.50e-03 -1.26e-03  7.45e-03
## 3538  1.35e-03 -2.37e-03  1.69e-03  2.16e-03 -3.05e-03  3.25e-03 -1.01e-03
## 3539 -1.04e-03 -1.80e-02  1.97e-02  2.86e-02 -2.30e-02 -6.14e-03  9.05e-03
## 3540 -9.42e-03 -1.54e-02 -1.50e-02  1.61e-02 -3.96e-04  1.05e-02 -3.12e-03
## 3541 -3.01e-04 -3.62e-03  1.48e-03  3.85e-03 -5.67e-03  7.90e-04  5.47e-03
## 3542 -2.00e-03 -2.89e-03 -7.03e-03  2.05e-03 -2.81e-03  1.73e-03  4.53e-03
## 3543 -3.36e-03  1.96e-03 -1.26e-03  2.75e-03  2.91e-04  5.47e-04  9.93e-04
## 3544 -1.94e-03 -4.75e-03 -4.79e-04  5.83e-04  4.56e-03 -3.85e-04 -1.54e-03
## 3545  4.99e-03 -1.71e-02  1.19e-02 -1.29e-02 -2.30e-03 -1.61e-02 -2.06e-02
## 3546  4.97e-03  1.19e-02  3.21e-03 -1.73e-02  2.80e-02 -2.43e-03 -1.18e-02
## 3547 -2.21e-03  2.37e-03 -1.79e-03  3.38e-03  4.87e-04 -3.49e-03  8.17e-04
## 3548  2.41e-04 -1.46e-03  3.73e-04 -1.71e-03 -9.01e-04 -2.37e-03  1.84e-03
## 3549 -2.12e-02 -1.84e-02 -4.42e-03  2.67e-02 -4.14e-02  1.01e-03  2.28e-02
## 3550  1.15e-02 -1.26e-02  1.14e-02 -8.27e-03 -2.26e-03 -4.50e-03  5.61e-03
## 3551  2.16e-03  3.31e-03  7.38e-04 -3.34e-03 -2.85e-03 -6.71e-03 -2.47e-05
## 3552  2.31e-02 -1.07e-02  2.54e-02  1.31e-02 -3.25e-03  6.62e-03  1.07e-02
## 3553 -1.12e-02  1.41e-02 -6.88e-03 -6.23e-03 -1.73e-02 -9.45e-03 -3.63e-03
## 3554 -2.86e-04  6.89e-04  1.16e-06  4.45e-04  5.11e-04 -6.02e-04  1.57e-04
## 3555 -1.42e-02  9.41e-03 -3.22e-03  3.25e-03  4.25e-03 -4.19e-03 -3.78e-03
## 3556  1.62e-02 -1.70e-02  1.26e-02 -1.11e-02 -2.49e-03 -1.04e-02  4.13e-03
## 3557  2.23e-04 -9.66e-03 -1.80e-02 -6.62e-03  3.17e-03 -1.47e-03  7.71e-03
## 3558 -4.04e-03  1.76e-02  3.37e-02  1.87e-02 -7.17e-03  7.49e-03 -7.97e-03
## 3559 -1.31e-02  5.90e-03 -5.49e-03  7.97e-03  8.36e-04 -8.65e-04  1.62e-03
## 3560 -1.18e-03 -1.94e-02  8.36e-03 -4.96e-03 -7.92e-03  1.59e-02  1.08e-02
## 3561  6.35e-03 -3.89e-03  1.13e-04  8.30e-03 -8.47e-03  2.45e-03 -7.28e-03
## 3562 -1.98e-02  1.57e-02  6.83e-03  1.35e-02  2.19e-02 -8.24e-03 -1.72e-02
## 3563  2.15e-02 -1.41e-02 -1.03e-02  9.87e-03  3.06e-03  1.33e-02  1.30e-02
## 3564  2.08e-04  3.24e-03 -2.55e-04  1.54e-03  2.17e-03 -2.32e-03 -5.11e-05
## 3565 -4.19e-04  1.46e-03  4.41e-04 -1.24e-03 -1.09e-03 -2.62e-03  4.34e-04
## 3566  2.97e-03 -1.06e-02 -5.92e-03  7.95e-03  1.41e-03  1.16e-02 -4.09e-03
## 3567 -2.12e-02 -1.73e-02  3.38e-02  1.74e-02 -7.94e-03  9.25e-03  1.95e-02
## 3568  9.94e-03 -3.89e-03 -4.70e-04 -2.47e-03 -4.37e-03  4.28e-04 -7.64e-04
## 3569  1.37e-02 -7.94e-03 -1.83e-03  1.95e-03  3.68e-03 -1.15e-02 -2.86e-03
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## 3570 -3.22e-03  7.53e-03 -5.55e-03  8.43e-03  1.22e-03  1.99e-02  1.31e-02
## 3571  9.88e-05 -5.62e-05 -1.60e-05  1.05e-06 -6.25e-05  1.66e-04 -8.13e-05
## 3572  3.78e-03 -2.59e-02  7.50e-03 -1.87e-02 -1.08e-02 -1.45e-02  6.73e-03
## 3573  1.98e-03 -4.93e-03 -1.71e-03  3.95e-03  2.04e-03  7.41e-03 -1.63e-03
## 3574 -9.76e-03  1.18e-02 -9.46e-03 -4.59e-03 -1.89e-02  5.98e-03 -1.34e-03
## 3575 -4.14e-02  2.06e-02 -4.07e-03 -3.03e-02  4.41e-02 -1.58e-02  1.92e-02
## 3576 -2.27e-03 -5.87e-03 -1.43e-03  5.06e-04  5.29e-03 -1.65e-03 -9.77e-04
## 3577 -1.44e-02 -2.06e-02 -1.47e-02  7.59e-03  5.32e-03  4.83e-03  2.11e-02
## 3578  1.21e-03  5.26e-03 -8.30e-04 -2.62e-03 -6.10e-03  3.73e-03  8.64e-03
## 3579 -1.12e-02  1.68e-02 -1.41e-02 -3.28e-02  2.23e-02  8.41e-04  1.95e-02
## 3580 -1.36e-02  9.48e-03  2.24e-02 -1.30e-02  9.22e-03  1.39e-03  1.43e-02
## 3581  1.66e-03 -2.29e-02  5.00e-03 -6.80e-03 -1.03e-02  1.21e-02 -3.20e-02
## 3582 -5.81e-03 -9.21e-03 -1.67e-02 -7.11e-03  2.84e-03 -2.83e-03  8.40e-03
## 3583  2.92e-02  1.48e-02 -1.22e-02 -2.64e-02  1.84e-02 -7.00e-03 -3.46e-02
## 3584  1.54e-03  8.66e-03 -3.29e-03 -4.53e-03 -1.17e-02  7.40e-04 -1.67e-02
## 3585  2.19e-03 -1.51e-03 -8.93e-04 -2.29e-03  2.42e-03  2.12e-03  1.26e-04
## 3586 -1.45e-02  1.47e-02  7.75e-03 -4.86e-03 -6.21e-03 -1.07e-02 -1.69e-02
## 3587  7.92e-03  1.96e-02  7.53e-03 -5.09e-03 -6.28e-03  1.90e-02  7.85e-03
## 3588  2.42e-02 -1.32e-02  9.96e-03 -5.05e-03 -3.27e-03 -2.74e-03 -1.67e-02
## 3589 -6.51e-03 -1.32e-02 -7.61e-03  5.07e-03  4.01e-03 -8.58e-03  1.78e-02
## 3590  1.24e-02  1.14e-02 -2.56e-02 -7.69e-03  3.96e-03  7.76e-03 -1.26e-02
## 3591 -1.25e-02  2.23e-02  5.50e-03 -7.32e-03 -1.16e-02  9.35e-03  1.13e-02
## 3592  5.58e-03  1.64e-02 -1.44e-02 -2.78e-02  1.93e-02  9.81e-03  1.73e-02
## 3593 -1.84e-02  1.21e-02  3.36e-02  7.16e-03 -1.82e-03 -1.36e-02 -5.30e-03
## 3594  5.75e-03 -2.58e-03 -2.21e-04 -8.36e-04 -2.89e-03  3.56e-03 -4.88e-03
## 3595  5.52e-03 -1.90e-02 -4.34e-02 -1.70e-03  4.07e-02 -1.51e-02  6.27e-03
## 3596  5.41e-04 -3.71e-04 -4.95e-05 -1.06e-04 -3.94e-04  9.82e-04  1.90e-05
## 3597  1.14e-02 -5.73e-03 -3.63e-03  5.62e-03  1.49e-03  3.59e-03 -1.22e-02
## 3598  2.88e-02 -1.86e-02  6.32e-03 -5.07e-03 -8.42e-03  1.37e-02  6.40e-03
## 3599  2.44e-03  1.79e-03 -1.16e-04 -1.05e-03 -1.97e-03  2.80e-03 -1.14e-04
## 3600 -2.39e-03  7.16e-03 -4.08e-03  5.22e-03  2.35e-03  6.90e-03 -2.57e-03
## 3601 -8.10e-03 -9.17e-03 -1.02e-02 -8.06e-03  8.79e-03 -3.47e-03  1.54e-03
## 3602 -2.98e-03 -4.93e-03  3.43e-04  1.96e-03  2.92e-03 -1.55e-03 -5.98e-04
## 3603  4.52e-02 -1.77e-02  1.67e-02 -1.69e-02 -2.37e-03 -1.31e-02 -3.60e-04
## 3604 -1.89e-03 -9.07e-03 -8.09e-03  1.15e-02  6.46e-04 -2.50e-03 -1.59e-03
## 3605 -1.14e-02  9.54e-03  9.47e-03 -6.79e-03 -8.91e-04 -4.17e-03  8.63e-03
## 3606 -8.39e-03  8.58e-03 -3.77e-03  7.61e-03  3.37e-03 -6.24e-03  1.26e-02
## 3607 -2.35e-02  1.65e-02 -1.50e-02  1.06e-02  2.51e-03  3.58e-03 -5.75e-03
## 3608 -7.77e-03  9.19e-03  2.14e-02  1.39e-02 -3.04e-03  8.58e-03  1.44e-02
## 3609  5.21e-04 -1.06e-03  5.29e-04  1.17e-03 -1.62e-03 -8.14e-04 -2.12e-03
## 3610 -9.21e-03 -1.41e-02 -3.19e-02  2.63e-03  2.68e-02 -7.49e-03  1.00e-02
## 3611 -3.48e-03 -2.95e-03  5.91e-03 -2.32e-03  2.18e-03  2.61e-04  4.96e-03
## 3612 -1.07e-02  1.58e-02 -3.02e-02  2.34e-02 -1.11e-02  3.85e-03 -1.47e-02
## 3613 -1.24e-03  4.56e-03 -1.87e-03 -1.81e-03 -6.07e-03  6.04e-03 -8.47e-03
## 3614 -7.79e-03  6.98e-03 -1.08e-03 -8.01e-04  7.08e-03  8.29e-04 -1.35e-03
## 3615  9.41e-03  1.01e-02  2.19e-02 -1.47e-02  8.45e-03  5.79e-03  1.20e-02
## 3616  1.62e-02  2.03e-02  5.96e-03  1.92e-02  2.23e-02  3.45e-02 -2.89e-02
## 3617 -6.44e-03  5.58e-03 -2.16e-04 -8.75e-04  5.87e-03  3.06e-03  7.44e-03
## 3618 -2.44e-02  1.43e-02  2.62e-02 -1.89e-02  9.02e-03  3.25e-03  2.20e-02
## 3619  3.45e-03 -1.06e-02  2.02e-02  3.14e-03 -2.15e-02  1.25e-03 -1.83e-03
```

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## 3620   8.74e-04   3.01e-03   1.27e-03   3.52e-03  -5.03e-03  -8.10e-03  -1.45e-03
## 3621   5.75e-03   5.95e-03   8.85e-04   9.95e-03  -1.32e-02   1.50e-03  -2.34e-03
## 3622   1.09e-03  -3.71e-03  -2.51e-04   1.66e-03   2.24e-03  -2.78e-03   5.80e-06
## 3623   1.73e-02   9.79e-03  -1.35e-03   3.75e-03   4.43e-03   6.20e-03  -8.05e-03
## 3624   2.86e-03   4.68e-03   3.47e-04  -3.51e-03  -3.79e-03  -8.90e-03  -6.76e-03
## 3625  -4.39e-02   2.58e-02   4.60e-03  -9.22e-03  -1.27e-02   4.46e-02   5.83e-03
## 3626  -1.05e-02   1.86e-02  -4.53e-02   3.51e-02  -1.79e-02   2.28e-02   1.12e-02
## 3627  -8.43e-03  -1.74e-02  -1.91e-02  -2.87e-02   1.93e-02   5.78e-03  -6.21e-03
## 3628  -3.06e-02  -2.12e-02   4.58e-02   1.26e-02  -6.74e-03  -6.40e-03   2.32e-02
## 3629  -8.37e-05   2.25e-04   5.34e-04   3.95e-04  -5.04e-05  -2.69e-04   1.62e-05
## 3630   2.76e-04   1.59e-03   8.43e-04   1.76e-03  -2.57e-03  -3.96e-03   1.74e-03
## 3631   6.64e-03  -4.14e-03   1.18e-03   6.20e-03  -8.34e-03  -3.48e-03  -8.00e-04
## 3632  -2.31e-02  -2.53e-02   4.62e-03  -8.89e-03  -1.38e-02   1.81e-02   6.39e-03
## 3633  -1.07e-03   1.98e-02  -4.63e-02   3.62e-02  -1.87e-02   2.60e-02   1.04e-02
## 3634  -7.96e-03  -1.23e-02   2.01e-02  -9.19e-03   6.33e-03  -8.14e-03  -1.19e-03
## 3635  -5.68e-03  -1.42e-02  -2.29e-02   1.81e-02  -8.10e-03  -4.35e-03   9.06e-03
## 3636   5.62e-04  -2.71e-03  -4.67e-04   2.82e-03   1.09e-03  -6.93e-04  -3.66e-04
## 3637   1.88e-02  -1.84e-02   3.59e-02   2.19e-02  -8.78e-03   1.17e-02  -1.66e-02
## 3638  -1.40e-04   2.08e-04   9.80e-05   2.97e-04  -3.31e-04  -3.86e-04  -3.37e-05
## 3639  -3.59e-04   7.94e-04   2.72e-04   1.65e-03  -1.58e-03   1.87e-04  -1.07e-03
## 3640   6.28e-03  -5.50e-03  -8.50e-04   1.86e-03   2.69e-03  -3.70e-03  -1.49e-03
## 3641  -1.63e-02   6.77e-03  -3.25e-03   6.06e-03   2.09e-03   3.44e-03   1.27e-02
## 3642  -3.33e-02   1.87e-02   4.19e-02   1.31e-02  -6.06e-03  -2.90e-03   2.11e-02
## 3643  -8.95e-03  -1.14e-02  -7.15e-03  -1.44e-03  -1.54e-02  -9.34e-04   4.50e-04
## 3644   3.05e-04  -2.52e-03   1.81e-04   1.13e-05   2.36e-03  -5.68e-03   2.73e-03
## 3645  -8.51e-04   1.69e-03   4.42e-03   2.69e-03   4.21e-05   4.70e-03  -2.41e-03
## 3646   6.74e-06  -6.26e-05   1.50e-04  -5.66e-05   6.89e-05   1.45e-04   1.71e-05
## 3647   3.37e-02   1.94e-02  -4.32e-02  -9.81e-03   3.71e-03   3.44e-02  -2.69e-02
## 3648   2.76e-03   5.35e-03  -2.38e-03  -7.47e-03   7.90e-03  -3.40e-03   7.96e-03
## 3649   2.68e-03  -1.28e-02  -1.34e-02  -2.14e-02   1.57e-02   7.66e-03   1.46e-02
## 3650   4.76e-03  -2.63e-03  -1.40e-03  -4.57e-03   4.00e-03   1.27e-03  -3.19e-04
## 3651  -8.54e-03   2.98e-03   7.81e-03  -3.91e-03   3.61e-03   7.58e-04   6.69e-04
## 3652   2.54e-03  -1.93e-03  -2.58e-05  -8.32e-04  -1.81e-03  -1.58e-03  -2.76e-03
## 3653   2.22e-03  -8.23e-03  -1.16e-03   2.99e-03   2.82e-03   4.52e-04  -3.92e-03
## 3654   1.21e-04   3.43e-03  -3.49e-03  -3.32e-03   4.25e-03  -2.65e-03   1.14e-04
## 3655  -7.47e-03   9.58e-03  -2.90e-03   3.46e-03   4.13e-03  -1.71e-02   1.51e-02
## 3656  -1.74e-02  -9.66e-03  -6.03e-03   9.92e-03   1.89e-03   2.08e-03   1.41e-02
## 3657   2.26e-02   2.32e-02   7.16e-03  -8.12e-03  -7.84e-03   1.04e-02   5.99e-03
## 3658  -5.49e-03  -2.11e-02  -1.60e-02   9.67e-03   4.27e-03   1.71e-02   1.73e-02
## 3659  -2.65e-03   1.05e-02  -2.52e-03   2.45e-03   4.22e-03  -3.11e-03  -4.86e-03
## 3660  -1.96e-03   2.17e-03  -2.04e-03  -2.08e-03   3.03e-03  -2.18e-03   5.59e-04
## 3661   6.06e-03   2.07e-02   1.47e-02   3.49e-03   2.89e-02  -6.72e-03   1.36e-03
## 3662  -1.83e-02  -1.67e-02   4.17e-02  -3.54e-03  -2.75e-02  -1.38e-02   2.21e-02
## 3663   2.65e-03   8.09e-03  -3.80e-03  -1.35e-02   1.22e-02  -7.29e-03  -2.08e-03
## 3664   1.55e-02   1.26e-02  -1.15e-02   1.32e-02   1.18e-03   7.16e-03  -6.56e-03
## 3665   7.70e-03  -3.41e-03  -5.61e-04  -1.72e-03  -3.81e-03   1.15e-03  -5.77e-03
## 3666   9.71e-03   1.07e-02   8.94e-03  -3.95e-03  -2.04e-03   3.04e-03   5.00e-03
## 3667  -5.84e-04   2.46e-02   2.08e-02   3.01e-02  -3.08e-02  -6.42e-03   4.01e-02
## 3668   1.76e-03  -1.64e-02   1.73e-02  -1.63e-02  -1.08e-03  -9.64e-03   6.25e-03
## 3669   2.00e-02   2.17e-02   6.28e-03  -5.53e-03  -7.81e-03   1.90e-02   6.27e-03
```

```
## 3670   7.39e-03 -6.50e-03 -8.86e-04   1.57e-03   3.26e-03 -8.74e-03 -1.61e-03
## 3671   9.93e-04   2.87e-03 -5.72e-05   1.85e-03   1.76e-03   1.42e-03 -7.17e-04
## 3672 -1.41e-02 -1.18e-02 -3.19e-03   2.04e-03   4.08e-03 -1.36e-02   1.74e-02
## 3673   2.42e-02   9.56e-03 -3.27e-04 -6.54e-03 -9.30e-03   4.68e-03 -2.06e-02
## 3674 -3.64e-02 -2.38e-02   5.63e-03 -5.62e-03 -1.19e-02   3.56e-02   9.38e-03
## 3675   1.49e-02 -1.89e-02   1.14e-02   4.21e-02 -2.95e-02   1.12e-02 -2.97e-02
## 3676   1.51e-03 -1.48e-02 -2.53e-02   1.60e-02 -7.69e-03 -3.28e-03   7.27e-03
## 3677   1.86e-02 -1.30e-02   9.09e-03 -3.82e-03 -3.37e-03   3.34e-03 -1.45e-02
## 3678   8.43e-03 -5.48e-03   1.50e-03   6.51e-03 -8.98e-03 -5.98e-03 -2.92e-03
## 3679 -2.19e-02   1.27e-02 -1.30e-02   1.26e-02   7.09e-04   9.31e-03 -7.38e-04
## 3680 -1.97e-04   4.24e-03 -2.45e-03 -5.98e-03   6.15e-03   2.97e-03   7.27e-03
## 3681   1.62e-02   1.31e-02   1.10e-02 -6.48e-03 -1.96e-03 -2.48e-03   4.40e-03
## 3682 -4.88e-03 -2.10e-02   4.01e-03   1.32e-02   2.15e-02   3.39e-03 -2.42e-02
## 3683   1.59e-03 -1.38e-02 -1.20e-02   1.43e-02   3.28e-04   5.82e-03 -6.47e-03
## 3684   1.58e-02   1.10e-02 -2.38e-02 -6.55e-03   3.49e-03   3.35e-03 -1.20e-02
## 3685 -2.53e-02   1.85e-02   1.36e-02 -1.28e-02 -4.19e-03 -6.68e-03 -1.85e-02
## 3686   3.52e-04 -5.94e-03 -4.15e-03 -8.79e-03   8.89e-03 -2.59e-03 -1.03e-02
## 3687   3.86e-02 -1.34e-02 -4.47e-03 -1.15e-02 -1.63e-02 -1.20e-02 -3.48e-02
## 3688 -6.93e-04 -5.53e-03 -1.85e-03   5.19e-03   2.60e-03 -5.22e-04 -9.44e-03
## 3689 -7.24e-03   3.02e-02   8.51e-03 -4.15e-03   3.80e-02   3.58e-02 -6.38e-03
## 3690   1.57e-02 -1.63e-02 -1.23e-02 -7.07e-03 -2.30e-02   8.08e-03 -9.00e-03
## 3691 -1.12e-02   2.17e-02   1.00e-02   4.59e-02 -3.05e-02   1.40e-02   9.66e-03
## 3692 -1.94e-03 -1.26e-02 -6.02e-03 -5.44e-03 -1.57e-02   5.35e-03 -2.16e-03
## 3693 -3.62e-03 -9.28e-03 -8.87e-03   1.04e-02 -4.70e-05   9.16e-03 -1.80e-03
## 3694   4.20e-03 -3.64e-03 -1.62e-03 -6.30e-03   5.53e-03 -1.11e-03 -1.20e-03
## 3695 -4.65e-02 -2.59e-02 -4.51e-03 -4.37e-02   5.68e-02 -1.60e-03   7.80e-03
## 3696   6.84e-04 -1.72e-03   2.25e-04 -9.88e-04 -1.38e-03 -2.23e-03 -2.19e-03
## 3697   7.58e-03   1.41e-02 -3.09e-02 -1.37e-02   5.01e-03 -4.30e-03   6.82e-03
## 3698   9.41e-04   3.06e-03   1.43e-03   4.84e-03 -6.20e-03 -4.58e-03 -2.14e-06
## 3699 -1.08e-03   6.91e-04   1.94e-04 -5.91e-05   7.90e-04 -3.11e-04   1.16e-03
## 3700   4.24e-03   4.08e-03 -3.51e-04   6.69e-05   3.94e-03 -3.04e-03   3.68e-03
## 3701 -5.78e-03   1.35e-02 -1.01e-02   9.36e-03   1.78e-03   1.13e-02 -6.15e-03
## 3702   6.77e-04 -3.86e-03 -2.15e-04   2.89e-04   3.38e-03 -9.34e-03 -2.02e-03
## 3703 -1.73e-03   2.51e-03   1.96e-04   1.03e-03   2.03e-03 -5.08e-03   4.73e-04
## 3704 -1.43e-02   1.25e-02 -5.77e-03   3.94e-03   5.07e-03 -1.09e-02 -2.62e-02
## 3705   1.73e-03   3.12e-03   6.11e-04 -2.99e-03 -2.74e-03 -5.27e-03   1.89e-04
## 3706   6.19e-04 -3.15e-04 -4.90e-05 -5.44e-05 -3.96e-04   1.81e-05 -5.36e-04
## 3707 -7.78e-04   1.36e-03 -6.85e-05   1.20e-03   7.68e-04   1.46e-03 -3.37e-05
## 3708   2.65e-02 -1.65e-02 -3.05e-02   2.07e-02 -9.69e-03 -1.40e-02 -2.40e-02
## 3709   3.72e-04 -3.94e-03   3.32e-04 -9.67e-05   3.98e-03 -2.35e-03 -9.82e-04
## 3710 -2.23e-02   2.00e-02   4.28e-02   1.52e-02 -7.48e-03   4.44e-03   1.82e-02
## 3711 -9.58e-03   8.68e-03   1.14e-02   1.75e-02 -1.18e-02 -4.02e-03   6.67e-03
## 3712 -2.93e-03   6.16e-03 -2.76e-03   4.71e-03   1.94e-03   3.65e-03 -2.43e-03
## 3713   3.73e-03 -1.10e-02 -1.31e-02 -1.30e-02   1.19e-02   6.35e-03 -1.99e-03
## 3714   6.25e-04   1.49e-03 -1.75e-04   9.64e-04   9.22e-04 -2.37e-04 -5.14e-05
## 3715   4.51e-04 -3.02e-03 -1.02e-03   2.60e-03   8.61e-04   3.39e-03 -6.72e-04
## 3716 -2.95e-02   2.63e-02   3.74e-03 -6.68e-03 -1.31e-02   3.29e-02   6.22e-03
## 3717 -9.23e-04   3.14e-03   8.75e-04   5.13e-03 -6.05e-03 -1.97e-03   5.45e-03
## 3718   6.07e-03 -4.37e-03   1.02e-04 -3.38e-03 -4.21e-03 -4.78e-04 -4.11e-04
## 3719 -5.16e-04 -5.30e-04   8.87e-05   6.60e-05   5.49e-04 -1.14e-03   7.17e-04
```

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## 3720   1.79e-02   1.26e-02   8.66e-03  -3.54e-03  -2.88e-03   7.70e-05  -1.47e-02
## 3721  -1.24e-03  -1.51e-02   1.07e-02  -8.02e-03  -1.82e-03  -5.68e-03   8.19e-03
## 3722  -1.36e-03   6.90e-03   6.55e-03  -3.33e-03  -1.18e-03  -4.07e-03   5.30e-03
## 3723  -2.71e-03  -1.26e-03   4.84e-04  -1.64e-03  -3.61e-04  -4.50e-04   2.34e-03
## 3724   1.37e-04  -7.36e-04   1.79e-04  -8.12e-04  -4.56e-04  -1.56e-03  -2.22e-04
## 3725  -2.21e-02   2.10e-02   2.73e-02   2.37e-02  -2.10e-02  -2.44e-03   8.08e-03
## 3726  -2.76e-02   1.85e-02  -1.32e-02   5.73e-03   4.69e-03  -3.94e-03   2.14e-02
## 3727   8.09e-03  -5.15e-03   8.26e-04  -2.95e-03  -5.12e-03  -7.22e-03  -9.45e-03
## 3728  -3.51e-03  -2.30e-03   1.02e-03   4.03e-03  -4.44e-03  -2.90e-03   4.87e-03
## 3729  -1.24e-03  -3.67e-03   8.13e-03   6.46e-03  -1.36e-03  -5.36e-03   1.46e-06
## 3730   2.28e-04  -2.15e-02  -2.39e-02  -4.50e-02   2.90e-02  -3.19e-03  -1.44e-02
## 3731   7.55e-03  -4.90e-03  -7.60e-04   2.16e-03   2.91e-03  -1.10e-02  -6.90e-04
## 3732   5.41e-03   1.81e-02   9.19e-03  -6.21e-03  -5.02e-03   1.14e-02   3.47e-02
## 3733  -5.22e-03   9.97e-03  -7.25e-03   8.86e-03   2.54e-03   1.23e-02   1.42e-02
## 3734   2.12e-03   4.07e-03  -9.39e-04   2.58e-03   2.38e-03  -2.01e-03  -6.59e-03
## 3735  -1.65e-02  -1.90e-02  -9.01e-03  -1.79e-02  -2.38e-02  -6.94e-03   2.44e-02
## 3736   4.98e-05  -1.62e-03   5.41e-04  -2.59e-04   2.03e-03   2.35e-03  -5.89e-04
## 3737   1.63e-02  -9.35e-03  -6.95e-03   9.58e-03   1.67e-03   9.32e-03  -4.48e-03
## 3738   5.14e-03  -2.27e-02  -6.43e-03  -3.43e-02   4.95e-02   1.33e-02   8.75e-03
## 3739  -2.24e-02   1.06e-02  -6.30e-03   7.26e-03   3.93e-03  -5.08e-03   1.68e-02
## 3740  -4.38e-03  -1.19e-02   8.95e-03  -4.94e-03  -3.03e-03  -8.53e-03  -7.91e-03
## 3741   1.16e-02   1.28e-02   1.21e-02   2.73e-02  -1.68e-02   6.85e-03  -1.49e-02
## 3742   1.81e-02  -1.11e-02  -1.25e-03  -1.11e-02  -1.25e-02  -5.19e-03  -2.45e-02
## 3743  -2.95e-06   4.27e-04  -4.00e-05   4.40e-04   2.36e-04   6.47e-06  -8.56e-05
## 3744   3.19e-04  -6.48e-03  -1.26e-02  -4.49e-03   2.12e-03  -2.15e-03   6.08e-03
## 3745   2.35e-02  -1.01e-02   2.83e-02  -1.76e-02   1.12e-02  -2.84e-03  -9.22e-03
## 3746   1.05e-02   6.71e-03  -6.62e-03  -7.25e-03   6.87e-03  -3.84e-04  -1.94e-03
## 3747   1.38e-03  -1.81e-03   9.17e-05  -1.91e-03  -1.01e-03  -1.54e-03  -2.00e-04
## 3748  -1.52e-02   9.71e-03  -2.94e-03   1.78e-03   4.23e-03  -1.35e-02   1.60e-02
## 3749   5.81e-03   5.88e-03  -8.45e-04   1.42e-03   3.30e-03  -8.54e-03  -1.75e-03
## 3750   1.40e-02  -1.13e-02   9.57e-03  -4.43e-03  -2.23e-03   2.26e-03   4.57e-03
## 3751   2.77e-02  -1.64e-02   9.97e-03  -3.95e-03  -5.78e-03   3.08e-02  -2.61e-02
## 3752  -2.02e-03  -2.02e-03  -1.58e-04   1.75e-03   8.78e-04  -4.99e-05   2.25e-04
## 3753   2.19e-03  -8.63e-03  -1.87e-03   2.96e-03   3.99e-03  -9.87e-03  -3.66e-03
## 3754  -2.49e-03  -1.12e-02   9.31e-03  -5.80e-03  -2.14e-03  -2.23e-03   8.56e-03
## 3755  -1.04e-02   1.79e-02  -1.26e-02   6.85e-03   3.87e-03  -2.83e-03   1.68e-02
## 3756  -1.13e-03   9.31e-04   6.65e-04   8.87e-04  -1.39e-03   3.01e-04   1.59e-03
## 3757  -5.20e-03   1.19e-02  -7.02e-03   6.21e-03   3.56e-03  -4.54e-03  -2.52e-02
## 3758   7.70e-03  -1.17e-02   1.10e-02   2.35e-02  -1.54e-02   3.01e-04  -1.20e-02
## 3759   4.79e-03  -5.58e-03  -1.00e-03   2.68e-03   3.29e-03  -8.54e-03  -9.23e-03
## 3760   1.15e-02  -7.92e-03  -2.19e-03   2.80e-03   3.65e-03  -8.80e-03  -1.45e-02
## 3761  -1.67e-02   1.89e-02  -4.94e-02  -1.20e-02   3.07e-03   1.18e-02   1.40e-02
## 3762  -4.41e-04   9.60e-04  -7.65e-04  -8.90e-04   1.22e-03  -1.78e-03   3.50e-04
## 3763  -4.77e-03  -1.00e-02  -1.23e-02  -1.28e-02   1.09e-02   6.23e-03  -9.93e-04
## 3764   1.18e-02  -5.32e-03  -1.54e-03  -2.35e-03  -6.12e-03   6.35e-03  -8.69e-03
## 3765  -1.09e-05   1.99e-03   7.57e-04   2.73e-03  -3.47e-03  -2.58e-03  -8.67e-04
## 3766   9.35e-03  -1.13e-02   7.84e-03  -3.66e-03  -3.34e-03  -1.51e-03  -1.05e-02
## 3767  -8.88e-03  -1.21e-02   9.91e-03   2.22e-02  -1.51e-02  -5.88e-03  -8.44e-03
## 3768   3.65e-02   2.11e-02   8.98e-03  -4.55e-03  -6.62e-03   3.11e-02  -3.09e-02
## 3769   7.38e-03   7.49e-03   1.98e-02   1.14e-03  -1.41e-02   1.82e-03  -1.59e-02
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## 3770   2.07e-03 -1.43e-02 -2.89e-02 -1.98e-02  8.09e-03 -6.18e-03  1.02e-02
## 3771 -1.04e-02  7.02e-03 -5.17e-03 -1.20e-02  1.13e-02  4.65e-03  7.10e-06
## 3772 -6.05e-04  2.04e-03 -3.20e-04  6.98e-04  1.68e-03 -8.72e-04 -8.00e-04
## 3773 -6.55e-03  1.22e-02 -5.56e-03  4.71e-03  4.28e-03 -1.57e-02 -2.41e-02
## 3774 -1.67e-02 -3.47e-02 -1.06e-01 -1.10e-02  5.24e-02  4.07e-03  5.37e-02
## 3775  7.29e-04 -6.90e-04 -5.56e-05  1.92e-04  7.84e-04 -1.83e-04 -2.07e-04
## 3776  9.63e-06  2.06e-03 -2.56e-04  1.32e-03  1.35e-03  8.00e-04  7.00e-06
## 3777 -5.31e-03 -2.03e-02 -7.29e-03  3.31e-02 -4.68e-02  6.67e-03 -1.04e-02
## 3778  6.03e-03 -9.74e-03 -1.24e-02 -9.56e-03  9.01e-03  1.66e-03 -2.20e-03
## 3779  2.16e-03 -1.24e-02 -2.46e-02 -1.59e-02  6.74e-03 -8.02e-03  8.18e-03
## 3780 -9.83e-04 -9.78e-03 -1.66e-02  1.49e-02 -5.91e-03 -3.85e-04  7.62e-03
## 3781 -1.19e-02  1.52e-02 -1.07e-02 -8.33e-03 -2.15e-02 -1.56e-03 -1.88e-03
## 3782 -4.38e-03 -9.24e-03 -6.36e-03  9.54e-03 -1.12e-05  6.88e-03  1.27e-02
## 3783 -5.06e-04 -3.31e-02  1.70e-02  3.78e-02 -4.62e-02  4.11e-02 -5.17e-02
## 3784  4.79e-03  5.13e-03 -9.14e-04  1.80e-03  2.81e-03 -3.75e-03 -1.38e-03
## 3785 -1.63e-02 -2.82e-02  4.40e-04 -8.51e-03 -1.85e-02  6.80e-02  3.07e-03
## 3786 -2.68e-02  1.75e-02 -1.27e-02  6.42e-03  4.28e-03 -2.05e-03  2.06e-02
## 3787  8.74e-03  1.26e-02 -2.52e-02 -1.24e-02  5.31e-03 -8.66e-03 -1.27e-02
## 3788  6.18e-03 -5.75e-03 -9.54e-04  1.95e-03  2.78e-03 -3.83e-03 -1.26e-03
## 3789  8.73e-03  1.10e-02 -7.71e-03 -2.29e-02  1.61e-02 -3.72e-03 -7.49e-03
## 3790 -2.17e-02  1.88e-02 -1.44e-02  9.12e-03  4.69e-03  9.32e-03  2.18e-02
## 3791  3.30e-03  1.99e-02  1.07e-02 -9.76e-03 -5.00e-03  5.25e-03  3.83e-02
## 3792  8.24e-03  7.19e-03 -5.23e-03 -9.79e-03  9.96e-03 -6.72e-04 -1.39e-02
## 3793 -1.42e-03  1.35e-02 -1.14e-02  1.29e-02  7.19e-04  1.07e-02 -4.93e-03
## 3794 -3.37e-02  2.71e-02  7.21e-03 -2.09e-02 -8.58e-03 -2.26e-02  5.32e-02
## 3795 -8.63e-04 -7.55e-04 -1.67e-05  1.79e-03 -1.67e-03 -2.82e-04  3.68e-04
## 3796  4.13e-05  1.41e-02 -3.21e-02 -1.24e-02  5.15e-03 -6.79e-03  7.91e-03
## 3797  5.81e-03  5.87e-03 -8.40e-04  1.42e-03  3.30e-03 -8.53e-03 -1.76e-03
## 3798  3.97e-02 -2.66e-02  2.20e-02  3.26e-02 -3.80e-02  1.91e-02 -7.52e-03
## 3799 -1.87e-02  1.72e-02 -1.33e-02  8.00e-03  4.71e-03  2.73e-03 -7.06e-03
## 3800  1.87e-02 -1.07e-02 -2.37e-02 -6.40e-03  3.25e-03  3.26e-03 -1.21e-02
## 3801 -1.45e-02 -1.67e-02  3.56e-02  1.38e-02 -5.40e-03  4.06e-03  1.73e-02
## 3802 -1.72e-02 -1.40e-02  1.63e-02  2.18e-02 -1.58e-02 -6.29e-03  1.08e-02
## 3803  8.58e-03 -5.39e-03  5.19e-04 -5.22e-03 -5.06e-03 -7.62e-03 -1.12e-03
## 3804  4.37e-06  3.59e-05 -8.44e-06  3.41e-05  2.05e-05  6.74e-05  5.49e-06
## 3805 -7.34e-03  9.45e-03 -6.31e-04 -1.06e-02 -1.12e-02 -1.25e-02 -3.06e-03
## 3806  6.11e-03  9.42e-03 -1.03e-03  2.00e-03  4.38e-03 -1.52e-03 -5.24e-03
## 3807  4.76e-03  4.25e-03 -7.45e-04  2.12e-03  2.33e-03 -5.69e-03 -5.15e-04
## 3808 -4.84e-03  4.47e-03 -2.92e-03  7.80e-04 -6.32e-03 -6.47e-03  1.14e-03
## 3809 -4.78e-03 -3.35e-03  1.68e-03  3.18e-03 -4.78e-03  1.10e-03  5.28e-03
## 3810  1.00e-02  1.12e-02  9.36e-03 -4.44e-03 -2.11e-03  2.70e-03  5.44e-03
## 3811  2.40e-03  3.04e-03  7.91e-03  4.75e-04 -4.65e-03 -2.89e-03 -5.02e-03
## 3812  7.44e-04  9.83e-04  9.18e-05 -8.98e-04 -6.35e-04 -1.65e-03 -3.62e-04
## 3813  1.09e-03 -3.66e-03 -3.04e-03 -4.65e-03  5.61e-03 -5.69e-03  5.14e-04
## 3814 -8.54e-03  5.62e-03 -3.06e-03  5.15e-03  2.22e-03  3.43e-03  1.09e-02
## 3815  7.76e-03  4.37e-03  7.91e-03 -2.90e-03  2.22e-03 -8.02e-04 -1.80e-03
## 3816  9.58e-03  9.37e-03 -1.97e-02 -6.21e-03  3.32e-03  4.04e-03  5.71e-03
## 3817  2.69e-02 -1.99e-02 -1.26e-02 -1.63e-02 -2.56e-02  1.16e-02 -1.72e-02
## 3818 -3.49e-03 -6.18e-03  2.65e-03  6.02e-03 -8.97e-03  1.49e-03  8.39e-03
## 3819 -3.61e-03  1.38e-02 -6.66e-03  4.43e-03  4.48e-03 -4.38e-03 -8.66e-03
```

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## 3820   5.23e-04   1.89e-03  -2.71e-04   6.03e-04   1.44e-03  -2.49e-03  -7.50e-04
## 3821   1.96e-03  -4.96e-03  -6.49e-05   1.37e-03   3.16e-03  -9.84e-03  -2.30e-04
## 3822   1.22e-04   2.89e-03   1.17e-03   3.62e-03  -4.96e-03  -5.59e-03  -1.30e-03
## 3823  -3.40e-04  -1.54e-02  -2.48e-02   1.72e-02  -8.92e-03  -2.20e-03   7.12e-03
## 3824  -8.53e-03  -9.38e-03   9.89e-03   1.67e-02  -1.11e-02  -3.44e-03   7.48e-03
## 3825   1.16e-02  -1.66e-02  -3.00e-02   2.13e-02  -1.25e-02   7.69e-03   5.42e-03
## 3826   7.50e-03  -4.96e-03  -3.50e-03  -6.93e-03   7.02e-03   1.05e-03  -9.71e-03
## 3827   1.74e-02   1.42e-02  -7.57e-03   8.66e-03   3.97e-03   1.62e-04  -3.41e-02
## 3828  -2.31e-02   2.93e-02   5.47e-03   3.26e-03   3.39e-02  -1.54e-02   1.21e-03
## 3829   1.37e-03  -2.14e-03   2.77e-04  -1.46e-03  -1.81e-03  -8.07e-04   2.36e-04
## 3830   9.20e-05   4.54e-04   2.50e-04   5.11e-04  -5.74e-04  -4.25e-04   6.33e-04
## 3831  -1.57e-02   1.22e-02   6.63e-03  -5.77e-03  -5.22e-03  -8.74e-03  -1.01e-02
## 3832   1.53e-02  -1.81e-02  -1.82e-02   1.61e-02   4.68e-04   6.51e-03  -1.23e-02
## 3833   6.56e-03  -4.55e-03   1.79e-04  -3.70e-03  -4.36e-03  -1.64e-03  -5.67e-04
## 3834  -1.50e-04   3.65e-04   8.69e-04  -3.39e-04   4.11e-04   5.01e-04  -4.42e-04
## 3835  -6.26e-03  -1.48e-02  -2.43e-02   1.77e-02  -9.24e-03  -4.42e-03   1.10e-02
## 3836  -4.64e-03  -1.74e-02  -1.96e-02  -2.81e-02   2.06e-02   5.65e-03  -6.75e-03
## 3837   2.65e-02  -1.19e-02  -2.53e-02   2.29e-02  -1.02e-02   4.15e-03  -1.50e-02
## 3838  -5.10e-02   2.39e-02   7.33e-03  -2.31e-02  -8.87e-03  -1.10e-03   5.19e-02
## 3839   1.09e-02  -1.35e-02   9.78e-03  -5.20e-03  -3.05e-03  -1.37e-03  -1.32e-02
## 3840  -6.56e-04  -1.20e-02  -2.11e-03  -1.04e-02  -1.33e-02  -1.00e-02  -3.30e-03
## 3841   1.15e-02   6.52e-03  -1.80e-03   2.49e-03   2.92e-03  -6.80e-03  -2.24e-03
## 3842  -3.85e-03  -1.10e-02  -3.31e-03   2.76e-03   4.69e-03  -5.73e-03  -5.21e-03
## 3843  -1.26e-02   2.38e-02   2.49e-02   2.71e-02  -3.49e-02   3.71e-02   1.80e-04
## 3844  -7.44e-04  -5.00e-04   1.56e-04   6.24e-04  -7.55e-04   5.91e-05   1.41e-04
## 3845   1.29e-04  -4.13e-04   3.37e-05  -1.67e-04  -3.38e-04   3.39e-04   1.13e-04
## 3846   1.42e-02   7.15e-03  -1.68e-03   2.01e-03   3.21e-03  -1.41e-02  -2.79e-03
## 3847  -2.02e-02   9.99e-03  -9.26e-03   1.06e-02   1.04e-03   7.75e-03  -4.45e-04
## 3848   1.85e-02  -7.71e-03  -8.78e-03  -1.12e-02   1.00e-02   8.73e-04  -3.26e-03
## 3849   9.05e-04   1.31e-03  -1.34e-04  -4.65e-04  -1.62e-03   2.26e-03  -2.27e-04
## 3850   7.06e-03   8.00e-03  -9.67e-03  -9.54e-03   8.33e-03  -8.55e-04  -1.03e-03
## 3851   7.36e-03   5.25e-03  -9.20e-04   1.78e-03   2.60e-03  -8.24e-03  -1.26e-03
## 3852   3.35e-03   1.71e-03  -3.96e-04   1.65e-03   6.47e-04   4.85e-04  -6.36e-04
## 3853  -2.70e-03  -9.09e-03  -8.00e-03   1.11e-02   1.33e-03  -3.30e-03  -1.02e-03
## 3854  -1.39e-02   1.00e-02  -1.89e-03   1.80e-02  -2.55e-02  -7.25e-03   1.82e-02
## 3855   1.48e-03  -1.09e-02   7.07e-04   2.11e-02  -2.39e-02  -2.11e-03   1.41e-02
## 3856   9.03e-04  -1.81e-03   1.07e-04   1.14e-04   1.71e-03  -4.90e-03   2.04e-03
## 3857   3.05e-02   2.10e-02  -2.32e-02  -3.41e-02   2.42e-02   1.05e-02  -1.96e-02
## 3858  -6.50e-03   1.37e-02   1.39e-02  -1.17e-02  -1.43e-03  -9.39e-03   8.20e-03
## 3859   1.25e-02  -7.40e-03   1.65e-03   1.02e-02  -1.48e-02  -1.03e-02  -1.35e-02
## 3860   7.73e-04  -3.16e-03   4.90e-04  -2.18e-03  -2.44e-03  -5.15e-03  -4.00e-03
## 3861   6.69e-03  -7.79e-03  -4.36e-03  -1.33e-02   1.30e-02  -8.53e-03  -3.78e-03
## 3862  -5.66e-04   1.79e-02   1.02e-02   1.22e-02   2.39e-02   2.65e-03  -2.32e-02
## 3863  -6.27e-03   1.18e-02  -1.34e-02  -1.53e-02   1.47e-02  -3.62e-03  -2.40e-03
## 3864   7.15e-04  -4.86e-03  -4.14e-03  -5.22e-03   6.21e-03   7.87e-03   7.88e-03
## 3865  -7.86e-03  -8.68e-03   7.43e-03  -4.27e-03  -1.16e-03  -3.45e-03   7.35e-03
## 3866   1.05e-02   1.73e-02  -5.31e-03  -1.42e-02  -2.17e-02   1.79e-02   1.72e-02
## 3867   1.16e-03   7.86e-04  -7.99e-05   2.53e-04   7.22e-04  -2.10e-04  -1.77e-03
## 3868  -4.81e-03  -1.22e-02  -4.74e-03   4.31e-03   3.69e-03  -6.76e-03  -5.07e-03
## 3869  -1.32e-02  -1.93e-02  -4.64e-02   7.80e-05   3.56e-02   5.08e-03   7.25e-03
```

```
## 3870  6.20e-03  1.98e-02 -1.86e-02  1.35e-02  2.91e-03  8.24e-03 -1.25e-02
## 3871 -1.82e-02  2.08e-02  5.13e-03  1.27e-02  2.29e-02  1.15e-02 -2.94e-02
## 3872 -3.86e-04 -6.52e-04  2.15e-04 -1.33e-04  7.95e-04  1.25e-03 -1.83e-04
## 3873  2.50e-02 -1.91e-02  6.38e-03 -5.26e-03 -8.37e-03  1.93e-02  6.66e-03
## 3874  1.54e-02  9.87e-03 -1.38e-03 -5.26e-03 -1.15e-02 -2.54e-03 -1.99e-02
## 3875  3.41e-03 -5.74e-03  2.27e-03  6.15e-03 -8.88e-03 -1.23e-03  6.16e-03
## 3876 -5.68e-03  1.16e-02 -4.96e-03  3.79e-03  4.16e-03 -1.26e-02 -5.37e-03
## 3877 -4.63e-03 -1.62e-02 -1.30e-02  9.17e-03  3.84e-03  2.31e-03 -6.95e-03
## 3878  6.51e-03 -1.68e-02 -1.61e-02 -3.19e-02  2.18e-02  6.16e-03 -8.77e-03
## 3879 -1.90e-02 -2.04e-02 -1.71e-02  8.08e-03  3.76e-03 -4.51e-03 -9.26e-03
## 3880 -1.37e-05 -6.05e-03  1.10e-02 -3.87e-03  3.85e-03 -7.49e-03  8.44e-04
## 3881  2.45e-02 -1.67e-02  1.12e-02 -7.20e-03 -5.31e-03 -5.23e-03 -2.05e-02
## 3882  1.27e-02  1.25e-02  8.54e-03 -4.59e-03 -2.80e-03 -8.46e-04 -1.39e-02
## 3883  1.47e-03  3.02e-03 -1.88e-04  1.35e-03  1.92e-03 -4.45e-03 -1.74e-04
## 3884 -1.11e-02  2.94e-02  2.88e-02  2.75e-02 -3.10e-02  2.44e-02 -4.66e-04
## 3885 -3.86e-03  3.95e-03 -2.41e-03 -5.91e-03  5.97e-03 -1.12e-04 -5.59e-03
## 3886  6.08e-03 -4.27e-03 -8.97e-04  2.10e-03  1.99e-03 -1.60e-03 -9.03e-04
## 3887 -2.16e-03 -1.39e-02  3.31e-02  8.40e-03 -2.38e-03 -6.35e-03 -7.68e-03
## 3888 -3.29e-04 -6.75e-04 -4.85e-04 -6.72e-04  9.12e-04 -8.41e-04  2.90e-04
## 3889 -4.49e-04 -1.61e-03  1.45e-06  2.91e-04  1.40e-03 -1.26e-03  1.90e-03
## 3890  5.53e-04 -1.09e-03  7.34e-05 -5.52e-04 -9.46e-04  9.50e-04  1.97e-04
## 3891 -2.01e-04  4.11e-04  1.31e-04 -8.00e-05  5.14e-04  6.62e-04 -1.20e-04
## 3892  1.27e-03 -1.86e-03 -6.23e-04  1.81e-03  9.09e-04  2.50e-03 -2.69e-03
## 3893  1.89e-02 -1.13e-02  2.01e-02 -1.07e-02  6.67e-03  2.15e-03 -7.06e-03
## 3894  6.56e-04 -1.16e-03  1.00e-04 -6.34e-04 -1.00e-03  6.79e-04  1.67e-04
## 3895 -8.43e-04  3.36e-03 -3.03e-03 -3.31e-03  4.17e-03 -6.19e-03  7.55e-04
## 3896 -1.18e-02 -1.13e-02 -4.01e-03  2.81e-03  4.62e-03 -1.51e-02  1.69e-02
## 3897 -8.60e-03  6.72e-03 -5.11e-03  6.68e-03  9.75e-04  1.07e-02  1.12e-02
## 3898  2.99e-03  2.58e-03 -1.42e-04 -1.74e-03 -2.86e-03  3.76e-03 -8.02e-05
## 3899  1.77e-02  1.91e-02  8.81e-03 -6.10e-03 -6.53e-03  2.67e-02 -2.62e-02
## 3900  1.09e-02  1.27e-02  1.07e-02  2.65e-02 -1.77e-02  9.02e-04 -1.37e-02
## 3901 -8.65e-03  1.32e-02 -6.72e-03  7.59e-03  3.88e-03  1.75e-02  1.48e-02
## 3902  3.60e-03 -4.28e-03  9.91e-03 -3.60e-03  3.72e-03 -8.38e-03 -2.55e-05
## 3903 -5.07e-04  1.90e-03  1.39e-04  8.30e-04  1.46e-03 -4.48e-03  2.79e-04
## 3904 -1.23e-02  1.88e-02  1.93e-02 -2.05e-02  2.75e-04 -7.91e-03  8.22e-03
## 3905  1.39e-02 -2.41e-02  6.57e-03 -1.25e-02 -1.10e-02 -5.47e-03  7.61e-03
## 3906  4.62e-04 -1.04e-03 -2.18e-04  4.83e-05 -1.24e-03 -1.28e-03  2.09e-04
## 3907  5.54e-04 -2.07e-03  1.14e-03  2.33e-03 -3.45e-03 -4.58e-03  2.30e-03
## 3908 -1.86e-04  1.31e-03 -2.34e-04  1.03e-03  8.29e-04  1.68e-03  1.24e-04
## 3909 -5.87e-03 -5.41e-03 -4.96e-03 -6.43e-03  6.65e-03  2.15e-03  9.76e-03
## 3910 -2.96e-02  1.56e-02 -6.19e-03 -1.67e-02 -1.99e-02 -2.97e-03  2.23e-02
## 3911  2.80e-02 -1.26e-02 -3.01e-02 -7.67e-03  3.11e-03  3.98e-03 -1.45e-02
## 3912  2.36e-03 -1.33e-02  7.98e-03  9.11e-03  1.82e-02 -7.30e-03 -1.49e-02
## 3913 -5.96e-03  8.34e-03  8.07e-03 -4.86e-03 -1.34e-03 -1.25e-03  7.47e-03
## 3914 -6.27e-03  2.33e-03 -1.58e-03  3.44e-03  4.91e-04 -9.78e-04  1.40e-03
## 3915  9.68e-03 -7.48e-03 -5.23e-03 -1.32e-02  1.09e-02  3.86e-03 -1.53e-02
## 3916 -1.03e-02  1.16e-02  1.95e-02 -9.64e-03  5.56e-03  5.70e-03 -2.07e-03
## 3917  1.14e-02 -1.06e-02  8.09e-03 -3.23e-03 -2.22e-03 -4.16e-03 -1.06e-02
## 3918  2.95e-02  2.22e-02  1.29e-02  5.11e-03  2.84e-02 -3.97e-05 -4.27e-04
## 3919  2.16e-04 -5.94e-03 -3.37e-03 -9.53e-03  8.50e-03  1.62e-03 -9.64e-03
```

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## 3920 -8.85e-03  9.78e-03 -5.68e-03  4.19e-03  3.90e-03 -4.94e-03  1.42e-02
## 3921 -5.18e-02 -2.57e-02  1.24e-02  5.21e-02 -3.77e-02  4.76e-02  8.00e-03
## 3922  1.37e-02 -1.85e-02 -2.04e-02 -3.30e-02  2.22e-02  7.89e-03  1.74e-02
## 3923 -4.54e-03  3.59e-03 -8.79e-04 -1.25e-03 -4.49e-03  2.23e-03  6.22e-04
## 3924  2.65e-03 -3.56e-03 -1.42e-03  3.45e-04 -4.81e-03 -1.34e-03  1.60e-04
## 3925  1.44e-02 -6.51e-03 -3.66e-03 -1.28e-02  9.91e-03  5.63e-03 -3.66e-03
## 3926  3.28e-03  9.90e-03 -2.07e-02 -7.10e-03  3.76e-03  1.54e-03  7.83e-03
## 3927  6.08e-03  4.80e-03 -8.68e-04  1.81e-03  2.45e-03 -5.25e-03 -1.27e-03
## 3928 -2.33e-03 -5.42e-03  1.96e-03  7.93e-03 -1.05e-02 -4.95e-03  9.20e-03
## 3929  7.96e-04  2.86e-03  1.20e-03  3.39e-03 -4.81e-03 -7.57e-03 -1.37e-03
## 3930  2.14e-02  9.51e-03 -1.77e-03  3.92e-03  3.09e-03  1.13e-03 -7.86e-03
## 3931  1.48e-02 -6.91e-03 -1.81e-03  2.32e-03  3.15e-03 -1.12e-02 -2.55e-03
## 3932 -3.78e-03 -1.01e-02 -2.07e-03  2.80e-03  4.56e-03 -4.51e-03 -3.36e-03
## 3933  1.26e-02  1.40e-02  2.30e-03 -1.99e-02  3.16e-02 -3.40e-03 -1.45e-02
## 3934 -1.43e-02  1.12e-02 -7.69e-03  6.05e-03  2.97e-03 -9.10e-03  1.85e-02
## 3935  1.39e-02  5.85e-03 -2.25e-04 -5.22e-03 -5.97e-03 -1.02e-02 -1.56e-03
## 3936  1.01e-02 -1.86e-02  7.35e-03 -4.95e-03 -7.27e-03  2.15e-02  1.07e-02
## 3937 -1.61e-02  1.16e-02  3.25e-02  6.84e-03 -1.61e-03 -1.39e-02 -6.28e-03
## 3938  2.80e-03 -3.65e-03  6.88e-04 -3.21e-03 -3.02e-03 -5.77e-03  1.92e-04
## 3939  1.00e-02  2.36e-02  4.35e-03 -5.37e-03 -1.04e-02  2.14e-02 -3.47e-02
## 3940 -2.89e-02  2.06e-02  5.48e-03 -8.76e-03 -8.20e-03 -7.30e-03 -2.07e-02
## 3941  5.27e-03 -8.65e-03 -2.06e-03  3.57e-03  3.58e-03 -3.90e-03 -4.26e-03
## 3942 -1.08e-02 -7.88e-03 -3.40e-03 -7.09e-04 -9.72e-03 -1.18e-03  1.29e-02
## 3943 -1.68e-03 -9.63e-03  6.36e-04  1.53e-02 -1.99e-02  3.33e-03 -1.57e-02
## 3944  1.68e-02 -1.46e-02 -2.91e-02 -2.15e-02  8.56e-03 -8.06e-03  4.96e-03
## 3945 -2.16e-04 -4.59e-03  1.74e-03  5.17e-03 -7.66e-03 -1.68e-03  6.68e-03
## 3946 -7.91e-04 -2.26e-03 -1.42e-03  3.24e-03  3.91e-04 -2.66e-03  2.35e-04
## 3947  1.85e-02  1.45e-02 -3.17e-02 -9.93e-03  4.28e-03 -1.69e-03 -1.41e-02
## 3948 -2.34e-03  2.34e-02  3.94e-02 -3.39e-02  1.50e-02  4.95e-03 -1.66e-02
## 3949 -4.45e-03  1.35e-02 -1.40e-02 -2.46e-02  1.82e-02  4.32e-03  1.99e-02
## 3950 -1.65e-02  7.94e-03  1.04e-02  1.65e-02 -1.09e-02 -6.72e-03  8.90e-03
## 3951 -1.74e-02  6.56e-03 -7.06e-03 -7.53e-03  9.21e-03 -6.85e-03  3.00e-03
## 3952  1.00e-02 -1.50e-02  1.62e-02  2.63e-02 -1.75e-02  9.98e-03  4.86e-03
## 3953 -2.54e-03  3.60e-03 -2.17e-03  4.55e-03  8.11e-04  3.64e-03 -1.56e-04
## 3954  5.04e-03 -1.28e-02 -3.46e-03  4.48e-03  4.86e-03 -3.28e-03 -9.29e-03
## 3955 -8.22e-03 -1.33e-02 -7.73e-03  4.15e-03  4.23e-03 -1.24e-02  1.76e-02
## 3956  2.22e-03  8.38e-03 -1.53e-02  1.43e-02 -5.53e-03  2.26e-03  5.78e-03
## 3957  1.65e-03  3.12e-03  5.00e-04 -3.63e-03 -1.91e-03 -7.83e-03 -1.33e-03
## 3958 -1.81e-04 -3.57e-04 -7.56e-05  5.48e-05 -4.28e-04 -4.55e-04  1.65e-04
## 3959 -1.04e-03 -1.29e-02  2.19e-02 -1.16e-02  7.84e-03 -8.86e-03 -3.14e-03
## 3960  6.75e-06 -4.79e-04  1.43e-04 -6.99e-05  5.62e-04  7.57e-04 -1.32e-04
## 3961  1.02e-03 -2.18e-03 -7.94e-04 -3.71e-03  3.51e-03  7.84e-04  1.63e-04
## 3962  4.49e-04  3.28e-03  1.45e-03  3.79e-03 -5.54e-03 -8.58e-03 -1.67e-03
## 3963 -1.51e-02  1.79e-02 -8.49e-03 -1.75e-02 -2.25e-02 -1.19e-02  2.19e-02
## 3964  4.27e-05  2.10e-04  3.23e-05 -9.29e-05 -2.20e-04  7.60e-05 -5.56e-06
## 3965 -4.32e-03  2.87e-02  3.08e-03 -2.05e-02 -1.99e-02  4.13e-02  4.03e-02
## 3966 -3.88e-04  4.61e-03 -2.26e-03  4.21e-03  1.33e-03  5.58e-03 -6.33e-04
## 3967  7.36e-03 -5.24e-03 -7.40e-04 -1.83e-03 -6.09e-03  2.01e-03  8.18e-03
## 3968  4.18e-03  6.87e-03 -4.25e-03 -1.03e-02  1.04e-02  1.62e-03 -1.38e-02
## 3969  7.18e-03  1.10e-02 -2.18e-02 -1.09e-02  5.50e-03 -9.27e-04  5.68e-03
```

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## 3970  2.11e-02  1.94e-02  1.05e-02 -5.38e-03 -5.18e-03  3.00e-02 -2.72e-02
## 3971  3.06e-04  1.36e-03 -8.67e-04 -1.44e-03  1.83e-03 -1.12e-03  2.14e-03
## 3972 -2.25e-02  2.08e-02 -1.42e-02  7.71e-03  6.14e-03  1.91e-02  1.98e-02
## 3973 -2.31e-04 -4.63e-04  6.66e-05  3.29e-05  4.38e-04 -8.14e-04  5.51e-04
## 3974 -1.23e-02 -1.44e-02  1.40e-02 -1.18e-02 -1.42e-03 -1.02e-02  1.06e-02
## 3975 -2.43e-02 -2.15e-02  4.49e-02  1.69e-02 -8.23e-03  3.53e-03 -1.21e-02
## 3976  1.41e-03 -1.91e-03 -4.03e-04 -4.95e-03  4.05e-03 -6.32e-03  2.39e-03
## 3977  2.47e-02 -1.70e-02  1.02e-02 -4.38e-03 -5.73e-03  3.49e-02 -2.64e-02
## 3978 -8.85e-04  2.90e-03  2.10e-04 -1.24e-04  2.68e-03 -5.96e-03  2.97e-03
## 3979  1.13e-02  1.02e-02  2.13e-02 -1.51e-02  8.86e-03 -5.54e-03 -5.71e-03
## 3980  1.50e-03 -9.18e-04  6.24e-04  1.05e-03 -1.35e-03  5.49e-04 -5.02e-04
## 3981  1.39e-02  1.23e-02  1.07e-02 -6.17e-03 -1.79e-03 -1.16e-04  3.72e-03
## 3982  2.49e-03  1.57e-03 -4.82e-04  1.64e-03  6.33e-04  6.92e-04 -2.83e-03
## 3983  5.14e-03 -1.23e-02 -6.90e-04  1.86e-02 -2.74e-02 -9.73e-03  1.58e-02
## 3984 -1.37e-02  2.05e-02 -1.70e-02  1.11e-02  3.61e-03  1.41e-02  2.19e-02
## 3985 -1.38e-02  1.11e-02  8.85e-03 -4.73e-03 -2.58e-03 -8.34e-03  1.04e-02
## 3986  1.82e-04  1.72e-03  5.87e-04 -2.33e-03 -7.34e-04 -2.88e-04  2.48e-03
## 3987  5.30e-03  6.13e-03 -1.92e-03 -1.40e-02  1.19e-02 -3.51e-03  6.05e-03
## 3988  1.03e-02  1.87e-02 -3.23e-02  1.73e-02 -1.21e-02  1.23e-02  1.87e-03
## 3989  1.16e-02 -2.08e-02  4.67e-03 -3.81e-02  4.84e-02 -8.43e-03 -2.88e-02
## 3990 -1.24e-03  1.48e-03  2.68e-05  8.73e-04  1.17e-03 -1.25e-03  3.97e-04
## 3991 -1.37e-03 -1.22e-03 -8.57e-04 -1.36e-03  1.71e-03  7.52e-04  3.98e-04
## 3992  2.02e-04  2.20e-03 -3.09e-04 -1.13e-03 -2.51e-03  3.34e-03 -3.46e-04
## 3993  1.58e-02  1.15e-02 -2.51e-02 -7.00e-03  3.62e-03  3.58e-03 -1.19e-02
## 3994  1.12e-03 -1.84e-02  3.34e-02  2.27e-02 -9.76e-03  7.11e-03 -1.09e-02
## 3995  3.81e-03  8.10e-03 -2.80e-03 -1.43e-03 -9.24e-03 -1.01e-02 -8.62e-04
## 3996 -5.47e-03 -4.69e-03  1.00e-04 -5.61e-04  4.76e-03  9.09e-04  6.41e-03
## 3997 -2.53e-04 -3.94e-04 -1.32e-05  2.91e-04  2.70e-04  1.67e-04  1.21e-04
## 3998 -3.47e-03 -5.15e-03  2.39e-03  5.16e-03 -7.51e-03 -1.55e-03  7.18e-03
## 3999 -4.27e-02 -2.26e-02  7.79e-03 -6.50e-03 -1.03e-02  3.53e-02  4.63e-02
##       dfb.MltL  dfb.IntS  dfb.OnlB  dfb.OnlS  dfb.DvcP  dfb.TchS  dfb.StTV
## 1     4.49e-03  4.95e-03 -2.29e-02  1.08e-02  8.08e-03  9.58e-03  7.15e-03
## 2    -3.08e-03  5.74e-03  4.00e-03 -4.61e-03 -6.28e-03  5.77e-03  2.39e-03
## 3     5.48e-03 -2.04e-02  4.20e-02  4.14e-02 -5.72e-03 -1.88e-02 -1.38e-04
## 4    -1.32e-04 -1.66e-03  2.50e-03 -2.16e-03 -2.61e-03 -2.47e-03  1.86e-03
## 5     1.46e-02  1.77e-04 -9.05e-03 -6.76e-03 -6.85e-03 -5.91e-03 -1.35e-02
## 6    -1.12e-02  4.83e-03 -3.69e-03  6.02e-05  1.55e-02 -3.95e-03  7.36e-03
## 7     1.74e-02 -6.17e-03 -2.65e-02  7.29e-03  1.26e-02  8.24e-03 -2.54e-02
## 8     3.45e-03  7.83e-04  8.80e-03 -1.61e-02  7.07e-03  9.50e-03  4.12e-03
## 9    -1.42e-02  1.51e-02 -1.49e-02 -8.59e-03  1.92e-02  3.16e-02  7.97e-03
## 10    3.00e-03 -3.77e-03  2.46e-03  2.19e-03 -2.60e-03 -3.85e-03 -1.17e-03
## 11   -4.66e-03  1.32e-02  6.75e-03 -1.55e-02  3.69e-03  7.77e-03  2.10e-03
## 12   -3.27e-04 -7.96e-04 -1.58e-04  1.77e-04  2.04e-04  5.40e-04 -7.95e-05
## 13    2.30e-03  3.70e-03  1.47e-02  1.11e-02 -5.35e-03  1.24e-02 -1.85e-03
## 14   -1.11e-02  9.39e-03  2.27e-02 -1.22e-02  2.25e-02 -1.70e-02  1.23e-02
## 15   -1.71e-02 -2.66e-02  1.31e-02 -2.78e-02 -1.69e-02 -2.35e-02 -8.91e-03
## 16   -4.14e-04  1.76e-03  2.73e-04  8.25e-04 -3.45e-05  6.26e-04 -1.75e-04
## 17   -3.86e-04 -4.94e-04 -2.58e-05 -3.72e-05 -7.52e-05 -1.14e-04 -1.49e-04
## 18    1.04e-04  3.09e-05  3.80e-03 -1.30e-03 -1.86e-04  3.91e-03  1.42e-04
## 19    1.08e-02 -2.89e-02 -1.91e-02 -3.15e-02  4.72e-02  4.42e-02 -1.45e-02
```

```
## 20    -2.15e-02 -1.23e-02 -2.66e-02  8.69e-03 -2.71e-02  1.11e-02  2.95e-02
## 21    -4.81e-03 -4.98e-03 -7.73e-03 -5.32e-03  2.68e-02 -8.31e-03 -1.80e-02
## 22    -7.25e-04 -2.82e-03 -7.01e-04 -3.76e-04 -1.36e-04 -1.19e-04 -8.45e-04
## 23    -3.92e-04  2.81e-02  8.18e-03  9.79e-03  8.56e-03  9.33e-03  1.12e-02
## 24     8.07e-04  1.40e-03 -7.59e-04  1.32e-03  9.05e-04 -8.37e-04  6.37e-04
## 25     1.23e-03 -7.05e-04  1.62e-03  1.44e-03 -1.20e-03  2.21e-03 -4.25e-04
## 26    -4.44e-03  6.22e-03 -9.75e-03 -1.03e-02  2.75e-03  5.72e-03  3.58e-04
## 27    -9.83e-03  1.25e-03  2.06e-02 -1.40e-02 -2.66e-02 -1.43e-02  1.22e-02
## 28    -7.76e-03 -8.22e-03  3.42e-02 -2.18e-02 -1.50e-02 -1.72e-02 -1.22e-02
## 29    -2.74e-03 -2.51e-03  2.12e-03  2.41e-03  1.54e-03  1.51e-03  2.47e-03
## 30     1.19e-02 -3.93e-02 -1.17e-02 -1.12e-02 -1.49e-02 -1.58e-02  2.84e-02
## 31     1.14e-04 -9.60e-04 -2.51e-04 -6.84e-04 -6.59e-04 -9.64e-04  1.87e-03
## 32    -2.83e-02 -1.52e-02  7.15e-03 -3.48e-03 -4.06e-02  5.61e-03 -2.12e-02
## 33    -6.52e-04  3.83e-04 -1.46e-03 -9.80e-04 -1.70e-03 -1.20e-03  7.99e-04
## 34    -1.28e-04 -6.41e-03 -1.74e-03 -2.11e-03 -1.67e-03 -1.87e-03 -2.68e-03
## 35    -6.66e-03  2.78e-02  6.97e-03  9.53e-03  5.45e-03  7.00e-03  1.31e-03
## 36    -3.54e-04  1.58e-03  1.87e-04  8.69e-04 -5.60e-03  1.36e-03  1.70e-03
## 37     1.56e-02  1.72e-04 -9.48e-03 -6.76e-03 -7.36e-03 -5.99e-03 -1.39e-02
## 38    -1.86e-02  4.04e-04  1.48e-02  1.05e-02 -1.67e-02  8.19e-03  1.46e-02
## 39    -1.22e-02  1.01e-02  2.23e-02 -6.20e-03  2.04e-02 -1.11e-02  9.57e-03
## 40    -1.28e-02  5.65e-03 -4.72e-03 -1.53e-04  1.79e-02 -4.88e-03  9.40e-03
## 41    -4.08e-03  1.60e-02 -1.25e-02  1.00e-02  5.43e-03  9.11e-03  3.85e-03
## 42    -1.14e-03 -2.41e-03  1.00e-03  1.12e-03 -1.80e-03 -2.34e-03  2.19e-03
## 43    -7.86e-04 -2.15e-03 -1.69e-04  1.78e-04 -1.14e-04  4.12e-05 -2.57e-04
## 44    -2.24e-03 -1.48e-03  1.67e-03  1.63e-03  1.89e-03  1.24e-03  3.00e-03
## 45     2.09e-02  1.65e-03 -2.00e-02 -2.06e-02  6.40e-03 -2.05e-02 -2.57e-02
## 46     7.09e-03  5.28e-03  1.78e-02  1.05e-02  1.54e-02  8.08e-03  2.51e-02
## 47    -3.67e-03  1.93e-02 -2.00e-02  9.65e-03  4.25e-03  8.38e-03  1.74e-03
## 48     1.23e-02  1.58e-03 -6.49e-03 -3.14e-03 -7.42e-03 -5.19e-03  1.65e-02
## 49     2.72e-03  3.03e-03  2.99e-03 -2.50e-03  3.86e-03 -1.69e-03 -2.45e-03
## 50    -3.62e-03 -4.26e-03 -5.40e-03  2.16e-03  4.03e-03  2.85e-03 -3.42e-03
## 51     8.54e-03  1.58e-04 -1.85e-02  8.52e-03  1.52e-02  6.11e-03 -2.31e-02
## 52     1.74e-02  2.13e-02  2.69e-02  3.54e-02 -1.42e-02 -1.12e-02  1.69e-02
## 53     1.71e-02  8.08e-03  7.86e-03 -2.04e-02  7.01e-03 -2.21e-02 -2.52e-02
## 54    -1.20e-02  3.70e-03  2.05e-02 -3.14e-03 -4.88e-03 -4.46e-04 -9.22e-03
## 55     8.23e-04 -3.48e-04  6.62e-04  7.12e-04  7.99e-04  8.25e-04 -9.07e-04
## 56    -8.47e-03 -4.29e-05 -5.91e-03  1.55e-05 -8.82e-03 -1.89e-03  9.03e-03
## 57     1.33e-03  2.04e-04  1.33e-02 -9.14e-03  1.34e-02  1.06e-02 -2.64e-03
## 58     1.28e-03 -3.28e-03 -3.24e-03  8.48e-03 -3.21e-03 -8.79e-03 -6.48e-04
## 59     1.79e-03 -4.93e-04 -5.44e-06  1.84e-04  1.20e-04  2.05e-04 -2.87e-07
## 60    -1.25e-04  5.81e-04  8.75e-03  7.26e-03 -2.24e-05 -2.24e-03  1.50e-03
## 61     6.92e-03  2.93e-04  1.94e-02  9.75e-03 -1.61e-02  1.15e-02 -6.65e-03
## 62     3.20e-03  6.49e-04 -7.97e-03  8.83e-03  1.23e-02  7.55e-03 -1.26e-02
## 63     8.42e-04  2.00e-04  1.46e-03  1.30e-03  1.64e-03 -2.68e-03 -1.57e-03
## 64    -3.62e-03  8.72e-03  5.56e-03  8.52e-03 -1.06e-02 -8.74e-03  5.14e-03
## 65    -1.26e-02  9.98e-04 -5.33e-03 -2.44e-03 -1.03e-02 -4.81e-03  1.06e-02
## 66    -4.33e-03  1.01e-02 -2.91e-02  7.41e-03  1.07e-02 -2.63e-02 -2.30e-02
## 67     5.62e-03  2.91e-03 -1.12e-02  1.16e-02  1.15e-02  9.39e-03  1.39e-02
## 68    -3.11e-03  5.31e-03 -6.06e-03  6.47e-03 -3.75e-03 -3.04e-03 -3.81e-03
## 69     1.46e-03  1.27e-03 -1.50e-04 -5.90e-04 -3.47e-04 -5.15e-04 -5.87e-06
```

```
## 70    -1.64e-02 -1.74e-02  1.20e-02 -3.24e-02 -3.06e-02  1.11e-02  1.66e-02
## 71    -2.64e-03  1.43e-02  5.85e-03  1.03e-02  5.20e-03 -1.78e-02  3.08e-03
## 72    -7.49e-04 -9.31e-04  9.29e-06 -1.45e-04 -2.04e-04 -2.77e-04 -1.57e-04
## 73     4.68e-04 -3.04e-03  8.56e-03 -3.85e-03 -6.41e-04 -3.17e-03  3.93e-04
## 74    -5.33e-04  2.15e-04 -1.47e-06  1.86e-05  6.18e-06  1.39e-05  2.10e-05
## 75    -2.59e-03  4.00e-03  5.35e-03 -1.70e-02  6.16e-03 -1.65e-02  7.74e-03
## 76     2.89e-03 -5.55e-03 -6.09e-03 -1.17e-02 -5.38e-03  1.17e-02 -3.97e-03
## 77    -5.75e-03  1.31e-02  5.59e-03  6.97e-03  6.04e-03  6.69e-03  6.02e-03
## 78    -2.87e-03  7.98e-03 -1.26e-02 -1.11e-02  3.39e-03  7.24e-03  9.33e-04
## 79    -8.49e-03  1.02e-02 -1.91e-02 -2.36e-02  8.84e-03  8.40e-03 -2.06e-02
## 80     5.28e-03 -2.50e-03 -1.27e-04 -7.04e-04 -6.58e-04 -9.96e-04 -5.54e-04
## 81     1.26e-02  1.50e-03 -7.47e-03 -4.26e-03 -7.67e-03 -6.01e-03  1.75e-02
## 82     3.29e-03 -2.24e-03  9.22e-03 -2.36e-02  1.42e-02  1.27e-02 -1.77e-02
## 83     1.74e-02  5.61e-03 -1.01e-02 -7.68e-03  2.80e-02 -7.20e-03 -1.69e-02
## 84    -1.65e-02 -1.39e-02 -1.19e-02  8.94e-03 -1.08e-02 -1.75e-02 -5.35e-03
## 85    -2.12e-04 -1.93e-04 -2.32e-06  4.79e-06  2.07e-05  4.06e-05 -1.09e-05
## 86     2.67e-02 -1.45e-02 -4.47e-02 -3.65e-04  1.78e-02  8.11e-03 -2.34e-02
## 87    -6.40e-03  1.07e-02  6.77e-03 -9.31e-03  6.73e-03  8.92e-03 -1.29e-02
## 88     1.46e-03  1.22e-03 -2.37e-04 -6.65e-04 -4.28e-04 -6.05e-04 -8.04e-05
## 89    -2.98e-04 -2.59e-04  2.77e-05  5.73e-05  2.23e-05  8.77e-05  4.68e-05
## 90     1.04e-04  9.39e-03  9.51e-03  8.91e-03  1.05e-02  7.75e-03 -2.17e-02
## 91    -1.58e-02 -5.79e-03 -1.27e-02  1.14e-02 -1.61e-02  8.40e-03  1.39e-02
## 92    -1.79e-02 -1.18e-02  1.15e-02  1.13e-02  1.16e-02 -4.15e-02  1.66e-02
## 93    -1.62e-03 -2.01e-03 -2.62e-03  1.25e-03  9.21e-04  8.62e-04  1.11e-03
## 94     2.06e-03 -7.11e-03 -4.34e-03 -1.14e-02 -5.95e-03  9.43e-03 -3.76e-03
## 95     3.81e-04  1.59e-03 -1.67e-03  5.63e-03 -1.19e-03  7.17e-03 -1.45e-04
## 96    -1.83e-02  1.05e-02 -1.12e-02  3.21e-02 -7.23e-03 -7.25e-03 -1.20e-02
## 97    -2.87e-03 -2.65e-03  2.18e-03  2.29e-03 -3.30e-03  3.54e-03 -1.94e-03
## 98     1.32e-03  2.85e-02  7.49e-03  9.53e-03  8.29e-03  9.68e-03  1.06e-02
## 99     1.20e-03  1.11e-03 -5.12e-05 -2.86e-04 -2.95e-04 -4.33e-04  9.96e-05
## 100    2.07e-02  9.32e-03  2.29e-02 -3.51e-03  2.02e-02 -6.63e-03  1.12e-02
## 101    8.61e-05 -6.69e-03 -1.94e-03 -2.33e-03 -2.03e-03 -2.22e-03 -2.65e-03
## 102   -1.43e-04 -5.42e-03 -1.20e-03 -1.22e-03 -1.57e-03 -1.79e-03 -1.92e-03
## 103    7.44e-03 -5.37e-03  1.27e-02  1.17e-02 -9.76e-03 -1.42e-02 -8.89e-03
## 104   -3.04e-03  2.43e-03 -5.83e-03  5.85e-03 -6.07e-03  5.25e-03 -8.41e-03
## 105   -2.75e-03  1.02e-02  9.43e-03 -5.24e-02  2.33e-03  1.97e-02 -6.32e-03
## 106    4.01e-03  1.06e-02  9.73e-03  1.14e-02  8.62e-03  9.49e-03  6.77e-03
## 107    4.66e-04 -1.10e-03 -1.66e-03 -5.11e-03  8.80e-03  7.12e-03 -1.63e-03
## 108    1.75e-04  2.39e-03  7.04e-03 -8.46e-03  6.37e-03  8.44e-03  4.23e-03
## 109    7.55e-03  7.78e-03  1.66e-02  1.25e-02  2.16e-02  1.49e-02 -6.63e-03
## 110    3.64e-03  2.42e-03 -3.94e-04 -9.66e-04 -5.35e-04 -4.18e-04  1.28e-04
## 111   -9.75e-03  1.67e-02  1.92e-02  3.83e-02 -2.89e-02 -2.02e-02  3.11e-02
## 112    1.95e-03 -1.92e-03 -2.81e-03  1.88e-03  3.12e-03  2.39e-03 -1.35e-03
## 113   -2.06e-02 -5.60e-03 -1.29e-02  1.02e-02 -1.66e-02  1.09e-02 -1.34e-02
## 114   -8.26e-03 -6.92e-03 -1.85e-02 -1.02e-02 -1.22e-02 -3.15e-03 -1.71e-02
## 115   -1.43e-03  6.42e-04 -2.77e-03  4.56e-03  5.38e-03 -2.78e-03 -1.82e-03
## 116   -1.52e-02 -2.18e-02 -2.93e-02 -3.34e-02  1.18e-02  1.09e-02 -2.71e-02
## 117   -5.54e-04  2.17e-03  4.92e-03 -4.11e-03  5.20e-03  7.07e-03  3.46e-03
## 118   -1.39e-02  1.11e-02 -6.98e-03  2.86e-02 -1.06e-02 -6.49e-03  1.17e-02
## 119   -8.45e-05 -8.11e-05  2.67e-06  3.20e-05  2.20e-05  4.67e-05  1.39e-06
```

```
## 120    1.28e-02 -1.29e-02 -1.78e-02  1.14e-02  1.00e-02 -2.89e-02  1.51e-02
## 121    2.97e-03  3.88e-03  1.70e-02  1.18e-02 -7.62e-03  1.37e-02 -1.29e-03
## 122   -3.94e-04 -6.35e-03 -1.57e-03 -1.97e-03 -1.98e-03 -2.19e-03 -2.48e-03
## 123   -1.47e-02 -7.10e-05 -6.61e-03 -3.80e-03 -4.92e-03 -3.09e-03 -1.08e-02
## 124   -3.85e-03  1.28e-02  6.47e-03 -1.26e-02  4.33e-03  8.22e-03  1.94e-03
## 125   -4.34e-04 -5.74e-03 -1.14e-03 -1.23e-03 -1.63e-03 -1.98e-03 -1.74e-03
## 126   -1.16e-02 -6.62e-03  1.09e-02 -9.65e-03  1.28e-02 -7.47e-03 -7.43e-03
## 127   -1.31e-02 -1.72e-04 -1.37e-02 -6.69e-03  2.88e-02 -3.56e-03 -1.59e-02
## 128   -1.11e-03  4.68e-04  1.48e-05  1.04e-04  1.05e-05  9.75e-05  1.22e-04
## 129    1.47e-04 -6.53e-03 -1.95e-03 -2.31e-03 -2.04e-03 -2.20e-03 -2.68e-03
## 130   -3.65e-03 -1.79e-04 -5.97e-03 -9.35e-03  8.59e-03  6.87e-03 -6.94e-03
## 131    2.15e-02  1.23e-04  1.43e-02  7.31e-03  1.61e-02  8.27e-03  3.43e-02
## 132   -4.37e-03  2.09e-02  3.63e-02  4.43e-02  3.26e-02 -2.28e-02  2.96e-02
## 133    3.46e-03 -5.80e-03 -3.82e-03 -5.22e-03 -3.62e-03  2.54e-03 -2.35e-03
## 134   -5.14e-03 -1.01e-02 -1.00e-02 -9.18e-03 -1.32e-02 -1.20e-02 -1.93e-02
## 135    8.91e-03 -4.76e-02 -1.25e-02 -1.97e-02 -9.81e-03 -1.68e-02 -4.80e-03
## 136    4.34e-03 -1.44e-03 -6.44e-05 -1.82e-04  1.05e-05  2.89e-04 -1.10e-04
## 137   -1.78e-02 -9.01e-03  1.37e-02 -2.42e-02  9.44e-03  9.55e-03  1.20e-02
## 138    2.19e-03  1.33e-03 -3.69e-04 -8.27e-04 -3.90e-04 -4.60e-04 -1.57e-04
## 139    5.50e-04  4.73e-04 -5.48e-05 -5.47e-05 -4.35e-06 -1.31e-04 -4.31e-05
## 140    1.33e-02 -1.11e-03 -7.01e-03 -4.02e-03 -5.38e-03 -1.62e-03 -1.05e-02
## 141   -2.34e-03 -2.64e-03  1.73e-03  2.21e-03  1.56e-03  1.83e-03  2.39e-03
## 142   -4.31e-02 -1.24e-02 -1.13e-02  3.74e-02 -1.53e-02  3.91e-02 -1.61e-02
## 143    6.89e-04  4.62e-03 -5.40e-03  1.18e-02  1.75e-02  1.42e-02 -1.17e-03
## 144    1.79e-03 -1.87e-03 -3.34e-03 -6.10e-03  6.26e-03  6.16e-03  6.12e-03
## 145   -9.35e-04  3.21e-04  6.96e-06  6.15e-05 -4.62e-05  1.89e-04  1.85e-04
## 146    2.90e-04 -7.57e-04 -2.99e-04 -6.70e-04  1.96e-03 -7.21e-04 -7.20e-04
## 147   -2.04e-04 -3.65e-03 -1.04e-03 -5.26e-04 -4.00e-04  2.28e-04 -9.69e-04
## 148    8.66e-03 -4.15e-02 -1.11e-02 -1.44e-02 -7.03e-03 -1.38e-02 -5.53e-03
## 149   -3.81e-03  8.94e-03 -7.74e-03  6.39e-03 -7.80e-03  7.42e-03 -9.46e-03
## 150   -3.92e-03  5.64e-03 -1.67e-02  8.33e-03 -1.66e-02 -1.67e-02  1.08e-02
## 151   -5.51e-03  1.60e-02  6.55e-03  8.69e-03  1.09e-02 -2.39e-02 -1.89e-02
## 152   -1.22e-02  1.31e-03 -4.29e-03 -1.60e-03 -9.35e-03 -4.10e-03  9.70e-03
## 153    4.26e-04 -1.50e-03 -8.30e-04 -3.07e-03 -1.26e-03  5.15e-03 -5.60e-04
## 154    5.43e-03 -3.20e-03  3.39e-03  2.45e-03  2.08e-03  1.49e-03  3.32e-03
## 155   -3.80e-04 -5.15e-03 -1.08e-03 -1.17e-03 -1.58e-03 -1.90e-03 -1.77e-03
## 156   -2.46e-02 -1.29e-03  1.46e-02  1.04e-02  1.60e-02  9.74e-03  3.11e-02
## 157    1.72e-02  1.16e-03  1.54e-02  6.84e-03  1.45e-02  8.01e-03 -2.79e-02
## 158   -6.78e-04 -1.83e-03 -2.50e-04 -1.36e-05 -1.57e-04 -1.21e-04 -3.03e-04
## 159   -3.03e-03  8.56e-03  4.59e-03 -6.44e-03 -7.15e-03  1.03e-02 -9.16e-03
## 160    8.22e-03 -2.46e-03 -7.94e-04  1.64e-05  3.90e-04  1.16e-03 -3.47e-04
## 161   -3.88e-03  8.19e-03 -1.37e-02 -1.37e-02  3.05e-03  8.06e-03  1.38e-03
## 162   -1.69e-02  1.02e-02 -1.67e-02  3.11e-02 -1.33e-02 -1.03e-02 -1.63e-02
## 163   -2.10e-02 -3.20e-05  1.30e-02  9.73e-03  9.76e-03  8.51e-03  1.93e-02
## 164    1.64e-03  1.86e-03 -1.54e-03  2.10e-03 -1.38e-03 -1.20e-03  2.09e-03
## 165   -6.96e-04 -2.64e-03 -3.30e-04  1.62e-04 -1.70e-04  1.11e-04 -3.27e-04
## 166    2.18e-03  1.34e-03 -1.15e-04 -4.25e-04 -3.56e-04 -1.98e-04  9.52e-05
## 167    1.63e-02  9.15e-04 -9.93e-03 -7.32e-03 -7.68e-03 -6.48e-03 -1.38e-02
## 168   -3.15e-03 -2.69e-03  2.53e-03  2.82e-03  1.82e-03  1.78e-03  2.99e-03
## 169    9.91e-03 -3.29e-03  3.24e-02 -1.52e-02  3.57e-02 -1.14e-02 -2.87e-02
```

```
## 170   -8.74e-04 -4.33e-03 -7.08e-04 -9.18e-04 -1.23e-03 -1.70e-03 -1.48e-03
## 171   -8.71e-03 -7.35e-03  7.98e-03 -6.70e-03 -6.55e-03 -7.40e-03  8.20e-03
## 172   -1.35e-02  1.31e-02 -2.85e-03 -7.08e-04  1.59e-02  2.24e-02  7.28e-03
## 173   -4.52e-03  8.20e-03 -1.38e-02  1.06e-02 -7.83e-03 -6.89e-03 -7.21e-03
## 174    4.53e-02 -5.14e-03 -3.44e-02 -2.44e-02  1.57e-02 -3.07e-02  4.37e-03
## 175   -6.73e-04 -1.36e-03 -1.57e-04 -1.07e-04 -1.20e-04 -9.02e-05 -4.29e-04
## 176    9.50e-03 -4.95e-03 -1.33e-03 -2.22e-03 -1.98e-03 -3.47e-03 -2.62e-03
## 177   -1.17e-02 -3.13e-03 -9.19e-03 -4.23e-03 -5.71e-03 -1.20e-03 -1.09e-02
## 178    1.93e-02  1.19e-02 -1.23e-02  3.19e-02 -1.01e-02 -7.62e-03 -1.18e-02
## 179    2.17e-02 -1.86e-02 -3.66e-02  4.02e-03 -3.16e-02  1.05e-02 -1.51e-02
## 180   -6.17e-04 -7.14e-04 -5.41e-05 -2.12e-04 -1.39e-04 -2.79e-04 -1.97e-04
## 181   -7.64e-03 -7.07e-03  3.46e-02 -1.99e-02 -1.43e-02 -1.76e-02 -9.21e-03
## 182   -5.04e-03  2.68e-02  7.37e-03  1.15e-02  5.42e-03  9.50e-03  3.29e-03
## 183   -1.50e-02  1.20e-03 -6.75e-03 -4.86e-03 -1.03e-02 -5.11e-03 -1.91e-02
## 184   -4.11e-03  6.46e-03  4.63e-03 -7.11e-03 -5.81e-03  8.02e-03 -6.29e-03
## 185    1.87e-02  1.13e-02  2.67e-02 -9.67e-03  3.18e-02 -9.69e-03 -1.83e-02
## 186   -4.91e-03 -1.49e-02 -1.44e-02 -1.47e-02 -1.17e-02 -1.26e-02 -1.10e-02
## 187   -6.85e-03  1.88e-02 -1.73e-02  8.96e-03  4.33e-03  7.68e-03  3.17e-03
## 188    4.44e-03  5.63e-04  8.92e-03  1.17e-02  8.81e-03 -1.95e-02  6.93e-03
## 189   -6.39e-04 -2.88e-03 -6.19e-04 -2.80e-04 -3.37e-04  6.56e-05 -8.57e-04
## 190    9.20e-03  1.43e-02 -9.93e-03  7.95e-03  4.44e-03  4.91e-03  1.90e-03
## 191    5.11e-03  4.04e-03  4.60e-03 -4.55e-03  4.71e-03 -4.94e-03  4.83e-03
## 192    1.41e-02  1.22e-02  2.47e-02 -3.73e-03  2.26e-02 -6.31e-03 -2.20e-02
## 193    3.58e-03  2.33e-03 -5.55e-04 -1.17e-03 -6.23e-04 -6.23e-04  9.49e-05
## 194   -8.45e-06  4.18e-05  2.35e-05  1.18e-04  5.69e-06 -4.78e-04 -1.46e-05
## 195    2.35e-03  1.80e-03 -2.44e-04 -7.83e-04 -4.89e-04 -5.78e-04  2.66e-05
## 196   -1.64e-02 -2.63e-02 -1.95e-02 -2.52e-02  1.33e-02 -2.55e-02 -1.98e-02
## 197    6.01e-03 -1.95e-03 -4.07e-04 -2.35e-04 -1.09e-05  4.36e-04 -8.64e-05
## 198    3.65e-03 -8.72e-03 -6.28e-03  9.45e-03 -6.80e-03 -1.40e-02 -2.45e-03
## 199   -2.49e-05 -5.51e-04 -2.13e-04  3.47e-03  2.32e-05 -9.93e-04  6.87e-04
## 200    1.03e-04 -6.01e-03 -1.32e-03 -1.54e-03 -1.80e-03 -1.71e-03 -1.88e-03
## 201   -1.89e-02 -1.67e-02  1.44e-02 -2.10e-02  2.04e-02 -1.76e-02 -6.61e-03
## 202   -1.64e-02 -1.63e-02 -2.20e-02  1.15e-02  9.97e-03 -3.03e-02  1.53e-02
## 203    1.18e-04  2.35e-04  4.30e-03 -1.45e-03 -1.94e-04  4.33e-03  2.22e-04
## 204   -2.11e-02 -8.26e-04  1.37e-02  7.73e-03  1.32e-02  9.60e-03 -2.51e-02
## 205   -1.68e-02  3.51e-03  1.27e-02  1.04e-02  9.57e-03  6.60e-03  1.10e-02
## 206   -1.36e-02 -6.29e-03 -9.88e-03  1.18e-02  1.05e-02 -1.40e-02  1.25e-02
## 207    1.37e-03  2.27e-03  2.09e-03  2.05e-03  1.94e-03  1.91e-03 -5.25e-03
## 208    1.37e-02  1.74e-03 -6.44e-03 -5.77e-03 -1.04e-02 -6.56e-03 -2.01e-02
## 209    1.93e-02  3.37e-02 -1.36e-02  3.48e-02  2.21e-02  2.94e-02  1.12e-02
## 210   -7.76e-03 -2.72e-03 -2.18e-03  5.63e-03 -1.67e-03 -4.19e-03 -3.62e-04
## 211    9.43e-03 -4.15e-02 -1.14e-02 -1.46e-02 -7.43e-03 -1.42e-02 -5.42e-03
## 212    4.10e-03  1.08e-02  1.05e-02  1.24e-02  9.21e-03  1.05e-02  7.25e-03
## 213    1.79e-03  1.41e-03 -1.89e-04 -5.82e-04 -2.33e-04 -5.05e-04 -3.38e-05
## 214   -6.10e-04 -1.24e-03 -1.02e-04  4.48e-05 -1.18e-04 -1.11e-04 -2.50e-04
## 215    1.45e-02  3.95e-03  1.58e-02  9.11e-03  1.89e-02  4.32e-03  3.08e-02
## 216   -1.76e-03 -4.56e-03 -7.74e-03 -1.10e-02 -7.46e-03  6.44e-03 -7.90e-03
## 217    1.78e-03  3.68e-03  3.84e-03  2.66e-03  4.50e-03  3.76e-03 -5.40e-03
## 218    4.48e-04  9.16e-04  8.55e-04  9.33e-04  7.73e-04  7.43e-04  1.28e-03
## 219   -4.11e-04 -6.20e-04  3.71e-04 -7.01e-04  2.75e-04  3.09e-04  2.98e-04
```

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## 220   -2.35e-02 -2.60e-03  1.32e-02  6.65e-03  1.43e-02  9.88e-03 -2.94e-02
## 221    1.53e-02 -1.09e-04 -9.60e-03 -7.14e-03 -7.15e-03 -6.11e-03 -1.38e-02
## 222   -2.94e-03  1.07e-03 -1.79e-04 -2.91e-04 -2.97e-04 -2.85e-05  2.60e-04
## 223   -5.27e-04 -4.86e-03 -1.06e-03 -1.07e-03 -8.32e-04 -7.76e-05 -5.44e-04
## 224    8.90e-03 -3.46e-02 -1.49e-02 -2.57e-02 -1.39e-02  4.38e-02 -8.60e-03
## 225   -9.45e-04 -4.36e-03 -9.94e-04 -1.30e-03 -9.26e-04 -2.33e-04 -1.25e-03
## 226    8.49e-04  9.74e-04  1.01e-02 -2.17e-02  1.53e-02  1.59e-02 -1.40e-02
## 227   -4.26e-03  3.29e-03  5.88e-03 -7.80e-03 -6.61e-03 -6.08e-03 -6.01e-03
## 228    8.63e-03 -4.07e-02 -9.57e-03 -1.41e-02 -1.20e-02 -1.45e-02  4.17e-02
## 229    1.32e-02 -9.11e-03  1.52e-02  1.05e-02  1.61e-02 -3.21e-02  2.68e-02
## 230    2.10e-03  1.55e-03 -1.75e-03 -1.62e-03  2.81e-03 -1.17e-03 -1.74e-03
## 231    2.55e-03 -5.08e-03 -3.52e-03 -5.55e-03  1.02e-02 -3.82e-03 -1.56e-03
## 232   -9.71e-03 -9.57e-03 -5.41e-03 -8.62e-03  8.10e-03 -9.60e-03  1.02e-02
## 233    1.23e-02  1.27e-02 -6.06e-03  3.00e-02 -8.51e-03 -7.37e-03 -1.83e-02
## 234    3.07e-03  1.89e-03 -4.33e-04 -7.52e-04 -4.97e-04 -5.72e-04  2.32e-04
## 235    1.09e-02 -5.50e-03 -1.44e-03 -2.45e-03 -2.27e-03 -3.35e-03 -2.85e-03
## 236   -3.62e-02 -3.23e-02  3.63e-02 -1.04e-02 -3.50e-03 -9.88e-03 -2.26e-03
## 237    2.12e-03  5.35e-03  9.34e-03  1.34e-02  1.07e-02 -9.71e-03  1.02e-02
## 238    1.80e-02  3.15e-03  1.39e-02  8.70e-03  1.02e-02  4.91e-03  1.75e-02
## 239    1.35e-02  5.49e-03  1.96e-02 -6.93e-04 -9.29e-03 -3.47e-03  1.08e-02
## 240   -4.97e-04 -1.17e-03 -2.40e-04  2.96e-04  3.01e-04  8.32e-04  4.83e-07
## 241   -2.22e-03 -4.58e-03  1.70e-03 -5.49e-03  1.06e-03  1.34e-03  1.82e-03
## 242    4.51e-05 -1.02e-04 -9.44e-05  7.73e-04  6.98e-06 -2.07e-04  6.41e-05
## 243   -3.24e-03  3.35e-03  4.10e-03 -4.24e-03  4.96e-03 -3.72e-03 -4.21e-03
## 244   -1.06e-02 -4.24e-03 -3.36e-03 -6.83e-03 -4.95e-03  5.21e-03  9.32e-03
## 245   -6.86e-03  1.84e-02 -2.21e-02  7.87e-03 -2.68e-02  6.97e-03  3.17e-03
## 246   -1.88e-02 -1.25e-02  1.16e-02 -3.56e-02  9.90e-03  7.28e-03  1.24e-02
## 247    1.04e-02  1.74e-02  6.74e-03  8.65e-03 -1.09e-02  9.20e-03  9.75e-03
## 248    1.91e-02  4.27e-03  2.42e-02 -6.23e-03 -7.67e-03 -3.61e-03 -1.27e-02
## 249    6.14e-03 -2.95e-02 -1.16e-02  3.99e-02 -6.48e-03 -1.81e-02 -1.63e-03
## 250    7.15e-03 -9.34e-03 -1.08e-02 -1.55e-02 -1.13e-02  1.29e-02  1.89e-02
## 251   -1.19e-02 -5.98e-03 -5.94e-03 -9.50e-03 -7.19e-03  9.77e-03 -7.18e-03
## 252    1.75e-02 -1.04e-03 -1.20e-02 -1.25e-02 -1.03e-02 -8.11e-03 -1.69e-02
## 253   -4.79e-03 -5.60e-03  3.09e-02 -9.21e-03 -1.37e-02 -9.12e-03  3.60e-02
## 254    9.53e-03  5.52e-03 -8.96e-03  6.77e-03 -6.94e-03 -7.23e-03 -6.78e-03
## 255   -6.29e-04 -7.86e-03 -2.20e-03 -3.93e-03 -3.16e-03 -3.40e-03 -2.95e-03
## 256   -7.30e-04 -6.00e-05 -1.22e-03  2.36e-03 -7.91e-04 -1.14e-03 -6.00e-04
## 257    1.96e-04 -6.59e-04 -1.94e-04 -3.44e-04 -4.99e-05 -2.51e-04  4.45e-05
## 258    3.29e-03 -8.07e-03 -4.03e-03 -6.10e-03 -2.78e-03 -5.04e-03 -1.89e-03
## 259    1.01e-02 -4.31e-02 -1.16e-02 -1.56e-02 -7.72e-03 -1.34e-02 -5.16e-03
## 260   -1.19e-04 -4.30e-03  9.69e-03 -2.55e-02 -2.07e-02  8.02e-03  1.36e-02
## 261   -3.87e-03 -4.75e-03 -8.27e-03 -5.67e-03  2.62e-02 -8.41e-03 -1.86e-02
## 262   -9.55e-03  7.99e-03  1.76e-02  1.02e-03  1.50e-02 -2.22e-03  7.88e-03
## 263    3.60e-03  1.57e-03 -1.34e-02  9.32e-03  1.55e-02  5.07e-03  2.22e-02
## 264    2.56e-04 -3.61e-03 -6.04e-03 -5.27e-03  6.71e-03 -3.98e-03  6.76e-03
## 265    5.27e-03 -1.12e-02 -6.78e-03 -9.08e-03 -4.71e-03 -8.07e-03 -2.86e-03
## 266   -3.87e-03 -3.01e-03  2.62e-03  2.04e-03  1.85e-03  1.47e-03  2.77e-03
## 267   -1.13e-04  3.96e-05  3.93e-06 -2.15e-06 -5.60e-06 -7.59e-06  9.63e-06
## 268   -2.02e-02 -3.28e-02 -2.71e-02 -3.71e-02  1.81e-02 -3.46e-02 -1.70e-02
## 269    2.37e-02  1.89e-02  5.69e-05 -4.62e-03 -3.22e-03 -5.60e-03  2.31e-03
```

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## 270   -2.81e-04   1.07e-04 -5.82e-06   1.43e-05   1.41e-06   1.89e-05   2.05e-05
## 271    1.66e-02   9.89e-03 -9.22e-03 -3.89e-03 -1.38e-02   2.93e-02   1.08e-02
## 272    3.03e-03 -2.83e-03   2.65e-03   1.93e-03 -3.51e-03   2.29e-03 -2.09e-03
## 273   -6.62e-03 -1.56e-02 -1.61e-02 -1.90e-02 -1.51e-02 -1.67e-02 -1.05e-02
## 274    1.75e-02 -2.06e-02 -3.11e-02   8.05e-03   2.27e-02 -4.35e-02 -1.63e-02
## 275    1.52e-02 -4.69e-04 -9.63e-03 -9.36e-03 -8.92e-03 -7.23e-03 -1.46e-02
## 276   -1.88e-02   1.70e-02   2.59e-02 -7.35e-03 -7.63e-03   3.41e-02 -1.40e-02
## 277   -8.26e-03   5.76e-03   1.91e-02 -1.60e-02   1.99e-02 -1.82e-02   9.11e-03
## 278   -7.56e-03   9.49e-03 -1.91e-02 -2.13e-02   6.44e-03   6.80e-03   5.71e-03
## 279    4.71e-03 -7.85e-03   8.79e-03   7.51e-03 -1.97e-02 -2.53e-02 -1.52e-02
## 280   -4.62e-03   1.73e-02 -1.79e-02   9.61e-03   4.47e-03   8.23e-03   1.49e-03
## 281   -2.89e-03   8.85e-03 -1.55e-02 -1.40e-02   3.55e-03   8.38e-03   3.12e-04
## 282   -5.17e-03   1.80e-02 -1.72e-02   1.00e-02   4.65e-03   8.19e-03   2.21e-03
## 283    1.79e-02 -7.68e-03 -2.33e-03 -2.92e-03 -3.25e-03 -3.47e-03 -3.09e-03
## 284    2.25e-03   3.80e-03   2.60e-03 -2.62e-03   1.42e-03   1.76e-03   4.01e-04
## 285    2.01e-02   5.33e-03 -1.21e-02 -8.59e-03   2.01e-02 -1.15e-02   8.63e-03
## 286    1.34e-02   7.11e-03   1.68e-02   1.41e-02   1.44e-02   1.35e-02   2.07e-02
## 287   -7.10e-03   2.39e-02   8.01e-03   9.16e-03   4.40e-03   7.51e-03   3.03e-03
## 288    1.63e-02 -3.58e-04 -9.62e-03 -9.65e-03 -9.64e-03 -6.67e-03 -1.46e-02
## 289    1.61e-02   4.73e-03   2.36e-02 -4.82e-03 -6.30e-03 -2.98e-03 -1.13e-02
## 290    1.17e-02 -4.53e-02 -1.34e-02 -1.62e-02 -8.20e-03 -1.48e-02 -5.35e-03
## 291   -1.09e-02 -3.23e-03 -1.18e-02 -5.39e-03 -7.73e-03 -1.69e-03 -1.29e-02
## 292   -2.08e-03   2.98e-03 -4.00e-03 -3.38e-03 -4.70e-03   4.25e-03   1.48e-03
## 293   -1.22e-02 -9.88e-03 -1.16e-02   1.34e-02 -1.23e-02 -1.40e-02   1.55e-02
## 294   -2.90e-02 -3.18e-03   1.11e-02 -2.95e-04   1.99e-02   6.14e-03 -2.37e-02
## 295   -5.66e-04 -5.49e-03 -1.37e-03 -1.79e-03 -1.85e-03 -2.13e-03 -2.37e-03
## 296    7.91e-05 -6.70e-03 -1.94e-03 -2.33e-03 -2.03e-03 -2.22e-03 -2.64e-03
## 297   -3.62e-03   1.42e-03   3.32e-03   3.36e-03 -1.07e-03   2.91e-03   3.33e-03
## 298    1.17e-02 -2.35e-03   1.83e-02   4.75e-03 -2.52e-02   7.37e-03 -1.26e-02
## 299    1.45e-02   2.06e-02   9.01e-03   7.03e-03 -1.63e-02   8.78e-03 -1.39e-02
## 300    1.45e-02   1.23e-02 -1.12e-02   3.15e-02 -7.05e-03 -9.73e-03 -1.39e-02
## 301   -9.15e-03   2.52e-02   7.71e-03   8.60e-03   1.25e-02   1.38e-02 -1.55e-02
## 302   -7.07e-03   9.52e-04 -2.17e-03   1.13e-03 -4.63e-03 -5.41e-04   6.64e-03
## 303   -1.80e-02 -2.44e-02   9.71e-03   8.04e-03 -3.16e-02 -3.97e-02   3.45e-02
## 304    1.83e-04   1.09e-05   2.81e-04 -6.28e-04   1.46e-04   2.44e-04   1.53e-04
## 305    9.68e-03 -7.85e-04 -1.53e-02   1.18e-02   1.05e-02   7.60e-03   1.64e-02
## 306   -3.61e-04   1.02e-04 -2.91e-06 -3.22e-05 -1.93e-05 -1.78e-05 -1.42e-06
## 307   -1.00e-02 -5.27e-03 -1.49e-02 -7.43e-03 -1.01e-02 -1.63e-03 -1.49e-02
## 308   -4.07e-03   8.31e-03   5.01e-03   7.97e-03 -4.40e-03 -4.14e-03 -3.82e-03
## 309    9.01e-03 -1.67e-03 -2.03e-02   9.53e-03   2.09e-02   7.63e-03 -1.25e-02
## 310    7.22e-03   7.68e-03   5.79e-03 -8.58e-03 -6.80e-03   8.10e-03 -6.81e-03
## 311   -2.09e-04 -8.27e-03 -2.27e-03 -3.76e-03 -3.04e-03 -2.88e-03 -3.39e-03
## 312   -1.62e-02 -2.01e-02   1.25e-02 -2.48e-02   1.34e-02 -2.54e-02   2.16e-02
## 313    4.17e-03 -8.50e-03 -5.18e-03 -6.16e-03 -2.54e-03 -3.89e-03 -1.15e-03
## 314   -2.57e-02   2.42e-03   1.38e-02   7.94e-03   1.05e-02   3.25e-03   1.87e-02
## 315    1.36e-02   1.63e-03 -7.29e-03 -3.35e-03 -8.40e-03 -5.62e-03   1.75e-02
## 316    2.56e-03 -5.90e-03 -3.31e-03 -5.13e-03   9.44e-03 -5.19e-03 -1.99e-03
## 317    1.35e-03   1.04e-03 -2.69e-05   7.31e-05   2.73e-06 -5.98e-05   1.25e-04
## 318    2.61e-02 -1.72e-02   3.88e-02   3.34e-02 -4.62e-02   3.07e-02   4.07e-02
## 319    1.95e-02   3.67e-03 -9.67e-03 -2.23e-03   1.88e-02 -5.28e-03   1.00e-02
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## 320    1.04e-02 -7.48e-03  1.72e-02  1.10e-02  1.66e-02 -3.02e-02 -1.74e-02
## 321   -3.80e-02 -2.48e-02  3.67e-02  4.05e-02 -4.45e-02  4.02e-02  4.87e-02
## 322   -5.78e-04 -3.74e-05 -8.16e-04  1.67e-03 -5.38e-04 -8.03e-04 -4.05e-04
## 323   -5.54e-03  2.79e-02  7.24e-03  9.50e-03  4.54e-03  9.16e-03  3.38e-03
## 324   -3.07e-03  1.15e-02  5.30e-03 -7.91e-03  4.68e-03  8.76e-03  2.56e-03
## 325    9.99e-05  1.26e-04  1.77e-04  2.11e-04 -3.94e-04  1.44e-04  1.74e-04
## 326    5.73e-03 -8.18e-03 -1.08e-02  9.43e-03  1.62e-02 -2.04e-02 -7.00e-03
## 327   -2.27e-02 -1.28e-02  1.33e-02  7.32e-03  1.52e-02 -4.57e-02 -2.83e-02
## 328    1.37e-02 -7.37e-04 -7.53e-03 -4.10e-03 -5.38e-03 -2.36e-03 -1.05e-02
## 329   -1.88e-03  1.18e-02  1.30e-02  8.57e-03  1.14e-02  6.46e-03 -2.69e-02
## 330    1.82e-02 -3.42e-03  1.66e-02  7.85e-03 -3.87e-02  4.81e-03  2.28e-02
## 331   -6.98e-04 -7.41e-04  4.41e-05  1.71e-04  8.31e-05  3.38e-04  1.54e-04
## 332   -6.81e-04 -4.73e-03 -1.22e-03 -1.50e-03 -1.22e-03 -2.28e-04 -1.15e-03
## 333    6.29e-03 -1.63e-03 -1.12e-02  1.06e-02 -1.27e-02  1.30e-02 -1.07e-02
## 334   -1.48e-02 -1.02e-03 -8.07e-03 -5.01e-03 -5.51e-03 -3.67e-03 -1.16e-02
## 335   -1.68e-02  3.46e-03 -7.09e-03 -6.47e-03  2.53e-02 -5.35e-03 -1.39e-02
## 336   -3.19e-02 -4.40e-02  2.84e-02 -5.50e-02  3.47e-02  3.97e-02 -5.28e-02
## 337   -1.11e-02 -2.05e-03  2.07e-02 -2.45e-02  1.40e-02 -3.61e-02  1.98e-03
## 338   -2.77e-03 -2.32e-03  1.93e-03  2.13e-03  1.59e-03  1.20e-03  2.30e-03
## 339   -2.39e-02 -4.13e-03 -1.85e-02  8.96e-03  1.87e-02  1.19e-02 -1.09e-02
## 340   -6.36e-03  3.70e-03  1.78e-02 -2.05e-02  2.01e-02 -2.20e-02  9.91e-03
## 341   -4.34e-03  6.77e-03 -7.98e-03  6.42e-03  3.60e-03 -1.09e-02  1.06e-03
## 342   -5.49e-03 -5.12e-03  3.95e-03  3.40e-03  2.60e-03  2.43e-03  5.20e-03
## 343    9.16e-04  9.08e-04 -8.40e-04 -1.10e-03 -1.52e-03  9.36e-04  4.38e-04
## 344    4.69e-04  5.18e-04  1.30e-05  5.50e-05  7.24e-05  1.56e-04  1.63e-04
## 345   -8.95e-04 -1.54e-03 -4.23e-05 -2.66e-04 -3.59e-04 -2.44e-04 -3.01e-04
## 346    2.78e-02  2.82e-03  1.11e-02  3.69e-03  7.02e-03  2.23e-04  1.68e-02
## 347    1.03e-02  2.63e-03 -3.95e-03 -8.24e-04 -7.98e-03 -4.42e-03  8.47e-03
## 348    2.93e-03  1.94e-03 -1.51e-04 -5.75e-04 -4.42e-04 -2.78e-04  3.78e-04
## 349    6.73e-04  9.42e-03  1.10e-02  7.18e-03  1.55e-02  1.14e-02 -1.99e-02
## 350   -7.50e-03 -2.10e-03 -1.57e-03 -3.35e-03 -2.05e-03  5.19e-03  7.18e-03
## 351    1.93e-03  1.24e-03  1.37e-03 -1.19e-03 -1.76e-03 -1.17e-03  1.04e-03
## 352   -4.67e-03  1.90e-02  6.38e-03  9.94e-03  5.50e-03  9.06e-03  4.24e-03
## 353   -2.90e-02 -3.15e-03  1.09e-02 -4.00e-04  1.97e-02  5.90e-03 -2.38e-02
## 354   -1.80e-02  1.18e-02  2.59e-02 -5.36e-03  2.90e-02 -4.96e-03 -1.47e-02
## 355   -9.92e-04  7.06e-04 -1.56e-02  3.86e-02 -1.42e-02 -1.21e-02  3.92e-02
## 356    1.69e-02  1.66e-03 -9.09e-03 -5.63e-03 -1.09e-02 -6.99e-03 -2.15e-02
## 357    2.16e-02  1.95e-02  7.86e-03 -2.52e-02  3.21e-03  6.07e-03 -6.38e-04
## 358    7.69e-04 -1.89e-04 -2.28e-03  8.77e-03  1.20e-02 -4.43e-03  2.40e-04
## 359    5.08e-04 -1.99e-03 -2.06e-02  3.99e-02 -1.68e-02 -1.35e-02 -6.87e-03
## 360    6.72e-03 -2.05e-03  1.29e-02 -1.55e-02  1.62e-02  1.27e-02 -6.45e-03
## 361   -5.74e-05 -5.49e-03 -1.21e-03 -1.45e-03 -1.73e-03 -1.72e-03 -1.84e-03
## 362   -1.45e-02 -4.31e-03 -8.52e-03  1.15e-02  1.64e-02 -8.16e-03 -1.96e-03
## 363   -2.24e-03  4.31e-03  2.18e-03  2.73e-03 -2.70e-03  2.28e-03  1.35e-03
## 364   -7.81e-04 -7.26e-04  9.75e-06  2.60e-05  2.91e-05  2.37e-04  2.88e-05
## 365   -1.80e-02 -1.02e-02  1.37e-02  1.16e-02  1.13e-02 -2.97e-02  1.64e-02
## 366    1.36e-02  8.13e-03 -5.37e-03 -2.95e-03  1.81e-02 -7.92e-03  9.55e-03
## 367   -6.66e-03  1.19e-02  6.28e-03 -1.71e-02  6.65e-03  8.13e-03  6.72e-03
## 368    1.47e-04 -6.26e-03 -1.80e-03 -2.08e-03 -2.10e-03 -2.11e-03 -2.74e-03
## 369    3.45e-04  4.16e-03  1.40e-02  9.22e-03 -4.04e-03  1.05e-02 -9.24e-04
```

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## 370   -1.97e-04   1.03e-03   1.64e-04   6.58e-04   6.85e-05   4.34e-04  -1.14e-04
## 371   -5.83e-04  -1.08e-03  -7.69e-05   1.42e-05  -8.32e-05  -1.31e-04  -1.71e-04
## 372   -1.18e-02   1.37e-03  -4.33e-03  -8.88e-04  -5.41e-03  -2.69e-03   1.46e-02
## 373    5.95e-04  -5.57e-04   3.96e-03  -2.57e-03   4.34e-03  -2.75e-03   3.43e-03
## 374    2.59e-03  -4.27e-03  -4.05e-03   9.21e-03  -4.89e-03  -7.95e-03   1.45e-02
## 375   -2.43e-02  -4.72e-03  -1.84e-02   8.70e-03   1.91e-02   1.18e-02  -1.04e-02
## 376    6.55e-03   5.16e-03  -6.25e-03   6.09e-03  -4.85e-03  -5.49e-03  -5.24e-03
## 377    4.45e-03   1.09e-02   1.03e-02   1.21e-02   9.29e-03   1.03e-02   7.56e-03
## 378   -1.44e-02   1.68e-02  -1.27e-02  -6.91e-03   1.95e-02   3.15e-02   8.98e-03
## 379   -2.46e-03  -1.67e-03   1.86e-03   1.59e-03   1.26e-03   9.75e-04   1.95e-03
## 380    1.52e-02  -9.50e-03   1.29e-02   1.49e-02  -1.98e-02  -2.31e-02   2.06e-02
## 381   -1.27e-02  -7.59e-03  -7.69e-03   1.07e-02  -9.45e-03  -1.14e-02   1.25e-02
## 382    7.72e-03  -3.80e-02   3.98e-02  -1.94e-02  -8.83e-03  -1.70e-02  -4.29e-03
## 383    3.66e-04   4.85e-04   4.66e-04   6.23e-04   3.06e-04   4.94e-04   4.10e-04
## 384   -1.29e-02   6.66e-03   2.07e-02  -9.75e-04  -5.62e-03  -2.79e-03  -1.43e-02
## 385    3.92e-03  -1.55e-04  -9.74e-03   1.28e-02  -6.04e-03   1.88e-02  -2.64e-04
## 386    5.60e-03   2.49e-02   8.23e-03   1.32e-02   8.97e-03   1.79e-02   1.35e-02
## 387   -7.22e-03   1.74e-03   1.88e-02  -1.92e-02   3.20e-02  -1.01e-02  -2.71e-02
## 388    1.32e-04  -5.35e-03  -5.49e-03  -5.70e-03  -5.20e-03  -5.07e-03   6.39e-03
## 389    8.72e-03   4.57e-04   1.77e-02   1.03e-02  -1.97e-02   9.93e-03   2.86e-02
## 390   -3.91e-03   2.31e-02   6.62e-03   1.04e-02   4.62e-03   8.54e-03   2.97e-03
## 391    1.50e-02   2.23e-04   1.68e-02   6.26e-03   2.13e-02   1.05e-02  -1.57e-02
## 392    1.91e-02   7.79e-03  -2.21e-02   5.52e-03  -1.92e-02  -2.54e-02  -1.87e-02
## 393   -7.59e-03   3.29e-02   8.14e-03   8.98e-03   4.28e-03   6.93e-03   2.21e-03
## 394   -8.88e-04  -4.89e-03  -1.10e-03  -1.57e-03  -1.66e-03  -2.06e-03  -2.12e-03
## 395    7.90e-03   6.48e-03   2.08e-02   7.32e-03   2.29e-02   6.63e-03  -1.40e-02
## 396   -2.07e-03  -1.59e-03   1.51e-03   1.65e-03   1.19e-03   9.11e-04   1.71e-03
## 397    1.19e-02  -2.52e-02   1.52e-02  -3.14e-02  -1.72e-02  -2.99e-02  -1.13e-02
## 398    3.06e-02   3.42e-03   2.54e-02  -1.67e-02  -1.51e-02  -1.23e-02  -2.09e-02
## 399    1.69e-05  -4.65e-03   1.04e-02   6.54e-03  -1.73e-02  -2.59e-02  -1.46e-02
## 400   -7.43e-04  -1.80e-03  -1.93e-04   7.41e-05  -1.85e-04  -1.06e-04  -3.10e-04
## 401   -5.82e-04  -1.23e-03  -1.69e-04  -1.17e-04  -1.33e-04  -9.83e-05  -4.26e-04
## 402   -6.42e-04  -2.96e-03  -5.94e-04  -2.55e-04  -2.61e-04   1.50e-04  -8.61e-04
## 403   -2.64e-03  -7.30e-03  -4.47e-02  -2.58e-02   1.82e-02  -2.50e-02   5.86e-03
## 404    4.89e-03  -4.78e-03  -5.81e-03   2.54e-03  -4.72e-03   4.39e-03  -2.24e-03
## 405   -9.76e-04  -1.97e-03  -3.70e-04  -1.05e-04   1.26e-04   1.01e-03   8.35e-05
## 406    1.61e-03   1.19e-03  -7.70e-05   5.28e-05  -2.49e-05  -9.18e-05   1.35e-04
## 407    1.83e-03  -2.04e-03   1.07e-02  -7.42e-03  -5.17e-03   8.60e-03  -5.07e-03
## 408   -2.73e-02  -4.29e-03  -2.46e-02   6.74e-03   1.92e-02   7.44e-03  -1.40e-02
## 409    1.81e-04   2.68e-02   7.55e-03   1.27e-02   1.09e-02   1.03e-02   9.84e-03
## 410   -3.26e-04   2.77e-02   8.49e-03   1.39e-02   1.10e-02   1.09e-02   1.03e-02
## 411   -1.22e-02   4.11e-03   1.95e-02  -1.71e-03  -3.53e-03  -4.13e-04  -8.13e-03
## 412    5.93e-03  -2.96e-03  -5.93e-04  -1.29e-03  -8.86e-04  -1.42e-03  -1.16e-03
## 413    1.28e-02   4.79e-03   1.68e-02   1.11e-02   1.16e-02   6.03e-03   1.80e-02
## 414    5.88e-03  -7.83e-03  -7.89e-03   8.59e-03  -1.20e-02  -1.55e-02   1.06e-02
## 415   -2.46e-02   5.56e-03   1.75e-02   1.09e-02   1.19e-02   4.98e-03   1.41e-02
## 416   -1.63e-02  -3.67e-03  -1.92e-02   1.18e-02   9.36e-03   7.67e-03   1.26e-02
## 417    2.92e-04  -6.46e-04  -8.03e-04   3.53e-03  -7.50e-04  -1.64e-03   4.99e-03
## 418    4.49e-03  -1.24e-03  -1.58e-05   3.18e-05  -2.20e-05   2.28e-04   1.45e-04
## 419    2.52e-02   5.14e-03   2.78e-02  -1.56e-02  -1.85e-02  -1.23e-02  -3.08e-02
```

```
## 420    1.36e-02   4.54e-03 -6.90e-03 -3.53e-03   2.46e-02 -3.28e-03 -1.21e-02
## 421    1.96e-02 -8.88e-03 -2.87e-03 -4.83e-03 -4.47e-03 -5.25e-03 -3.42e-03
## 422   -2.14e-02 -3.35e-04   1.36e-02   9.94e-03   1.02e-02   8.57e-03   1.77e-02
## 423    1.03e-02 -1.16e-02 -1.38e-02   1.27e-02 -1.19e-02 -1.57e-02   2.27e-02
## 424    3.61e-03 -1.48e-03 -1.44e-04 -1.97e-04 -2.65e-04 -5.72e-04 -3.71e-04
## 425    3.42e-03 -7.19e-03 -1.39e-02 -1.41e-02 -1.57e-02   9.08e-03   3.84e-03
## 426    7.29e-03   1.90e-02   8.05e-03   7.64e-03   4.93e-03   3.06e-03   1.72e-03
## 427    3.57e-03 -1.19e-03 -1.23e-02   9.94e-03 -1.02e-02   1.27e-02 -5.00e-03
## 428    2.07e-02   6.09e-04   1.33e-02   1.12e-02   1.66e-02   8.30e-03   3.24e-02
## 429    1.72e-02   1.35e-03   1.49e-02   9.00e-03   1.07e-02   6.55e-03   1.77e-02
## 430   -2.90e-03 -3.61e-03 -3.85e-03   2.20e-03 -3.05e-03   3.55e-03 -1.24e-03
## 431    2.08e-02   3.25e-02   2.50e-03   1.27e-02   1.46e-02   2.28e-02   1.22e-02
## 432    9.94e-04   1.49e-03   1.27e-03   1.50e-03   8.36e-04   1.01e-03   9.80e-04
## 433   -2.05e-03   9.26e-03   4.60e-03 -1.53e-02 -1.86e-02   8.85e-03   1.53e-03
## 434    1.30e-02 -4.54e-02 -1.41e-02 -1.67e-02 -8.81e-03 -1.52e-02 -5.39e-03
## 435   -6.75e-04 -6.88e-04 -4.85e-05 -7.07e-06   8.65e-05   1.88e-04   7.08e-06
## 436    1.89e-03 -3.92e-03   9.34e-03   8.42e-03 -1.65e-02 -1.91e-02 -1.77e-02
## 437   -6.34e-04 -1.10e-03 -1.55e-04 -1.20e-04 -4.96e-05 -1.80e-04 -3.21e-04
## 438   -1.66e-04   1.21e-03   7.21e-05   7.02e-04 -2.11e-05   4.38e-04 -2.38e-04
## 439    1.02e-02 -7.79e-03   1.53e-02   1.07e-02   1.62e-02 -2.96e-02   2.50e-02
## 440   -2.23e-03   1.07e-02   5.46e-03   1.01e-02 -1.90e-02 -1.73e-02   4.74e-03
## 441    2.05e-02 -3.51e-02   1.39e-02 -3.73e-02 -2.41e-02 -3.36e-02 -1.07e-02
## 442    4.93e-03 -3.95e-03   1.83e-02 -2.26e-02   1.92e-02   1.02e-02 -1.08e-02
## 443    3.64e-03 -1.03e-02 -4.98e-03 -8.77e-03 -4.14e-03 -7.50e-03 -1.75e-03
## 444    1.77e-02   1.43e-02   6.62e-03 -1.71e-02   6.50e-03   8.93e-03   7.22e-03
## 445   -2.24e-02   3.74e-03   1.55e-02   1.26e-02   1.62e-02   9.32e-03   2.37e-02
## 446   -6.54e-03   4.49e-03   1.63e-02 -1.99e-02   1.96e-02 -2.25e-02   8.38e-03
## 447    1.52e-02 -1.16e-03 -9.96e-03 -9.92e-03 -8.73e-03 -7.43e-03 -1.44e-02
## 448    1.24e-03 -4.54e-04   2.17e-05   4.43e-06   5.98e-06   3.44e-05 -1.01e-05
## 449   -2.36e-02 -1.18e-02   1.07e-02   4.05e-03 -3.23e-02   1.17e-02 -1.34e-02
## 450    6.98e-03   2.45e-03   2.21e-04   1.12e-03 -8.17e-03   1.00e-03 -6.60e-05
## 451    1.03e-03 -4.42e-04 -1.44e-05 -9.09e-05 -1.11e-04 -2.24e-04 -1.98e-04
## 452   -5.27e-03   3.54e-03   6.67e-03 -1.73e-02 -1.69e-02 -1.75e-02   8.73e-03
## 453   -1.99e-03 -4.24e-03 -7.12e-03   5.28e-03 -6.26e-03 -9.93e-03 -5.89e-03
## 454    2.63e-02 -2.15e-03 -1.78e-02 -1.26e-02 -1.71e-02 -1.03e-02 -3.11e-02
## 455   -3.36e-04   9.46e-05 -9.03e-08 -2.14e-05 -1.71e-05 -1.51e-06   1.77e-05
## 456    1.90e-02 -1.39e-02 -3.18e-02   4.65e-03 -2.84e-02   1.14e-02 -1.44e-02
## 457   -1.06e-02 -8.61e-03 -9.56e-03   1.01e-02 -8.46e-03 -1.09e-02 -7.56e-03
## 458   -2.80e-03   3.88e-03 -4.72e-03   5.51e-03 -2.83e-03 -2.43e-03 -2.86e-03
## 459   -2.56e-04 -6.50e-03 -1.96e-03 -2.23e-03 -1.81e-03 -2.54e-03 -2.55e-03
## 460    2.70e-02 -5.19e-04   1.15e-02   6.55e-03   8.73e-03   5.49e-03   1.99e-02
## 461   -4.59e-05 -5.22e-03 -1.18e-03 -1.42e-03 -1.70e-03 -1.69e-03 -1.85e-03
## 462   -9.21e-03   1.91e-02 -2.14e-02   6.58e-03   1.01e-02   9.41e-03 -1.98e-02
## 463   -1.30e-02   5.86e-03 -3.90e-03 -1.90e-03   1.64e-02 -4.68e-03   7.61e-03
## 464   -1.17e-02   6.28e-03   1.95e-02   4.69e-04 -7.20e-03 -3.17e-03   9.79e-03
## 465   -2.39e-05 -1.51e-03 -2.26e-04 -1.25e-03 -6.07e-06 -9.72e-04   7.13e-05
## 466   -1.74e-03   2.15e-03   4.53e-03   5.11e-03   5.29e-03 -3.86e-03   6.00e-03
## 467    9.90e-04   9.36e-04   9.88e-03   8.58e-03 -1.09e-03 -5.55e-03   9.04e-05
## 468    3.76e-04   3.15e-03 -2.26e-03   8.11e-03   9.29e-03   7.12e-03 -4.69e-03
## 469    5.56e-04   5.23e-04 -7.92e-05 -2.94e-04 -1.23e-04 -3.28e-04 -5.56e-05
```

```
## 470    1.41e-02 -4.68e-02 -1.46e-02 -2.10e-02 -1.65e-02 -1.79e-02 -2.11e-02
## 471   -1.68e-03 -3.81e-03 -9.33e-04 -1.17e-03 -7.38e-04 -1.29e-03 -1.59e-03
## 472    7.69e-03 -3.54e-02 -7.12e-03 -9.57e-03 -9.56e-03 -1.26e-02 -1.50e-02
## 473   -7.92e-03  2.53e-02  5.30e-03  5.50e-03 -2.74e-02  1.19e-02 -2.26e-02
## 474   -2.33e-03  3.62e-03  3.80e-03 -5.86e-03  3.00e-03 -7.57e-03  9.71e-04
## 475    1.52e-02  6.38e-03  2.51e-02 -8.41e-03 -6.89e-03 -6.34e-03 -1.45e-02
## 476   -1.54e-02  3.98e-03  2.43e-02 -8.99e-03 -9.44e-03 -6.33e-03 -1.57e-02
## 477   -8.50e-03  1.00e-02 -1.36e-02  7.53e-03  9.86e-03 -1.77e-02 -1.32e-02
## 478   -2.14e-03 -2.54e-03 -1.64e-02 -1.58e-02 -1.70e-02 -1.47e-02 -1.90e-02
## 479    1.23e-02  1.24e-02 -5.88e-03 -3.06e-03 -1.18e-02  2.53e-02  9.22e-03
## 480    2.34e-02 -2.08e-03 -1.75e-02 -1.65e-02 -1.34e-02 -1.14e-02 -1.93e-02
## 481   -3.72e-04 -9.08e-04 -1.01e-04  4.38e-04  3.20e-04  7.33e-04  1.72e-04
## 482    5.24e-03  9.76e-03 -2.48e-02  4.42e-02  3.74e-02 -2.24e-02 -2.98e-02
## 483   -2.97e-02  2.09e-03  1.68e-02  8.13e-03  1.73e-02  6.81e-03  3.23e-02
## 484    3.02e-04 -1.59e-03 -9.70e-04  5.16e-03 -9.48e-04 -3.35e-03 -6.75e-05
## 485    1.60e-02  6.71e-03  2.46e-02 -6.15e-03 -9.75e-03 -7.07e-03  2.12e-02
## 486   -1.57e-04  6.05e-03  1.03e-02  8.87e-03  1.02e-02  8.46e-03  1.30e-02
## 487    2.35e-02 -1.16e-02 -4.01e-02  2.52e-03  1.88e-02  9.19e-03 -2.08e-02
## 488   -3.77e-04 -7.40e-04  3.33e-04 -8.56e-04  2.40e-04  2.91e-04  2.93e-04
## 489   -1.58e-02  8.19e-05 -7.24e-03 -4.77e-03 -4.80e-03 -3.61e-03 -1.20e-02
## 490    8.12e-04  1.60e-03 -3.13e-03  8.92e-03 -2.08e-03  1.10e-02  5.71e-04
## 491   -5.08e-03  2.28e-02 -2.76e-02  7.30e-03  6.02e-03  1.04e-02 -3.27e-02
## 492    1.56e-02  1.22e-02 -9.99e-03  3.12e-02 -7.77e-03 -8.14e-03 -1.27e-02
## 493    4.06e-03  1.06e-02 -5.57e-03  5.32e-03  5.23e-03  4.20e-03  4.32e-03
## 494    5.81e-05 -6.76e-03 -1.94e-03 -2.33e-03 -2.03e-03 -2.22e-03 -2.63e-03
## 495   -3.06e-03 -1.86e-03  3.71e-02 -1.82e-02  3.23e-02 -2.64e-02 -3.09e-02
## 496   -2.01e-03  1.35e-03 -4.86e-03 -4.19e-03  2.44e-03 -5.51e-03  8.20e-04
## 497    3.05e-03  1.95e-03 -2.48e-04 -6.63e-04 -5.27e-04 -3.52e-04  3.18e-04
## 498   -5.80e-03 -9.85e-03  3.29e-02 -1.55e-02 -1.17e-02 -1.09e-02 -6.52e-03
## 499   -1.88e-02  2.51e-02  2.76e-02  3.45e-02  2.72e-02 -9.26e-03 -2.15e-02
## 500    8.78e-03 -1.82e-02 -1.16e-02 -1.45e-02 -7.74e-03 -1.15e-02 -4.61e-03
## 501   -9.60e-05  2.50e-03  1.03e-02 -5.21e-03  8.50e-03  7.43e-03  8.08e-03
## 502   -2.86e-04 -6.63e-04 -4.80e-04  3.13e-04 -4.39e-04 -4.70e-04 -3.72e-04
## 503   -7.33e-03 -6.32e-03  7.20e-03 -5.35e-03 -5.87e-03 -7.16e-03  6.11e-03
## 504   -4.75e-03 -3.64e-03  2.98e-03  3.02e-03  3.89e-03  2.40e-03  6.30e-03
## 505   -1.25e-02  8.01e-03  2.20e-02 -2.44e-03  2.25e-02 -3.10e-03 -1.96e-02
## 506    2.30e-02 -4.12e-03  1.27e-02  8.37e-03 -3.76e-02  7.37e-03  2.13e-02
## 507    1.15e-02  1.21e-02 -4.64e-03 -2.42e-03 -1.12e-02  2.59e-02  9.72e-03
## 508   -1.80e-02  9.91e-03 -1.11e-02 -1.00e-02 -8.70e-03  3.37e-02 -1.68e-02
## 509    5.05e-05 -6.50e-03 -1.79e-03 -2.09e-03 -2.10e-03 -2.14e-03 -2.69e-03
## 510   -1.40e-02 -1.70e-02  1.07e-02 -1.71e-02 -1.30e-02 -1.75e-02  2.13e-02
## 511    3.35e-03 -6.27e-03  1.62e-02 -1.68e-02 -8.64e-03  1.11e-02 -4.70e-03
## 512   -1.11e-02 -1.44e-03 -5.92e-03 -2.44e-03 -4.22e-03  9.25e-05 -8.68e-03
## 513    3.88e-03 -6.97e-03 -7.46e-03  9.85e-03  1.58e-02 -1.64e-02 -5.14e-03
## 514    1.15e-02 -2.20e-02 -1.39e-02 -1.83e-02 -1.78e-02 -1.98e-02  1.15e-02
## 515   -1.55e-02  1.78e-02 -2.45e-02 -1.73e-02  2.01e-02  3.68e-02  1.06e-02
## 516   -1.63e-03  2.93e-03  2.75e-03 -2.65e-03  2.44e-03 -3.22e-03  1.24e-03
## 517   -2.39e-02  2.99e-03  1.33e-02  1.09e-02  1.19e-02  4.48e-03  1.72e-02
## 518    2.79e-02  1.06e-02 -1.88e-02  3.56e-02 -1.30e-02 -7.77e-03 -1.52e-02
## 519   -6.06e-04 -5.28e-03 -1.30e-03 -1.76e-03 -1.49e-03 -1.87e-03 -2.25e-03
```

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## 520    9.13e-04  8.83e-04 -3.61e-03   9.39e-03 -3.88e-03   1.04e-02 -2.96e-04
## 521    1.80e-02  3.14e-02  9.75e-03   8.32e-03  5.25e-03   3.63e-03  2.91e-03
## 522    3.17e-03  4.46e-03  1.47e-02   1.10e-02  1.35e-02   7.22e-03  1.84e-02
## 523   -1.52e-02 -3.60e-03 -1.67e-02  -1.35e-02 -1.30e-02  -8.38e-03 -1.72e-02
## 524   -1.07e-02  2.64e-03 -1.48e-02  -6.14e-03  1.89e-02  -9.58e-03  8.46e-03
## 525   -1.08e-02 -2.65e-03  9.82e-03  -7.20e-03 -5.19e-03   9.44e-03 -5.61e-03
## 526    1.97e-05 -8.90e-04 -7.83e-05  -6.82e-04 -1.90e-05  -5.63e-04  1.24e-04
## 527    2.43e-03 -2.38e-03 -3.96e-03   8.93e-03  1.01e-02  -8.92e-03 -5.38e-03
## 528    1.77e-04  1.96e-04 -3.10e-06  -9.47e-05 -6.04e-05  -1.11e-04 -2.54e-05
## 529    2.13e-03 -2.60e-03 -3.98e-03   9.88e-03 -4.35e-03  -7.26e-03 -4.36e-03
## 530   -9.65e-04 -1.38e-03  1.03e-05   2.65e-04  2.11e-04   6.92e-04  2.53e-04
## 531    3.38e-03  2.27e-03 -4.14e-04  -9.53e-04 -5.68e-04  -4.74e-04  2.35e-05
## 532   -2.25e-02 -3.32e-03  1.15e-02   4.97e-03  1.39e-02   9.37e-03 -3.15e-02
## 533    1.99e-05 -7.27e-04  1.44e-02   1.01e-02 -2.39e-03  -9.20e-03  6.43e-04
## 534   -1.15e-02  1.25e-03 -3.77e-03  -1.44e-03 -5.46e-03  -2.58e-03 -1.40e-02
## 535    2.45e-02 -8.04e-03  1.19e-02   3.52e-03 -3.83e-02   8.49e-03 -2.86e-02
## 536    1.99e-03  1.21e-03 -6.94e-03   1.01e-02  9.73e-03   5.72e-03  1.11e-02
## 537   -2.43e-03  3.73e-03 -4.78e-03  -4.31e-03 -6.12e-03   4.86e-03  1.95e-03
## 538   -1.46e-02  2.61e-03 -2.84e-03   8.90e-03  1.27e-02   9.41e-03 -1.43e-03
## 539    1.31e-03 -1.41e-03  8.16e-04  -1.81e-03  5.86e-04   5.66e-04  6.18e-04
## 540   -1.81e-04  1.22e-03  1.18e-04   7.13e-04  4.10e-05   4.65e-04 -1.54e-04
## 541    2.78e-02  3.37e-02  6.82e-03   7.76e-03  7.36e-03   8.80e-03  1.25e-02
## 542    9.23e-05 -6.40e-03 -1.79e-03  -2.09e-03 -2.10e-03  -2.13e-03 -2.71e-03
## 543   -1.24e-02  1.46e-03 -6.91e-03  -2.18e-03 -7.74e-03  -3.98e-03  1.75e-02
## 544   -8.07e-03  2.05e-02 -1.77e-02   4.03e-02 -1.96e-02   3.79e-02  4.35e-02
## 545   -2.06e-02  4.56e-03  1.44e-02   1.23e-02  1.60e-02   1.27e-02  2.46e-02
## 546    3.25e-02  3.26e-03  2.21e-02  -1.61e-02 -2.08e-02  -1.38e-02  2.35e-02
## 547    1.31e-03 -2.19e-03 -3.18e-03   8.80e-03  1.24e-02  -7.55e-03 -1.58e-03
## 548    3.59e-03 -7.77e-03 -7.92e-03  -1.51e-02 -9.68e-03   1.12e-02 -1.05e-02
## 549   -6.30e-04 -5.18e-03 -1.33e-03  -1.82e-03 -1.66e-03  -2.09e-03 -2.21e-03
## 550    4.14e-05 -5.27e-04 -2.98e-04  -1.22e-03 -2.21e-04   3.22e-03  9.72e-05
## 551   -5.28e-05  5.84e-04  3.91e-05   3.16e-04  1.83e-06   2.06e-04 -1.09e-04
## 552    2.24e-03  1.85e-03 -2.30e-04  -7.85e-04 -5.40e-04  -6.72e-04  5.78e-05
## 553    7.72e-03 -2.39e-03 -3.75e-04  -1.01e-04 -5.03e-06   6.44e-04  1.53e-04
## 554   -1.45e-02  3.88e-03  2.46e-02  -1.22e-02 -1.29e-02  -8.59e-03 -1.81e-02
## 555    3.27e-03  4.39e-03  3.44e-03  -3.68e-03 -3.86e-03   3.97e-03  3.48e-03
## 556   -1.68e-04 -6.27e-03 -1.61e-03  -1.91e-03 -1.73e-03  -1.80e-03 -2.71e-03
## 557   -1.19e-03  1.03e-03 -2.01e-03  -1.74e-03  1.91e-03  -1.72e-03 -3.15e-03
## 558   -1.95e-02  1.48e-03  1.31e-02   1.19e-02  1.13e-02   8.75e-03  1.64e-02
## 559   -3.39e-03  1.54e-02  6.48e-03   9.83e-03  4.88e-03  -2.12e-02  3.67e-03
## 560    2.60e-03 -3.82e-03 -5.98e-03   1.16e-02  1.74e-02  -1.18e-02 -1.67e-03
## 561    2.14e-02 -9.84e-03 -4.17e-03  -6.53e-03 -4.83e-03  -6.20e-03 -4.60e-03
## 562   -4.90e-03  1.30e-02  5.28e-03  -2.17e-02  9.70e-03   1.11e-02 -1.98e-02
## 563    1.60e-03  5.27e-03  1.43e-02   1.14e-02 -3.50e-03   1.42e-02  9.80e-04
## 564   -3.10e-03  9.04e-03  5.01e-03   8.11e-03 -1.70e-02  -1.68e-02 -2.00e-02
## 565    6.17e-03 -5.13e-03 -7.60e-03   2.55e-03  3.35e-03   2.48e-03 -7.95e-03
## 566   -1.57e-02 -1.78e-02  1.23e-02  -2.01e-02  2.01e-02  -1.75e-02 -6.81e-03
## 567   -5.04e-03 -6.40e-03  3.71e-03   3.01e-03 -8.78e-03   3.48e-03  8.77e-03
## 568   -1.10e-02  2.35e-03 -1.56e-02  -6.70e-03  1.94e-02  -1.06e-02  8.53e-03
## 569    3.18e-03 -4.86e-03 -1.37e-02   1.07e-02 -1.42e-02  -1.27e-02  8.65e-03
```

```
## 570     9.91e-04   7.83e-04 -7.69e-05 -1.11e-04 -2.59e-05 -1.24e-04 -1.04e-05
## 571     2.60e-03   3.88e-03 -2.57e-03  3.42e-03  2.43e-03 -2.73e-03  1.31e-03
## 572    -3.79e-03   1.03e-02  5.30e-03  1.01e-02 -1.18e-02 -1.06e-02  1.06e-02
## 573    -6.26e-03  -7.38e-03  1.93e-02 -2.88e-02 -4.43e-02 -3.04e-02  9.99e-03
## 574     1.51e-02  -2.37e-02 -2.66e-02  7.32e-03 -2.28e-02 -3.94e-02 -1.14e-02
## 575     9.99e-04  -7.82e-04  7.20e-04  6.91e-04 -1.47e-03  4.81e-04  7.67e-04
## 576     8.45e-03  -7.82e-03  1.39e-02 -1.66e-02 -1.23e-02  1.45e-02 -1.14e-02
## 577    -2.18e-02   2.02e-04  1.37e-02  9.74e-03  1.05e-02  8.26e-03  1.90e-02
## 578     1.08e-02  -1.36e-02 -2.07e-02 -3.18e-02  1.45e-02  6.59e-03  2.14e-02
## 579     9.49e-06  -8.57e-03 -2.60e-03 -4.31e-03 -3.41e-03 -3.40e-03 -3.19e-03
## 580     3.48e-03   2.81e-02  5.69e-03  6.58e-03  9.10e-03  1.15e-02  1.05e-02
## 581     1.56e-02   1.22e-02 -1.12e-02  3.06e-02 -9.50e-03 -1.08e-02 -1.35e-02
## 582    -1.05e-02   3.14e-03 -3.56e-03  4.49e-04  1.71e-02 -1.08e-03  1.32e-02
## 583    -1.33e-04  -7.39e-03 -1.81e-03 -2.94e-03 -2.98e-03 -3.01e-03 -2.34e-03
## 584    -2.45e-04  -8.49e-03 -2.33e-03 -4.01e-03 -3.45e-03 -3.33e-03 -3.11e-03
## 585    -8.76e-03   3.86e-04 -3.27e-03  2.51e-04 -3.79e-03 -3.87e-04  1.23e-02
## 586    -7.68e-04   1.17e-03 -8.20e-04 -8.12e-04  9.14e-04  1.34e-03 -1.36e-03
## 587    -4.11e-04  -3.00e-03 -6.01e-04 -2.99e-05 -2.05e-04  1.37e-04 -4.23e-04
## 588     1.41e-04  -3.84e-04 -4.70e-04 -1.22e-03 -6.44e-04  3.08e-03  3.74e-03
## 589    -5.21e-03  -5.46e-03  2.96e-03  2.52e-03  1.93e-03  1.76e-03  3.94e-03
## 590     4.21e-05  -9.84e-04  3.44e-03 -1.06e-03  6.30e-05 -6.98e-04  3.61e-04
## 591     2.40e-03  -1.02e-03 -9.85e-05 -1.41e-04 -1.80e-04 -3.93e-04 -3.08e-04
## 592    -2.07e-03  -3.11e-03  1.77e-03  1.71e-03  1.32e-03 -4.31e-03  1.96e-03
## 593    -1.42e-02  -1.53e-02 -1.49e-02 -2.00e-02 -1.94e-02  9.00e-03  1.10e-02
## 594    -4.93e-03   2.62e-02  7.02e-03  1.09e-02  5.49e-03  9.27e-03  3.30e-03
## 595    -4.94e-02  -9.45e-03 -1.33e-02  4.18e-02  5.10e-02  4.37e-02 -5.20e-03
## 596     2.07e-03  -5.62e-03 -7.59e-03 -6.00e-03 -5.49e-03 -3.82e-03 -7.59e-03
## 597     2.65e-02   1.82e-02  5.49e-03  1.03e-02  8.98e-03 -2.67e-02  1.18e-02
## 598     3.92e-03   2.45e-03 -1.04e-02  1.17e-02  1.57e-02  1.13e-02  2.16e-02
## 599     1.00e-03   7.23e-04 -5.09e-05 -7.72e-06 -9.05e-05 -6.57e-05  2.36e-05
## 600    -1.74e-02  -1.01e-02  1.32e-02  1.13e-02  1.08e-02 -3.10e-02  1.63e-02
## 601    -2.00e-04  -3.80e-03 -1.06e-03 -5.24e-04 -3.81e-04  2.78e-04 -9.48e-04
## 602     1.17e-03   5.94e-03  1.24e-02  9.99e-03  9.10e-03  7.15e-03  1.07e-02
## 603     4.63e-03  -4.43e-03 -6.73e-03  1.06e-02 -3.23e-03 -6.29e-03 -4.43e-04
## 604     1.07e-02  -1.81e-02  1.37e-02 -2.03e-02 -1.11e-02 -1.56e-02 -5.51e-03
## 605    -2.78e-03  -4.15e-03 -5.65e-03  2.07e-03  1.22e-03  1.52e-03  2.45e-03
## 606    -6.94e-04   6.67e-04  9.40e-04 -6.82e-04 -5.46e-04 -4.09e-04 -6.64e-04
## 607     1.67e-06  -3.37e-06 -2.12e-06 -2.93e-06 -1.72e-06  2.43e-06 -1.11e-06
## 608    -3.80e-04   2.72e-03  1.93e-04  1.15e-03 -3.05e-04  8.19e-04 -3.91e-04
## 609    -3.35e-03   1.08e-02 -4.32e-02  3.83e-02  1.76e-02 -2.45e-02  1.51e-02
## 610    -5.41e-03  -7.09e-03  3.27e-02 -1.74e-02 -1.22e-02 -1.43e-02 -1.21e-02
## 611     6.56e-03   1.25e-03  4.57e-02  3.62e-02  5.28e-02  4.30e-02 -1.03e-02
## 612     2.38e-03   1.64e-03 -4.03e-04 -7.97e-04 -3.75e-04 -6.15e-04 -1.38e-04
## 613     6.84e-03  -1.14e-02 -1.31e-02 -2.24e-02 -1.17e-02  1.48e-02 -7.39e-03
## 614     1.88e-03   2.74e-03  1.80e-03  2.55e-03 -1.44e-03 -1.36e-03  2.40e-03
## 615     2.07e-02   2.76e-02  7.27e-03  1.01e-02  4.49e-03  7.13e-03  2.16e-03
## 616     3.08e-03   9.78e-03  1.06e-02  1.00e-02  8.28e-03  9.32e-03  7.47e-03
## 617     1.29e-03  -7.08e-04  1.42e-02  9.56e-03 -3.83e-03 -1.05e-02 -1.17e-03
## 618     3.20e-03  -7.15e-03 -4.07e-03 -6.90e-03  5.32e-03 -9.07e-03  5.10e-03
## 619     2.33e-02  -8.13e-03 -3.43e-02  7.06e-03  7.57e-03  5.83e-03  1.51e-02
```

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## 620    1.31e-03   1.05e-02   1.06e-02   8.05e-03   1.25e-02   7.24e-03   1.69e-02
## 621    1.79e-03  -3.30e-03  -2.82e-03  -5.71e-03  -5.77e-03   7.49e-03   7.99e-03
## 622   -1.93e-02   1.93e-03   1.53e-02   1.20e-02  -1.30e-02   1.34e-02  -9.10e-03
## 623   -5.30e-04  -9.22e-04  -1.09e-04   3.45e-04   2.58e-04   7.19e-04   1.04e-05
## 624    2.68e-03   3.11e-02   7.46e-03   9.43e-03   8.66e-03   9.78e-03   1.36e-02
## 625   -2.34e-02  -1.17e-02   1.56e-02   1.02e-02   2.12e-02  -3.26e-02  -1.03e-02
## 626    1.47e-02  -7.39e-03  -2.23e-02   1.05e-02  -2.56e-02   7.34e-03   1.59e-02
## 627    4.76e-04   1.84e-03  -4.78e-03   9.95e-03  -4.07e-03   9.92e-03  -2.33e-03
## 628   -5.14e-05  -3.58e-04  -5.85e-04   6.00e-03  -2.38e-06  -2.31e-03   5.91e-04
## 629   -7.68e-03  -2.07e-03   2.19e-02  -1.73e-02  -2.58e-02  -9.61e-03  -3.34e-02
## 630   -1.15e-02   2.36e-02   2.18e-02  -1.35e-02   2.05e-02   3.95e-02   9.80e-03
## 631    6.19e-03   7.77e-03   4.79e-03  -6.82e-03   3.01e-03   3.78e-03   4.99e-04
## 632   -5.45e-03  -5.46e-03   3.32e-03   2.84e-03   2.17e-03   2.01e-03   4.43e-03
## 633   -5.62e-04  -3.39e-03  -8.46e-04  -4.67e-04  -3.64e-04   6.21e-05  -8.43e-04
## 634   -4.87e-04  -4.13e-03   7.33e-03  -1.01e-02   1.00e-02  -8.17e-03  -7.54e-03
## 635   -4.35e-03   2.24e-03   1.33e-02  -2.66e-02   1.88e-02  -2.60e-02   6.08e-03
## 636   -1.42e-02  -4.88e-03   1.14e-02   1.25e-02  -5.06e-03  -8.44e-03  -7.79e-04
## 637   -5.69e-03  -5.16e-03   3.94e-03   2.26e-03   5.34e-03   3.59e-03  -5.25e-03
## 638   -6.60e-03   9.18e-03  -3.75e-02   3.73e-02   1.71e-02  -2.90e-02   9.24e-03
## 639   -1.17e-02   5.88e-04  -6.05e-03  -2.76e-03  -8.15e-03  -3.08e-03  -1.75e-02
## 640   -3.39e-03   1.32e-03  -1.91e-04  -3.76e-04  -2.83e-04  -7.37e-05   1.19e-04
## 641    2.78e-02  -6.27e-02  -2.90e-02  -3.08e-02  -2.41e-02  -2.38e-02   5.21e-02
## 642    1.00e-02   2.96e-03  -3.44e-03  -2.33e-04  -7.92e-03  -4.20e-03   8.95e-03
## 643   -2.03e-02  -1.58e-03  -1.08e-02   1.07e-02  -1.17e-02   1.13e-02   2.17e-02
## 644    1.62e-02  -8.09e-03  -2.10e-03  -4.11e-03  -3.75e-03  -4.85e-03  -3.01e-03
## 645   -8.34e-03  -5.16e-04  -6.38e-03  -2.55e-04  -9.72e-03  -1.53e-03   9.50e-03
## 646    8.33e-03  -4.15e-02  -1.10e-02  -1.43e-02  -6.81e-03  -1.36e-02  -5.89e-03
## 647    5.53e-03   6.93e-03   5.20e-03   5.69e-03  -5.72e-03  -5.98e-03  -6.65e-03
## 648   -1.26e-02   4.49e-03   2.07e-02  -1.73e-03  -6.11e-03  -1.24e-03  -1.32e-02
## 649   -2.26e-02   3.96e-03   1.50e-02   1.10e-02   1.18e-02   5.62e-03   1.45e-02
## 650    1.59e-02   7.26e-04  -9.66e-03  -7.14e-03  -7.45e-03  -6.42e-03  -1.35e-02
## 651    1.30e-02   4.52e-03  -7.85e-03  -5.93e-03   2.64e-02  -6.47e-03  -1.51e-02
## 652    9.58e-05   1.07e-04  -1.44e-06  -5.01e-05  -3.23e-05  -5.86e-05  -1.56e-05
## 653    1.43e-02  -6.48e-03  -1.99e-03  -2.99e-03  -2.78e-03  -3.72e-03  -3.31e-03
## 654    4.03e-03   2.52e-02   7.60e-03   1.26e-02   9.77e-03   1.57e-02   1.44e-02
## 655   -2.15e-02  -1.95e-02   1.11e-02   5.99e-03   2.02e-02  -4.08e-02  -1.55e-02
## 656   -3.57e-03  -2.92e-03   2.48e-03   2.65e-03   1.97e-03   1.67e-03   2.80e-03
## 657   -2.07e-03   2.05e-03  -2.87e-03  -2.88e-03  -2.23e-03   3.53e-03  -2.90e-03
## 658    2.04e-03   2.25e-02   4.81e-03   2.45e-04   1.52e-03  -1.48e-03   3.26e-03
## 659   -1.15e-03  -2.87e-03  -5.56e-04  -9.23e-04  -7.53e-04  -1.45e-03  -1.27e-03
## 660   -5.71e-03  -1.56e-02  -1.48e-02  -1.46e-02  -1.09e-02  -1.33e-02  -1.08e-02
## 661   -5.76e-03   2.46e-02   7.48e-03   1.08e-02   5.22e-03   8.49e-03   3.09e-03
## 662    1.07e-04  -6.64e-03  -1.94e-03  -2.32e-03  -2.03e-03  -2.21e-03  -2.66e-03
## 663    2.15e-04   4.02e-04  -2.07e-04  -2.03e-04   3.05e-04   3.85e-04   2.94e-04
## 664    2.32e-03   1.76e-03  -3.28e-04  -8.97e-04  -5.12e-04  -6.77e-04   3.95e-05
## 665   -1.98e-02  -6.27e-03   1.23e-02   9.22e-03  -3.84e-02   9.78e-03   2.24e-02
## 666    1.61e-02  -8.41e-04  -1.05e-02  -1.03e-02  -9.25e-03  -7.80e-03  -1.46e-02
## 667   -1.66e-03   3.54e-03   8.23e-03   6.83e-03  -1.57e-02   5.46e-03   5.82e-03
## 668    9.97e-03  -4.79e-02  -1.39e-02  -2.08e-02  -1.01e-02  -1.70e-02  -6.20e-03
## 669    2.18e-04   2.20e-05   3.98e-04  -7.11e-04   1.99e-04   3.37e-04   2.64e-04
```

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## 670   -3.48e-04 -4.57e-04 -9.38e-06 -7.98e-05 -9.64e-05 -1.32e-04 -1.05e-04
## 671   -1.25e-03  4.10e-04 -3.41e-05 -1.29e-04 -1.01e-04 -8.39e-05  4.21e-06
## 672   -1.37e-02 -4.40e-04 -6.18e-03 -3.83e-03 -4.31e-03 -2.92e-03 -1.04e-02
## 673    1.53e-02 -8.40e-03 -2.68e-03 -5.15e-03 -3.90e-03 -5.06e-03 -3.94e-03
## 674    7.16e-03 -8.16e-03  3.09e-02 -9.32e-03 -2.23e-02 -1.08e-02  3.01e-02
## 675    8.39e-04 -3.10e-03  9.66e-03 -4.83e-03 -9.31e-04 -3.62e-03  1.11e-04
## 676    2.54e-03 -1.16e-03 -1.59e-04 -2.63e-04 -2.35e-04 -3.98e-04 -5.37e-04
## 677   -5.05e-03 -1.09e-02 -1.06e-02 -9.88e-03 -1.31e-02 -1.23e-02 -1.92e-02
## 678    3.09e-02 -2.42e-02 -4.96e-02  1.54e-03 -3.85e-02  1.08e-02 -1.95e-02
## 679    5.39e-03  2.60e-05 -1.09e-02  1.11e-02  1.07e-02  6.37e-03  1.15e-02
## 680    1.49e-02  1.56e-03 -7.66e-03 -7.55e-03 -1.14e-02 -6.87e-03 -2.25e-02
## 681    4.30e-04 -6.02e-04 -4.95e-04 -5.75e-04  2.06e-04  2.16e-04  2.07e-04
## 682   -2.50e-03  4.51e-03  5.33e-03 -2.02e-02  6.19e-03 -1.85e-02 -2.49e-02
## 683    8.69e-03 -6.98e-03  1.74e-02  1.12e-02 -1.25e-02 -2.33e-02 -4.99e-03
## 684   -1.99e-02  1.06e-03  1.30e-02  1.28e-02  1.15e-02  9.62e-03  1.90e-02
## 685   -3.79e-03  1.61e-02  7.09e-03  1.06e-02  5.06e-03 -2.15e-02  4.03e-03
## 686    4.63e-03 -2.40e-03 -4.17e-04 -1.10e-03 -7.34e-04 -1.04e-03 -9.52e-04
## 687    8.18e-03 -2.83e-02 -1.05e-02  4.02e-02 -5.49e-03 -1.22e-02  5.29e-04
## 688   -1.29e-03  4.06e-03 -6.87e-03  6.97e-03  5.23e-03  5.72e-03  3.92e-03
## 689    5.44e-03  4.26e-03  1.43e-02  1.00e-02  1.37e-02  7.34e-03  1.87e-02
## 690   -4.89e-05 -8.97e-03 -2.63e-03 -4.40e-03 -3.44e-03 -3.43e-03 -3.11e-03
## 691    7.40e-03  2.26e-03 -6.82e-03 -6.25e-03  4.89e-03 -6.22e-03  4.90e-03
## 692    2.89e-04  4.45e-04  1.33e-06  5.84e-07  4.47e-05  5.28e-05  1.03e-04
## 693   -1.42e-02 -3.62e-05 -7.20e-03 -4.45e-03 -5.19e-03 -3.52e-03 -1.10e-02
## 694   -2.36e-03 -4.88e-03 -1.25e-03 -2.63e-03 -1.70e-03 -2.26e-03 -1.90e-03
## 695   -6.02e-04 -8.88e-03 -2.48e-03 -4.06e-03 -3.25e-03 -3.78e-03 -2.95e-03
## 696   -1.17e-03 -2.36e-03  1.04e-03 -2.59e-03  7.14e-04  9.57e-04  9.84e-04
## 697    8.86e-03 -3.76e-02 -1.22e-02 -1.69e-02  4.38e-02 -1.60e-02 -1.06e-02
## 698   -2.03e-02  2.00e-03 -9.78e-03  1.08e-02  1.44e-02  1.00e-02 -1.18e-02
## 699   -3.87e-03 -5.17e-03 -7.00e-03  2.26e-03  4.30e-03  3.08e-03 -4.55e-03
## 700    1.59e-03  4.58e-03  2.39e-03  2.56e-03 -1.93e-03  2.83e-03 -2.50e-03
## 701    1.16e-02  4.36e-03  1.53e-02  9.72e-03  1.46e-02  8.09e-03 -2.12e-02
## 702    1.42e-02  2.82e-03  1.63e-02  8.72e-03  1.63e-02  8.27e-03  2.96e-02
## 703   -2.60e-04 -8.82e-03 -2.38e-03 -4.10e-03 -3.50e-03 -3.37e-03 -3.08e-03
## 704   -3.85e-03  1.89e-02 -1.92e-02  9.54e-03  4.26e-03  8.18e-03  1.75e-03
## 705    2.73e-02  2.26e-02  2.80e-02  3.74e-02 -1.43e-02 -1.55e-02 -1.74e-02
## 706    3.89e-03 -3.74e-03  2.95e-03  2.17e-03 -4.23e-03  2.67e-03 -2.61e-03
## 707    1.32e-02 -1.34e-02 -2.33e-02  9.58e-03  2.27e-02 -2.98e-02 -1.09e-02
## 708   -2.10e-02 -2.12e-03  1.47e-02  1.05e-02 -2.33e-02  8.43e-03  1.80e-02
## 709    1.61e-02  1.43e-02 -1.80e-02  7.22e-03 -1.60e-02  8.84e-03 -1.50e-02
## 710   -7.54e-04  2.80e-02  8.45e-03  1.00e-02  8.84e-03  9.50e-03  1.17e-02
## 711   -1.84e-02 -1.30e-02  1.46e-02  1.29e-02 -2.38e-02 -2.93e-02  2.04e-02
## 712    1.44e-03 -5.03e-04  1.26e-05 -6.71e-05 -1.53e-05  3.22e-05 -7.94e-05
## 713    1.90e-02 -2.14e-02  1.40e-02 -2.72e-02  9.50e-03 -3.12e-02  1.59e-02
## 714   -1.69e-03  5.59e-04 -4.08e-05 -9.75e-05 -1.21e-04  5.56e-05  7.67e-05
## 715    7.22e-03 -4.91e-03  1.56e-02 -2.13e-02  1.27e-02  9.23e-03 -1.69e-02
## 716    2.98e-04  2.40e-05  5.00e-04 -9.35e-04  2.47e-04  4.29e-04  3.30e-04
## 717    1.22e-02  1.71e-03  1.62e-02  8.65e-03  1.62e-02  8.20e-03  2.82e-02
## 718    5.66e-04  3.54e-03  1.04e-02  6.73e-03 -2.07e-02  1.20e-02 -1.65e-02
## 719    1.04e-03  3.80e-03  1.64e-02  9.53e-03 -1.34e-02  4.67e-03  1.34e-02
```

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## 720   -3.21e-04 -3.22e-03 -6.66e-04 -2.21e-05 -1.96e-04  2.20e-04 -4.23e-04
## 721    2.52e-03  1.81e-03 -3.72e-04 -8.67e-04 -5.82e-04 -6.17e-04 -1.04e-04
## 722   -1.19e-02  9.00e-04 -5.72e-03 -3.32e-03 -7.06e-03 -3.23e-03 -1.72e-02
## 723    9.20e-03 -4.25e-02 -1.16e-02 -1.48e-02 -7.25e-03 -1.40e-02 -5.54e-03
## 724   -7.83e-03 -2.77e-03 -1.16e-02 -2.80e-03 -1.45e-02 -3.38e-03  1.10e-02
## 725   -2.22e-03 -9.51e-03 -2.97e-03 -6.20e-03 -3.97e-03 -6.86e-03 -4.18e-03
## 726    7.26e-03 -1.79e-03 -3.42e-04  3.30e-04  3.50e-04  9.74e-04 -1.48e-05
## 727   -2.38e-02 -1.93e-03  1.39e-02  8.46e-03  1.46e-02  9.55e-03 -2.75e-02
## 728   -1.71e-02  2.36e-02  2.60e-02  3.59e-02  3.38e-02 -1.16e-02 -1.82e-02
## 729   -4.57e-04 -6.63e-04  4.18e-04 -7.39e-04  4.05e-04  3.68e-04 -7.15e-04
## 730   -1.40e-02  1.37e-02 -3.11e-02 -2.36e-02  3.12e-02  4.16e-02 -3.25e-02
## 731   -1.93e-04 -6.38e-03 -1.77e-03 -2.21e-03 -1.95e-03 -2.23e-03 -2.53e-03
## 732   -1.97e-02 -3.44e-03 -1.86e-02  1.14e-02  1.00e-02  7.69e-03  1.58e-02
## 733    4.21e-05  1.83e-04  8.23e-04 -2.27e-04  7.02e-04  7.06e-04  6.46e-04
## 734    1.30e-02 -2.92e-03  1.41e-02  1.07e-02 -2.27e-02  9.35e-03  2.83e-02
## 735   -6.20e-04  3.64e-03  9.46e-03  8.44e-03 -1.37e-02  1.00e-02 -1.16e-02
## 736    1.13e-02 -1.39e-02 -1.65e-02  1.25e-02 -1.11e-02 -1.76e-02 -4.71e-03
## 737    6.38e-03  3.27e-03  6.20e-04  1.04e-03  3.98e-04  1.19e-03 -7.70e-03
## 738    8.17e-03 -3.88e-04 -1.72e-02  8.64e-03  1.03e-02  3.83e-03  1.28e-02
## 739   -1.69e-03 -2.10e-03  1.36e-03  1.85e-03  1.08e-03  1.44e-03  1.97e-03
## 740    2.23e-03  1.76e-03  1.95e-03 -1.44e-03 -2.16e-03 -1.41e-03  1.41e-03
## 741   -1.65e-02 -2.13e-02  1.09e-02 -3.72e-02 -3.55e-02  1.16e-02  1.74e-02
## 742   -1.69e-02  1.22e-02 -6.36e-03  3.17e-02 -1.24e-02 -7.80e-03  1.54e-02
## 743    5.30e-04 -1.57e-04  2.54e-05  1.06e-05 -5.33e-06 -1.35e-06  8.31e-06
## 744   -5.92e-03  2.65e-02  7.41e-03  9.50e-03  4.32e-03  8.74e-03  2.79e-03
## 745   -3.03e-04 -8.26e-04 -1.10e-03  7.66e-03 -4.18e-04 -3.92e-03  8.00e-04
## 746    3.65e-05 -8.34e-04 -1.22e-04 -6.48e-04 -5.24e-05 -5.32e-04  5.37e-05
## 747   -2.13e-02 -4.00e-03  1.22e-02  9.76e-03 -3.75e-02  6.61e-03  2.02e-02
## 748    4.15e-04  3.65e-04  3.27e-05 -9.51e-05 -8.92e-05 -1.11e-04  2.81e-05
## 749   -9.50e-03 -1.26e-03  9.07e-03  7.39e-03 -3.40e-03 -5.47e-03 -2.94e-03
## 750   -5.03e-03  8.05e-03 -1.09e-02 -1.16e-02  3.47e-03  7.03e-03  1.36e-03
## 751    3.72e-03 -3.74e-03  1.95e-03  2.23e-03  1.67e-03 -5.71e-03  2.17e-03
## 752   -3.09e-03  6.75e-04  5.23e-03 -1.65e-02 -1.69e-02 -1.57e-02  9.86e-03
## 753   -1.68e-02 -2.32e-02 -3.21e-02 -3.68e-02  1.27e-02  1.13e-02 -3.01e-02
## 754   -1.01e-02  3.41e-03 -5.75e-03  5.68e-04  1.66e-02 -2.56e-03  8.95e-03
## 755    2.47e-03  1.97e-03 -6.35e-05 -3.95e-04 -3.57e-04 -4.45e-04  3.87e-04
## 756   -8.24e-05 -6.32e-03 -1.71e-03 -2.04e-03 -2.05e-03 -2.14e-03 -2.63e-03
## 757    2.01e-02  8.19e-03  2.51e-02 -8.82e-03 -1.28e-02 -9.55e-03 -2.57e-02
## 758   -2.31e-04  9.98e-04  2.22e-04  6.26e-04 -2.71e-03  1.11e-03 -2.58e-03
## 759    9.18e-07 -6.90e-03 -1.93e-03 -2.34e-03 -2.02e-03 -2.24e-03 -2.60e-03
## 760    2.13e-02 -4.03e-04 -1.26e-02 -8.23e-03 -1.81e-02 -1.06e-02  1.27e-02
## 761    1.55e-02  2.44e-04 -8.87e-03 -6.60e-03 -7.54e-03 -5.14e-03 -1.38e-02
## 762   -5.30e-03 -7.44e-03 -9.99e-03  1.92e-03  5.36e-03  3.76e-03 -6.14e-03
## 763    2.39e-03  1.55e-03 -3.08e-04 -7.76e-04 -4.22e-04 -4.31e-04 -1.23e-04
## 764    3.16e-03  1.11e-02  1.18e-02  9.25e-03  1.20e-02  1.13e-02 -2.90e-02
## 765    1.78e-02 -3.98e-03 -2.71e-02  8.59e-03  8.85e-03  5.91e-03  1.59e-02
## 766   -6.59e-04 -2.74e-03 -5.82e-04 -3.61e-04 -1.96e-04  3.70e-05 -8.06e-04
## 767   -1.59e-02 -4.16e-03  1.35e-02  1.08e-02  9.95e-03 -2.03e-02  1.29e-02
## 768   -4.11e-03  8.60e-03 -1.20e-02 -1.01e-02  6.92e-03  9.69e-03  6.36e-03
## 769   -9.20e-04 -7.76e-03 -1.97e-03 -3.64e-03 -2.76e-03 -3.07e-03 -2.90e-03
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## 770   -1.18e-02   9.02e-04  -6.07e-03  -9.06e-04  -9.90e-03  -4.32e-03   1.02e-02
## 771   -1.81e-04   2.71e-02   7.43e-03   8.70e-03   8.71e-03   8.88e-03   1.11e-02
## 772    1.39e-02   1.73e-02  -7.05e-03   3.14e-02   2.48e-02  -8.76e-03  -2.21e-02
## 773    2.88e-02   4.59e-04  -1.86e-02  -1.29e-02   1.70e-02  -2.01e-02   5.02e-03
## 774   -1.67e-05  -7.38e-04  -5.31e-04  -2.17e-03  -3.40e-04   5.56e-03   1.07e-04
## 775    4.47e-03   4.09e-03  -2.30e-02   1.18e-02   1.18e-02   1.09e-02   1.58e-02
## 776   -1.47e-02   5.68e-03   2.16e-02  -3.74e-03  -4.60e-03  -3.33e-03  -1.06e-02
## 777    1.76e-03  -6.76e-03  -2.63e-03  -4.72e-03  -3.20e-03  -5.07e-03   1.03e-02
## 778    9.31e-03  -4.68e-02  -1.27e-02  -1.97e-02  -1.00e-02  -1.68e-02  -5.38e-03
## 779    3.17e-03  -4.06e-03   1.76e-03  -4.03e-03  -4.16e-03   1.62e-03   1.84e-03
## 780   -5.22e-03   2.42e-02   7.48e-03   1.14e-02   5.22e-03   8.30e-03   3.79e-03
## 781   -3.86e-03   5.90e-03  -8.77e-03  -9.04e-03   2.68e-03   5.19e-03   8.92e-04
## 782    8.01e-03  -2.87e-02  -1.36e-02  -1.99e-02  -9.96e-03   3.90e-02  -8.74e-03
## 783    5.79e-05   1.90e-04   2.20e-04   2.38e-04  -2.44e-04   2.99e-04  -1.71e-04
## 784   -1.10e-02   1.83e-02   2.15e-02   3.69e-02   1.95e-02  -2.40e-02   1.17e-02
## 785   -2.54e-03  -6.69e-03  -4.50e-03   1.95e-03  -3.78e-03  -5.00e-03  -2.09e-03
## 786    9.56e-03   4.83e-03   5.87e-03  -9.38e-03   3.75e-03  -1.16e-02   1.41e-03
## 787    1.36e-02   1.00e-02  -1.37e-02  -1.30e-02   8.90e-03   1.09e-02  -1.30e-02
## 788   -6.96e-03  -5.58e-03   4.97e-03   3.23e-03   6.67e-03   4.27e-03  -5.54e-03
## 789    1.10e-04   1.39e-04  -4.54e-04   2.43e-04   1.39e-04   1.79e-04   1.74e-04
## 790    1.13e-03   1.37e-03  -1.14e-03  -1.40e-03  -1.41e-03   1.75e-03   1.43e-03
## 791   -8.21e-04  -2.14e-03  -2.38e-04   4.24e-04   2.80e-04   1.45e-03   5.34e-04
## 792    2.69e-04  -3.79e-04  -4.69e-04   3.25e-04   4.35e-04   2.34e-04   6.39e-04
## 793    4.02e-03   8.92e-03   9.34e-03   8.91e-03   1.67e-02   1.31e-02  -2.12e-02
## 794   -3.76e-03   1.07e-02  -2.51e-02   8.80e-03   7.63e-03  -2.44e-02   1.09e-02
## 795    8.76e-03  -2.23e-03   1.36e-02   1.42e-02   1.33e-02  -1.80e-02   1.55e-02
## 796    1.37e-02  -7.58e-03  -1.74e-03  -3.64e-03  -3.20e-03  -4.36e-03  -2.91e-03
## 797   -2.13e-04  -5.60e-03  -1.19e-03  -1.23e-03  -1.57e-03  -1.81e-03  -1.88e-03
## 798   -7.08e-03  -1.12e-02  -3.80e-02  -2.45e-02   1.68e-02  -3.10e-02   5.56e-03
## 799   -6.46e-04   9.47e-03   1.43e-02   1.16e-02   1.20e-02   9.18e-03   1.26e-02
## 800   -1.45e-02   1.01e-02  -6.24e-03  -2.68e-03  -1.11e-02   2.61e-02   1.01e-02
## 801    4.43e-03  -1.27e-03  -1.93e-04  -1.48e-04  -9.33e-05   1.22e-04   2.67e-05
## 802   -2.11e-03   3.38e-03  -2.27e-03   3.23e-03   2.80e-03  -1.86e-03  -3.19e-03
## 803    1.39e-02   7.39e-03   2.35e-02  -3.43e-03  -8.36e-03  -6.11e-03   1.98e-02
## 804    1.42e-03   5.73e-03   3.44e-03   3.42e-03  -1.43e-03   4.00e-03  -1.37e-03
## 805   -3.29e-03   7.61e-03   5.12e-03   7.73e-03  -1.21e-02  -1.14e-02   3.35e-03
## 806    2.30e-04  -1.03e-03   3.21e-03  -1.24e-03  -1.34e-04  -8.55e-04   1.42e-04
## 807   -9.39e-03   3.11e-03   2.08e-02  -9.12e-03  -2.19e-02  -1.09e-02   1.16e-02
## 808    1.41e-02   5.27e-04  -8.33e-03  -5.99e-03  -6.63e-03  -5.57e-03  -1.31e-02
## 809   -8.28e-03   1.59e-03   1.97e-02  -2.44e-02   1.75e-02  -3.24e-02   7.52e-03
## 810   -4.90e-03   1.16e-02  -6.34e-02   2.58e-02  -7.06e-02   1.91e-02   2.73e-03
## 811    2.21e-03  -6.07e-04  -3.84e-05   1.47e-04   1.64e-04   1.67e-04  -6.12e-05
## 812   -2.64e-04   1.21e-03   5.37e-03  -6.07e-03   5.01e-03   6.18e-03   3.27e-03
## 813   -9.75e-04  -7.36e-03  -2.29e-03  -3.66e-03  -2.42e-03  -4.09e-03  -4.05e-03
## 814    1.70e-02   3.53e-03   1.70e-02   8.05e-03   1.51e-02   8.37e-03  -2.65e-02
## 815    1.16e-02   5.52e-03  -5.34e-03  -3.21e-03   1.98e-02  -5.74e-03  -1.96e-02
## 816   -1.02e-02  -4.67e-03  -3.71e-03   7.79e-03  -3.05e-03  -6.07e-03  -4.47e-04
## 817   -1.56e-02   2.28e-02   2.46e-02  -5.43e-03   1.97e-02   3.03e-02   8.92e-03
## 818   -9.95e-06   2.60e-05   1.46e-05   2.40e-05  -5.98e-05   3.24e-05  -5.50e-05
## 819    2.30e-03  -4.12e-03   1.67e-02   1.08e-02  -5.90e-03  -1.45e-02  -1.37e-03
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## 820   -8.37e-04   7.89e-04   1.12e-03  -8.81e-04  -6.79e-04  -5.03e-04  -7.42e-04
## 821    6.81e-03  -1.89e-03  -1.29e-02   1.01e-02  -1.09e-02   1.48e-02  -4.40e-03
## 822   -3.38e-03   1.06e-02   5.48e-03   7.53e-03  -2.23e-02  -2.15e-02  -2.41e-02
## 823    1.34e-03  -5.08e-04   2.87e-05  -6.16e-05  -9.58e-06   1.42e-05  -5.68e-05
## 824    1.98e-02   1.27e-02   2.59e-02  -8.26e-03   2.76e-02  -1.03e-02   2.07e-02
## 825   -7.51e-03   1.50e-03  -2.68e-03   1.31e-03  -6.12e-03  -3.65e-04   7.89e-03
## 826    1.38e-02  -6.27e-03  -1.60e-03  -2.23e-03  -2.46e-03  -3.55e-03  -2.49e-03
## 827    5.62e-02  -1.52e-03   1.64e-02  -4.40e-02   2.16e-02  -4.17e-02   1.99e-02
## 828    6.35e-04  -3.10e-03   8.92e-03   8.17e-03  -1.39e-02  -1.71e-02  -1.43e-02
## 829   -1.53e-02   3.14e-02   2.06e-02   3.09e-02  -5.22e-02   3.06e-02   1.37e-02
## 830    9.74e-04  -2.92e-04  -1.42e-05   7.84e-05   6.61e-05   9.17e-05  -5.57e-06
## 831    7.43e-03  -3.58e-03   4.47e-03   3.51e-03   5.47e-03   4.96e-03  -8.55e-03
## 832    1.03e-02  -1.25e-03  -1.73e-02   1.01e-02   1.36e-02   8.17e-03  -1.91e-02
## 833    1.21e-02   2.20e-04  -5.78e-03  -1.34e-03  -6.29e-03  -2.26e-03   1.68e-02
## 834    2.82e-03  -4.62e-03  -6.61e-03  -1.40e-02   1.10e-02   6.02e-03   1.40e-02
## 835    3.94e-03  -2.90e-03  -5.05e-03   2.31e-03   3.03e-03   2.95e-03  -4.95e-03
## 836    8.25e-03  -4.73e-02  -1.22e-02  -1.93e-02  -9.45e-03  -1.64e-02  -5.18e-03
## 837   -4.15e-03   1.57e-03   5.25e-03  -1.04e-02  -8.36e-03  -8.84e-03  -8.67e-03
## 838    4.83e-04   5.07e-04   8.59e-06  -1.29e-04  -1.28e-04  -2.29e-04   4.09e-05
## 839   -4.86e-03  -8.79e-03  -2.97e-02  -1.69e-02   1.56e-02  -2.08e-02   5.57e-03
## 840   -4.15e-05   3.50e-04   8.05e-03  -3.54e-03  -6.75e-04   7.90e-03   1.92e-04
## 841    6.89e-03   2.56e-02   3.49e-03  -6.63e-04   1.35e-03  -9.12e-04   5.55e-03
## 842    2.51e-03  -9.28e-04   9.53e-03  -1.94e-02   6.88e-03   9.55e-03   4.38e-03
## 843    1.00e-02   2.98e-03  -3.45e-03  -2.63e-04  -7.90e-03  -4.19e-03   8.78e-03
## 844   -7.56e-04  -2.39e-03  -2.76e-04   1.35e-04  -1.77e-04   2.40e-05  -3.21e-04
## 845    4.22e-03  -2.22e-03   2.62e-03   2.61e-03   1.96e-03   1.25e-03   2.90e-03
## 846    1.73e-03  -2.16e-03   5.24e-03  -5.30e-03   5.40e-03  -6.35e-03   3.65e-03
## 847   -2.74e-03  -2.88e-03   1.89e-03   2.29e-03   1.33e-03   1.35e-03   2.36e-03
## 848   -5.22e-03  -5.40e-03   3.10e-03   2.56e-03   2.17e-03   1.89e-03   4.28e-03
## 849   -6.45e-05   9.48e-04   3.51e-06   4.84e-04  -4.52e-05   3.01e-04  -2.17e-04
## 850    1.38e-03   1.07e-03  -1.08e-03  -1.05e-03   1.82e-03  -7.12e-04  -1.09e-03
## 851    1.88e-02  -8.30e-03  -3.25e-03  -4.17e-03  -3.41e-03  -4.20e-03  -4.02e-03
## 852   -2.83e-03   5.41e-03   6.04e-03  -1.95e-02   6.29e-03  -1.82e-02  -2.44e-02
## 853    2.47e-03   1.64e-03  -2.98e-04  -6.05e-04  -4.06e-04  -5.14e-04   1.83e-04
## 854   -4.86e-03  -1.22e-02  -4.37e-02  -3.02e-02   1.47e-02  -3.48e-02   6.57e-04
## 855   -3.80e-03  -5.22e-03   2.62e-03   2.50e-03  -8.93e-03   1.88e-03   4.20e-03
## 856    8.14e-03  -3.76e-02   4.02e-02  -1.96e-02  -9.12e-03  -1.73e-02  -3.97e-03
## 857    2.67e-04  -6.47e-04  -3.20e-04  -5.13e-04   1.15e-03  -8.86e-04   1.00e-03
## 858    1.00e-03   1.66e-03   1.46e-03   1.72e-03   9.18e-04   1.14e-03   1.09e-03
## 859   -6.86e-04  -1.90e-03  -3.84e-04  -2.84e-04  -2.19e-04  -1.50e-04  -6.14e-04
## 860    5.70e-04  -8.14e-05   3.97e-03  -1.75e-03  -1.12e-03   4.10e-03   5.07e-03
## 861    2.22e-02   3.37e-03   2.48e-02  -7.73e-03  -9.41e-03  -3.46e-03  -1.40e-02
## 862    1.09e-02   7.35e-03   2.08e-02  -9.14e-04  -8.41e-03  -5.07e-03   1.01e-02
## 863   -1.13e-02   5.29e-04  -8.92e-03  -2.45e-03  -1.27e-02  -5.83e-03   1.07e-02
## 864    1.52e-02   1.70e-02  -1.02e-02  -9.69e-03   2.82e-02   3.32e-02  -1.98e-02
## 865   -1.61e-03   1.93e-03   4.55e-03   5.03e-03   5.43e-03  -4.28e-03  -4.88e-03
## 866   -5.00e-04  -8.47e-03  -2.21e-03  -3.94e-03  -3.38e-03  -3.35e-03  -2.99e-03
## 867   -5.10e-03  -1.96e-02  -3.85e-02  -3.26e-02  -3.99e-02  -2.72e-02  -5.05e-02
## 868    1.39e-02  -3.73e-03  -1.02e-03  -4.28e-04  -1.19e-04   1.85e-03   6.46e-04
## 869    6.38e-05  -2.26e-04   7.72e-04  -2.57e-04  -1.41e-04  -2.40e-04  -2.09e-04
```

```
## 870   -1.38e-02 -6.72e-04 -5.51e-03  8.50e-03 -4.95e-03  1.03e-02 -1.41e-03
## 871    2.79e-03  2.16e-03 -3.47e-04 -8.19e-04 -3.99e-04 -6.76e-04  8.47e-05
## 872    9.90e-03 -8.82e-03  3.00e-02 -1.69e-02 -2.76e-02 -1.88e-02  2.92e-02
## 873    4.32e-03  4.43e-03  1.37e-02  1.25e-02 -4.66e-03  1.61e-02 -2.81e-04
## 874    4.62e-03  1.01e-02  1.09e-02  8.74e-03  1.19e-02  1.18e-02 -3.03e-02
## 875    1.86e-02  3.56e-02 -1.32e-02  3.52e-02  2.29e-02  3.09e-02  1.37e-02
## 876   -3.53e-04 -1.84e-03  2.94e-03 -2.56e-03 -1.75e-03 -2.16e-03 -1.93e-03
## 877   -2.10e-03 -1.75e-03 -2.40e-03  1.36e-03  2.25e-03  1.89e-03 -1.18e-03
## 878    1.41e-02  1.71e-02 -1.55e-02  7.03e-03  3.42e-03  5.33e-03  1.28e-03
## 879    1.41e-02  4.12e-02  3.01e-02  3.65e-02  2.41e-02  2.96e-02  1.38e-02
## 880   -1.41e-03 -2.83e-03 -7.31e-04 -1.01e-03 -5.35e-04 -1.10e-03 -1.42e-03
## 881    1.51e-02  5.72e-03 -7.78e-03 -7.09e-03  2.38e-02 -8.71e-03 -2.41e-02
## 882    8.04e-04 -3.96e-03  9.06e-03 -4.40e-03 -1.34e-03 -4.05e-03 -1.24e-04
## 883   -5.33e-04 -1.25e-03  3.96e-03 -3.27e-03  3.27e-03 -4.22e-03  2.57e-03
## 884    2.30e-05 -8.82e-03 -2.64e-03 -4.38e-03 -3.44e-03 -3.41e-03 -3.16e-03
## 885   -2.51e-02 -7.62e-03  1.24e-02  3.04e-03 -3.99e-02  6.81e-03 -3.09e-02
## 886    1.41e-02 -2.09e-02 -2.52e-02 -3.58e-02 -2.04e-02  1.63e-02 -1.28e-02
## 887   -2.14e-02  4.75e-03  1.53e-02  1.32e-02  2.04e-02  1.49e-02 -4.59e-03
## 888   -9.61e-03  2.36e-02  1.54e-02  3.72e-02  2.96e-02 -2.90e-02  2.83e-02
## 889    9.17e-03 -1.35e-02  1.07e-02 -1.27e-02 -1.34e-02 -1.63e-02  1.09e-02
## 890   -1.06e-02  9.46e-03  2.23e-02 -1.47e-02  2.28e-02 -1.73e-02  1.09e-02
## 891    1.21e-02 -5.16e-04  1.74e-02  8.55e-03 -3.03e-02  4.94e-03  1.95e-02
## 892   -6.73e-03 -1.72e-02 -1.63e-02 -1.94e-02 -1.43e-02 -1.64e-02 -1.10e-02
## 893    1.64e-03  7.09e-04  1.20e-02  1.04e-02  9.76e-03 -1.08e-02  1.09e-02
## 894    1.37e-02 -1.62e-02 -2.18e-02 -3.03e-02  1.26e-02  9.37e-03  2.05e-02
## 895    9.68e-06 -1.28e-04 -1.64e-05 -8.02e-05  3.82e-06 -4.77e-05  1.70e-05
## 896    2.74e-03  2.09e-03 -5.77e-03  1.19e-02 -3.21e-03  1.48e-02 -1.59e-04
## 897    1.68e-02  2.85e-02 -1.03e-02  3.53e-02 -1.68e-02  3.08e-02  1.60e-02
## 898    5.05e-03 -7.64e-03 -9.63e-03 -1.65e-02  1.20e-02  8.17e-03  1.57e-02
## 899    3.77e-05 -6.32e-03 -1.77e-03 -2.08e-03 -2.10e-03 -2.15e-03 -2.70e-03
## 900   -1.44e-02  5.45e-03 -4.99e-03 -2.07e-03  1.83e-02 -5.99e-03  1.02e-02
## 901    1.98e-02  1.43e-02 -1.20e-02  3.54e-02 -1.87e-02 -1.34e-02  1.71e-02
## 902   -1.23e-02 -5.34e-03 -4.10e-03 -8.12e-03 -3.64e-03  1.05e-02 -1.82e-03
## 903    4.82e-03 -5.01e-03  2.60e-03  2.39e-03  1.86e-03 -7.84e-03  2.89e-03
## 904   -8.60e-03  3.72e-03 -2.88e-03  1.40e-03  1.31e-02 -1.43e-03  6.77e-03
## 905   -7.24e-03  2.98e-02  7.53e-03  7.95e-03  7.89e-03  1.09e-02 -3.22e-02
## 906   -4.75e-03  8.64e-03 -1.30e-02  8.57e-03  7.66e-03 -1.10e-02  8.66e-03
## 907   -2.65e-04 -5.03e-03 -9.37e-04 -1.16e-03 -1.66e-03 -1.61e-03 -1.76e-03
## 908    2.00e-04 -6.93e-04 -5.24e-04  5.73e-03 -1.72e-04 -1.69e-03  9.50e-04
## 909    1.67e-02  4.50e-03  2.48e-02 -4.95e-03 -6.36e-03 -2.92e-03 -1.12e-02
## 910    2.03e-02 -5.75e-03 -3.40e-02  5.81e-03  1.38e-02  4.46e-03 -3.38e-02
## 911    4.26e-05 -7.42e-04  8.31e-03 -4.19e-03 -1.36e-03  6.76e-03 -2.78e-04
## 912   -5.93e-04 -2.87e-03 -6.41e-04 -3.74e-04 -2.31e-04  7.04e-05 -8.28e-04
## 913   -1.78e-03  7.70e-04 -1.18e-04  8.62e-06 -2.72e-05  6.65e-05  3.18e-05
## 914   -1.16e-02 -8.70e-04 -4.74e-03 -1.48e-03 -3.69e-03  4.59e-04 -7.94e-03
## 915   -2.17e-02 -9.67e-03  1.48e-02 -3.05e-02  9.81e-03  6.97e-03  1.22e-02
## 916    7.52e-04  1.31e-03  1.13e-03  1.40e-03  6.79e-04  8.04e-04  9.31e-04
## 917    1.49e-02 -1.47e-03  1.64e-02  1.06e-02 -3.01e-02  8.58e-03  2.07e-02
## 918   -1.81e-02 -1.88e-02 -2.23e-02  1.16e-02 -1.61e-02 -2.16e-02 -5.32e-03
## 919    2.03e-04 -1.02e-04 -1.29e-05 -2.56e-05 -1.62e-05 -5.04e-05 -4.81e-05
```

```
## 920   -5.98e-04 -5.68e-03 -1.44e-03 -1.94e-03 -1.74e-03 -2.16e-03 -2.27e-03
## 921    1.84e-02  2.42e-03  1.47e-02  9.23e-03  1.11e-02  5.38e-03  1.94e-02
## 922    3.45e-03  5.22e-03 -3.85e-03 -4.93e-03  4.84e-03  5.01e-03 -4.95e-03
## 923   -1.85e-02 -1.29e-02 -1.87e-02 -2.41e-02  1.01e-02  7.91e-03  1.08e-02
## 924   -1.69e-03 -2.10e-04 -3.62e-03 -3.17e-03 -3.75e-03 -3.59e-03  2.65e-03
## 925   -1.29e-02  3.64e-03  2.00e-02 -1.95e-03 -3.25e-03 -4.04e-04 -7.82e-03
## 926    1.83e-02  1.16e-02  2.57e-02 -9.02e-03  3.04e-02 -9.01e-03 -1.81e-02
## 927    3.95e-04  5.65e-05 -1.06e-03  6.14e-03  7.74e-03 -2.65e-03  2.46e-04
## 928   -1.94e-02  1.33e-03  1.44e-02  1.47e-02 -1.32e-02  1.48e-02  2.72e-02
## 929   -1.79e-02 -4.64e-03 -2.13e-02  1.16e-02  1.02e-02  8.65e-03  1.32e-02
## 930   -9.41e-03 -2.64e-03 -6.21e-03  1.04e-02  9.28e-03 -6.54e-03  9.74e-03
## 931    2.91e-03  1.97e-03 -3.95e-05 -4.24e-04 -3.95e-04 -1.47e-04  3.71e-04
## 932   -9.39e-03  1.46e-04 -3.62e-03 -3.39e-04 -4.79e-03 -4.98e-04 -1.18e-02
## 933    3.04e-03 -3.62e-03  7.77e-03 -1.07e-02  7.42e-03 -1.08e-02  5.75e-03
## 934    2.73e-02  6.69e-04  1.08e-02 -2.41e-04  1.29e-02 -9.47e-06 -4.06e-02
## 935   -1.82e-02  1.06e-02 -8.81e-03  3.07e-02 -5.76e-03 -6.15e-03 -1.06e-02
## 936    1.34e-03 -3.05e-03 -2.68e-03  7.59e-03 -2.32e-03 -6.04e-03 -4.72e-04
## 937   -7.39e-04 -5.18e-03 -1.19e-03 -1.64e-03 -1.71e-03 -2.05e-03 -2.21e-03
## 938   -5.30e-04 -1.34e-03 -6.35e-05  5.37e-05 -9.28e-05  6.01e-05 -2.69e-04
## 939    2.63e-03  4.28e-03 -1.51e-02  1.08e-02  6.81e-03  8.39e-03  5.62e-03
## 940   -2.40e-02  5.69e-04  1.49e-02  9.19e-03  1.58e-02  9.72e-03  2.79e-02
## 941    1.78e-03  2.41e-03  2.18e-03  2.17e-03  9.39e-04  1.51e-03  1.95e-03
## 942    3.98e-03 -7.22e-03 -7.65e-03 -1.53e-02  1.37e-02  9.35e-03 -6.98e-03
## 943   -1.69e-02 -3.76e-04 -8.38e-03 -7.42e-03 -7.41e-03 -5.04e-03 -1.18e-02
## 944   -5.00e-04 -7.74e-03 -1.82e-03 -3.12e-03 -2.82e-03 -3.15e-03 -2.11e-03
## 945    1.25e-02  7.73e-05  1.99e-02  8.89e-03 -2.89e-02  6.65e-03 -2.12e-02
## 946   -9.55e-03  1.62e-03 -1.26e-02 -2.83e-03  1.88e-02 -5.61e-03  9.89e-03
## 947    5.58e-04  6.46e-04 -3.31e-05 -2.75e-04 -2.18e-04 -3.44e-04 -4.01e-05
## 948    9.69e-03 -4.51e-02 -1.10e-02 -1.50e-02 -7.99e-03 -1.05e-02 -3.11e-03
## 949   -1.83e-02 -5.92e-03 -2.69e-02  1.19e-02  1.01e-02  9.00e-03  1.53e-02
## 950   -2.42e-03  3.85e-03  4.32e-03 -6.57e-03  3.27e-03 -8.14e-03  1.21e-03
## 951   -1.76e-03  2.10e-03  4.04e-03 -7.28e-03 -9.91e-03 -8.25e-03  1.72e-03
## 952    1.86e-02 -1.51e-04  1.52e-02  4.46e-03  2.11e-02  9.84e-03 -1.69e-02
## 953    1.01e-02 -4.71e-02 -1.23e-02 -1.99e-02 -1.08e-02 -1.59e-02 -4.95e-03
## 954   -3.73e-03  1.37e-03 -4.21e-04 -6.24e-04 -3.80e-04 -1.60e-04  8.27e-05
## 955   -3.13e-03  9.45e-03  5.53e-03 -1.57e-02 -1.91e-02  9.61e-03  2.57e-03
## 956    1.12e-02 -1.01e-03 -1.05e-02 -9.93e-03 -1.02e-02 -9.97e-03  5.43e-03
## 957   -2.23e-02 -3.32e-03 -1.74e-02  1.10e-02  1.41e-02  9.72e-03 -1.79e-02
## 958    2.48e-03  3.81e-04  8.78e-03 -2.02e-02  7.97e-03  7.36e-03  2.86e-03
## 959   -1.19e-03 -4.44e-03 -9.85e-04 -1.46e-03 -9.88e-04 -4.58e-04 -9.03e-04
## 960   -6.81e-03  1.55e-02  6.47e-03 -2.30e-02  7.69e-03  8.26e-03 -2.92e-02
## 961   -2.30e-04 -2.36e-04 -2.59e-04  1.79e-04  1.87e-04  1.79e-04 -2.63e-04
## 962    8.33e-03 -4.15e-02 -1.10e-02 -1.43e-02 -6.81e-03 -1.36e-02 -5.89e-03
## 963    1.58e-02  2.54e-02 -8.36e-03  3.34e-02 -1.62e-02  3.14e-02  1.62e-02
## 964    1.09e-03  2.97e-02  8.57e-03  1.06e-02  9.31e-03  1.07e-02  1.31e-02
## 965   -3.05e-05 -5.85e-03 -1.24e-03 -1.49e-03 -1.75e-03 -1.72e-03 -1.82e-03
## 966    8.80e-03 -5.57e-03  3.59e-03  2.47e-03  4.18e-03  2.09e-03  9.05e-03
## 967   -8.99e-03  1.94e-03 -2.42e-03  4.08e-04 -5.55e-03 -2.25e-03  6.97e-03
## 968    1.16e-02  2.57e-03 -4.64e-03 -2.83e-03 -1.03e-02 -5.89e-03  1.00e-02
## 969    5.44e-03 -7.90e-03 -9.60e-03 -1.72e-02  1.12e-02  7.96e-03 -1.46e-02
```

```
## 970     2.82e-03 -3.51e-03  2.35e-03 -4.60e-03  2.11e-03  1.63e-03  3.51e-03
## 971     5.65e-03 -1.06e-02  3.23e-02 -1.51e-02 -1.32e-02 -6.73e-03 -9.35e-03
## 972    -3.19e-04  4.19e-04 -2.04e-04  4.30e-04  4.40e-04 -1.68e-04 -1.85e-04
## 973    -7.13e-03  2.05e-02 -6.46e-02  2.62e-02  4.74e-03  1.66e-02 -2.23e-03
## 974     1.41e-02  5.91e-04 -8.34e-03 -6.00e-03 -6.66e-03 -5.57e-03 -1.31e-02
## 975     1.98e-02  3.03e-03  1.40e-02  1.19e-02  1.13e-02  7.53e-03  1.75e-02
## 976    -3.66e-03 -2.86e-03  1.72e-02 -2.13e-02  1.57e-02 -2.45e-02  7.04e-03
## 977    -1.57e-03  1.97e-03  2.25e-03 -2.02e-03  1.77e-03 -2.48e-03  1.09e-03
## 978    -1.31e-03 -6.33e-03 -1.40e-03 -2.84e-03 -2.38e-03 -2.71e-03 -2.67e-03
## 979     4.51e-04  4.44e-04 -2.45e-05 -2.20e-04 -1.38e-04 -2.35e-04 -5.49e-05
## 980    -3.65e-03  7.86e-03  4.40e-03 -5.76e-03  3.07e-03  5.52e-03  1.50e-03
## 981    -1.10e-02  1.71e-03 -3.58e-03 -1.15e-03 -5.54e-03 -2.46e-03 -1.39e-02
## 982    -4.19e-03  1.49e-03 -2.84e-04 -5.40e-04 -2.53e-04 -3.60e-05  2.90e-04
## 983    -1.05e-02  1.45e-03  2.21e-02 -9.62e-03 -1.16e-02 -3.34e-03 -1.53e-02
## 984    -5.30e-03  2.08e-02  6.47e-03  9.27e-03  4.65e-03  7.43e-03  1.77e-03
## 985    -7.08e-05 -6.24e-03 -1.74e-03 -2.09e-03 -1.67e-03 -1.85e-03 -2.69e-03
## 986    -6.66e-04 -3.06e-03 -5.26e-04 -8.40e-04 -1.07e-03 -1.32e-03 -1.21e-03
## 987    -2.53e-04 -4.87e-04 -4.59e-05 -7.85e-06 -3.92e-05 -6.08e-05 -1.16e-04
## 988    -4.54e-03 -2.67e-04  4.12e-03 -1.69e-03 -1.83e-03  4.34e-03  3.95e-03
## 989    -1.02e-03  3.21e-04 -5.72e-06 -5.69e-05 -4.58e-05 -5.98e-05  8.46e-05
## 990     4.45e-03 -1.20e-03 -1.42e-04  3.84e-04  2.68e-04  5.78e-04  2.55e-05
## 991     7.65e-03 -2.05e-03 -4.04e-04  5.79e-04  4.53e-04  1.13e-03  1.46e-04
## 992    -4.39e-04 -1.14e-03 -2.09e-04  2.65e-04  3.17e-04  7.95e-04 -4.83e-05
## 993    -1.91e-02  1.78e-02  2.61e-02 -2.46e-02 -2.09e-02  4.47e-02 -2.44e-02
## 994     3.04e-02 -4.76e-03 -2.25e-02 -1.61e-02 -1.53e-02 -1.13e-02 -2.17e-02
## 995    -7.60e-03  8.57e-04 -2.23e-03  1.23e-03 -4.80e-03 -5.48e-04  7.18e-03
## 996     3.33e-03  2.18e-03 -2.63e-04 -6.19e-04 -6.41e-04 -3.32e-04  2.56e-04
## 997    -4.22e-03  1.55e-02  4.91e-03  8.82e-03  1.20e-02 -2.40e-02 -2.09e-02
## 998     1.19e-02  6.21e-03 -5.03e-03 -1.30e-03  1.70e-02 -6.19e-03  7.72e-03
## 999    -1.02e-02 -4.00e-03 -1.26e-02 -6.08e-03 -8.71e-03 -1.11e-03 -1.36e-02
## 1000   -2.06e-02  7.54e-04  1.35e-02  1.08e-02  1.01e-02  7.75e-03  2.03e-02
## 1001   -1.28e-04 -1.34e-04  4.16e-07  5.40e-05  3.69e-05  8.49e-05 -1.54e-06
## 1002   -8.82e-04 -4.73e-03 -1.13e-03 -1.65e-03 -1.53e-03 -2.04e-03 -2.01e-03
## 1003    2.32e-03  1.03e-02  2.12e-02  1.21e-02  2.40e-02  1.29e-02 -6.52e-03
## 1004   -1.56e-02  1.01e-02 -1.15e-02 -8.16e-03 -1.31e-02  3.21e-02 -2.49e-02
## 1005    1.60e-02 -9.37e-04 -1.03e-02 -1.02e-02 -9.11e-03 -7.72e-03 -1.43e-02
## 1006   -1.38e-02  1.19e-02 -1.78e-02  3.63e-02 -2.06e-02 -1.27e-02  1.48e-02
## 1007   -2.72e-03 -4.94e-03 -1.28e-03 -2.60e-03 -1.22e-03 -2.47e-03 -1.72e-03
## 1008   -3.94e-03  1.53e-02  6.60e-03 -2.06e-02  3.80e-03  9.65e-03  1.44e-03
## 1009    9.74e-04  8.39e-04  1.61e-03  1.49e-03 -4.19e-03  1.38e-03  1.59e-03
## 1010   -2.19e-02 -2.05e-02  1.12e-02  6.00e-03  2.06e-02 -4.07e-02 -1.55e-02
## 1011   -3.89e-03  1.93e-02 -1.99e-02  1.01e-02  4.31e-03  8.69e-03  1.65e-03
## 1012    1.31e-02 -4.33e-02 -1.38e-02 -2.07e-02  4.13e-02 -2.00e-02 -2.40e-02
## 1013    1.52e-02 -5.69e-02 -1.63e-02 -2.76e-02 -2.35e-02 -2.91e-02 -2.65e-02
## 1014   -3.03e-03 -2.71e-03  2.38e-03  2.16e-03  2.46e-03  2.02e-03 -5.01e-03
## 1015    2.36e-03 -1.27e-03 -1.02e-04 -5.29e-04 -4.15e-04 -6.39e-04 -5.42e-04
## 1016    5.47e-03 -1.86e-03  9.28e-03  1.02e-02  1.26e-02 -2.65e-02  1.74e-02
## 1017   -1.40e-03 -6.35e-03 -1.44e-03 -3.03e-03 -2.74e-03 -3.14e-03 -2.57e-03
## 1018   -3.25e-03  5.70e-03  3.96e-03 -4.43e-03  2.48e-03  3.56e-03  9.86e-04
## 1019   -1.79e-03  2.98e-03  2.71e-03 -2.94e-03  2.61e-03 -3.64e-03  1.31e-03
```

```
## 1020 -2.48e-02 -1.02e-02 -4.03e-02  2.88e-03  1.25e-02  5.15e-03 -3.61e-02
## 1021 -2.74e-02  7.34e-04  1.85e-02  1.05e-02 -1.89e-02  7.90e-03  2.82e-02
## 1022 -2.18e-02  3.94e-03  1.61e-02  1.12e-02  1.10e-02  7.72e-03  1.61e-02
## 1023 -6.34e-03 -3.72e-03 -1.34e-03 -2.86e-03 -5.95e-04 -2.07e-03 -1.95e-04
## 1024 -8.44e-03  3.71e-03 -2.63e-03  1.47e-03  1.28e-02 -1.31e-03  6.59e-03
## 1025  4.68e-03 -3.22e-03  1.22e-02 -1.06e-02 -7.82e-03  1.15e-02 -8.41e-03
## 1026 -1.34e-02 -2.30e-03 -1.39e-02 -7.14e-03 -1.25e-02 -6.20e-03  2.08e-02
## 1027  1.39e-02  2.25e-02 -9.29e-03  3.17e-02 -1.01e-02  3.29e-02  2.33e-02
## 1028 -1.82e-02  3.75e-03  1.44e-02  1.08e-02  9.49e-03  6.43e-03  1.23e-02
## 1029  1.43e-02  1.24e-02  5.89e-03  7.33e-03  8.86e-03 -1.62e-02 -1.37e-02
## 1030  1.14e-02  4.51e-03 -4.12e-03  5.45e-04  1.69e-02 -3.18e-03  9.15e-03
## 1031 -1.84e-03  6.35e-04  2.30e-05 -9.08e-05 -1.02e-04 -7.45e-06  2.06e-04
## 1032  7.41e-03 -6.04e-03 -9.03e-03  2.34e-03  1.46e-03  1.48e-03  3.49e-03
## 1033 -1.49e-03  4.49e-04 -4.38e-05 -8.35e-05 -8.41e-05 -5.09e-05  7.00e-05
## 1034 -1.19e-05  6.75e-05  1.19e-05  4.10e-05  3.91e-06  2.58e-05 -8.08e-06
## 1035  3.82e-03  4.14e-03  8.73e-03  8.21e-03 -2.04e-02  1.30e-02 -1.75e-02
## 1036 -2.00e-02  6.32e-03  1.51e-02  1.19e-02  1.52e-02  1.12e-02  2.09e-02
## 1037  3.47e-02  2.08e-02  2.67e-02  3.82e-02 -1.91e-02 -1.69e-02 -2.16e-02
## 1038  1.68e-02  8.02e-04 -7.76e-03 -3.02e-03 -1.32e-02 -4.84e-03  1.19e-02
## 1039 -8.02e-04 -3.15e-03 -4.03e-04 -5.92e-04 -6.69e-04 -4.80e-05 -6.65e-04
## 1040 -1.94e-02  2.76e-03  1.44e-02  1.39e-02  1.15e-02  8.68e-03  1.70e-02
## 1041  3.20e-02 -4.12e-03 -2.39e-02 -1.79e-02 -1.68e-02 -1.16e-02 -2.39e-02
## 1042 -1.82e-03  4.30e-03  3.85e-03 -5.59e-03  3.99e-03 -5.95e-03  1.68e-03
## 1043  8.10e-03 -1.34e-03  1.77e-02  9.23e-03 -1.67e-02  1.10e-02 -7.09e-03
## 1044  6.56e-04  4.31e-04  6.20e-04 -5.11e-04 -5.79e-04 -5.17e-04 -8.75e-04
## 1045 -3.86e-03  1.60e-02  7.02e-03  1.03e-02  5.16e-03 -2.16e-02  4.33e-03
## 1046 -1.36e-03 -3.39e-03 -6.88e-04 -1.17e-03 -8.65e-04 -6.43e-04 -8.47e-04
## 1047 -3.30e-04  2.70e-02  7.54e-03  8.79e-03  8.83e-03  8.95e-03  1.14e-02
## 1048 -5.71e-03  6.94e-03 -1.17e-02 -1.04e-02  3.06e-02  3.90e-02 -2.35e-02
## 1049  9.97e-04  9.20e-03  1.10e-02  1.03e-02  1.19e-02  9.79e-03  1.72e-02
## 1050  1.20e-02  1.27e-02  8.52e-03  9.15e-03 -9.97e-03 -1.12e-02 -8.48e-03
## 1051 -6.62e-03 -6.78e-03 -1.18e-02 -1.42e-02  3.02e-02 -1.66e-02 -2.40e-02
## 1052 -7.78e-03 -1.90e-03 -1.74e-02 -7.62e-03 -2.07e-02 -9.19e-03  1.06e-02
## 1053 -7.78e-04 -1.50e-03 -2.38e-04 -1.70e-04 -2.63e-04 -2.32e-04 -4.95e-04
## 1054  1.38e-02  1.37e-03 -6.94e-03 -4.27e-03 -8.78e-03 -5.65e-03 -1.92e-02
## 1055  1.59e-02  1.21e-02 -1.05e-02  3.20e-02 -1.03e-02 -9.59e-03  2.33e-02
## 1056  1.24e-02  3.73e-03 -4.83e-03 -1.52e-03 -9.79e-03 -4.99e-03  9.69e-03
## 1057 -1.57e-02  1.04e-02 -1.37e-02 -8.17e-03 -1.39e-02  3.38e-02  2.06e-02
## 1058 -1.08e-03 -2.63e-03 -3.54e-04 -5.64e-04 -4.52e-04 -3.85e-04 -4.93e-04
## 1059 -5.56e-04 -1.04e-03 -1.06e-03 -4.85e-03 -8.22e-04  9.52e-03  4.08e-05
## 1060 -3.85e-03  7.31e-03  4.60e-03  6.15e-03  3.59e-03 -8.24e-03  1.82e-03
## 1061 -2.02e-03  3.75e-03  4.14e-03 -1.20e-02  5.09e-03 -1.18e-02 -1.72e-02
## 1062 -2.29e-03  5.05e-03  4.52e-03 -5.45e-03  4.34e-03 -6.16e-03  2.37e-03
## 1063 -1.57e-02  1.17e-02 -1.51e-02  3.48e-02 -1.35e-02 -1.05e-02  2.63e-02
## 1064  4.51e-04  3.77e-04  8.31e-06 -1.25e-04 -1.19e-04 -1.44e-04  9.43e-06
## 1065 -1.64e-02 -1.87e-02  1.24e-02 -2.31e-02  1.39e-02 -2.44e-02  2.11e-02
## 1066 -8.66e-03  2.32e-03  2.18e-02 -1.23e-02 -2.72e-02 -1.37e-02  1.45e-02
## 1067 -3.01e-03  5.88e-03  4.65e-03 -6.80e-03  4.37e-03 -8.04e-03  1.73e-03
## 1068  1.71e-02  1.44e-04 -1.08e-02 -1.06e-02 -9.80e-03 -8.21e-03 -1.44e-02
## 1069  8.05e-03 -3.54e-02  3.86e-02 -1.55e-02 -6.05e-03 -1.50e-02 -3.00e-03
```

```
## 1070  5.40e-04 -1.40e-04  7.81e-03  1.09e-02 -5.68e-03 -6.83e-03 -4.97e-03
## 1071 -1.26e-02  6.13e-03 -3.18e-03  9.10e-04  1.71e-02 -3.98e-03  9.03e-03
## 1072 -4.31e-05 -7.00e-03 -1.93e-03 -2.35e-03 -2.02e-03 -2.25e-03 -2.57e-03
## 1073  2.54e-03 -5.11e-03 -5.23e-03  1.00e-02  1.14e-02 -1.39e-02  1.57e-02
## 1074  2.51e-03 -1.23e-03 -2.48e-05 -3.70e-04 -3.77e-04 -6.23e-04 -3.66e-04
## 1075 -1.87e-02  4.62e-02  2.58e-02  4.04e-02  2.42e-02  3.59e-02  1.54e-02
## 1076  1.91e-03  6.01e-03 -6.42e-03  1.17e-02  1.17e-02  1.03e-02  1.26e-02
## 1077 -2.08e-02  5.54e-04  1.38e-02  1.14e-02  9.98e-03  8.06e-03  2.00e-02
## 1078 -7.59e-04 -1.15e-03 -1.46e-04 -7.76e-05  7.55e-05  4.10e-04 -7.65e-05
## 1079  7.42e-03  1.06e-03  1.93e-02  6.75e-03 -1.91e-02  7.88e-03 -1.00e-02
## 1080  1.25e-02  2.17e-03 -5.73e-03 -3.23e-03 -8.12e-03 -5.00e-03 -1.82e-02
## 1081  5.40e-04  6.80e-04  5.51e-07 -2.25e-05  7.58e-05  1.55e-04  1.83e-04
## 1082  1.75e-02  2.63e-03 -1.05e-02 -5.83e-03  2.72e-02 -4.34e-03 -1.50e-02
## 1083  1.61e-02  9.88e-04 -7.26e-03 -2.96e-03 -1.26e-02 -4.79e-03  1.23e-02
## 1084  9.01e-03 -1.31e-02  1.24e-02 -1.50e-02  1.02e-02 -1.89e-02  1.06e-02
## 1085 -8.79e-03  3.85e-03 -5.00e-03  5.72e-04  1.49e-02 -1.92e-03  7.91e-03
## 1086  1.90e-02  2.10e-03  1.47e-02  9.23e-03  9.98e-03  6.34e-03  1.81e-02
## 1087  3.58e-03 -5.31e-03 -5.49e-03 -8.80e-03 -4.46e-03  1.03e-02 -3.47e-03
## 1088 -5.98e-03  9.46e-03  6.53e-03  7.90e-03 -9.24e-03 -9.70e-03 -8.43e-03
## 1089  9.08e-03 -6.00e-03  5.55e-03  2.90e-03  7.01e-03  4.37e-03 -6.83e-03
## 1090 -1.85e-04  6.07e-04 -2.60e-03  3.83e-04  2.18e-04  5.86e-04 -3.07e-03
## 1091  6.35e-03  8.50e-03 -6.42e-03  5.58e-03 -6.63e-03  5.86e-03 -8.48e-03
## 1092 -2.28e-02 -3.84e-03  1.14e-02  4.85e-03  1.40e-02  9.44e-03 -3.18e-02
## 1093 -3.50e-03  5.76e-05  4.50e-03 -1.88e-02 -1.55e-02 -1.61e-02 -1.60e-02
## 1094  2.52e-02 -3.84e-03 -1.61e-02 -1.19e-02 -2.29e-02 -1.70e-02  7.11e-03
## 1095 -1.30e-04  3.22e-04  1.30e-04  2.24e-04 -5.73e-04  4.17e-04 -5.25e-04
## 1096  2.37e-02  1.82e-02  7.57e-03  1.10e-02  5.02e-03 -2.57e-02  5.23e-03
## 1097  1.64e-02 -8.30e-03 -2.42e-03 -4.58e-03 -4.06e-03 -4.63e-03 -3.29e-03
## 1098 -9.03e-04 -3.79e-03 -5.88e-04 -8.12e-04 -1.11e-03 -1.58e-03 -1.36e-03
## 1099  7.89e-03 -2.87e-02  3.85e-02 -1.68e-02  4.51e-02 -1.62e-02 -9.95e-03
## 1100  3.41e-03 -3.81e-03 -6.10e-03  1.09e-02  1.56e-02 -1.14e-02 -1.78e-03
## 1101 -1.31e-03 -2.33e-03 -3.73e-04 -8.05e-04 -6.32e-04 -6.28e-04 -6.44e-04
## 1102 -2.50e-02 -9.48e-04  1.29e-02  8.43e-03  1.62e-02  8.99e-03  3.26e-02
## 1103  9.72e-04  3.60e-03 -3.13e-03  8.36e-03  1.13e-02  9.59e-03 -1.37e-03
## 1104 -2.60e-03  9.44e-04 -5.78e-05 -1.81e-04 -1.89e-04  1.73e-05  2.76e-04
## 1105 -2.36e-03  8.00e-04 -8.68e-05 -1.61e-04 -1.17e-04 -7.23e-05  2.16e-04
## 1106 -6.81e-03  1.42e-02 -1.07e-02  7.17e-03  3.84e-03  5.01e-03  2.35e-03
## 1107  1.83e-04  1.02e-04  6.90e-04  6.00e-04  7.48e-04 -1.13e-03 -5.77e-04
## 1108  1.42e-02  3.47e-02 -8.66e-03  3.46e-02  2.76e-02  3.14e-02 -2.60e-02
## 1109 -2.19e-03 -2.46e-03  1.63e-03  1.77e-03  1.22e-03  1.45e-03  2.20e-03
## 1110 -1.33e-02  8.98e-05 -2.02e-02 -1.33e-02  3.17e-02 -8.90e-03 -2.26e-02
## 1111  1.31e-02 -5.55e-03 -2.60e-02  6.10e-03  1.96e-02  9.05e-03 -1.49e-02
## 1112  5.80e-03  8.90e-03  4.58e-03  6.38e-03  4.42e-03 -4.91e-03  3.32e-03
## 1113  8.55e-03 -3.66e-03 -8.43e-04 -1.73e-03 -1.37e-03 -1.50e-03 -1.40e-03
## 1114  3.68e-03  5.30e-03  1.42e-02  1.23e-02 -7.76e-03  1.49e-02  2.30e-02
## 1115  5.90e-03 -9.62e-03 -1.07e-02 -1.96e-02  1.57e-02  1.06e-02 -8.47e-03
## 1116  1.11e-03  1.03e-03 -3.59e-03  1.77e-03  8.99e-04  1.34e-03  1.33e-03
## 1117 -1.95e-02  2.16e-03  1.39e-02  1.21e-02  1.16e-02  8.65e-03  1.51e-02
## 1118  4.50e-03  2.54e-03  3.82e-03 -4.54e-03 -3.56e-03 -3.56e-03 -4.00e-03
## 1119 -5.41e-04 -1.56e-02 -1.46e-02 -1.35e-02 -2.36e-02 -2.21e-02  2.05e-02
```

```
## 1120 -3.03e-03  3.80e-03 -6.30e-03 -5.71e-03 -7.54e-03  6.24e-03  2.49e-03
## 1121 -5.31e-03  1.73e-02 -1.83e-02  7.77e-03  3.58e-03  7.32e-03  1.43e-03
## 1122 -8.71e-03  6.85e-03  2.03e-02 -5.91e-03  1.90e-02 -7.91e-03  1.01e-02
## 1123  1.69e-02  4.18e-03 -1.12e-02 -1.06e-02  2.95e-02 -9.44e-03 -1.84e-02
## 1124 -1.91e-03  8.58e-04 -5.02e-03 -3.98e-03 -6.00e-03 -4.23e-03  2.57e-03
## 1125 -1.43e-03 -5.90e-03 -1.40e-03 -2.92e-03 -2.39e-03 -2.95e-03 -2.45e-03
## 1126  6.79e-03  6.05e-03  2.01e-02  8.14e-03  1.64e-02  5.50e-03 -2.22e-02
## 1127 -5.77e-04 -9.09e-04 -7.27e-05  8.14e-05  9.57e-05  3.88e-04  7.06e-05
## 1128 -3.53e-02 -2.65e-02 -1.13e-02  4.15e-02 -1.05e-02 -1.47e-02  4.93e-02
## 1129 -1.21e-02  1.29e-02 -4.89e-03 -5.51e-04  1.65e-02  2.62e-02  8.89e-03
## 1130  2.10e-04 -5.39e-03 -1.29e-03 -1.48e-03 -1.76e-03 -1.65e-03 -1.94e-03
## 1131 -1.46e-02 -1.04e-02 -1.30e-02 -1.57e-02  9.06e-03  8.83e-03  1.07e-02
## 1132  1.19e-05 -1.36e-03 -2.20e-04 -1.15e-03 -5.80e-05 -9.21e-04  7.67e-06
## 1133  2.52e-03  1.73e-03 -3.53e-04 -8.85e-04 -4.56e-04 -5.38e-04 -1.93e-05
## 1134  3.03e-03  1.83e-03 -4.06e-04 -9.02e-04 -4.64e-04 -3.87e-04 -1.03e-04
## 1135  2.22e-02  1.53e-02  6.79e-03 -2.49e-02  6.11e-03  9.14e-03 -2.91e-02
## 1136 -1.56e-03 -3.88e-03 -1.32e-03 -1.43e-03 -6.42e-04 -1.65e-03 -1.69e-03
## 1137  1.26e-02  1.41e-03 -1.12e-02 -8.42e-03 -7.42e-03 -4.91e-03 -7.65e-03
## 1138 -2.40e-04 -7.53e-03 -1.72e-03 -3.14e-03 -3.01e-03 -2.81e-03 -2.24e-03
## 1139  2.01e-02  2.57e-03  1.47e-02  7.27e-03  9.89e-03  1.19e-03  1.92e-02
## 1140  1.69e-02  1.91e-02 -1.79e-02  9.46e-03  5.10e-03  6.55e-03  2.04e-03
## 1141 -5.09e-03 -1.00e-02 -1.01e-02 -9.18e-03 -1.32e-02 -1.20e-02 -1.93e-02
## 1142 -1.84e-02 -7.31e-03  1.38e-02 -2.08e-02  9.80e-03  8.39e-03  1.16e-02
## 1143  7.23e-04 -1.91e-03  5.25e-03 -5.25e-03  5.24e-03 -6.15e-03  3.57e-03
## 1144  3.14e-02  3.49e-02  6.91e-03  6.87e-03  6.83e-03  9.69e-03 -3.82e-02
## 1145 -9.42e-03  1.88e-03 -2.46e-03  4.50e-04 -5.68e-03 -2.31e-03  7.37e-03
## 1146  1.51e-02  6.22e-03 -7.70e-03 -3.40e-03  1.80e-02 -7.33e-03  6.59e-03
## 1147 -1.55e-03  3.69e-03 -1.59e-02  8.14e-03  9.39e-03  7.61e-03  1.23e-02
## 1148  1.06e-04 -6.09e-03 -1.74e-03 -2.01e-03 -1.97e-03 -1.98e-03 -2.76e-03
## 1149 -5.89e-03  2.71e-02  6.84e-03  9.17e-03  7.92e-03  1.01e-02 -2.81e-02
## 1150 -3.68e-03  5.37e-03  4.16e-03 -4.53e-03 -4.70e-03  5.06e-03 -6.12e-03
## 1151  2.15e-03 -7.42e-04  4.44e-06  3.21e-06  1.19e-05  1.01e-04 -1.94e-05
## 1152 -2.42e-03 -4.39e-03  2.04e-03 -5.18e-03  1.97e-03  2.00e-03  3.55e-03
## 1153  7.91e-04  6.39e-04 -1.17e-05 -2.22e-04 -1.16e-04 -2.68e-04  8.72e-05
## 1154  8.57e-04  1.39e-03 -6.45e-03  1.16e-02 -9.27e-03  1.08e-02 -8.53e-03
## 1155  3.10e-03 -5.67e-03 -6.99e-03 -1.31e-02  1.07e-02  7.23e-03  1.36e-02
## 1156  1.21e-02  3.67e-04 -5.44e-03 -1.45e-03 -6.41e-03 -1.72e-03  1.53e-02
## 1157 -2.73e-02 -1.30e-02  1.59e-02 -4.18e-02  2.05e-02  9.96e-03 -1.81e-02
## 1158 -7.40e-03 -6.35e-03  3.08e-02 -1.61e-02 -1.09e-02 -1.50e-02 -1.22e-02
## 1159  2.55e-03 -1.67e-03 -3.12e-03  1.67e-03  1.89e-03  1.73e-03 -2.89e-03
## 1160 -1.43e-02  6.33e-03  2.26e-02 -3.00e-03 -8.04e-03 -4.88e-03  2.06e-02
## 1161 -1.43e-03 -1.66e-03  1.26e-03  1.39e-03  1.38e-03  1.48e-03 -2.90e-03
## 1162 -6.77e-04 -1.86e-03 -3.46e-04 -2.49e-04 -1.84e-04 -1.07e-04 -5.84e-04
## 1163  2.44e-02  1.77e-02  6.53e-03 -2.41e-02  2.94e-03  8.81e-03  1.49e-04
## 1164  1.51e-02  2.56e-02  8.45e-03  1.03e-02  6.66e-03  1.01e-02  5.17e-03
## 1165 -2.25e-04 -3.14e-03 -6.94e-04 -3.97e-05 -2.18e-04  2.25e-04 -4.74e-04
## 1166 -3.36e-03  2.58e-03 -7.64e-03  5.48e-03 -8.65e-03  5.80e-03 -1.06e-02
## 1167 -6.33e-05  3.57e-04  5.29e-05  2.26e-04  2.16e-05  1.52e-04 -5.98e-05
## 1168  5.04e-02 -6.41e-03  1.83e-02 -2.81e-02 -4.40e-02 -3.20e-02  8.37e-03
## 1169  1.22e-02 -3.51e-03 -2.62e-02  6.89e-03  2.08e-02  6.88e-03 -1.53e-02
```

```
## 1170   1.23e-04   2.88e-02   8.53e-03   1.41e-02   1.08e-02   1.08e-02   1.07e-02
## 1171   1.97e-02   2.40e-02  -1.95e-02   1.08e-02   5.65e-03   1.12e-02   4.37e-03
## 1172   1.98e-02  -1.25e-02   1.33e-02  -3.60e-02   8.83e-03   8.61e-03   1.39e-02
## 1173  -1.60e-02   2.06e-02   2.35e-02  -1.26e-03   1.89e-02   2.52e-02   9.39e-03
## 1174   5.44e-03   7.51e-03   4.72e-03  -4.94e-03  -3.80e-03   8.16e-03  -4.45e-03
## 1175   1.67e-02   1.81e-02  -9.93e-03  -5.73e-03   1.93e-02   2.81e-02   7.76e-03
## 1176   8.45e-03  -9.96e-03  -1.57e-02   9.27e-03   1.50e-02  -3.10e-02  -1.86e-02
## 1177  -2.44e-03   5.21e-03   2.96e-03   4.21e-03   2.92e-03  -2.68e-03   2.17e-03
## 1178   1.47e-02  -3.57e-02  -1.21e-02  -9.01e-03   3.82e-02  -1.19e-02   4.31e-02
## 1179  -1.79e-03  -2.42e-03   8.01e-03  -1.40e-02  -9.39e-03   7.67e-03  -9.13e-03
## 1180  -1.69e-02  -9.01e-04   1.39e-02   1.12e-02   1.64e-02  -1.21e-02  -2.32e-03
## 1181  -1.71e-02  -1.65e-02   1.23e-02  -3.16e-02  -2.57e-02   1.12e-02  -2.08e-02
## 1182  -2.94e-02  -3.20e-02  -5.27e-03  -6.79e-03  -6.87e-03  -8.82e-03  -1.23e-02
## 1183   1.20e-03   1.26e-03   1.42e-03  -1.09e-03   1.07e-03  -1.46e-03   5.74e-04
## 1184  -1.38e-03   6.04e-03   1.41e-02   1.10e-02  -5.98e-04   1.20e-02   1.01e-03
## 1185  -1.85e-02  -8.11e-03   1.49e-02   1.22e-02  -1.03e-02  -1.62e-02  -2.52e-03
## 1186  -2.00e-02  -9.99e-03   9.22e-03   8.22e-03  -3.18e-02   1.13e-02   3.24e-02
## 1187   9.45e-03  -1.01e-02  -1.59e-02  -2.37e-02   1.87e-02   1.59e-02  -9.21e-03
## 1188   1.14e-03   4.13e-04  -9.07e-04  -6.62e-04  -1.01e-03  -6.30e-04   5.97e-04
## 1189  -1.32e-02   4.86e-03  -5.17e-03  -1.18e-03   2.01e-02  -4.03e-03   1.47e-02
## 1190  -2.38e-03   4.22e-03   2.89e-03   3.91e-03  -1.64e-03  -1.55e-03  -1.73e-03
## 1191  -5.11e-03   1.69e-02  -1.53e-02   9.46e-03   4.45e-03   7.57e-03   1.97e-03
## 1192  -1.04e-02   2.38e-02  -2.35e-02   7.75e-03   7.99e-03   6.57e-03   9.94e-03
## 1193  -2.51e-03  -2.95e-03   2.05e-03   1.80e-03  -5.04e-03   1.50e-03   2.62e-03
## 1194  -1.27e-03  -6.87e-03  -1.81e-03  -3.26e-03  -2.39e-03  -3.24e-03  -2.71e-03
## 1195  -6.00e-04  -6.68e-04  -1.14e-05   9.29e-06   5.05e-05   2.26e-04  -2.84e-05
## 1196   1.62e-02  -8.39e-03   1.26e-02  -2.75e-02   1.01e-02   8.05e-03   1.21e-02
## 1197   9.63e-03  -9.72e-03  -1.57e-02   1.12e-02   1.98e-02  -1.98e-02  -6.36e-03
## 1198  -5.65e-03   1.95e-02  -1.90e-02   8.92e-03   3.72e-03   7.97e-03   2.19e-03
## 1199   4.57e-02  -2.29e-03   2.16e-02  -2.38e-02  -3.98e-02  -2.89e-02   1.05e-02
## 1200  -3.48e-04   9.66e-05  -8.50e-06  -2.46e-05  -1.60e-05  -1.90e-05   1.52e-05
## 1201   9.15e-04   8.24e-03   9.35e-03   1.07e-02   7.77e-03   7.42e-03   6.35e-03
## 1202  -1.43e-02   2.41e-04  -6.02e-03  -3.43e-03  -4.57e-03  -2.88e-03  -1.04e-02
## 1203  -2.15e-02  -2.69e-05   1.33e-02   9.94e-03   9.99e-03   8.59e-03   1.95e-02
## 1204  -5.34e-03   1.51e-02   6.66e-03   8.43e-03   1.05e-02  -2.29e-02  -1.89e-02
## 1205   1.20e-02   1.59e-03  -6.24e-03  -2.98e-03  -7.23e-03  -5.09e-03   1.66e-02
## 1206   2.51e-03  -4.83e-03  -4.46e-03  -7.86e-03  -7.39e-03   8.82e-03   1.02e-02
## 1207   2.22e-02  -2.08e-03  -1.55e-02  -1.19e-02  -1.10e-02  -7.95e-03  -1.90e-02
## 1208  -3.49e-02  -2.70e-02  -1.17e-02  -1.59e-02  -1.31e-02   3.94e-02  -2.03e-02
## 1209  -2.10e-02   3.35e-04   1.32e-02   9.44e-03   1.01e-02   8.20e-03   1.85e-02
## 1210   3.59e-03   2.31e-03  -6.09e-04  -1.20e-03  -6.69e-04  -6.57e-04   2.61e-05
## 1211  -1.21e-02   7.33e-04  -9.28e-03  -4.41e-03  -1.06e-02  -5.11e-03  -2.08e-02
## 1212   1.42e-02   1.45e-03  -7.46e-03  -5.39e-03  -9.16e-03  -5.60e-03  -2.07e-02
## 1213   1.74e-03   1.43e-03  -1.87e-04  -6.27e-04  -4.24e-04  -5.26e-04  -6.88e-05
## 1214   3.01e-03  -1.59e-03  -2.80e-04  -7.71e-04  -5.18e-04  -9.72e-04  -6.76e-04
## 1215  -1.39e-02   5.11e-03   2.29e-02  -6.16e-03  -1.24e-02  -7.44e-03   2.24e-02
## 1216   7.02e-03   1.84e-02   9.21e-03   6.97e-03   8.61e-03   6.30e-03  -1.02e-02
## 1217   1.83e-02   1.37e-02   5.89e-03  -1.95e-02   7.14e-03   8.89e-03   6.57e-03
## 1218   3.56e-03   1.10e-02   1.07e-02   1.02e-02   8.08e-03   9.22e-03   7.92e-03
## 1219   5.61e-03  -5.92e-03  -7.81e-03   2.45e-03   3.76e-03   2.50e-03   6.55e-03
```

```
## 1220 -1.35e-02 -5.12e-05 -6.57e-03 -4.06e-03 -4.70e-03 -3.15e-03 -1.07e-02
## 1221  9.33e-03 -4.34e-02 -1.26e-02 -1.69e-02 -7.73e-03 -1.40e-02 -8.01e-03
## 1222 -3.38e-03  2.58e-03 -1.32e-02 -1.17e-02 -2.11e-02  3.51e-02  2.21e-02
## 1223 -3.02e-03  1.11e-03 -1.73e-04 -2.86e-04 -2.90e-04 -5.11e-06  2.84e-04
## 1224  8.53e-03 -9.70e-03 -1.15e-02 -1.34e-02 -1.31e-02  1.14e-02  1.10e-02
## 1225  6.27e-03 -5.25e-03  1.86e-02 -2.48e-02  1.91e-02  1.15e-02 -9.55e-03
## 1226 -2.76e-03 -3.10e-03 -3.84e-03  1.64e-03  1.89e-03  1.65e-03 -4.07e-03
## 1227  6.61e-03  4.45e-04 -1.14e-02  9.71e-03  1.18e-02  6.88e-03 -1.43e-02
## 1228 -4.13e-03  7.72e-03  4.97e-03 -1.32e-02 -1.32e-02  8.35e-03  6.44e-03
## 1229  3.11e-02 -5.03e-03 -2.30e-02 -1.75e-02 -2.18e-02 -1.36e-02  2.65e-02
## 1230 -3.71e-03  1.34e-03 -3.02e-04 -5.28e-04 -2.89e-04 -1.01e-04  1.66e-04
## 1231 -8.06e-03 -5.77e-03 -2.54e-03 -4.88e-03  8.69e-03 -4.23e-03 -1.30e-03
## 1232  2.48e-03 -3.72e-03 -4.88e-03  9.31e-03 -6.43e-03 -1.18e-02 -6.20e-03
## 1233 -1.33e-02  3.52e-04 -6.64e-03 -3.87e-03 -5.06e-03 -3.14e-03 -1.11e-02
## 1234 -5.43e-04 -2.88e-03 -7.17e-04 -4.11e-04 -3.49e-04 -2.54e-06 -8.24e-04
## 1235 -7.83e-03  4.78e-05 -5.33e-03 -9.15e-05 -7.87e-03 -1.72e-03  8.21e-03
## 1236 -5.30e-03  2.08e-02 -2.44e-02  8.04e-03  6.02e-03  9.48e-03 -2.91e-02
## 1237 -1.50e-03 -6.35e-03 -1.45e-03 -3.11e-03 -2.56e-03 -3.14e-03 -2.42e-03
## 1238  1.70e-02  1.54e-02  7.35e-03 -2.05e-02  6.53e-03  8.20e-03  7.64e-03
## 1239  1.52e-03  8.39e-04  7.65e-03 -1.33e-02  6.22e-03  7.18e-03  3.11e-03
## 1240  8.96e-03 -4.65e-02 -1.24e-02 -1.95e-02 -9.90e-03 -1.67e-02 -5.28e-03
## 1241  4.81e-03  3.18e-02  7.30e-03  9.89e-03  9.39e-03  1.14e-02  1.48e-02
## 1242 -3.19e-02  8.83e-04  1.62e-02  4.41e-03  2.26e-02  6.94e-03 -1.71e-02
## 1243  7.13e-03 -1.04e-02 -1.23e-02 -2.16e-02  1.63e-02  1.11e-02 -9.13e-03
## 1244  1.09e-02 -2.95e-03 -1.57e-02  1.28e-02 -1.75e-02  1.14e-02  1.53e-02
## 1245 -1.80e-02  1.04e-02 -1.07e-02 -8.95e-03 -1.30e-02  3.21e-02  2.12e-02
## 1246  8.50e-03 -4.68e-02 -1.23e-02 -1.93e-02 -9.58e-03 -1.64e-02 -5.53e-03
## 1247  1.85e-03 -3.20e-04  9.34e-03  9.01e-03 -1.30e-03 -4.50e-03  2.82e-04
## 1248  1.55e-02  6.39e-03  2.65e-02 -1.01e-02 -8.64e-03 -8.01e-03 -1.39e-02
## 1249  1.07e-04 -6.34e-03 -1.88e-03 -2.23e-03 -1.91e-03 -2.07e-03 -2.71e-03
## 1250  1.44e-02  1.14e-03 -7.38e-03 -4.53e-03 -9.15e-03 -5.85e-03 -1.98e-02
## 1251 -1.04e-02  2.11e-05  9.07e-03  8.78e-03 -2.86e-03 -5.65e-03 -3.27e-03
## 1252 -7.78e-03 -4.33e-04 -1.70e-02 -1.93e-02 -1.44e-02  3.76e-02 -1.39e-02
## 1253 -2.13e-03 -3.15e-03 -4.48e-03  1.71e-03  1.24e-03  1.21e-03  1.65e-03
## 1254 -3.11e-03  1.12e-02  9.63e-03  9.82e-03  1.14e-02  8.63e-03  1.22e-02
## 1255  3.95e-04  3.25e-04 -3.33e-05 -1.44e-04 -9.60e-05 -1.85e-04  1.29e-06
## 1256  4.11e-02 -4.49e-03  2.11e-02 -2.22e-02 -3.65e-02 -2.44e-02  1.22e-02
## 1257 -4.79e-03  2.18e-02 -2.37e-02  9.16e-03  3.78e-03  8.96e-03  2.73e-03
## 1258 -1.50e-02 -2.49e-02  1.14e-02 -2.99e-02  1.00e-02 -3.28e-02  1.50e-02
## 1259 -6.95e-03  2.03e-02 -1.97e-02  9.70e-03  4.60e-03  7.94e-03  3.10e-03
## 1260 -9.14e-04 -5.96e-03  1.63e-02 -2.14e-02 -3.10e-02 -1.23e-02 -3.97e-02
## 1261 -6.40e-03  9.20e-04  5.99e-03  5.30e-03  6.74e-03 -1.99e-03  5.99e-04
## 1262 -1.44e-02 -5.08e-04  1.21e-02 -9.66e-03  1.33e-02  9.93e-03 -3.91e-03
## 1263  2.55e-02 -1.50e-02  1.23e-02 -4.92e-02  7.62e-03  4.16e-03  1.43e-02
## 1264 -1.71e-04 -2.65e-04  1.57e-04 -2.98e-04  1.59e-04  1.51e-04  2.39e-04
## 1265 -8.50e-03  1.95e-02  1.78e-02  3.61e-02  1.61e-02 -3.89e-02  8.25e-03
## 1266  2.84e-07 -1.09e-06 -3.01e-07 -5.63e-07 -4.18e-08 -3.91e-07  6.98e-08
## 1267 -2.94e-03  9.85e-04 -1.38e-04 -3.23e-04 -2.26e-04 -1.11e-04  7.51e-05
## 1268 -1.74e-04 -2.86e-03 -2.81e-03 -3.26e-03 -3.03e-03 -2.92e-03 -4.00e-03
## 1269 -2.18e-04 -5.22e-03 -1.26e-03 -1.38e-03 -1.56e-03 -1.95e-03 -1.80e-03
```

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## 1270  6.58e-03 -1.07e-02 -1.19e-02 -1.97e-02 -1.77e-02  5.40e-03  1.04e-02
## 1271  3.84e-04  1.55e-03  1.09e-02 -5.04e-03  1.19e-02  1.06e-02 -4.20e-04
## 1272  3.96e-03 -4.62e-03  4.17e-03  2.27e-03 -5.20e-03  3.28e-03 -2.63e-03
## 1273 -9.30e-05 -4.06e-05 -7.68e-06 -2.91e-05 -1.53e-05 -2.98e-05 -2.54e-05
## 1274  1.95e-03  1.32e-03 -2.18e-04 -1.97e-04 -4.12e-05 -8.19e-05 -3.41e-05
## 1275  6.66e-05 -4.38e-03  5.34e-03 -6.14e-03 -4.02e-03 -5.10e-03 -4.13e-03
## 1276 -1.60e-03 -3.71e-03 -7.08e-04 -1.10e-03 -5.50e-04 -6.54e-04 -8.57e-04
## 1277  7.75e-06 -1.44e-03 -2.34e-04 -1.21e-03 -6.14e-05 -9.72e-04  1.39e-05
## 1278 -1.19e-03 -2.41e-03 -3.78e-04 -7.22e-04 -5.77e-04 -4.64e-04 -7.82e-04
## 1279 -5.90e-03  3.20e-02  4.38e-03  4.79e-03  1.06e-02  1.17e-02 -2.80e-02
## 1280 -2.54e-05  4.63e-04  9.00e-03 -3.96e-03 -7.92e-04  8.80e-03  3.43e-04
## 1281  1.83e-03  1.29e-03 -2.20e-04 -6.51e-04 -3.69e-04 -4.42e-04 -1.21e-04
## 1282  1.18e-02  1.27e-03 -4.20e-03  2.02e-04 -8.27e-03 -1.89e-03  8.98e-03
## 1283 -3.27e-03  1.22e-02  4.49e-03  1.03e-02 -1.58e-02 -1.51e-02 -1.45e-02
## 1284  1.44e-02 -1.94e-02 -2.06e-02  9.04e-03 -1.85e-02 -2.82e-02 -8.14e-03
## 1285  1.64e-03  1.19e-03 -5.72e-05 -3.18e-04 -2.19e-04 -3.20e-04  1.37e-04
## 1286 -4.44e-03 -1.76e-03  3.58e-03  3.07e-03  4.80e-03  3.96e-03 -1.87e-03
## 1287 -5.04e-04 -1.06e-03  5.57e-04  6.61e-04  4.12e-04 -1.20e-03  7.07e-04
## 1288  1.99e-02  1.30e-02 -1.38e-02  3.30e-02 -1.26e-02 -1.15e-02 -1.54e-02
## 1289 -7.84e-04 -1.15e-03  6.87e-04 -1.34e-03  4.42e-04  4.75e-04  6.14e-04
## 1290  2.62e-04 -9.73e-04 -6.69e-04  4.94e-03 -2.01e-04 -1.64e-03  8.36e-04
## 1291  1.04e-02 -4.89e-02 -1.38e-02 -2.06e-02 -1.05e-02 -1.72e-02 -5.32e-03
## 1292 -1.25e-03 -2.20e-03 -2.48e-03  1.13e-03 -2.79e-03  9.49e-04  1.32e-03
## 1293 -2.58e-02  2.06e-03  1.57e-02  9.22e-03  1.63e-02  7.43e-03 -2.68e-02
## 1294  2.29e-02  1.91e-03  1.29e-02  1.13e-02  1.09e-02  7.36e-03  1.82e-02
## 1295  1.67e-03 -4.70e-03 -1.22e-02 -1.22e-02 -8.95e-03  1.16e-02 -8.88e-03
## 1296  1.26e-02 -4.71e-02 -1.39e-02 -1.74e-02 -8.55e-03 -1.39e-02 -5.86e-03
## 1297  6.44e-05 -6.97e-04 -5.80e-04  4.66e-03 -7.40e-05 -1.62e-03  7.06e-04
## 1298  6.11e-03 -5.62e-03  4.21e-03  2.81e-03 -6.60e-03  4.06e-03 -4.04e-03
## 1299 -1.91e-03  1.82e-03  2.52e-03 -1.81e-03 -1.49e-03 -1.10e-03 -1.44e-03
## 1300  3.62e-03  2.34e-03 -5.80e-04 -1.20e-03 -6.44e-04 -6.46e-04  9.18e-05
## 1301 -9.41e-03 -2.21e-04 -6.89e-03 -1.86e-03 -8.51e-03 -1.06e-03 -1.63e-02
## 1302 -7.65e-03  1.83e-02  7.62e-03  7.09e-03 -1.85e-02  8.76e-03 -2.07e-02
## 1303 -7.44e-03  4.02e-02  6.73e-03  2.44e-02  6.00e-03  2.28e-02  4.32e-03
## 1304 -2.39e-03  8.03e-04 -4.67e-03 -4.20e-03 -4.67e-03 -3.66e-03  4.31e-03
## 1305 -9.47e-03 -6.08e-04 -7.01e-03 -1.19e-03 -6.95e-03 -1.35e-03  1.58e-02
## 1306 -1.24e-02 -9.87e-04 -1.00e-02 -4.40e-03 -9.45e-03 -5.25e-03  1.83e-02
## 1307 -8.13e-03 -1.96e-03 -1.43e-02 -6.38e-03 -1.71e-02 -7.66e-03  8.93e-03
## 1308 -1.41e-03  1.84e-03 -9.90e-03  8.10e-03 -9.50e-03  9.05e-03  1.18e-02
## 1309  3.90e-03  3.26e-03  3.72e-03 -3.73e-03  3.80e-03 -3.77e-03  3.50e-03
## 1310 -1.33e-02  2.41e-02  2.25e-02 -1.74e-02  2.04e-02  3.79e-02  9.04e-03
## 1311 -1.86e-02  1.98e-02  2.38e-02 -3.20e-02  3.15e-02  3.73e-02 -3.90e-02
## 1312 -4.74e-04 -9.81e-04 -3.44e-05  5.01e-04  3.55e-04  7.72e-04  1.65e-04
## 1313 -4.41e-04 -8.16e-03 -2.32e-03 -4.05e-03 -3.23e-03 -3.39e-03 -3.00e-03
## 1314  1.86e-02 -7.98e-03 -2.98e-03 -3.82e-03 -3.45e-03 -4.09e-03 -4.01e-03
## 1315 -5.03e-03  1.03e-02  5.81e-03 -2.43e-02 -2.32e-02  1.19e-02  1.09e-02
## 1316 -8.62e-04  2.84e-02  7.09e-03  1.21e-02  1.15e-02  1.01e-02  8.88e-03
## 1317 -1.21e-02 -8.84e-03 -9.90e-03 -1.12e-02 -9.13e-03  1.20e-02  1.70e-02
## 1318  3.79e-03 -1.42e-03  3.21e-03  2.89e-03  4.78e-03  3.71e-03 -2.72e-03
## 1319 -1.24e-03 -7.59e-03 -1.92e-03 -3.34e-03 -2.57e-03 -3.25e-03 -2.96e-03
```

```
## 1320 -4.39e-04  1.83e-04 -8.43e-06  2.42e-05 -5.07e-07  2.90e-05  3.64e-05
## 1321  1.83e-03  2.76e-02  5.62e-03  6.01e-03  8.06e-03  9.65e-03  8.79e-03
## 1322  1.33e-02 -8.29e-04 -7.24e-03 -3.89e-03 -5.14e-03 -2.23e-03 -1.02e-02
## 1323 -3.89e-04 -3.65e-03 -4.35e-03 -4.79e-03  4.93e-03 -4.82e-03 -6.39e-03
## 1324 -4.73e-03 -8.40e-03 -3.68e-02 -2.41e-02  1.47e-02 -2.96e-02  4.35e-03
## 1325 -3.67e-03  7.87e-03  5.14e-03  7.74e-03 -1.13e-02 -1.12e-02  3.30e-03
## 1326  3.46e-03  2.11e-03 -3.32e-04 -7.69e-04 -6.01e-04 -3.84e-04  3.80e-04
## 1327 -3.25e-03  4.55e-03  4.69e-03 -6.09e-03  4.31e-03 -6.60e-03  2.53e-03
## 1328  4.70e-03  1.21e-02  1.17e-02  1.16e-02  8.82e-03  1.08e-02  8.95e-03
## 1329 -3.27e-03  1.21e-03 -4.46e-05 -1.19e-04 -1.77e-04 -7.42e-05  3.90e-04
## 1330 -4.21e-04 -1.65e-03  4.88e-03 -5.00e-03  4.13e-03 -5.80e-03  3.13e-03
## 1331 -3.77e-03 -1.44e-02 -1.28e-02 -1.06e-02 -9.35e-03 -8.33e-03 -8.14e-03
## 1332  8.41e-03 -4.25e-02 -1.12e-02 -1.45e-02 -6.83e-03 -1.37e-02 -5.64e-03
## 1333 -1.88e-02 -4.79e-03 -2.22e-02  1.19e-02  1.08e-02  8.04e-03  1.37e-02
## 1334 -5.87e-05 -8.48e-05 -7.87e-06  1.85e-05  2.15e-05  4.43e-05 -7.70e-06
## 1335 -3.92e-04  2.81e-02  8.18e-03  9.79e-03  8.56e-03  9.33e-03  1.12e-02
## 1336 -3.73e-03  3.23e-03  1.51e-02 -2.39e-02  1.81e-02 -2.50e-02  8.52e-03
## 1337  8.28e-03 -3.86e-02 -1.03e-02 -1.15e-02 -9.70e-03 -1.48e-02  4.18e-02
## 1338 -5.06e-04 -1.56e-03 -2.94e-04  5.60e-04  4.56e-04  1.37e-03  7.62e-05
## 1339 -9.74e-04  1.18e-03  1.05e-03 -9.86e-04 -7.78e-04  1.27e-03 -8.67e-04
## 1340 -1.44e-03 -4.22e-03 -8.23e-04 -1.27e-03 -1.28e-03 -2.16e-03 -1.74e-03
## 1341  2.08e-03  4.55e-03  1.79e-02  1.21e-02 -6.66e-03  1.44e-02 -1.26e-03
## 1342 -1.52e-02  3.83e-03 -8.59e-03 -5.09e-03  2.38e-02 -5.70e-03 -2.36e-02
## 1343 -1.01e-03 -2.11e-03 -4.13e-04 -1.21e-04  1.32e-04  1.07e-03  1.07e-04
## 1344  1.64e-02  6.75e-04 -9.09e-03 -4.68e-03 -1.03e-02 -5.95e-03  1.87e-02
## 1345 -3.42e-03  3.77e-03 -1.48e-02  7.00e-03  1.21e-02  7.78e-03 -1.36e-02
## 1346 -2.23e-03 -3.66e-03  1.96e-03  1.50e-03  2.62e-03 -4.07e-03 -1.84e-03
## 1347 -9.77e-04 -6.84e-03 -1.41e-03 -2.68e-03 -2.39e-03 -2.88e-03 -1.99e-03
## 1348  1.56e-03  1.12e-03 -4.60e-03  1.88e-03  8.37e-04  1.42e-03  1.37e-03
## 1349  1.95e-04  2.09e-04 -3.75e-06  4.18e-05  4.67e-05  8.21e-05  4.02e-05
## 1350 -1.70e-02  9.67e-03 -1.24e-02 -7.66e-03 -1.26e-02  3.32e-02  2.12e-02
## 1351 -6.71e-04 -7.67e-03 -2.01e-03 -3.61e-03 -3.09e-03 -3.15e-03 -3.05e-03
## 1352  2.22e-02  8.83e-04  1.37e-02  8.52e-03  9.60e-03  6.25e-03  1.90e-02
## 1353  5.89e-03 -1.41e-02 -1.15e-02 -2.08e-02 -1.13e-02  1.14e-02 -7.26e-03
## 1354 -1.95e-02  2.04e-03  1.33e-02  1.22e-02  1.14e-02  8.92e-03  1.71e-02
## 1355 -1.04e-02  1.35e-03 -4.41e-03 -4.61e-04 -7.77e-03 -3.42e-03  8.57e-03
## 1356 -8.17e-03  1.74e-04 -4.57e-03  3.10e-04 -7.20e-03 -1.44e-03  8.34e-03
## 1357 -1.92e-02  5.27e-03  2.69e-02 -7.14e-03 -6.88e-03 -5.05e-03 -1.15e-02
## 1358  1.52e-02  4.08e-04 -9.12e-03 -6.51e-03 -7.15e-03 -5.82e-03 -1.37e-02
## 1359 -3.84e-03 -3.98e-03  2.71e-03  2.43e-03  1.58e-03  1.66e-03  3.60e-03
## 1360  2.96e-03 -1.75e-03  2.55e-03  1.77e-03  1.59e-03  1.03e-03  2.31e-03
## 1361  1.11e-02 -8.03e-03  3.35e-02 -2.00e-02 -2.46e-02 -1.58e-02 -2.86e-02
## 1362 -1.18e-02  5.03e-04 -6.47e-03 -2.23e-03 -7.53e-03 -3.09e-03  1.62e-02
## 1363  2.21e-03  2.50e-03 -9.71e-03  1.05e-02  1.16e-02  4.17e-03  1.35e-02
## 1364 -3.63e-03 -2.39e-03  3.68e-03 -1.92e-03 -2.16e-03 -2.47e-03  3.38e-03
## 1365  1.29e-02  9.57e-03 -1.23e-02 -1.37e-02  3.31e-03  6.53e-03  9.33e-04
## 1366 -9.56e-04 -1.48e-03 -1.43e-04  2.31e-06  1.21e-04  6.65e-04 -5.72e-05
## 1367  1.11e-02  5.20e-04 -5.03e-03 -9.88e-04 -5.71e-03 -2.02e-03  1.59e-02
## 1368 -2.24e-02 -6.55e-03 -2.60e-02  8.91e-03  1.96e-02  1.19e-02 -1.38e-02
## 1369  2.09e-04 -5.71e-03 -1.33e-03 -1.53e-03 -1.80e-03 -1.68e-03 -1.94e-03
```

```
## 1370 -2.20e-04  1.31e-04 -2.68e-04 -2.31e-04 -1.90e-04 -1.29e-04 -2.04e-04
## 1371 -1.13e-04 -1.20e-04  8.78e-06  2.29e-05  1.62e-05  4.69e-05  9.26e-06
## 1372  8.03e-03 -3.26e-02 -6.78e-03 -1.01e-02  2.78e-02 -2.18e-02  2.22e-02
## 1373 -5.73e-03 -5.43e-03  3.46e-03  2.60e-03  4.04e-03  2.87e-03  8.47e-03
## 1374  5.96e-03  1.20e-02 -6.59e-03  6.20e-03  5.20e-03  4.84e-03 -1.19e-02
## 1375  8.08e-04  1.99e-03  2.09e-03  1.92e-03  2.58e-03  1.98e-03 -2.44e-03
## 1376 -8.59e-03 -1.92e-03 -2.32e-03  6.41e-03  8.57e-03 -4.93e-03 -8.52e-04
## 1377 -1.93e-02  6.82e-04  1.23e-02  1.19e-02  1.13e-02  9.08e-03  1.83e-02
## 1378  3.12e-03 -1.21e-03 -7.13e-05 -1.02e-04 -2.54e-04 -4.91e-04 -3.51e-04
## 1379 -3.37e-02 -3.86e-02 -8.83e-03 -1.12e-02 -4.77e-03 -1.02e-02 -2.89e-03
## 1380  2.41e-02 -3.34e-03 -1.64e-02 -1.22e-02 -1.20e-02 -8.05e-03 -1.85e-02
## 1381 -8.82e-03 -5.51e-03  8.37e-03 -5.79e-03 -2.35e-03 -3.35e-03 -5.72e-04
## 1382 -9.46e-04 -1.53e-03  7.93e-04 -1.80e-03  4.78e-04  5.62e-04  6.86e-04
## 1383 -4.10e-03  1.60e-03 -1.83e-04 -3.97e-04 -2.59e-04  2.42e-05  2.70e-04
## 1384 -6.19e-03  2.09e-02  7.14e-03  7.98e-03 -2.26e-02  9.64e-03 -2.37e-02
## 1385 -1.09e-02  6.66e-03  2.24e-02 -6.97e-03  2.43e-02 -5.39e-03 -2.66e-02
## 1386  7.20e-03 -8.12e-03  4.12e-03  2.96e-03  4.39e-03 -1.11e-02 -7.90e-03
## 1387  1.34e-02 -8.10e-03 -2.21e-02  9.69e-03 -2.76e-02  7.30e-03  1.84e-02
## 1388 -3.70e-04 -7.30e-04 -7.25e-05 -1.42e-05 -5.72e-05 -8.83e-05 -1.62e-04
## 1389 -2.14e-05 -6.67e-03 -1.78e-03 -2.10e-03 -2.09e-03 -2.15e-03 -2.65e-03
## 1390  1.65e-03 -3.75e-03 -2.81e-03  9.19e-03 -2.73e-03 -6.73e-03  3.71e-04
## 1391 -3.03e-02 -5.07e-02 -1.92e-02 -1.86e-02  3.01e-02 -2.71e-02  2.75e-02
## 1392 -3.98e-03 -1.02e-02 -3.98e-02 -2.62e-02  1.50e-02 -3.18e-02  3.46e-03
## 1393 -2.05e-02 -9.94e-03  9.30e-03  5.42e-03 -3.62e-02  1.03e-02  3.30e-02
## 1394  1.48e-02 -1.77e-02  1.35e-02 -2.39e-02  9.57e-03 -2.76e-02  1.29e-02
## 1395 -6.17e-04 -2.19e-03 -2.95e-04  1.09e-04 -1.96e-04  2.64e-05 -3.76e-04
## 1396  7.85e-05 -5.55e-03 -1.26e-03 -1.48e-03 -1.75e-03 -1.69e-03 -1.89e-03
## 1397  1.04e-02  9.62e-03  1.97e-02  9.14e-04  1.64e-02 -3.12e-03  9.12e-03
## 1398 -2.42e-03 -1.31e-02 -1.52e-02 -1.38e-02 -1.54e-02 -1.40e-02 -2.36e-02
## 1399 -8.78e-03  3.05e-02  6.62e-03  6.20e-03  1.21e-02  1.22e-02 -2.52e-02
## 1400  2.17e-03 -6.39e-04 -1.38e-04  4.31e-05  5.88e-05  2.06e-04 -2.03e-04
## 1401 -1.56e-02 -6.29e-04 -7.56e-03 -6.79e-03 -6.63e-03 -4.51e-03 -1.17e-02
## 1402 -8.02e-04  3.11e-04 -4.36e-05  9.31e-06  8.68e-06 -1.31e-05  6.66e-06
## 1403  3.13e-03 -3.18e-03  7.64e-03 -1.00e-02  1.13e-02 -7.23e-03  1.34e-02
## 1404  4.47e-04 -9.43e-04  1.06e-02 -6.57e-03 -2.48e-03  8.68e-03 -1.18e-03
## 1405  6.64e-03 -5.83e-04  1.83e-02  1.19e-02 -1.76e-02  1.01e-02  2.84e-02
## 1406 -7.42e-03  9.91e-04 -1.68e-03  1.44e-03 -4.21e-03 -3.06e-04  6.93e-03
## 1407 -2.75e-02 -1.32e-02 -2.65e-02  4.98e-03 -2.34e-02  1.01e-02 -1.30e-02
## 1408  1.81e-02  4.57e-03 -1.08e-02 -6.03e-03  2.40e-02 -8.16e-03  1.81e-02
## 1409 -8.24e-04  2.22e-03  7.12e-04  8.66e-04  1.29e-03  1.43e-03 -3.91e-03
## 1410  1.07e-02 -9.46e-03  1.46e-02  1.13e-02 -1.56e-02 -2.31e-02 -1.34e-02
## 1411 -1.00e-02 -2.22e-03 -2.43e-03 -5.93e-03  9.36e-03  8.08e-03 -2.06e-03
## 1412 -1.80e-03  9.56e-04  5.71e-03  6.21e-03 -2.50e-03 -3.60e-03 -1.66e-03
## 1413 -8.13e-03  2.15e-02 -2.00e-02  8.06e-03  3.81e-03  5.74e-03  1.15e-03
## 1414  1.01e-03  1.49e-03 -4.19e-03  8.54e-03  1.04e-02  6.14e-03  1.39e-02
## 1415  9.31e-04  6.99e-04 -5.40e-05 -6.59e-05 -9.49e-06 -6.88e-05 -4.65e-05
## 1416  2.79e-03  1.43e-03 -9.32e-03  1.01e-02  1.78e-02  9.56e-03 -6.70e-03
## 1417 -1.02e-02  3.00e-04 -4.65e-03 -4.62e-04 -6.09e-03 -6.85e-04 -1.36e-02
## 1418 -4.71e-05  2.29e-04  4.13e-05  1.44e-04  2.31e-05  9.77e-05 -2.44e-05
## 1419 -1.08e-02  4.90e-03 -5.65e-03 -9.40e-04  1.60e-02 -4.60e-03  7.24e-03
```

```
## 1420 -2.45e-05 -3.52e-05  1.84e-07  1.13e-06 -6.00e-06 -5.54e-06 -8.22e-06
## 1421 -5.57e-03  1.10e-02  5.12e-03  6.78e-03 -2.11e-02 -2.41e-02 -1.81e-02
## 1422  5.39e-04 -2.08e-03 -8.27e-04 -1.87e-03 -1.77e-03 -2.59e-03  2.62e-03
## 1423 -1.95e-02  1.31e-03  1.41e-02  1.01e-02 -1.82e-02  5.81e-03  1.35e-02
## 1424 -3.32e-02 -3.79e-02 -8.23e-03 -1.03e-02 -4.57e-03 -9.55e-03 -3.68e-03
## 1425  5.54e-04 -1.47e-04 -4.00e-06  4.56e-05  2.84e-05  3.65e-05  1.50e-06
## 1426  8.36e-03 -3.25e-03 -8.28e-04 -8.08e-04 -6.65e-04 -6.72e-04 -1.32e-03
## 1427  7.84e-03  1.16e-02  6.89e-03  7.62e-03  6.98e-03 -9.33e-03 -1.13e-02
## 1428 -1.04e-03 -2.97e-03 -5.06e-04 -9.36e-04 -8.08e-04 -1.29e-03 -1.30e-03
## 1429 -2.64e-03  1.01e-03 -1.77e-02 -1.75e-02  5.60e-03 -1.68e-02 -2.23e-02
## 1430 -1.39e-02  1.01e-02 -6.18e-03 -2.43e-03 -1.11e-02  2.58e-02  9.23e-03
## 1431  1.49e-03 -7.01e-03 -5.22e-03 -1.43e-02 -6.94e-03  8.43e-03 -5.30e-03
## 1432 -1.20e-02  4.58e-03 -4.11e-03 -9.43e-04  1.80e-02 -3.47e-03  1.28e-02
## 1433  1.59e-02  2.36e-02  7.21e-03  8.98e-03  4.51e-03  6.01e-03  2.13e-03
## 1434 -6.10e-03  1.49e-02  6.69e-03  8.06e-03 -1.12e-02  7.94e-03  4.92e-03
## 1435  1.46e-02  3.91e-03 -7.93e-03 -4.21e-03  2.49e-02 -3.55e-03 -1.31e-02
## 1436 -4.79e-04 -2.52e-03 -4.57e-04 -4.63e-05 -1.28e-04  8.88e-05 -4.79e-04
## 1437  2.28e-03  3.93e-03 -1.08e-02  1.00e-02  1.93e-02  1.08e-02 -7.16e-03
## 1438 -1.17e-02 -2.69e-03  1.05e-02 -7.17e-03 -3.55e-03  1.05e-02 -1.43e-03
## 1439 -3.81e-03  1.20e-02  6.37e-03  1.01e-02 -2.28e-02 -2.15e-02  6.32e-03
## 1440 -9.30e-03 -9.48e-03 -5.02e-03 -6.48e-03 -2.97e-03 -3.56e-03 -1.22e-04
## 1441  2.07e-02 -1.38e-02  1.38e-02  6.62e-03  2.05e-02 -4.10e-02 -1.46e-02
## 1442  2.73e-02  3.09e-02  7.56e-03  9.63e-03  3.57e-03  8.35e-03  3.86e-03
## 1443 -2.15e-02  1.18e-02 -1.18e-02 -1.27e-02 -1.08e-02  3.58e-02 -1.75e-02
## 1444 -1.06e-03 -4.63e-03 -9.82e-04 -1.52e-03 -1.36e-03 -1.91e-03 -1.89e-03
## 1445 -1.04e-03 -7.01e-03 -2.10e-03 -3.37e-03 -2.48e-03 -3.99e-03 -4.07e-03
## 1446 -5.63e-04 -6.94e-03 -1.69e-03 -2.92e-03 -2.70e-03 -3.06e-03 -2.16e-03
## 1447  1.98e-02  1.14e-02  5.91e-03 -2.04e-02 -2.02e-02  9.53e-03 -2.41e-02
## 1448 -3.15e-03 -1.01e-04  9.94e-03 -2.18e-02  1.13e-02  6.84e-03 -1.60e-02
## 1449 -2.40e-02 -5.78e-03 -2.28e-02  7.52e-03  1.88e-02  1.15e-02 -1.26e-02
## 1450 -1.65e-03 -5.12e-03 -7.66e-04 -2.00e-03 -1.90e-03 -2.65e-03 -1.49e-03
## 1451  6.19e-03 -1.25e-02 -8.43e-03 -9.46e-03 -6.52e-03 -7.59e-03  1.85e-02
## 1452 -1.14e-02  5.59e-03  2.05e-02 -1.66e-03 -1.03e-02 -4.33e-03  1.05e-02
## 1453  6.75e-03 -7.24e-03  1.79e-02  1.35e-02 -8.82e-03 -1.81e-02 -7.01e-04
## 1454  1.73e-04  2.93e-02  8.14e-03  9.85e-03  8.27e-03  9.18e-03  1.15e-02
## 1455 -1.36e-02  1.45e-03 -4.04e-03  9.72e-03 -2.71e-03  1.27e-02  3.58e-04
## 1456 -1.68e-02  1.02e-02  2.42e-02 -3.79e-03  2.69e-02 -4.52e-03 -1.30e-02
## 1457  1.39e-02 -1.87e-02  1.30e-02 -2.38e-02  1.46e-02 -2.58e-02 -1.97e-02
## 1458 -8.54e-04 -1.50e-03 -2.70e-04 -1.95e-04 -1.58e-04 -3.31e-04 -4.29e-04
## 1459  1.70e-02 -9.38e-04 -1.12e-02 -1.08e-02 -9.76e-03 -8.09e-03 -1.52e-02
## 1460 -2.72e-03  4.86e-03  4.92e-03 -1.41e-02  6.74e-03 -1.45e-02  6.82e-03
## 1461 -1.66e-02 -7.21e-03 -2.80e-02  1.15e-02  9.59e-03  8.10e-03  1.53e-02
## 1462 -4.34e-03  1.25e-02  6.36e-03 -1.50e-02  3.53e-03  7.51e-03  1.66e-03
## 1463  1.92e-02  1.96e-02  8.16e-03  1.01e-02  1.29e-02 -1.76e-02 -1.50e-02
## 1464  2.05e-03 -2.43e-03 -4.11e-03 -7.41e-03  8.34e-03  7.35e-03  9.83e-03
## 1465 -1.54e-02  1.13e-02 -2.09e-02 -1.46e-02 -2.76e-02  3.80e-02  1.45e-02
## 1466 -2.93e-04 -5.65e-03 -1.51e-03 -1.87e-03 -1.93e-03 -2.10e-03 -2.51e-03
## 1467  1.25e-02 -1.66e-03  1.41e-02  9.18e-03 -2.20e-02  8.63e-03 -1.94e-02
## 1468 -1.53e-02 -1.12e-03 -1.11e-02 -7.52e-03 -7.75e-03 -4.32e-03 -1.49e-02
## 1469 -1.24e-02  3.77e-03 -9.76e-03 -3.17e-03  1.91e-02 -7.52e-03  9.06e-03
```

```
## 1470  6.35e-03 -5.15e-03 -1.25e-02  1.02e-02 -1.51e-02  9.06e-03  2.33e-02
## 1471 -4.55e-05  4.82e-04 -1.73e-03  8.04e-03  1.08e-02 -4.56e-03 -4.06e-04
## 1472  1.28e-05 -6.62e-03 -1.90e-03 -2.30e-03 -2.01e-03 -2.22e-03 -2.62e-03
## 1473 -6.23e-03  1.03e-02  1.41e-02  3.30e-02 -4.92e-02 -3.98e-02  9.46e-03
## 1474 -1.22e-02  9.05e-03  2.25e-02 -9.14e-03  2.15e-02 -1.39e-02  1.05e-02
## 1475 -2.21e-03  6.78e-03  1.02e-02  8.70e-03 -1.14e-02  1.30e-02 -9.05e-03
## 1476  5.94e-05  3.20e-04  5.88e-03  7.66e-03 -7.39e-03 -7.72e-03  5.68e-03
## 1477  1.01e-03  1.65e-03  1.42e-03  1.68e-03  8.90e-04  1.12e-03  1.06e-03
## 1478 -3.02e-02 -1.02e-02  1.34e-02  1.69e-03 -3.49e-02  9.14e-03 -1.67e-02
## 1479  2.01e-04 -1.34e-04  2.12e-04  1.93e-04 -2.50e-04  2.18e-04 -2.37e-04
## 1480 -1.29e-02  2.70e-03 -1.96e-03  8.36e-03 -1.31e-03  9.64e-03  3.53e-04
## 1481 -7.97e-03 -2.98e-04 -7.12e-03 -6.16e-04 -9.88e-03 -2.34e-03  8.89e-03
## 1482  6.77e-03 -2.09e-02  4.04e-02 -2.05e-02 -9.06e-03  4.20e-02 -5.78e-03
## 1483  3.28e-03 -3.69e-04 -8.20e-03  1.18e-02 -7.65e-03  1.50e-02 -1.84e-03
## 1484 -3.39e-03  1.42e-02  6.13e-03 -1.68e-02  4.60e-03  9.58e-03  1.31e-03
## 1485 -1.65e-03  2.04e-03 -4.78e-03 -3.80e-03  2.44e-03 -4.34e-03  1.48e-03
## 1486  3.90e-03  1.01e-02 -4.94e-03  5.43e-03 -6.33e-03  5.17e-03 -8.56e-03
## 1487  9.23e-05 -6.40e-03 -1.79e-03 -2.09e-03 -2.10e-03 -2.13e-03 -2.71e-03
## 1488 -1.26e-02  3.40e-03  2.15e-02 -1.91e-03 -8.30e-03 -2.26e-03  2.12e-02
## 1489 -1.61e-02 -1.83e-02  1.08e-02 -3.14e-02 -2.92e-02  1.04e-02  1.45e-02
## 1490  4.40e-03  2.22e-02  4.02e-03  4.16e-03  4.80e-03  1.18e-03  2.55e-03
## 1491  3.86e-03 -6.92e-03 -6.05e-03 -9.28e-03 -7.62e-03  6.72e-03  1.14e-02
## 1492 -2.67e-04 -8.65e-03 -2.46e-03 -4.18e-03 -3.21e-03 -3.28e-03 -3.14e-03
## 1493 -1.11e-02 -5.13e-03 -5.48e-03 -8.95e-03  6.19e-03  5.66e-03  6.70e-03
## 1494 -1.32e-02 -3.23e-03 -1.06e-02 -6.88e-03 -8.44e-03 -2.39e-03 -1.22e-02
## 1495  2.04e-03 -6.81e-04 -8.53e-03  9.08e-03 -1.21e-02  6.29e-03  2.01e-02
## 1496 -1.04e-03  4.30e-03  9.91e-03  8.05e-03 -1.84e-02  8.80e-03  1.53e-02
## 1497 -5.00e-04 -1.32e-03 -2.75e-04  3.49e-04  3.62e-04  9.93e-04  2.79e-05
## 1498  6.18e-03  9.44e-03  5.42e-03 -6.89e-03  3.91e-03  5.58e-03  2.06e-03
## 1499  5.05e-03  3.89e-03  2.09e-02  1.16e-02 -1.30e-02  1.57e-02 -4.86e-03
## 1500 -2.30e-02  1.97e-03  1.59e-02  1.15e-02  1.12e-02  8.76e-03  1.87e-02
## 1501 -1.16e-02 -5.43e-04 -4.85e-03 -1.43e-03 -3.43e-03 -1.14e-04 -7.90e-03
## 1502 -1.49e-03  5.01e-04  3.55e-03 -3.32e-03 -1.72e-03  4.78e-03 -1.97e-03
## 1503  1.15e-03  1.07e-03  2.56e-05 -2.26e-04 -2.05e-04 -3.49e-04  1.62e-04
## 1504 -2.31e-02 -1.04e-02 -2.47e-02  7.99e-03 -2.60e-02  7.30e-03  2.74e-02
## 1505  2.05e-02  4.45e-03 -1.39e-02 -9.79e-03  2.90e-02 -9.37e-03 -2.02e-02
## 1506 -5.17e-03 -4.83e-03  3.87e-03  2.69e-03  3.49e-03  2.92e-03 -8.57e-03
## 1507  2.08e-03  1.48e-03 -2.64e-04 -2.62e-04 -1.10e-04 -2.15e-04  1.49e-05
## 1508  2.05e-02  1.17e-03  1.54e-02  7.90e-03  1.45e-02  7.55e-03 -2.79e-02
## 1509 -3.66e-03 -1.44e-02 -1.26e-02 -1.05e-02 -9.15e-03 -8.13e-03 -8.56e-03
## 1510  2.48e-03  1.86e-03 -3.78e-04 -8.83e-04 -3.49e-04 -7.24e-04  8.40e-05
## 1511  9.19e-03  9.90e-03  6.34e-03  7.73e-03 -8.94e-03 -9.02e-03  8.80e-03
## 1512  2.00e-02  9.43e-04  1.23e-02  6.61e-03  2.07e-02  8.73e-03 -1.86e-02
## 1513  3.06e-03 -1.05e-03  1.59e-02 -1.54e-02  1.77e-02  1.33e-02 -4.70e-03
## 1514 -4.25e-04 -6.21e-03 -1.50e-03 -1.87e-03 -1.75e-03 -1.94e-03 -2.55e-03
## 1515 -9.96e-03  1.15e-02  3.60e-02  3.95e-02 -1.34e-02 -1.72e-02 -1.65e-02
## 1516 -5.51e-04 -8.31e-03 -2.43e-03 -3.93e-03 -3.22e-03 -3.73e-03 -3.05e-03
## 1517  1.73e-03  3.99e-04 -1.43e-03 -1.14e-03 -1.64e-03 -1.26e-03  4.50e-04
## 1518  1.64e-02 -1.47e-02  4.32e-02  4.63e-02  4.68e-02 -2.72e-02 -2.02e-02
## 1519 -4.80e-03  2.38e-02  6.52e-03  9.78e-03  4.78e-03  7.95e-03  2.40e-03
```

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## 1520   2.51e-03 -6.54e-03 -4.31e-03  8.60e-03 -5.22e-03 -1.11e-02 -2.14e-03
## 1521  -5.67e-04 -5.30e-03 -9.82e-04 -1.11e-03 -1.52e-03 -1.90e-03 -1.65e-03
## 1522  -2.16e-02 -1.37e-02 -4.10e-02  5.63e-03  1.91e-02  1.17e-02 -2.06e-02
## 1523   3.96e-03  2.61e-03 -6.20e-04 -1.14e-03 -7.75e-04 -5.98e-04 -3.46e-05
## 1524  -9.18e-03  2.69e-02  8.49e-03  9.28e-03  8.43e-03  9.78e-03  1.19e-02
## 1525   1.88e-03  1.46e-03  1.69e-05 -3.98e-04 -3.10e-04 -3.21e-04  3.38e-04
## 1526   1.53e-02  2.04e-02 -8.97e-03 -1.10e-02  2.51e-02  3.30e-02 -2.99e-02
## 1527   1.10e-02 -6.13e-03 -1.09e-03 -2.99e-03 -2.83e-03 -4.19e-03 -2.30e-03
## 1528  -6.19e-04 -4.94e-03 -1.23e-03 -1.68e-03 -1.44e-03 -1.82e-03 -2.19e-03
## 1529   2.07e-02  3.63e-03 -1.44e-02 -1.34e-02  3.03e-02 -1.11e-02 -2.04e-02
## 1530   3.41e-03  2.08e-03 -6.02e-04 -1.18e-03 -6.17e-04 -6.26e-04 -2.23e-05
## 1531   1.92e-02  3.25e-03 -1.82e-02 -1.70e-02  3.98e-03 -2.05e-02 -7.19e-04
## 1532   7.95e-03 -4.55e-03  3.63e-03  3.26e-03  4.52e-03  2.64e-03  8.13e-03
## 1533  -6.34e-04 -1.52e-03  5.39e-04 -1.39e-03 -1.43e-03  5.94e-04  6.01e-04
## 1534  -1.35e-02  6.71e-03  2.21e-02 -1.90e-03 -1.01e-02 -4.91e-03  1.13e-02
## 1535  -3.56e-03  1.25e-02  6.19e-03 -1.29e-02  4.26e-03  8.28e-03  1.62e-03
## 1536  -1.23e-02 -1.60e-03 -4.60e-03  7.67e-03 -8.67e-03  5.29e-03  9.16e-03
## 1537   3.22e-03  2.33e-03 -2.04e-04 -5.26e-04 -4.59e-04 -4.65e-04  4.48e-04
## 1538  -7.67e-04 -7.43e-04  1.55e-05  2.90e-05  4.96e-05  2.47e-04  2.42e-05
## 1539   1.80e-02 -1.36e-03 -1.13e-02 -1.12e-02 -1.04e-02 -7.39e-03 -1.55e-02
## 1540  -7.23e-03  1.82e-02  7.31e-03  8.13e-03 -1.84e-02  6.69e-03  4.68e-03
## 1541   1.18e-03  1.61e-03 -4.08e-03  9.35e-03 -2.66e-03  1.25e-02 -2.39e-05
## 1542   1.78e-03  1.45e-03 -8.13e-05 -4.02e-04 -2.81e-04 -4.55e-04  2.56e-04
## 1543  -2.30e-03 -2.67e-03  1.28e-02 -3.05e-02  1.23e-02 -3.50e-02  1.13e-03
## 1544  -1.72e-02 -7.27e-03  1.41e-02  1.27e-02  1.48e-02 -2.39e-02 -1.45e-02
## 1545   8.37e-03 -4.14e-02 -1.10e-02 -1.43e-02 -6.84e-03 -1.36e-02 -5.96e-03
## 1546   2.46e-02 -5.91e-03  1.18e-02  4.09e-03 -4.57e-02  1.34e-03  2.29e-02
## 1547   6.79e-03 -1.72e-03 -4.98e-04  9.81e-05  2.57e-04  7.83e-04 -1.48e-04
## 1548   7.53e-03  8.10e-03 -7.33e-03  7.96e-03  8.36e-03 -4.88e-03 -5.47e-03
## 1549  -1.53e-02 -7.76e-03  1.33e-02  1.14e-02 -1.38e-02 -1.79e-02  1.46e-02
## 1550  -1.15e-03 -4.54e-03 -9.55e-04 -1.53e-03 -1.42e-03 -2.02e-03 -1.83e-03
## 1551   5.04e-02  2.43e-02  1.87e-02  3.49e-02  1.59e-02 -4.32e-02  8.34e-03
## 1552   1.38e-02  1.97e-02  2.70e-02 -9.05e-03 -1.23e-02  3.09e-02  2.19e-02
## 1553   1.85e-02  1.82e-03 -1.66e-02 -1.63e-02  3.81e-03 -1.76e-02  1.37e-03
## 1554  -1.46e-02  1.07e-02  2.36e-02 -4.44e-03  2.35e-02 -6.68e-03 -2.26e-02
## 1555  -9.23e-05 -6.56e-03 -1.72e-03 -2.06e-03 -2.06e-03 -2.15e-03 -2.61e-03
## 1556   3.17e-05 -1.64e-03  3.82e-03 -3.67e-03  4.25e-03 -3.75e-03 -5.34e-03
## 1557  -1.43e-02  2.49e-04 -6.02e-03 -3.43e-03 -4.57e-03 -2.88e-03 -1.04e-02
## 1558   3.55e-03 -5.22e-03  7.50e-03 -1.04e-02  6.52e-03 -1.32e-02  4.59e-03
## 1559  -2.19e-02  2.18e-03  1.24e-02  9.46e-03  1.09e-02  4.95e-03  1.62e-02
## 1560  -7.94e-03  8.77e-04 -3.24e-03  1.11e-03 -6.14e-03 -8.29e-04  7.83e-03
## 1561  -1.62e-02 -2.39e-03 -7.25e-03  9.92e-03 -1.27e-02  7.63e-03  1.25e-02
## 1562   1.45e-03 -2.04e-03  7.24e-04 -1.56e-03  5.95e-04 -1.87e-03  6.49e-04
## 1563  -7.40e-03  2.37e-02  5.15e-03  5.50e-03 -2.55e-02  1.13e-02 -2.24e-02
## 1564   2.71e-02 -3.71e-02 -4.38e-02  3.24e-04 -3.56e-02 -5.32e-02 -1.83e-02
## 1565  -6.26e-03  2.14e-02  7.62e-03  1.07e-02  5.22e-03  7.44e-03  3.70e-03
## 1566  -7.99e-05 -1.15e-04  3.02e-06  5.72e-05  3.99e-05  7.76e-05  1.00e-05
## 1567   1.86e-04 -5.77e-03 -1.33e-03 -1.53e-03 -1.80e-03 -1.69e-03 -1.93e-03
## 1568   1.06e-02 -4.57e-02 -1.19e-02 -1.60e-02 -8.25e-03 -1.10e-02 -2.92e-03
## 1569  -1.24e-02 -7.09e-03 -6.46e-03 -9.41e-03 -7.17e-03  1.05e-02  1.54e-02
```

```
## 1570 -4.93e-04 -2.23e-03 -2.92e-04  4.51e-05 -3.18e-04  1.33e-04 -4.33e-04
## 1571  5.51e-02  4.03e-03  1.64e-02 -3.29e-02  1.81e-02 -3.36e-02  9.94e-03
## 1572 -3.53e-04  3.39e-04 -2.55e-04  3.92e-04 -3.67e-04 -3.98e-04  1.94e-04
## 1573  2.42e-02  1.76e-02 -1.73e-02 -1.92e-02  1.89e-02  2.83e-02  6.83e-03
## 1574  7.74e-03 -2.78e-02 -1.19e-02 -1.52e-02 -1.25e-02  3.80e-02  4.27e-02
## 1575  1.61e-02 -6.49e-05 -7.40e-03 -3.00e-03 -9.27e-03 -2.39e-03 -1.81e-02
## 1576  1.68e-02  1.96e-02 -2.01e-02  1.01e-02 -1.77e-02  1.08e-02  1.20e-02
## 1577  2.36e-03 -3.70e-03 -1.48e-02  9.70e-03  7.08e-03 -1.92e-02  6.45e-03
## 1578  2.39e-03  4.14e-03  2.79e-03 -2.49e-03  2.52e-03  2.98e-03 -4.29e-03
## 1579  2.39e-02  2.95e-02  7.74e-03  9.85e-03  3.89e-03  7.27e-03  3.34e-03
## 1580 -3.56e-03  3.75e-03 -6.76e-03  6.51e-03 -4.94e-03  8.95e-03 -4.93e-03
## 1581  5.75e-03  4.35e-03  4.52e-03 -5.45e-03  6.33e-03 -5.06e-03 -5.72e-03
## 1582  1.82e-04 -7.41e-04  2.38e-03 -7.50e-04 -9.43e-05 -5.25e-04  1.79e-04
## 1583 -6.88e-04  2.41e-04 -1.65e-05 -7.17e-05 -6.49e-05 -6.15e-05 -8.01e-07
## 1584  4.42e-03 -5.15e-03 -9.95e-03  1.27e-02  2.12e-02 -1.89e-02 -4.47e-03
## 1585 -7.04e-03  2.02e-02 -2.92e-02  5.74e-03 -3.08e-02  8.81e-03 -3.33e-02
## 1586  2.44e-03  1.57e-03 -3.74e-04 -9.11e-04 -4.36e-04 -5.40e-04 -4.62e-05
## 1587 -9.34e-04 -5.09e-03 -1.09e-03 -1.61e-03 -1.35e-03 -1.85e-03 -2.03e-03
## 1588  3.53e-02 -6.46e-03 -2.73e-02 -1.76e-02 -2.24e-02 -1.43e-02  2.56e-02
## 1589 -1.02e-04 -5.07e-03 -1.27e-03 -1.37e-03 -1.55e-03 -1.89e-03 -1.84e-03
## 1590 -2.79e-03  9.76e-04 -2.65e-04 -4.10e-04 -2.24e-04 -2.96e-04  4.05e-05
## 1591  1.37e-02  5.07e-03  2.28e-02 -3.63e-03 -5.12e-03 -2.38e-03 -1.01e-02
## 1592 -2.25e-02  2.40e-05  1.32e-02  1.02e-02  1.07e-02  7.69e-03  2.02e-02
## 1593  4.08e-03 -4.65e-03 -6.59e-03 -9.24e-03 -6.27e-03  1.12e-02 -6.73e-03
## 1594 -1.52e-04 -2.18e-04 -3.21e-05  5.04e-05  6.61e-05  1.06e-04 -2.13e-05
## 1595  4.25e-03 -4.42e-03  1.89e-03 -5.62e-03  1.43e-03  1.49e-03  1.67e-03
## 1596 -1.07e-02  3.50e-03 -2.63e-03  1.15e-03  1.67e-02 -6.82e-04  1.29e-02
## 1597  6.29e-03 -1.34e-03 -1.20e-02  1.10e-02 -1.32e-02  1.26e-02 -1.09e-02
## 1598  2.40e-02 -6.76e-04 -1.51e-02 -7.10e-03 -1.87e-02 -1.07e-02  1.10e-02
## 1599 -3.59e-02 -2.62e-02 -1.07e-02  4.12e-02 -1.09e-02 -1.57e-02 -1.26e-02
## 1600  6.01e-04  8.15e-04 -1.81e-03  6.50e-03 -2.89e-03  5.88e-03 -2.92e-03
## 1601  8.54e-04  7.20e-04  1.01e-05  5.88e-05  5.39e-06 -6.85e-05  9.20e-05
## 1602 -1.78e-03 -5.18e-04  1.74e-03 -6.02e-04 -5.47e-05 -4.96e-04  1.00e-04
## 1603  1.90e-02  1.86e-02  2.68e-02 -6.40e-03 -1.34e-02  3.64e-02 -2.31e-02
## 1604 -1.12e-03 -4.52e-03 -1.13e-03 -1.58e-03 -1.11e-03 -5.62e-04 -1.02e-03
## 1605  4.01e-03 -9.85e-03  1.34e-02 -1.11e-02 -4.63e-03 -9.36e-03 -1.45e-03
## 1606  4.44e-03 -4.42e-03  4.08e-03  2.03e-03 -5.97e-03  3.09e-03 -3.46e-03
## 1607 -2.70e-03 -2.63e-03  2.01e-03  2.30e-03  1.50e-03  1.43e-03  2.51e-03
## 1608 -5.03e-03 -6.88e-03  1.30e-02 -5.00e-02  2.69e-02 -3.87e-02 -5.13e-02
## 1609 -1.07e-03 -3.42e-03 -7.08e-04 -1.20e-03 -1.16e-03 -1.71e-03 -1.54e-03
## 1610  2.93e-04  3.47e-04  5.31e-04  5.25e-04 -1.01e-03  5.07e-04 -9.45e-04
## 1611 -1.16e-03 -1.61e-03 -1.83e-04 -4.47e-04 -3.27e-04 -5.09e-04 -4.80e-04
## 1612  3.29e-04  2.71e-04 -2.49e-05 -3.99e-05 -2.16e-05 -6.54e-05 -3.52e-05
## 1613  1.25e-02  9.25e-03  5.68e-03  7.88e-03 -1.36e-02 -1.36e-02  3.38e-03
## 1614  1.96e-02  4.68e-03  2.10e-02 -3.38e-03 -1.38e-02 -5.85e-03  1.24e-02
## 1615 -3.13e-03 -2.46e-03  2.37e-03  2.23e-03  2.50e-03  1.81e-03 -5.05e-03
## 1616  3.64e-03  5.56e-04  8.42e-03  1.14e-02  7.93e-03 -1.70e-02  6.24e-03
## 1617 -1.07e-02 -4.06e-03 -1.80e-02 -9.35e-03 -1.52e-02 -8.69e-03  2.05e-02
## 1618 -4.66e-04  3.63e-04 -5.79e-04 -4.53e-04  6.62e-04 -5.39e-04  5.68e-04
## 1619  3.26e-03  4.31e-03 -8.16e-03  1.11e-02  1.72e-02  1.48e-02 -3.14e-03
```

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## 1620 -6.67e-03 -7.29e-03  1.89e-02 -2.28e-02 -3.74e-02 -2.60e-02  9.65e-03
## 1621  1.83e-02  5.52e-03 -1.09e-02 -8.25e-03  2.80e-02 -7.56e-03 -1.76e-02
## 1622  1.13e-02  4.39e-03  4.57e-03 -9.24e-03  3.49e-03 -1.10e-02  5.26e-04
## 1623 -2.05e-02 -6.55e-03 -2.83e-02  9.90e-03  9.76e-03  8.51e-03  1.77e-02
## 1624  1.33e-02 -2.56e-03 -2.70e-02  6.60e-03  1.53e-02  4.14e-03 -2.86e-02
## 1625  5.33e-03 -5.50e-03  3.40e-03  2.67e-03  3.08e-03 -8.01e-03 -5.63e-03
## 1626  1.11e-02 -7.40e-03 -2.38e-02  5.02e-03 -2.20e-02  7.45e-03 -1.29e-02
## 1627 -1.49e-02  1.47e-02 -1.17e-02  3.31e-02  2.91e-02 -4.88e-03 -1.34e-02
## 1628 -9.65e-03  4.23e-03  2.07e-02 -1.87e-02  1.72e-02 -2.67e-02  5.92e-03
## 1629 -4.53e-03  2.53e-02  6.73e-03  1.06e-02  4.98e-03  8.93e-03  2.40e-03
## 1630 -1.87e-04 -5.97e-05 -4.57e-04 -4.71e-04 -2.86e-04  9.20e-04 -3.46e-04
## 1631 -6.68e-03  2.72e-02  5.71e-03  8.83e-03 -2.35e-02  1.86e-02 -1.90e-02
## 1632  2.68e-03 -1.23e-03 -1.98e-04 -3.01e-04 -2.71e-04 -4.39e-04 -5.84e-04
## 1633 -7.61e-04  8.64e-04  2.65e-03  3.14e-03  2.40e-03 -3.41e-03  1.75e-03
## 1634  5.66e-04  1.62e-03 -1.62e-03  6.42e-03 -3.15e-03  5.90e-03  6.89e-03
## 1635  1.45e-02 -4.60e-02 -1.36e-02 -1.33e-02 -7.39e-03 -9.23e-03 -3.86e-03
## 1636 -6.06e-04 -2.96e-03 -4.30e-04  1.64e-04 -1.89e-04  1.90e-04 -3.49e-04
## 1637 -3.73e-03 -3.12e-03  2.98e-03  3.28e-03  2.18e-03  2.08e-03  3.59e-03
## 1638 -1.34e-03 -3.95e-03 -8.10e-04 -1.23e-03 -1.25e-03 -2.08e-03 -1.72e-03
## 1639 -1.86e-02 -1.02e-02  1.44e-02  1.11e-02 -1.45e-02 -2.23e-02  2.48e-02
## 1640 -1.59e-02  2.41e-02  2.46e-02  3.73e-02  2.37e-02 -1.51e-02  1.39e-02
## 1641 -8.36e-03 -6.71e-03 -1.90e-02 -7.87e-03 -1.51e-02 -5.23e-03  2.25e-02
## 1642 -2.42e-03 -1.89e-03  1.81e-03  1.40e-03 -2.14e-03  2.39e-03 -1.16e-03
## 1643  1.83e-02  1.51e-03 -1.10e-02 -6.35e-03 -1.15e-02 -7.26e-03  2.06e-02
## 1644  2.74e-03 -1.30e-03  1.56e-02 -1.49e-02  9.58e-03  5.13e-03  1.05e-02
## 1645 -4.86e-03  8.52e-03 -1.14e-02  8.38e-03  4.11e-03 -1.40e-02  3.01e-03
## 1646 -1.31e-02  6.23e-04 -4.64e-03 -3.67e-03 -7.38e-03 -3.75e-03 -1.60e-02
## 1647  1.11e-02  8.34e-04 -4.78e-03 -5.68e-04 -5.82e-03 -1.87e-03  1.62e-02
## 1648  2.62e-03 -2.50e-03  7.37e-03 -1.47e-02 -1.58e-02  8.27e-03  4.99e-03
## 1649  1.09e-03  7.61e-04 -4.92e-05 -2.59e-04 -2.41e-04 -2.11e-04 -6.38e-06
## 1650 -1.40e-04 -2.94e-03 -7.04e-04 -6.95e-05 -2.54e-04  1.89e-04 -5.42e-04
## 1651  1.01e-02 -5.08e-02 -1.51e-02 -2.36e-02 -1.06e-02 -1.74e-02 -7.57e-03
## 1652  3.86e-03 -6.09e-03 -5.30e-03 -8.66e-03 -9.04e-03  6.68e-03  7.78e-03
## 1653  1.23e-02 -6.99e-03 -1.76e-03 -4.20e-03 -3.25e-03 -4.64e-03 -3.14e-03
## 1654 -1.18e-02  1.68e-02 -3.53e-02  3.69e-02  2.03e-02 -2.63e-02  1.22e-02
## 1655 -2.27e-03 -4.93e-03  1.99e-03 -5.18e-03 -4.37e-03  2.12e-03 -4.08e-03
## 1656  6.50e-03 -3.76e-03 -8.34e-04 -1.70e-03 -1.39e-03 -2.80e-03 -1.91e-03
## 1657 -2.69e-04 -1.37e-03 -6.68e-03  1.03e-02 -8.50e-03  9.66e-03 -4.15e-03
## 1658  1.56e-02  1.64e-04 -9.52e-03 -6.79e-03 -7.39e-03 -6.01e-03 -1.40e-02
## 1659 -6.97e-03 -6.85e-03 -2.43e-02 -1.19e-02 -2.61e-02 -1.22e-02  1.13e-02
## 1660 -8.68e-03 -5.87e-03 -2.50e-02 -1.53e-02 -2.82e-02 -1.52e-02  1.30e-02
## 1661  2.23e-02  1.17e-03  1.48e-02  9.31e-03  1.04e-02  6.71e-03  2.10e-02
## 1662 -5.32e-04 -1.56e-03 -2.60e-04  5.88e-04  4.86e-04  1.39e-03  1.09e-04
## 1663  1.41e-02 -5.94e-03 -2.06e-03 -2.97e-03 -1.88e-03 -1.55e-03 -2.01e-03
## 1664  7.74e-03 -2.00e-02 -1.03e-02 -1.74e-02 -1.02e-02 -1.58e-02 -5.82e-03
## 1665  2.29e-02  8.35e-04  1.32e-02  8.16e-03  9.23e-03  6.03e-03  1.86e-02
## 1666  7.81e-03 -3.52e-02 -1.01e-02 -1.18e-02  4.13e-02 -1.06e-02 -7.50e-03
## 1667 -4.77e-03 -1.71e-03 -1.00e-03 -2.58e-03 -1.10e-03  4.13e-03 -5.53e-04
## 1668 -6.46e-03 -5.86e-03  4.20e-03  2.24e-03  6.20e-03  4.12e-03 -6.85e-03
## 1669 -1.81e-02  4.59e-02  2.62e-02  4.05e-02  2.37e-02  3.73e-02  1.56e-02
```

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## 1670   5.11e-03 -1.18e-03 -1.24e-04  4.75e-04  2.79e-04  6.37e-04  1.36e-04
## 1671   2.53e-02 -3.07e-03 -1.79e-02 -1.03e-02 -1.58e-02 -1.07e-02  2.30e-02
## 1672   2.50e-02 -1.51e-02  1.19e-02 -4.21e-02  7.97e-03  8.51e-03  1.51e-02
## 1673   9.20e-03 -2.17e-03 -6.62e-04  4.91e-04  4.49e-04  1.25e-03  2.57e-04
## 1674   7.49e-04 -4.88e-03 -1.65e-03 -4.10e-03 -2.50e-03 -4.92e-03  8.46e-03
## 1675  -7.84e-03  3.08e-02  9.10e-03  9.72e-03  4.50e-03  6.95e-03  3.96e-03
## 1676   3.59e-03 -1.63e-03 -1.21e-04 -5.96e-04 -5.51e-04 -9.03e-04 -4.30e-04
## 1677  -2.61e-03  8.94e-04 -1.72e-04 -2.68e-04 -2.53e-04 -7.40e-06  1.81e-04
## 1678  -4.12e-04 -7.78e-04  3.97e-04  5.00e-04  3.29e-04 -1.02e-03  4.50e-04
## 1679  -7.73e-05 -1.25e-04 -7.89e-06  5.05e-05  3.84e-05  7.69e-05  7.92e-06
## 1680   1.25e-02  2.07e-02  7.77e-03  9.28e-03  4.22e-03  5.72e-03  2.89e-03
## 1681  -2.68e-02  4.54e-03  1.70e-02  9.95e-03  1.22e-02  4.28e-03  1.75e-02
## 1682  -4.11e-02 -2.95e-02  3.75e-02 -2.70e-02 -1.25e-02  4.92e-02 -9.69e-03
## 1683   1.12e-02 -4.09e-03 -1.04e-03 -6.70e-04 -6.55e-04 -7.45e-04 -7.54e-04
## 1684  -7.25e-05 -7.19e-05  6.72e-07  2.77e-05  1.86e-05  4.17e-05 -7.39e-07
## 1685   5.97e-03 -1.18e-02 -2.24e-02 -2.39e-02 -1.78e-02  1.26e-02 -1.65e-02
## 1686   8.60e-04 -3.20e-03 -2.43e-03 -7.51e-03  8.27e-03  6.01e-03 -6.55e-03
## 1687   2.33e-03  1.79e-03 -2.22e-04 -7.42e-04 -4.59e-04 -5.25e-04  1.69e-05
## 1688  -1.64e-03  8.56e-03  8.78e-03  9.50e-03  7.42e-03  8.08e-03  7.09e-03
## 1689  -2.40e-04  1.76e-03  2.21e-04  9.09e-04 -2.20e-04  6.19e-04 -1.76e-04
## 1690  -5.53e-03 -1.11e-02 -1.13e-02 -9.14e-03 -1.23e-02 -1.25e-02  3.18e-02
## 1691   3.96e-03  5.18e-03 -3.63e-03  4.69e-03  3.94e-03 -4.71e-03 -5.71e-03
## 1692  -1.19e-02  1.43e-03 -4.09e-03 -1.40e-03 -6.05e-03 -2.72e-03 -1.48e-02
## 1693   6.96e-03 -4.56e-03  4.12e-03  2.50e-03  4.41e-03  2.48e-03  8.25e-03
## 1694   2.01e-04  1.46e-04 -3.71e-04  2.66e-03  2.35e-03 -1.32e-03  2.52e-03
## 1695  -1.55e-03 -2.39e-03 -1.78e-04 -6.35e-04 -5.75e-04 -5.32e-04 -5.39e-04
## 1696   8.14e-04  8.42e-04  1.11e-05 -1.92e-04 -2.03e-04 -3.40e-04  9.76e-05
## 1697  -5.40e-03 -2.75e-03  1.57e-02 -3.25e-02  1.68e-02 -3.63e-02  4.62e-03
## 1698  -1.47e-02  1.75e-02 -1.02e-02  3.43e-02  2.12e-02 -9.90e-03  1.29e-02
## 1699   3.81e-03 -4.59e-03 -1.68e-02  1.01e-02  7.44e-03 -2.05e-02  6.58e-03
## 1700  -1.17e-02  5.55e-03 -2.32e-03  6.40e-04  1.52e-02 -3.26e-03  6.70e-03
## 1701   3.49e-03 -5.91e-03 -6.14e-03  1.00e-02 -9.88e-03 -1.58e-02  1.06e-02
## 1702   5.71e-04 -6.23e-04 -8.30e-04  3.64e-03 -1.06e-03 -1.70e-03 -1.11e-03
## 1703  -2.04e-02 -4.18e-03  1.14e-02  9.17e-03 -3.67e-02  6.33e-03  1.86e-02
## 1704   5.12e-03 -1.45e-02 -5.75e-03 -8.40e-03  3.17e-02  3.37e-02  2.65e-02
## 1705   1.23e-02  1.43e-02  7.40e-03  9.24e-03 -1.10e-02 -1.06e-02 -1.35e-02
## 1706   2.58e-02 -1.90e-02  1.07e-02  9.05e-03 -3.64e-02 -4.15e-02  2.04e-02
## 1707  -2.12e-04  8.15e-05 -4.42e-06  1.08e-05  9.57e-07  1.44e-05  1.49e-05
## 1708   1.36e-02  1.96e-02 -1.38e-02  9.70e-03  5.53e-03  9.27e-03  3.97e-03
## 1709   3.46e-03  3.62e-03 -3.45e-03  3.76e-03  2.30e-03 -5.24e-03  1.02e-03
## 1710  -8.93e-04 -1.17e-03  8.37e-04  9.11e-04  9.82e-04 -1.49e-03 -1.13e-03
## 1711   8.30e-04  6.53e-04 -1.16e-04 -4.22e-04 -2.16e-04 -3.67e-04 -8.60e-05
## 1712  -7.31e-03  2.74e-02  6.50e-03  7.95e-03  7.94e-03  9.86e-03  1.14e-02
## 1713   3.07e-03  1.98e-03 -1.57e-04 -5.29e-04 -5.01e-04 -2.35e-04  2.99e-04
## 1714  -7.01e-04 -2.42e-03 -4.52e-04 -2.32e-04 -2.22e-04  2.38e-05 -7.77e-04
## 1715  -1.93e-02 -3.99e-02 -4.22e-02  3.99e-03 -3.26e-02 -4.32e-02 -1.41e-02
## 1716  -2.37e-02 -1.19e-02 -4.14e-02  1.75e-03  1.18e-02  4.81e-03 -3.76e-02
## 1717   1.83e-02  1.32e-02 -1.29e-02  3.35e-02 -9.11e-03 -1.04e-02 -1.38e-02
## 1718  -2.89e-03  1.98e-03 -1.07e-02  8.06e-03 -8.77e-03  1.14e-02 -7.33e-03
## 1719  -4.48e-04 -1.24e-03 -1.04e-04  7.24e-04  4.61e-04  1.14e-03  3.00e-04
```

```
## 1720   2.79e-02 -3.83e-03  8.27e-03  3.42e-03  2.10e-02  7.87e-03 -2.28e-02
## 1721   2.16e-02  7.78e-04  1.40e-02  8.97e-05  2.06e-02  4.40e-03 -2.31e-02
## 1722   1.41e-02  2.25e-02  7.25e-03  8.97e-03  4.99e-03  5.42e-03  2.33e-03
## 1723   1.53e-02  1.02e-02 -1.51e-02  7.71e-03  6.79e-03 -1.83e-02 -2.02e-02
## 1724  -2.54e-04  2.25e-04  3.27e-04 -2.15e-04 -1.63e-04 -1.14e-04 -2.27e-04
## 1725   7.97e-04 -1.48e-03 -1.43e-03 -2.31e-03 -2.33e-03  3.27e-03  3.23e-03
## 1726  -3.05e-02 -3.24e-02 -5.58e-03 -5.53e-03 -6.23e-03 -8.79e-03  3.65e-02
## 1727   1.33e-02 -7.65e-04 -7.24e-03 -3.90e-03 -5.17e-03 -2.25e-03 -1.02e-02
## 1728   1.49e-03  4.38e-03 -6.41e-03  1.08e-02  1.65e-02  9.82e-03 -3.98e-03
## 1729   2.38e-04 -6.29e-03 -1.95e-03 -2.29e-03 -2.04e-03 -2.17e-03 -2.73e-03
## 1730  -3.51e-03 -8.22e-03 -9.07e-03 -5.78e-03 -1.53e-02 -1.17e-02  2.06e-02
## 1731  -3.82e-04  2.48e-03  2.97e-04  1.11e-03 -1.72e-04  8.17e-04 -2.81e-04
## 1732  -4.20e-04  2.70e-02  7.60e-03  8.84e-03  8.90e-03  9.00e-03  1.15e-02
## 1733  -6.78e-03  2.83e-02  7.92e-03  1.02e-02  4.89e-03  8.29e-03  3.77e-03
## 1734   8.52e-04 -1.90e-03 -1.57e-03  5.83e-03 -3.16e-03 -4.62e-03  6.09e-03
## 1735   1.41e-02  5.91e-04 -8.34e-03 -6.00e-03 -6.66e-03 -5.57e-03 -1.31e-02
## 1736  -1.53e-03 -3.75e-03 -5.38e-04 -1.45e-03 -1.31e-03 -1.97e-03 -1.30e-03
## 1737   2.30e-02  1.67e-02 -2.56e-02  6.68e-03 -2.57e-02  9.47e-03  1.21e-02
## 1738   1.32e-02  8.11e-03  2.23e-02 -3.29e-03 -7.82e-03 -5.95e-03  1.87e-02
## 1739  -1.96e-03  7.14e-04 -1.58e-07 -8.33e-05 -1.43e-04  2.79e-05  1.61e-04
## 1740  -1.62e-02 -1.12e-02 -1.09e-02 -1.60e-02 -8.63e-03  1.42e-02 -4.99e-03
## 1741   7.16e-04  5.75e-04 -7.58e-05 -1.05e-04 -4.71e-05 -1.33e-04 -3.75e-05
## 1742   9.06e-05 -8.10e-04 -1.24e-04 -5.13e-04 -4.47e-05 -2.88e-04  7.54e-05
## 1743  -1.28e-02  1.64e-03 -5.50e-03 -3.07e-03 -7.21e-03 -3.27e-03 -1.72e-02
## 1744   1.20e-03  9.00e-04 -6.27e-05 -3.37e-04 -2.79e-04 -3.07e-04  7.47e-05
## 1745   5.54e-03 -1.19e-02 -1.08e-02  9.43e-03 -1.10e-02 -2.25e-02 -5.37e-03
## 1746  -1.16e-02 -1.74e-03  1.00e-02  1.01e-02 -4.10e-03 -5.76e-03  1.59e-02
## 1747  -1.63e-02  1.05e-02 -9.74e-03 -5.57e-03 -1.09e-02  3.12e-02  1.94e-02
## 1748  -2.99e-03  7.09e-03  3.69e-03 -4.89e-03  3.38e-03  5.28e-03  1.30e-03
## 1749   5.31e-05 -6.52e-04 -1.56e-04 -4.46e-04 -4.22e-04 -6.29e-04  1.22e-03
## 1750  -1.81e-03  2.06e-03 -1.53e-03 -1.94e-03  2.08e-03  2.35e-03 -2.01e-03
## 1751  -3.70e-03  9.34e-03 -1.53e-02  8.88e-03  4.01e-03 -1.69e-02  2.58e-03
## 1752  -5.57e-03  7.94e-03  5.68e-03  6.46e-03 -5.30e-03 -7.01e-03 -6.05e-03
## 1753  -5.40e-03 -6.50e-04 -1.70e-03  5.33e-03  4.69e-03 -2.90e-03  5.14e-03
## 1754   2.73e-03  1.91e-03 -2.73e-04 -6.18e-04 -4.28e-04 -5.50e-04  3.23e-04
## 1755  -7.65e-04 -4.58e-03 -1.13e-03 -1.63e-03 -1.52e-03 -1.98e-03 -2.03e-03
## 1756   4.30e-03  8.30e-03  3.90e-03  4.98e-03 -5.64e-03  4.07e-03  2.51e-03
## 1757   1.18e-03 -4.26e-04 -1.66e-05 -8.85e-05 -1.35e-05  1.06e-05 -7.47e-05
## 1758   1.03e-02 -3.14e-03 -1.82e-02  9.08e-03  1.37e-02  7.90e-03 -1.97e-02
## 1759  -6.12e-03  2.86e-02  7.94e-03  1.03e-02  4.70e-03  9.54e-03  3.75e-03
## 1760  -3.03e-03 -3.49e-03 -4.31e-03  1.54e-03  2.13e-03  1.76e-03 -4.71e-03
## 1761   2.21e-03 -5.58e-03 -4.73e-03 -1.00e-02 -4.43e-03  1.17e-02 -2.30e-03
## 1762  -1.41e-03 -2.93e-03 -2.33e-04 -4.70e-04 -6.11e-04 -4.50e-04 -3.13e-04
## 1763   8.05e-05 -6.88e-04 -1.16e-04 -4.55e-04 -2.35e-05 -2.92e-04  7.78e-05
## 1764  -2.57e-03  4.82e-03  2.45e-03  2.92e-03 -2.59e-03  2.83e-03  2.69e-03
## 1765   1.07e-03 -7.40e-04 -4.49e-03  7.34e-03 -6.86e-03  5.98e-03  1.34e-02
## 1766  -1.02e-02  2.13e-02  1.99e-02  3.62e-02  2.05e-02 -1.40e-02  1.26e-02
## 1767   1.38e-02  9.95e-04 -6.09e-03 -5.82e-04 -9.70e-03 -3.14e-03  9.48e-03
## 1768   1.38e-02  1.26e-03 -7.35e-03 -5.42e-03 -1.01e-02 -6.85e-03  2.08e-02
## 1769   2.00e-03  1.45e-03 -2.05e-04 -2.07e-04 -6.34e-05 -1.53e-04  3.65e-05
```

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## 1770 -3.39e-03  1.46e-02  6.35e-03 -1.84e-02  3.53e-03  8.81e-03  1.82e-03
## 1771  1.02e-03 -3.07e-03  9.25e-03 -4.94e-03 -1.12e-03 -3.72e-03 -1.38e-04
## 1772  1.35e-03 -5.53e-04 -1.03e-05 -2.71e-04 -2.79e-05 -3.60e-04 -2.18e-04
## 1773  1.47e-02  1.43e-02  7.58e-03  8.86e-03  4.60e-03 -1.85e-02  3.07e-03
## 1774 -4.06e-03  1.41e-03 -3.63e-04 -5.48e-04 -3.76e-04 -9.01e-05  9.95e-05
## 1775 -1.82e-02 -2.73e-02 -3.57e-02 -4.43e-02  1.14e-02  1.19e-02 -3.27e-02
## 1776  7.86e-03  2.64e-02  2.35e-03 -6.42e-04  2.21e-03 -1.82e-03  5.99e-03
## 1777  1.86e-03  1.28e-03 -8.26e-03  1.03e-02 -7.49e-03  1.20e-02 -3.19e-03
## 1778  2.00e-02  2.02e-02  9.15e-03  8.83e-03  9.00e-03 -2.89e-02  1.16e-02
## 1779  1.48e-02  8.61e-04 -9.83e-03 -7.65e-03 -7.14e-03 -6.51e-03 -1.52e-02
## 1780  9.40e-04  2.74e-02  7.09e-03  8.64e-03  8.67e-03  9.27e-03  1.10e-02
## 1781 -2.88e-03 -2.60e-03  1.86e-03  2.09e-03  1.45e-03  1.26e-03  2.11e-03
## 1782  3.41e-02  2.80e-02  2.60e-02 -2.55e-02  3.61e-02  4.34e-02 -3.15e-02
## 1783  6.24e-03 -7.19e-03  1.76e-02 -2.45e-02 -1.19e-02  1.50e-02 -7.13e-03
## 1784  4.35e-04  3.54e-04 -4.84e-06 -6.77e-06 -3.07e-05 -5.08e-05  3.41e-05
## 1785 -1.81e-03  3.10e-03 -8.97e-03  6.82e-03  5.00e-03  3.84e-03  3.27e-03
## 1786  1.95e-02  4.17e-04 -1.10e-02 -9.45e-03 -1.43e-02 -9.29e-03 -2.41e-02
## 1787 -2.94e-03  3.46e-03 -3.82e-03 -3.69e-03 -5.02e-03  4.41e-03  1.93e-03
## 1788  8.17e-03  6.45e-03 -8.05e-03 -9.93e-03  4.25e-03  5.28e-03 -1.34e-02
## 1789 -4.19e-03  1.61e-03 -3.03e-04 -5.01e-04 -3.60e-04 -5.65e-05  1.97e-04
## 1790 -4.19e-03 -4.28e-03  2.56e-03  2.09e-03  1.84e-03  1.62e-03  3.10e-03
## 1791 -1.46e-02  2.47e-03 -1.09e-02 -8.46e-03  2.27e-02 -7.60e-03 -2.61e-02
## 1792  2.09e-02  1.74e-02  7.38e-03  7.51e-03  1.14e-02 -2.54e-02 -1.99e-02
## 1793 -1.57e-04 -2.16e-04 -1.74e-05  6.65e-05  5.27e-05  1.32e-04 -2.25e-05
## 1794  5.31e-03 -2.44e-03 -4.41e-04 -5.93e-04 -3.48e-04 -5.97e-04 -8.88e-04
## 1795 -1.42e-02  1.08e-02 -5.48e-03  2.89e-02 -9.34e-03 -5.94e-03  1.29e-02
## 1796 -5.27e-03  2.57e-02  6.62e-03  8.75e-03  4.29e-03  8.67e-03  2.34e-03
## 1797 -2.18e-02  2.66e-03  1.51e-02  1.06e-02  1.07e-02  7.96e-03  1.76e-02
## 1798  2.30e-03 -1.27e-03 -8.37e-03 -6.11e-03 -7.71e-03  1.04e-02  5.58e-03
## 1799  4.72e-04 -3.81e-03 -5.05e-03 -4.40e-03 -4.04e-03 -3.10e-03  6.37e-03
## 1800 -1.13e-03 -2.83e-03 -2.88e-04 -5.76e-04 -8.67e-04 -1.40e-03 -9.71e-04
## 1801 -4.70e-03 -8.01e-03  3.83e-03  2.87e-03  5.56e-03 -9.28e-03 -4.17e-03
## 1802  1.30e-03 -3.87e-04 -2.14e-05  1.05e-04  9.02e-05  1.30e-04 -4.05e-06
## 1803  1.50e-02  5.06e-03 -9.41e-03 -9.46e-03  2.73e-02 -8.61e-03 -1.68e-02
## 1804 -1.58e-02  3.61e-03  2.44e-02 -8.84e-03 -8.53e-03 -5.98e-03 -1.48e-02
## 1805 -8.68e-03 -3.56e-03 -1.25e-02 -5.05e-03 -1.26e-02 -2.42e-03 -2.20e-02
## 1806 -8.37e-05  3.63e-04  7.15e-05  2.02e-04  2.51e-04  3.15e-04 -5.07e-04
## 1807  1.74e-02 -2.69e-04  1.63e-02  7.88e-03 -3.67e-02  4.17e-03  2.08e-02
## 1808 -2.59e-02 -5.45e-03  1.35e-02  9.22e-03 -2.09e-02  1.88e-02 -7.56e-03
## 1809 -3.81e-03  1.10e-02  4.12e-03  6.44e-03 -2.58e-02 -2.73e-02 -2.11e-02
## 1810 -3.72e-04 -8.54e-04 -8.40e-05  4.19e-04  3.05e-04  6.88e-04  1.65e-04
## 1811  3.02e-03  1.76e-03 -3.44e-04 -7.11e-04 -5.48e-04 -3.45e-04  1.59e-04
## 1812  2.19e-04 -6.34e-03 -1.95e-03 -2.30e-03 -2.04e-03 -2.18e-03 -2.72e-03
## 1813 -5.03e-04  4.42e-03 -2.71e-03  8.20e-03  1.21e-02  8.48e-03 -1.51e-03
## 1814  2.55e-03  4.32e-03  1.22e-02  9.56e-03  8.57e-03  4.90e-03  9.49e-03
## 1815  6.39e-05  4.08e-06  1.30e-04 -2.90e-04  1.12e-04  1.24e-04  1.64e-04
## 1816 -6.20e-03  2.59e-02  7.65e-03  1.15e-02  5.94e-03  8.58e-03  3.61e-03
## 1817 -9.79e-03 -4.81e-03 -1.45e-02 -8.56e-03 -1.59e-02 -4.00e-03 -2.44e-02
## 1818 -1.19e-02 -2.99e-03 -1.82e-02 -1.01e-02 -1.48e-02 -9.20e-03  2.04e-02
## 1819  2.24e-02  5.99e-03  2.70e-02 -1.10e-02 -1.08e-02 -9.11e-03 -1.68e-02
```

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## 1820   3.88e-03   2.64e-03  -4.85e-04  -1.04e-03  -6.62e-04  -5.05e-04   9.39e-05
## 1821   1.51e-02   1.90e-02  -1.57e-02   8.01e-03   3.54e-03   5.86e-03   1.81e-03
## 1822   1.71e-03   1.72e-03  -7.08e-03   9.97e-03   1.33e-02   7.17e-03   1.82e-02
## 1823  -2.24e-03  -9.80e-04   9.74e-03  -1.65e-02   1.09e-02   8.70e-03  -1.19e-02
## 1824   5.01e-03  -2.16e-03  -4.90e-04  -6.48e-04  -5.04e-04  -7.88e-04  -8.85e-04
## 1825   2.34e-02   8.44e-04   1.29e-02   7.59e-03   9.37e-03   5.75e-03   1.92e-02
## 1826   2.65e-05   3.43e-05  -2.24e-06  -1.66e-05  -9.81e-06  -2.42e-05  -5.50e-06
## 1827   1.62e-02   4.23e-03  -1.55e-02  -1.63e-02   3.52e-03  -1.98e-02   1.07e-04
## 1828   1.05e-02  -1.70e-02  -1.99e-02  -9.63e-03  -2.34e-02  -8.76e-03   2.72e-02
## 1829  -2.47e-03   1.28e-02   5.05e-03  -1.54e-02   3.75e-03   8.40e-03   1.15e-04
## 1830   9.80e-03  -4.45e-02  -1.09e-02  -1.49e-02  -8.15e-03  -1.07e-02  -2.77e-03
## 1831  -6.53e-03   2.90e-02   7.75e-03   1.04e-02   5.09e-03   8.94e-03   3.86e-03
## 1832   2.13e-02   1.29e-02  -1.37e-02  -8.21e-03  -1.93e-02   3.14e-02   1.03e-02
## 1833   5.41e-04   3.15e-02   8.65e-03   1.05e-02   8.28e-03   9.26e-03   1.33e-02
## 1834   4.59e-03   1.50e-03  -1.33e-02   9.44e-03   1.54e-02   6.18e-03   2.24e-02
## 1835   1.38e-02  -3.95e-03  -1.41e-03  -9.00e-04  -1.61e-04   1.64e-03  -2.67e-04
## 1836  -9.04e-03   2.40e-02  -6.60e-02   2.13e-02   2.35e-03   1.64e-02  -2.15e-03
## 1837   2.35e-03  -1.05e-03  -1.65e-04  -2.58e-04  -2.42e-04  -5.63e-04  -4.80e-04
## 1838  -6.89e-03   7.82e-03   6.95e-03  -1.33e-02  -1.05e-02   8.45e-03  -1.05e-02
## 1839   3.55e-03   2.16e-03  -5.76e-04  -1.16e-03  -5.76e-04  -5.53e-04   2.52e-05
## 1840   1.60e-03  -1.80e-03   1.74e-03   1.75e-03   1.92e-03  -2.38e-03   3.00e-03
## 1841  -1.80e-03   1.23e-03  -4.55e-03   4.52e-03  -5.90e-03   4.17e-03   3.43e-03
## 1842  -5.95e-04  -2.51e-03  -6.75e-04  -4.41e-04  -4.09e-04  -1.78e-04  -8.29e-04
## 1843   1.85e-03   1.41e-03  -2.34e-04  -7.39e-04  -3.92e-04  -5.60e-04  -6.42e-06
## 1844  -6.53e-04  -1.16e-03  -1.49e-04  -1.09e-04  -1.89e-04  -1.75e-04  -3.90e-04
## 1845   1.14e-02  -4.46e-02  -1.31e-02  -1.59e-02  -7.95e-03  -1.43e-02  -5.99e-03
## 1846   8.27e-03   6.54e-03  -8.89e-03  -1.13e-02  -1.29e-02   4.71e-03   1.77e-03
## 1847  -4.05e-03  -1.10e-02  -1.05e-02  -1.01e-02  -1.37e-02  -1.15e-02  -1.95e-02
## 1848   9.67e-03  -4.56e-02  -1.27e-02  -1.96e-02  -1.03e-02  -1.69e-02  -5.39e-03
## 1849   9.14e-03  -4.70e-02  -1.30e-02  -2.02e-02  -9.74e-03  -1.70e-02  -5.31e-03
## 1850  -6.55e-03   1.69e-03   3.16e-02  -5.12e-03   2.97e-02  -8.74e-03  -1.72e-02
## 1851  -2.26e-04  -2.11e-04   1.16e-05   2.97e-05   1.98e-05   6.22e-05   3.55e-05
## 1852   2.45e-02  -3.00e-02   3.58e-02   4.27e-02  -1.30e-02  -1.91e-02  -2.14e-03
## 1853   6.46e-03  -6.62e-03  -8.35e-03   2.49e-03   5.56e-03   3.65e-03  -5.06e-03
## 1854   2.35e-02   1.15e-02  -1.73e-02   3.48e-02  -1.23e-02  -1.16e-02  -1.66e-02
## 1855   4.03e-02   1.83e-03   2.21e-02  -1.99e-02  -2.65e-02  -1.71e-02  -3.96e-02
## 1856   3.04e-03   1.85e-03  -3.80e-04  -8.92e-04  -4.42e-04  -3.72e-04  -6.20e-05
## 1857   9.06e-03  -4.64e-02  -1.30e-02  -2.01e-02  -9.63e-03  -1.66e-02  -6.11e-03
## 1858  -1.74e-03  -4.86e-03  -1.08e-02   6.81e-03  -1.27e-02  -1.68e-02  -1.46e-02
## 1859   1.39e-02  -4.84e-03  -1.94e-03  -1.50e-03  -8.76e-04  -1.07e-03  -1.57e-03
## 1860  -9.12e-03   2.28e-02   7.91e-03   1.07e-02  -1.46e-02   1.07e-02   1.25e-02
## 1861   5.73e-03   3.44e-03  -1.52e-02   1.01e-02   2.15e-02   1.28e-02  -8.55e-03
## 1862   1.04e-03  -2.97e-03   8.48e-03  -4.47e-03   8.77e-03  -4.58e-03  -1.15e-03
## 1863   1.41e-02   7.04e-03   2.63e-02  -6.25e-03  -9.98e-03  -7.68e-03   2.30e-02
## 1864  -5.34e-03   2.58e-02   6.68e-03   8.81e-03   4.34e-03   8.73e-03   2.42e-03
## 1865  -4.06e-03   1.42e-03  -2.43e-04  -4.49e-04  -2.76e-04  -7.98e-06   1.91e-04
## 1866  -5.79e-03   2.91e-02   7.66e-03   9.97e-03   4.74e-03   9.49e-03   4.07e-03
## 1867   5.58e-03  -7.55e-03  -9.69e-03  -1.61e-02   1.11e-02   7.95e-03   1.62e-02
## 1868   8.91e-04   8.90e-04  -7.77e-05  -4.31e-04  -2.65e-04  -4.50e-04  -1.02e-05
## 1869   4.80e-03  -5.08e-03   2.37e-03   2.51e-03   3.19e-03  -7.05e-03   4.94e-03
```

```
## 1870   2.89e-03   1.94e-03  -2.66e-03  -2.13e-03   3.83e-03  -1.60e-03  -2.55e-03
## 1871   3.11e-05  -2.21e-04  -4.62e-05  -1.55e-04  -1.06e-05  -9.88e-05   1.63e-05
## 1872   4.92e-03   7.56e-03   1.85e-02   1.19e-02   2.24e-02   1.46e-02  -5.52e-03
## 1873  -5.17e-03  -4.58e-03   3.56e-03   3.30e-03   2.35e-03   1.97e-03   4.65e-03
## 1874  -4.39e-04  -8.76e-03  -2.37e-03  -4.09e-03  -3.04e-03  -3.14e-03  -3.13e-03
## 1875   1.41e-02   6.18e-04  -8.35e-03  -6.00e-03  -6.67e-03  -5.57e-03  -1.31e-02
## 1876  -1.14e-02   1.60e-03  -3.80e-03  -1.26e-03  -5.77e-03  -2.56e-03  -1.43e-02
## 1877   1.41e-03  -6.04e-03  -1.61e-02  -1.91e-02   8.18e-03   8.69e-03   8.87e-03
## 1878  -6.29e-03   1.18e-02   7.01e-03  -1.38e-02   6.19e-03   7.73e-03   7.40e-03
## 1879  -1.52e-02   3.29e-02   2.36e-02   3.77e-02  -2.19e-02   4.20e-02   3.12e-02
## 1880  -2.38e-03   4.31e-03  -5.04e-03  -4.22e-03   2.73e-03   4.79e-03   8.93e-04
## 1881  -3.30e-03   8.90e-04  -9.27e-03  -9.03e-03   4.72e-03  -9.61e-03   5.05e-03
## 1882   6.04e-03  -5.32e-03  -7.71e-03   2.77e-03   5.33e-03   3.44e-03  -5.09e-03
## 1883  -1.75e-02  -3.89e-03  -1.30e-02  -1.09e-02  -1.00e-02  -6.62e-03  -1.47e-02
## 1884  -4.02e-03   9.91e-03  -8.74e-03   7.57e-03  -9.66e-03   7.69e-03   3.34e-03
## 1885   2.82e-03   4.47e-03  -2.04e-02   9.82e-03   7.39e-03   8.80e-03   7.02e-03
## 1886   1.94e-03   2.82e-02   5.88e-03   1.02e-02   9.84e-03   1.04e-02   7.54e-03
## 1887   9.63e-03  -4.49e-02  -1.13e-02  -1.55e-02  -7.80e-03  -1.07e-02  -3.25e-03
## 1888   4.48e-03   1.60e-03  -3.60e-02   3.17e-03   1.62e-02   9.68e-03  -2.80e-02
## 1889   2.06e-02   9.80e-03  -2.06e-02  -2.17e-02   5.18e-03   8.77e-03   7.00e-03
## 1890  -3.37e-03   9.03e-03   1.10e-02   7.14e-03   1.36e-02   8.16e-03  -1.55e-02
## 1891  -2.47e-03  -2.81e-03   1.74e-03   1.96e-03  -5.05e-03   1.34e-03   2.43e-03
## 1892   4.40e-03   3.63e-04  -3.69e-03  -3.46e-03  -4.69e-03  -4.22e-03   8.12e-04
## 1893   2.13e-02  -4.31e-02   3.72e-02  -1.74e-02  -1.04e-02  -1.04e-02  -3.20e-03
## 1894   1.45e-02  -3.01e-04  -6.70e-03  -4.49e-03  -9.44e-03  -3.60e-03  -1.76e-02
## 1895  -2.14e-02  -1.45e-02  -2.87e-02   7.68e-03  -2.80e-02   1.11e-02   3.01e-02
## 1896  -3.50e-04  -1.29e-03  -1.90e-04   6.14e-04   4.67e-04   1.12e-03   2.77e-04
## 1897  -6.79e-04  -3.00e-03  -5.98e-04  -2.47e-04  -2.96e-04   1.27e-04  -8.20e-04
## 1898  -3.49e-03  -3.24e-03   2.34e-03   2.63e-03   1.89e-03   1.68e-03   2.78e-03
## 1899  -2.64e-02  -7.48e-03   1.01e-02   1.77e-03   2.06e-02   1.10e-02  -1.98e-02
## 1900  -1.21e-02   1.61e-02   2.12e-02  -2.48e-02  -3.12e-02   4.46e-02  -4.41e-02
## 1901   8.69e-03  -3.68e-03  -7.94e-04  -1.75e-03  -1.43e-03  -1.63e-03  -1.29e-03
## 1902  -2.07e-04  -3.65e-04  -5.53e-03   6.32e-03   4.80e-03  -6.41e-03   3.52e-03
## 1903  -2.56e-03  -5.04e-04  -2.25e-02  -2.27e-02   8.36e-03  -1.90e-02  -2.04e-02
## 1904   2.65e-03   1.90e-03  -1.78e-04  -4.83e-04  -4.00e-04  -4.52e-04   2.91e-04
## 1905  -5.36e-04  -2.95e-03  -5.14e-04   1.03e-05  -1.59e-04   1.28e-04  -3.54e-04
## 1906   3.55e-03   4.66e-03  -1.98e-02   1.13e-02   7.61e-03   9.33e-03   7.78e-03
## 1907  -4.46e-04   2.56e-03   4.63e-05   8.22e-04   5.14e-04   1.12e-03   1.22e-03
## 1908  -7.82e-04  -1.25e-03  -8.80e-05  -2.57e-04  -2.24e-04  -3.00e-04  -2.44e-04
## 1909   1.79e-03   1.08e-03  -4.41e-03   9.82e-03  -6.94e-03   1.02e-02  -5.99e-03
## 1910   2.64e-02   1.82e-02   6.07e-03   9.86e-03   7.99e-03  -2.59e-02  -2.94e-02
## 1911  -5.33e-03   1.17e-02   6.87e-03   8.40e-03   4.75e-03  -1.49e-02   3.34e-03
## 1912  -1.37e-02   7.72e-03   2.32e-02  -1.85e-02   3.46e-02  -1.44e-02  -2.60e-02
## 1913  -2.69e-03  -3.18e-03   2.20e-03   2.34e-03   1.48e-03   2.08e-03   3.07e-03
## 1914  -2.30e-03   3.32e-03   3.89e-03  -5.80e-03   2.96e-03  -7.19e-03   9.75e-04
## 1915   7.48e-03  -3.87e-02  -1.13e-02  -1.85e-02   4.27e-02  -1.78e-02  -8.96e-03
## 1916  -1.73e-03  -6.42e-03  -1.46e-03  -2.90e-03  -2.07e-03  -3.04e-03  -2.44e-03
## 1917  -8.90e-04  -1.64e-03   7.47e-04  -1.87e-03   5.69e-04   6.85e-04   6.12e-04
## 1918   1.72e-02   2.49e-02   8.04e-03   9.04e-03   7.55e-03   7.39e-03  -2.37e-02
## 1919   6.77e-04   7.88e-04  -1.26e-05  -3.07e-04  -2.32e-04  -3.81e-04  -9.76e-06
```

```
## 1920  1.41e-02   3.95e-03   1.68e-02   9.73e-03   1.64e-02   5.36e-03  -2.67e-02
## 1921  1.35e-03   2.56e-03   2.05e-03   2.37e-03  -1.26e-03  -1.17e-03  -1.66e-03
## 1922 -9.13e-03  -5.02e-04  -2.60e-02  -1.38e-02   2.04e-02  -1.54e-02   7.39e-03
## 1923 -1.06e-02   1.67e-02  -3.15e-02  -2.02e-02   1.82e-02   3.65e-02   4.98e-03
## 1924  1.01e-02   2.95e-02   4.22e-03   1.13e-02   1.22e-02   1.61e-02   9.83e-03
## 1925 -2.35e-02  -3.85e-03   1.15e-02   7.89e-03   1.54e-02   8.99e-03   3.54e-02
## 1926 -3.21e-04  -8.69e-03  -2.42e-03  -4.16e-03  -3.18e-03  -3.25e-03  -3.09e-03
## 1927  3.32e-03  -7.50e-03  -6.71e-03   1.10e-02  -5.04e-03  -1.10e-02  -9.87e-04
## 1928  8.61e-05  -6.69e-03  -1.94e-03  -2.33e-03  -2.03e-03  -2.22e-03  -2.65e-03
## 1929 -1.15e-03  -4.00e-03  -9.20e-04  -1.37e-03  -9.77e-04  -5.27e-04  -9.54e-04
## 1930  1.50e-02   2.02e-02   2.84e-02   3.35e-02  -7.00e-03  -9.67e-03  -1.19e-02
## 1931 -8.93e-04  -1.30e-03  -1.22e-04  -3.73e-04  -3.11e-04  -3.48e-04  -4.19e-04
## 1932  7.16e-04  -4.89e-04   7.49e-04   6.67e-04  -7.15e-04   8.51e-04  -3.52e-04
## 1933 -4.11e-04  -8.14e-04  -3.73e-05   4.90e-04   2.96e-04   7.14e-04   1.68e-04
## 1934 -1.04e-04  -6.86e-03  -1.76e-03  -2.11e-03  -2.08e-03  -2.17e-03  -2.60e-03
## 1935 -1.96e-05  -8.28e-03  -1.86e-03  -3.34e-03  -3.13e-03  -2.80e-03  -2.20e-03
## 1936 -3.71e-03  -1.88e-03   2.70e-03   2.33e-03   3.92e-03   3.22e-03  -2.18e-03
## 1937 -5.64e-03   2.77e-02   5.94e-03   9.78e-03   8.60e-03   1.04e-02   1.10e-02
## 1938  7.09e-04   7.42e-04   3.71e-05  -1.69e-04  -1.60e-04  -3.09e-04   1.12e-04
## 1939  2.79e-02   3.14e-02   6.72e-03   8.49e-03   3.79e-03   7.99e-03   2.50e-03
## 1940 -5.91e-03  -1.82e-02  -1.90e-02  -2.21e-02  -1.53e-02  -1.74e-02  -1.40e-02
## 1941  3.89e-03   2.40e-03  -7.29e-04  -1.31e-03  -7.49e-04  -6.92e-04  -2.12e-05
## 1942  4.09e-03   1.63e-03   1.69e-02   1.01e-02  -1.31e-02   8.63e-03  -1.04e-02
## 1943  6.53e-04  -1.41e-03  -1.06e-03   4.56e-03  -2.47e-03  -3.42e-03   4.68e-03
## 1944  1.42e-02   1.33e-03  -7.15e-03  -6.52e-03  -1.05e-02  -6.87e-03  -2.03e-02
## 1945  1.25e-04  -2.83e-04   1.48e-03  -4.38e-04   1.72e-03  -4.16e-04  -4.15e-05
## 1946 -3.43e-03  -2.83e-03   1.59e-02  -2.37e-02  -3.24e-02  -1.83e-02   2.75e-02
## 1947 -5.47e-03   1.75e-02   6.04e-03   8.96e-03  -1.82e-02   7.53e-03   3.83e-03
## 1948  1.67e-02  -1.73e-02   1.40e-02   1.09e-02  -2.45e-02  -3.40e-02   3.15e-02
## 1949  1.45e-02   7.21e-03   2.53e-02  -7.70e-03  -6.57e-03  -6.89e-03  -1.45e-02
## 1950 -1.40e-02   3.27e-04  -6.03e-03  -3.45e-03  -4.60e-03  -2.89e-03  -1.05e-02
## 1951  5.25e-03   4.32e-03   1.93e-02   1.04e-02   1.97e-02   1.01e-02  -7.95e-03
## 1952  1.60e-04  -6.25e-04  -4.34e-04  -1.54e-03  -9.08e-04   3.85e-03  -1.20e-03
## 1953  6.61e-03   8.31e-03   4.74e-03  -6.98e-03   2.84e-03   3.71e-03   4.41e-04
## 1954  1.54e-02  -9.97e-03  -2.38e-02   8.37e-03  -2.91e-02   7.71e-03   1.68e-02
## 1955  3.86e-03  -2.88e-03  -1.36e-02   1.10e-02   7.07e-03  -1.63e-02   5.69e-03
## 1956  9.12e-03  -1.07e-02  -1.15e-02   1.10e-02  -1.47e-02  -1.87e-02   1.23e-02
## 1957  6.48e-03   6.42e-03  -6.36e-03  -6.50e-03   3.23e-03   5.67e-03   1.26e-03
## 1958 -1.96e-02  -1.44e-02   1.30e-02  -2.91e-02  -1.66e-02   1.90e-02  -8.40e-03
## 1959 -1.95e-02  -7.69e-05   1.25e-02   1.15e-02   1.14e-02   8.83e-03   1.59e-02
## 1960 -1.83e-04   2.36e-04  -1.68e-04  -1.80e-04   1.33e-04   2.07e-04   6.55e-05
## 1961  1.65e-02  -3.50e-02  -1.99e-02   4.32e-02  -1.14e-02  -2.21e-02  -2.38e-03
## 1962  1.69e-02   2.10e-02  -1.87e-02   8.02e-03   4.24e-03   4.45e-03   2.52e-04
## 1963 -3.95e-02  -1.89e-02   3.24e-02   3.63e-02   3.93e-02   3.67e-02  -4.47e-02
## 1964 -1.90e-02  -1.16e-03  -8.59e-03   1.11e-02  -7.66e-03   1.44e-02  -1.95e-03
## 1965 -1.03e-03   7.46e-04   3.64e-03  -3.21e-03  -1.90e-03   5.42e-03  -2.25e-03
## 1966  1.49e-02   9.01e-04  -8.16e-03  -4.41e-03  -9.19e-03  -5.47e-03   1.70e-02
## 1967 -1.17e-03  -3.68e-03  -7.12e-04  -1.08e-03  -8.33e-04  -3.55e-04  -1.03e-03
## 1968  1.47e-02   2.84e-03   1.53e-02   1.23e-02   1.66e-02   8.46e-03   2.92e-02
## 1969  5.26e-03  -4.36e-03  -6.55e-03   2.41e-03   1.76e-03   1.53e-03   2.31e-03
```

```
## 1970 -1.39e-02 -1.16e-03 -9.06e-03 -5.63e-03 -7.00e-03 -3.37e-03 -1.30e-02
## 1971 -4.64e-04 -8.89e-04 -1.61e-04  2.28e-04  2.23e-04  5.97e-04 -1.50e-05
## 1972 -7.66e-03  1.23e-03 -1.35e-03  1.81e-03 -4.15e-03 -1.47e-04  7.08e-03
## 1973  1.34e-02 -2.91e-03 -2.57e-02  6.26e-03  1.52e-02  5.29e-03 -2.76e-02
## 1974  1.45e-03 -2.04e-03  1.27e-03 -2.52e-03  1.21e-03  9.05e-04  1.84e-03
## 1975  1.02e-04  1.00e-04 -6.87e-06 -1.63e-05 -1.03e-05 -3.11e-05 -5.56e-06
## 1976  2.51e-02 -1.77e-02 -3.94e-02  4.18e-03 -3.76e-02  8.75e-03  3.38e-02
## 1977 -1.01e-02  1.29e-02 -3.60e-02 -2.25e-02  1.96e-02  4.05e-02  8.83e-03
## 1978 -4.44e-04 -4.54e-03 -9.00e-04 -1.21e-03 -1.48e-03 -1.63e-03 -1.60e-03
## 1979  1.23e-02  7.15e-03  6.26e-03 -1.11e-02  1.02e-02 -9.87e-03 -1.06e-02
## 1980 -1.38e-02  6.57e-03  2.32e-02 -5.81e-03 -1.03e-02 -5.43e-03 -2.16e-02
## 1981 -5.81e-03 -1.06e-02  3.42e-02 -2.39e-02 -1.52e-02 -1.71e-02 -1.26e-02
## 1982  3.12e-04  9.99e-06 -8.09e-04  4.15e-03  4.40e-03 -2.01e-03  5.33e-03
## 1983  2.54e-02  1.28e-02  2.61e-02 -1.17e-02  2.93e-02 -1.32e-02  2.30e-02
## 1984 -7.25e-03  1.66e-02  1.86e-02  3.84e-02  1.72e-02 -3.00e-02  1.14e-02
## 1985 -3.97e-04 -1.25e-03  5.95e-03 -4.72e-03  6.99e-03 -3.98e-03 -6.25e-03
## 1986 -1.01e-02 -1.39e-03 -7.56e-03 -1.66e-03 -7.07e-03 -1.60e-03  1.69e-02
## 1987  6.84e-03  9.83e-03 -7.29e-03  6.20e-03 -6.04e-03  7.36e-03 -6.21e-03
## 1988 -2.14e-02 -7.14e-03 -2.86e-02  7.34e-03  1.28e-02  9.45e-03 -2.67e-02
## 1989  9.86e-03 -4.38e-02 -1.33e-02 -1.78e-02 -7.83e-03 -1.45e-02 -7.70e-03
## 1990 -7.21e-04 -2.33e-03 -5.11e-04 -3.38e-04 -3.10e-04 -1.48e-04 -6.89e-04
## 1991  1.33e-02 -7.01e-04 -7.24e-03 -3.91e-03 -5.19e-03 -2.26e-03 -1.03e-02
## 1992  6.68e-03 -7.00e-03 -8.90e-03  2.56e-03  4.11e-03  2.97e-03 -9.31e-03
## 1993  4.95e-04 -5.70e-05  9.36e-03  8.10e-03 -8.58e-04 -3.52e-03  1.36e-03
## 1994 -4.68e-03 -9.95e-03 -9.04e-03 -9.25e-03 -1.78e-02 -1.29e-02  2.21e-02
## 1995 -1.41e-02 -2.85e-03 -1.37e-02 -8.39e-03 -9.35e-03 -5.60e-03 -1.58e-02
## 1996 -2.19e-02 -3.98e-03  1.30e-02  1.01e-02 -3.33e-02  6.85e-03  1.87e-02
## 1997 -2.62e-04 -6.18e-03 -1.58e-03 -1.95e-03 -1.97e-03 -2.12e-03 -2.52e-03
## 1998 -2.07e-04 -1.53e-04  1.18e-03 -7.87e-04  1.42e-03 -7.12e-04 -1.28e-03
## 1999  5.06e-02 -1.45e-02 -4.22e-02 -3.47e-02  1.04e-02 -4.57e-02 -2.66e-03
## 2000 -1.38e-02  2.85e-03 -1.18e-02 -5.10e-03  2.38e-02 -7.26e-03  1.77e-02
## 2001 -9.12e-03 -7.11e-03  1.92e-02 -2.79e-02 -3.91e-02 -2.83e-02  7.76e-03
## 2002 -3.96e-02 -4.68e-02 -9.90e-03 -1.56e-02 -6.93e-03 -1.22e-02 -1.98e-03
## 2003  1.26e-02  2.06e-03 -5.74e-03 -3.22e-03 -8.16e-03 -5.05e-03 -1.82e-02
## 2004 -1.87e-02  1.48e-02 -9.59e-03 -8.56e-03  2.69e-02  3.03e-02 -1.83e-02
## 2005 -5.07e-03 -4.33e-03  3.23e-03  3.24e-03  4.11e-03  2.84e-03  7.22e-03
## 2006 -1.42e-02  7.88e-04 -7.41e-03 -4.26e-03 -5.74e-03 -3.54e-03 -1.14e-02
## 2007  3.00e-03  1.42e-03  2.97e-03 -2.98e-03 -2.49e-03 -3.17e-03 -2.86e-03
## 2008 -1.50e-02  2.47e-02  2.36e-02  4.00e-02  3.09e-02 -1.93e-02  2.97e-02
## 2009 -4.11e-04 -9.11e-04 -5.58e-05  1.52e-05 -1.11e-04 -2.65e-05 -2.15e-04
## 2010 -2.78e-03  3.91e-03 -1.03e-02  7.61e-03 -1.15e-02 -1.07e-02  3.26e-03
## 2011  1.41e-02  2.26e-02  7.97e-03  1.00e-02  4.77e-03  5.93e-03  3.23e-03
## 2012 -1.33e-02  3.10e-05 -7.60e-03 -5.77e-03 -1.01e-02 -5.27e-03 -1.94e-02
## 2013  2.45e-04  2.71e-04  2.01e-05 -6.61e-05 -8.26e-05 -1.08e-04  2.12e-05
## 2014  8.40e-03 -4.22e-02 -1.14e-02 -1.50e-02 -6.63e-03 -1.38e-02 -5.79e-03
## 2015 -4.05e-03 -5.40e-03  1.50e-02 -3.79e-02  1.19e-02 -4.04e-02  4.59e-03
## 2016 -4.84e-03  5.84e-03 -5.22e-03 -6.10e-03  5.79e-03  6.39e-03 -5.79e-03
## 2017  2.32e-03  1.36e-03  4.04e-04  6.46e-04  7.77e-05  4.21e-04 -1.23e-04
## 2018 -2.36e-02 -8.42e-03 -3.00e-02  8.98e-03  1.50e-02  1.02e-02  2.96e-02
## 2019 -1.16e-02  3.48e-03  1.94e-02 -2.52e-03 -4.08e-03 -1.49e-04 -8.58e-03
```

```
## 2020 -2.19e-02 -4.15e-03  1.19e-02  1.09e-02 -2.05e-02  1.98e-02 -8.38e-03
## 2021 -3.07e-05  7.02e-04 -7.48e-06  3.46e-04 -4.34e-05  2.14e-04 -1.79e-04
## 2022  1.55e-04 -8.45e-04 -1.90e-03  7.35e-03  1.05e-02 -6.42e-03 -1.54e-03
## 2023 -1.05e-03 -2.33e-03 -4.25e-04 -1.69e-04 -2.12e-04 -2.75e-04 -6.10e-04
## 2024 -5.24e-04 -1.10e-03 -1.54e-04  4.25e-04  3.28e-04  9.34e-04  2.53e-05
## 2025  6.20e-02  1.24e-02  1.56e-02  3.20e-02 -5.02e-02 -4.33e-02 -5.84e-02
## 2026  1.98e-02  8.63e-03 -1.83e-02 -1.68e-02  3.14e-03  8.20e-03 -1.53e-04
## 2027  3.10e-03  1.08e-02  1.07e-02  1.29e-02  8.83e-03  9.42e-03  7.98e-03
## 2028  1.87e-02  1.24e-04 -9.82e-03 -6.60e-03 -1.62e-02 -8.55e-03  1.26e-02
## 2029  1.17e-05  2.77e-02  8.24e-03  1.37e-02  1.07e-02  1.07e-02  9.82e-03
## 2030 -1.44e-03  1.62e-03 -2.07e-03 -1.96e-03 -2.69e-03  2.36e-03  9.47e-04
## 2031 -4.16e-03  5.33e-03 -6.71e-03 -7.54e-03  3.66e-03  5.10e-03  3.90e-03
## 2032  2.48e-02  2.81e-03  1.09e-02  7.25e-03  1.05e-02  8.10e-04  1.69e-02
## 2033 -2.51e-02  1.81e-03  1.39e-02  7.60e-03  9.83e-03  4.27e-03  2.03e-02
## 2034  2.32e-02 -5.24e-04 -1.48e-02 -8.26e-03 -1.79e-02 -1.01e-02  9.47e-03
## 2035 -1.61e-02  4.00e-03  2.48e-02 -8.49e-03 -8.92e-03 -6.07e-03 -1.50e-02
## 2036 -4.40e-03 -4.16e-03  3.22e-03  2.92e-03  1.81e-03  1.93e-03  4.10e-03
## 2037 -3.73e-04 -1.47e-03 -3.54e-04  4.06e-04  4.29e-04  1.23e-03  2.54e-05
## 2038  1.22e-02  6.75e-03 -1.19e-02  7.39e-03 -1.43e-02 -1.52e-02  2.03e-03
## 2039 -2.27e-02  3.49e-03  1.41e-02  1.04e-02  1.14e-02  5.17e-03  1.55e-02
## 2040 -3.55e-04 -3.36e-03 -9.27e-04 -4.97e-04 -3.98e-04  1.11e-04 -9.31e-04
## 2041  4.06e-04 -1.22e-03 -1.06e-03  5.93e-03 -4.83e-04 -2.12e-03  6.52e-04
## 2042  4.40e-03  1.08e-02  1.07e-02  1.29e-02  8.52e-03  1.04e-02  7.83e-03
## 2043 -5.07e-03  1.00e-02  4.43e-03 -3.44e-02 -2.73e-02  1.46e-02 -2.43e-02
## 2044  1.84e-02  5.39e-03 -9.16e-03 -1.90e-03  1.75e-02 -5.88e-03  9.00e-03
## 2045  1.29e-03 -6.53e-04 -4.44e-03  8.28e-03 -9.14e-03  5.45e-03  9.70e-03
## 2046  1.06e-03  1.77e-03  1.67e-03  1.54e-03  2.08e-03  1.76e-03 -2.52e-03
## 2047  2.77e-03  1.59e-03 -4.37e-04 -9.64e-04 -4.05e-04 -4.38e-04 -8.54e-05
## 2048  7.69e-03 -8.52e-03  1.68e-02  1.01e-02 -1.22e-02 -2.18e-02 -4.92e-03
## 2049 -1.33e-02  7.42e-03  2.46e-02 -1.90e-02  3.52e-02 -1.36e-02 -2.68e-02
## 2050 -3.37e-02 -3.95e-02 -8.87e-03 -1.12e-02 -4.43e-03 -9.91e-03 -3.38e-03
## 2051  7.75e-03 -1.59e-02  1.36e-02 -1.81e-02 -1.01e-02 -1.64e-02 -6.07e-03
## 2052  4.66e-03  2.52e-04 -9.21e-03  1.02e-02  9.54e-03  6.24e-03  1.02e-02
## 2053 -3.75e-02 -1.26e-02 -1.32e-02  4.20e-02 -1.93e-02  3.92e-02  3.62e-02
## 2054 -5.90e-03 -4.85e-03  4.25e-03  3.89e-03  2.83e-03  2.36e-03  5.60e-03
## 2055  1.11e-02 -6.35e-03 -1.77e-02  8.57e-03 -2.12e-02  8.54e-03 -1.67e-02
## 2056 -4.84e-03 -4.62e-03  3.09e-03  2.62e-03  2.06e-03  1.91e-03  3.74e-03
## 2057  1.00e-02 -4.43e-02 -1.46e-02 -2.33e-02  4.67e-02 -1.95e-02 -1.04e-02
## 2058  4.66e-04 -1.75e-04  1.43e-05 -2.11e-05 -5.01e-06 -6.74e-07 -2.61e-05
## 2059 -1.83e-03  1.59e-03  2.18e-03 -1.84e-03  2.54e-03 -1.65e-03 -1.85e-03
## 2060 -3.26e-04 -6.53e-04 -4.71e-05  2.04e-05 -4.61e-05 -4.72e-05 -1.64e-04
## 2061  1.12e-02  4.72e-03  1.71e-02  1.13e-02  1.59e-02  9.24e-03 -2.09e-02
## 2062  4.31e-04 -1.46e-04  1.05e-05 -7.05e-06 -6.60e-06 -1.43e-05  6.44e-06
## 2063  8.14e-04  1.19e-03 -6.12e-03  9.02e-03 -5.68e-03  1.03e-02 -3.02e-03
## 2064  5.72e-03 -1.12e-02 -6.92e-03 -1.08e-02  1.02e-02 -1.27e-02 -1.03e-02
## 2065  1.08e-02  1.23e-02 -4.41e-03  2.74e-02 -8.97e-03 -6.74e-03  1.17e-02
## 2066 -3.77e-02 -3.41e-02  3.73e-02  4.39e-02 -1.39e-02 -2.30e-02 -2.42e-03
## 2067  2.38e-04  1.08e-04 -3.69e-04  2.48e-03  2.52e-03 -1.01e-03 -7.24e-04
## 2068  1.06e-04  2.08e-04  1.50e-05  7.75e-06  2.44e-05  1.85e-05  5.96e-05
## 2069 -6.07e-04 -5.34e-03 -1.38e-03 -1.87e-03 -1.70e-03 -2.13e-03 -2.25e-03
```

```
## 2070   3.69e-02   3.60e-02   2.08e-02   3.72e-02  -3.23e-02   3.72e-02   1.59e-02
## 2071   4.00e-03   2.36e-03   2.11e-02   8.59e-03  -1.49e-02   9.50e-03  -7.09e-03
## 2072  -4.28e-03   1.29e-02   5.58e-03   9.96e-03   8.32e-03  -1.08e-02   8.85e-03
## 2073   1.58e-02  -3.14e-04  -1.02e-02  -9.99e-03  -9.10e-03  -7.60e-03  -1.46e-02
## 2074  -3.87e-03   8.56e-03  -1.07e-02  -9.46e-03   4.39e-03   8.85e-03   2.88e-03
## 2075   7.21e-04  -3.01e-03  -2.32e-03  -8.07e-03   1.06e-02   7.26e-03  -3.01e-03
## 2076   6.01e-04   1.26e-03  -6.81e-04  -9.35e-04  -5.78e-04   1.40e-03  -8.38e-04
## 2077  -2.04e-02  -2.77e-03   1.50e-02   1.17e-02  -2.56e-02   8.96e-03   1.94e-02
## 2078   1.18e-02  -5.58e-03  -1.51e-03  -2.31e-03  -2.42e-03  -3.14e-03  -2.47e-03
## 2079   3.20e-04   2.68e-02   7.45e-03   1.26e-02   1.08e-02   1.02e-02   9.64e-03
## 2080   1.71e-02   7.19e-04  -1.16e-02  -1.17e-02  -1.01e-02  -8.96e-03  -1.61e-02
## 2081  -8.23e-03  -3.05e-03  -1.11e-02  -2.75e-03  -1.37e-02  -3.14e-03   1.14e-02
## 2082   2.24e-02  -1.13e-03  -1.53e-02  -1.20e-02  -1.63e-02  -1.04e-02   2.19e-02
## 2083  -9.95e-03   9.74e-03   3.54e-02   3.88e-02  -1.11e-02  -1.88e-02  -6.37e-03
## 2084   1.00e-02   1.64e-02   6.68e-03   8.99e-03  -1.19e-02   8.20e-03   4.67e-03
## 2085  -1.70e-04  -9.69e-05  -1.26e-03   1.99e-03  -1.25e-03  -1.09e-03   1.32e-03
## 2086  -1.04e-03   7.49e-04   7.39e-03   7.47e-03   5.11e-03  -1.33e-02   4.71e-03
## 2087   1.26e-03   1.15e-03  -1.77e-04  -5.50e-04  -2.57e-04  -5.87e-04  -1.98e-05
## 2088  -5.57e-03  -5.33e-03   4.12e-03   2.86e-03   3.76e-03   3.14e-03  -9.11e-03
## 2089   1.35e-02  -6.55e-03  -1.91e-03  -2.61e-03  -2.53e-03  -3.07e-03  -2.89e-03
## 2090  -8.20e-04  -4.79e-03  -1.07e-03  -1.53e-03  -1.61e-03  -1.98e-03  -2.11e-03
## 2091   1.20e-02   1.94e-03  -5.95e-03  -2.51e-03  -7.34e-03  -4.96e-03   1.71e-02
## 2092  -2.17e-04   2.81e-02   7.82e-03   9.10e-03   8.89e-03   9.02e-03   1.23e-02
## 2093  -2.33e-02  -1.21e-02   9.62e-03   1.89e-03  -3.36e-02   1.19e-02  -1.60e-02
## 2094   2.73e-02  -1.82e-02   8.64e-03  -4.55e-02   1.40e-02   1.00e-02   2.73e-02
## 2095   8.50e-03  -4.25e-03   1.50e-02   1.16e-02   1.10e-02  -2.60e-02   1.43e-02
## 2096   3.53e-04   3.39e-03   1.15e-02   8.63e-03  -2.58e-03   9.10e-03  -9.38e-04
## 2097  -1.83e-02   2.95e-02  -2.91e-02   3.26e-02   2.38e-02   3.17e-02  -4.73e-02
## 2098   1.82e-02  -4.34e-03   1.45e-02   9.56e-03  -3.30e-02   8.09e-03   2.10e-02
## 2099  -2.63e-02   2.69e-03   1.49e-02   8.33e-03   1.15e-02   3.62e-03   1.87e-02
## 2100  -1.15e-02   9.08e-04  -5.59e-03  -2.67e-03  -7.56e-03  -2.95e-03  -1.66e-02
## 2101  -1.61e-02  -1.09e-03  -8.27e-03  -7.34e-03  -7.08e-03  -4.82e-03  -1.21e-02
## 2102  -9.58e-04   1.52e-03   1.01e-03  -8.95e-04   1.03e-03   1.21e-03   9.11e-04
## 2103   1.28e-02  -8.28e-03  -2.27e-02   8.13e-03  -2.36e-02   8.42e-03   2.71e-02
## 2104  -5.18e-03   1.18e-02   5.21e-03   5.98e-03   3.32e-03   4.03e-03   1.45e-03
## 2105   2.65e-03  -8.59e-04  -9.30e-05   9.11e-05   1.95e-04   3.27e-04  -1.13e-04
## 2106  -2.05e-04  -6.34e-03  -1.63e-03  -1.97e-03  -1.91e-03  -2.03e-03  -2.61e-03
## 2107  -1.21e-04  -1.37e-04   1.22e-05   7.61e-05   5.51e-05   9.28e-05   3.50e-05
## 2108   5.53e-03   3.92e-03   3.52e-03  -3.72e-03   3.02e-03  -4.59e-03   1.40e-03
## 2109   5.59e-03  -1.61e-03  -1.07e-02   1.16e-02  -1.13e-02   1.22e-02   2.31e-02
## 2110  -2.36e-03   1.31e-03  -3.88e-03  -4.02e-03   2.16e-03  -4.94e-03   1.03e-03
## 2111   7.29e-05  -1.05e-03  -2.05e-05  -6.05e-04   4.99e-05  -3.07e-04   2.77e-04
## 2112  -3.92e-02  -3.66e-02  -8.19e-03  -1.41e-02   4.23e-02  -1.33e-02  -5.75e-03
## 2113   1.74e-03   2.86e-03   2.59e-03   2.42e-03   1.38e-03   1.81e-03   2.19e-03
## 2114  -2.44e-02   1.44e-03   1.59e-02   1.13e-02   1.59e-02   9.66e-03   3.01e-02
## 2115  -7.05e-04  -1.11e-03  -9.32e-05  -2.45e-04  -2.19e-04  -2.94e-04  -2.37e-04
## 2116   1.40e-03   9.19e-04  -2.81e-04  -6.35e-04  -3.49e-04  -4.61e-04  -1.97e-04
## 2117   5.11e-05  -6.77e-03  -1.94e-03  -2.33e-03  -2.03e-03  -2.23e-03  -2.63e-03
## 2118   2.54e-02   2.19e-02   7.55e-03   1.07e-02   1.46e-02  -2.24e-02  -1.85e-02
## 2119   1.29e-02  -2.68e-03  -2.11e-02   9.90e-03   1.02e-02   6.72e-03   1.56e-02
```

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## 2120 -4.42e-03 -1.46e-02 -1.44e-02 -1.42e-02 -1.20e-02 -1.22e-02 -1.11e-02
## 2121  1.13e-03  3.18e-03  2.23e-03 -1.33e-03  2.43e-03  2.69e-03 -1.33e-03
## 2122 -4.51e-03  2.58e-02  6.67e-03  1.05e-02  5.16e-03  8.95e-03  2.84e-03
## 2123  2.61e-03  1.31e-02  3.48e-02  3.78e-02  4.08e-02 -3.47e-02 -2.24e-02
## 2124  9.07e-03  4.66e-03 -8.79e-03 -1.06e-02 -1.08e-02  5.88e-03 -1.30e-02
## 2125 -1.41e-02  3.04e-04 -6.03e-03 -3.45e-03 -4.59e-03 -2.89e-03 -1.04e-02
## 2126 -1.29e-02  1.24e-02  2.08e-02  3.61e-02 -3.32e-02 -3.10e-02  2.95e-02
## 2127 -1.19e-05 -4.59e-04  1.09e-03 -7.93e-04 -7.61e-04 -6.58e-04 -1.15e-03
## 2128 -6.16e-04 -1.65e-03 -2.37e-04 -2.35e-05 -1.61e-04 -1.30e-04 -3.09e-04
## 2129  1.33e-02 -5.94e-04 -7.25e-03 -3.93e-03 -5.22e-03 -2.28e-03 -1.03e-02
## 2130  7.73e-06 -6.60e-03 -1.78e-03 -2.10e-03 -2.09e-03 -2.15e-03 -2.66e-03
## 2131  3.92e-03 -7.96e-03 -8.20e-03 -1.74e-02  1.56e-02  1.09e-02 -7.56e-03
## 2132  2.09e-02 -8.08e-03 -3.12e-02  7.08e-03  1.32e-02  8.70e-03 -2.76e-02
## 2133  9.27e-03 -2.97e-03 -7.18e-04 -3.27e-04  8.35e-05  9.33e-04  8.90e-05
## 2134  4.12e-03 -3.97e-03 -5.50e-03  1.88e-03  2.85e-03  1.90e-03 -6.03e-03
## 2135 -9.22e-03  3.16e-02  7.14e-03  6.95e-03  1.23e-02  1.28e-02 -2.57e-02
## 2136 -1.21e-02 -4.38e-03 -1.97e-02 -1.55e-02 -1.99e-02 -1.04e-02 -3.18e-02
## 2137 -7.58e-04 -4.19e-03 -7.86e-04 -1.03e-03 -1.15e-03 -1.67e-03 -1.44e-03
## 2138 -3.62e-03  8.46e-03  5.19e-03 -8.34e-03 -9.48e-03  9.72e-03  7.52e-03
## 2139  1.42e-02  2.62e-02  8.05e-03  1.06e-02 -1.15e-02  1.48e-02 -1.17e-02
## 2140 -3.95e-03  1.61e-02  7.08e-03  1.04e-02  5.22e-03 -2.17e-02  4.43e-03
## 2141 -1.67e-02 -3.59e-03  1.12e-02  1.05e-02 -2.80e-02  9.18e-03  1.69e-02
## 2142  1.57e-03 -5.85e-03 -1.91e-03 -4.54e-03 -1.85e-03 -3.69e-03 -8.52e-04
## 2143 -6.55e-04 -4.58e-03 -1.19e-03 -1.64e-03 -1.48e-03 -1.89e-03 -2.11e-03
## 2144 -4.57e-05 -5.11e-03 -1.14e-03 -1.38e-03 -1.66e-03 -1.65e-03 -1.82e-03
## 2145  6.33e-03  3.42e-03  1.91e-02  1.24e-02 -1.18e-02  1.71e-02 -3.00e-03
## 2146  1.84e-02  1.23e-03  1.41e-02  6.92e-03  1.54e-02  7.44e-03  3.06e-02
## 2147 -1.59e-04  6.81e-05  5.59e-06  1.80e-05  6.85e-06  8.06e-06  1.78e-05
## 2148  2.86e-02  3.33e-02  7.50e-03  9.50e-03  3.82e-03  8.47e-03  3.13e-03
## 2149 -2.15e-02 -2.19e-03  1.47e-02  1.09e-02 -2.67e-02  8.50e-03  1.91e-02
## 2150 -2.12e-04 -3.31e-04  1.48e-05  1.89e-04  9.17e-05  2.80e-04  5.04e-05
## 2151 -1.09e-02 -3.33e-03 -1.47e-02 -8.60e-03 -1.47e-02 -6.79e-03 -2.59e-02
## 2152  1.42e-02  1.25e-03 -7.24e-03 -6.61e-03 -1.06e-02 -6.96e-03 -2.04e-02
## 2153  3.64e-03 -1.89e-03 -1.00e-02  1.11e-02 -7.96e-03  1.45e-02 -2.58e-03
## 2154  4.35e-04  4.37e-04  5.69e-04 -3.39e-04 -2.65e-04 -2.30e-04 -2.94e-04
## 2155  6.98e-03 -1.99e-03 -5.50e-04  1.54e-04  2.95e-04  9.80e-04 -3.56e-04
## 2156  8.04e-03 -4.58e-03  3.44e-03  3.39e-03  2.79e-03  1.90e-03  4.41e-03
## 2157  1.39e-02  5.08e-03 -8.39e-03 -6.28e-03  2.63e-02 -6.83e-03 -1.55e-02
## 2158  1.30e-02 -9.07e-03 -2.21e-02  9.66e-03 -2.24e-02  9.60e-03 -1.96e-02
## 2159 -9.57e-03  1.82e-03 -1.05e-02 -2.03e-03  1.78e-02 -4.29e-03  9.51e-03
## 2160  4.20e-03  2.27e-03  2.67e-04  9.94e-04  6.17e-04  8.75e-04  8.34e-04
## 2161 -7.10e-04 -3.04e-03 -6.12e-04 -2.47e-04 -3.45e-04  9.07e-05 -7.82e-04
## 2162  2.19e-03 -6.45e-03 -3.22e-03 -5.72e-03 -5.51e-03 -7.48e-03  7.13e-03
## 2163 -7.82e-03  4.21e-04 -4.12e-03  6.30e-04 -7.39e-03 -7.92e-04  8.18e-03
## 2164 -1.13e-02 -1.75e-03 -6.26e-03 -2.43e-03 -4.60e-03  1.31e-04 -9.26e-03
## 2165  2.97e-03 -2.78e-03 -3.72e-03  1.45e-03  1.08e-03  9.66e-04  1.72e-03
## 2166 -2.53e-03  3.05e-03  4.53e-03 -6.27e-03 -8.47e-03 -6.06e-03  3.15e-03
## 2167 -5.32e-03  2.28e-02  5.59e-03  9.84e-03 -2.46e-02  1.17e-02  1.33e-02
## 2168 -4.62e-03  2.44e-02  6.60e-03  1.04e-02  4.98e-03  8.82e-03  2.17e-03
## 2169 -2.04e-02 -9.47e-03  9.66e-03  8.57e-03 -3.20e-02  1.14e-02  3.34e-02
```

```
## 2170 -7.88e-04 -2.44e-03 -4.20e-04 -2.09e-04 -2.32e-04  2.33e-07 -7.22e-04
## 2171  2.90e-02  1.06e-02 -2.40e-02 -2.04e-02 -2.43e-02  3.84e-02  2.55e-02
## 2172  1.74e-03  1.32e-03 -1.28e-04 -1.13e-04 -5.66e-05 -1.08e-04 -4.21e-06
## 2173 -3.26e-04 -8.44e-04 -9.22e-04 -3.19e-03 -1.38e-03  6.48e-03  8.64e-03
## 2174  1.25e-03  1.01e-03 -1.66e-05 -2.96e-04 -3.13e-04 -3.16e-04  9.21e-05
## 2175 -3.86e-04 -3.40e-03 -8.25e-04 -3.28e-04 -3.66e-04  2.61e-04 -9.80e-04
## 2176 -5.76e-03 -7.69e-04 -9.05e-04  4.55e-03 -8.85e-04 -2.39e-03  6.53e-03
## 2177  5.25e-03  4.74e-03 -4.96e-03  5.33e-03 -4.41e-03 -5.09e-03 -4.12e-03
## 2178  2.40e-03 -3.46e-04  1.14e-02  1.01e-02 -2.19e-03 -5.59e-03  1.29e-03
## 2179 -3.85e-03  1.47e-02  6.62e-03  9.80e-03  5.09e-03 -2.07e-02  3.69e-03
## 2180 -1.04e-02  3.30e-03 -2.64e-03  3.64e-04  1.65e-02 -8.15e-04 -1.26e-02
## 2181 -4.23e-02 -3.97e-02 -2.06e-02  3.89e-02 -1.28e-02 -2.02e-02 -3.88e-03
## 2182  1.05e-03  1.02e-03 -5.15e-05 -4.08e-04 -2.77e-04 -4.13e-04 -2.95e-05
## 2183  1.92e-05 -2.29e-04 -1.61e-05 -1.45e-04  1.61e-05 -8.54e-05  5.15e-05
## 2184  6.09e-04  7.58e-04  9.91e-03  1.01e-02  7.47e-03 -1.91e-02  6.95e-03
## 2185 -4.05e-03  1.50e-03 -2.54e-04 -4.67e-04 -3.38e-04 -9.50e-05  1.97e-04
## 2186 -2.14e-03 -4.01e-03  1.91e-03 -4.56e-03  1.12e-03  1.56e-03  1.79e-03
## 2187  8.72e-03  1.69e-03 -2.84e-03  5.23e-04 -5.92e-03 -1.68e-03  7.25e-03
## 2188  3.18e-05 -1.59e-05  2.48e-05  2.66e-05  1.67e-05  1.81e-05  2.47e-05
## 2189 -6.07e-04 -7.76e-04  2.33e-05 -1.47e-04 -1.84e-04 -2.04e-04 -1.09e-04
## 2190  1.20e-02  1.88e-03 -5.93e-03 -2.48e-03 -7.34e-03 -4.96e-03  1.74e-02
## 2191  8.72e-03 -3.27e-03 -8.46e-04 -7.87e-04 -6.37e-04 -1.13e-03 -1.12e-03
## 2192 -9.25e-04 -4.12e-03 -6.62e-04 -8.93e-04 -1.26e-03 -1.76e-03 -1.41e-03
## 2193  2.69e-03  4.75e-03  3.22e-03  3.42e-03  2.98e-03 -4.71e-03  2.76e-03
## 2194  1.58e-02  1.35e-02  7.93e-03  1.17e-02 -1.60e-02 -1.41e-02  8.14e-03
## 2195 -2.98e-04  8.42e-05 -1.01e-05 -3.31e-05 -2.28e-05 -2.02e-05 -8.60e-06
## 2196 -5.09e-03  1.70e-02 -1.39e-02  8.95e-03  7.24e-03  1.04e-02 -1.74e-02
## 2197 -1.78e-03  2.87e-04 -3.30e-03 -2.94e-03 -2.47e-03 -2.17e-03 -3.04e-03
## 2198  1.56e-02 -1.50e-03 -8.40e-03 -4.59e-03 -6.53e-03 -1.81e-03 -1.17e-02
## 2199  1.79e-05 -1.00e-04 -1.96e-05 -6.08e-05 -4.16e-05 -7.48e-05  1.86e-04
## 2200 -4.67e-03  1.76e-02  1.06e-02  3.21e-02  1.30e-02 -4.81e-02  3.64e-03
## 2201 -2.51e-02 -5.47e-03 -2.07e-02  9.16e-03 -1.65e-02  1.54e-02 -7.44e-03
## 2202 -5.60e-03  4.90e-03  2.01e-02 -1.60e-02  2.55e-02 -1.17e-02 -3.91e-02
## 2203  1.43e-02  5.43e-03 -7.56e-03 -3.95e-03  2.13e-02 -6.33e-03  1.54e-02
## 2204 -6.70e-03  3.13e-03 -1.21e-03  1.45e-03  1.01e-02 -4.08e-04  5.13e-03
## 2205 -9.49e-04 -7.67e-03 -2.15e-03 -3.59e-03 -2.53e-03 -3.27e-03 -3.02e-03
## 2206  5.42e-04  4.98e-04  6.50e-03  5.97e-03 -3.01e-04 -2.10e-03  6.39e-04
## 2207  5.14e-03 -4.55e-03  1.60e-02 -1.70e-02 -8.50e-03  1.50e-02 -3.73e-03
## 2208 -4.65e-04 -3.07e-03 -7.84e-04 -4.27e-04 -3.49e-04  6.97e-05 -8.55e-04
## 2209  6.82e-03 -1.78e-03 -3.72e-04  4.96e-04  3.64e-04  9.56e-04  4.55e-05
## 2210  1.78e-02  6.80e-03  2.36e-02 -6.59e-03 -1.13e-02 -7.73e-03 -2.27e-02
## 2211  8.93e-05  8.98e-05 -2.61e-04  1.68e-04  1.42e-04  1.54e-04 -3.22e-04
## 2212  2.07e-03 -8.49e-03  1.31e-02 -1.10e-02 -5.11e-03 -1.14e-02 -3.71e-03
## 2213 -4.47e-03 -3.84e-03  2.95e-03  2.36e-03  2.01e-03  1.68e-03  3.48e-03
## 2214  5.86e-03 -4.76e-03 -7.42e-03  2.13e-03  1.57e-03  1.26e-03  2.24e-03
## 2215 -2.78e-02  3.94e-04  1.38e-02  5.83e-03  2.15e-02  7.87e-03 -1.83e-02
## 2216  6.16e-03 -4.49e-03  3.02e-03  3.15e-03 -8.49e-03  2.19e-03  4.28e-03
## 2217  1.00e-02 -7.07e-03  5.59e-03  2.31e-03  8.10e-03  4.56e-03 -8.03e-03
## 2218  9.62e-03 -2.31e-03  1.84e-02  9.21e-03 -1.83e-02  1.17e-02 -6.85e-03
## 2219 -1.33e-02  3.73e-03  2.29e-02 -8.50e-03 -1.39e-02 -8.15e-03 -2.54e-02
```

```
## 2220   2.07e-02   4.14e-03   2.31e-02 -7.01e-03 -8.83e-03 -3.25e-03 -1.39e-02
## 2221 -2.90e-04   5.63e-03 -1.47e-02   8.73e-03   1.02e-02   1.10e-02 -1.75e-02
## 2222   5.09e-04 -3.46e-04   3.97e-03 -2.42e-03   4.38e-03 -2.85e-03   3.39e-03
## 2223 -2.94e-04 -3.68e-04 -1.78e-05 -8.50e-05 -9.14e-05 -1.36e-04 -8.06e-05
## 2224 -2.73e-04   4.53e-04 -1.69e-03   8.28e-03   1.18e-02 -5.19e-03 -3.82e-04
## 2225 -2.02e-02   7.95e-04   1.23e-02   1.20e-02   1.20e-02   8.19e-03   1.77e-02
## 2226   6.89e-04   6.04e-04 -6.77e-05 -3.10e-04 -1.97e-04 -2.97e-04 -9.42e-05
## 2227   1.79e-02 -5.87e-04 -1.16e-02 -8.23e-03 -8.75e-03 -6.94e-03 -1.54e-02
## 2228   5.54e-04   6.29e-04 -1.80e-05 -2.76e-04 -1.98e-04 -3.36e-04 -2.78e-05
## 2229 -1.50e-03   7.92e-04 -1.79e-03 -2.18e-03   1.57e-03 -2.40e-03 -3.39e-03
## 2230   6.81e-03   7.15e-03 -5.79e-03   7.10e-03   4.43e-03 -4.58e-03   3.35e-03
## 2231   7.19e-03   5.57e-03 -6.68e-03 -7.43e-03 -7.84e-03   7.93e-03 -9.66e-03
## 2232 -2.58e-02   1.63e-03   1.45e-02   7.60e-03   1.07e-02   4.34e-03   2.04e-02
## 2233 -3.48e-05   1.45e-03 -1.46e-02   9.75e-03 -1.33e-02   1.18e-02   1.55e-02
## 2234 -2.13e-02 -2.30e-02   9.64e-03   5.27e-03   2.05e-02 -4.68e-02 -1.75e-02
## 2235   1.03e-03   7.89e-05 -3.71e-03   1.32e-03 -3.54e-03   2.18e-03 -2.54e-03
## 2236 -1.97e-03 -2.27e-03   1.46e-03   1.90e-03   1.31e-03   1.57e-03   1.99e-03
## 2237   7.05e-04 -2.41e-04   3.20e-05   1.52e-05   8.35e-06   1.85e-05   6.44e-06
## 2238   3.10e-03 -1.33e-03 -1.89e-04 -2.23e-04 -2.67e-04 -5.22e-04 -4.14e-04
## 2239   2.92e-04   3.39e-03 -7.88e-03   1.01e-02   1.92e-02   8.03e-03 -7.08e-03
## 2240 -4.69e-02 -1.97e-02   3.98e-02   3.59e-02 -2.08e-02   3.99e-02 -1.10e-02
## 2241   1.30e-04   3.36e-04   5.67e-03   5.23e-03   3.94e-05 -1.75e-03   6.48e-04
## 2242 -1.56e-02   1.49e-02 -2.80e-03   2.80e-02   1.93e-02 -5.16e-03   1.06e-02
## 2243   2.88e-04   3.05e-04   1.03e-07 -1.03e-04 -7.80e-05 -1.66e-04   3.15e-05
## 2244   1.20e-02   1.13e-02   6.41e-03 -1.31e-02   3.27e-03   5.55e-03   1.04e-03
## 2245 -5.59e-03   1.59e-02   6.76e-03   9.86e-03   1.19e-02 -2.10e-02 -1.80e-02
## 2246 -7.24e-04 -2.71e-03 -5.12e-04 -2.39e-04 -2.55e-04   6.23e-05 -8.01e-04
## 2247 -7.17e-03   2.37e-02   5.41e-03   5.17e-03 -2.62e-02   1.21e-02 -2.21e-02
## 2248   1.79e-03   1.87e-03 -1.28e-04 -9.80e-05   1.67e-04   5.05e-04   5.36e-04
## 2249   7.97e-03 -5.04e-03   4.03e-03   3.62e-03   4.12e-03   3.92e-03   9.13e-03
## 2250 -2.95e-05   1.57e-04   5.46e-05   1.24e-04   1.13e-04   1.62e-04 -2.78e-04
## 2251 -3.13e-03   1.36e-02   6.67e-03 -1.44e-02   4.24e-03   9.56e-03   1.97e-03
## 2252 -9.21e-04   4.10e-04 -3.81e-03 -2.62e-03 -4.21e-03 -2.73e-03   1.47e-03
## 2253   2.64e-03   4.17e-03   3.40e-03   3.69e-03 -2.04e-03 -2.70e-03 -2.33e-03
## 2254   2.47e-04 -4.14e-04 -3.01e-04   2.70e-04   3.89e-04 -3.66e-04 -1.36e-04
## 2255 -6.01e-04 -1.68e-03 -2.59e-04   6.32e-04   5.33e-04   1.48e-03   1.64e-04
## 2256   1.62e-02   1.91e-02 -1.20e-02 -1.41e-02   3.07e-02   3.50e-02 -2.06e-02
## 2257   9.64e-03   2.08e-02   8.97e-03   8.40e-03   4.98e-03   4.96e-03   3.30e-03
## 2258   1.23e-02   1.52e-03 -6.49e-03 -3.12e-03 -7.42e-03 -5.21e-03   1.68e-02
## 2259   1.44e-02   4.47e-02   3.34e-02   3.75e-02   3.07e-02   3.38e-02 -2.64e-02
## 2260   1.84e-04 -9.97e-04 -2.50e-04 -6.95e-04 -1.09e-04 -3.95e-04   2.27e-05
## 2261 -1.49e-02   2.03e-02   2.22e-02 -2.68e-03   1.79e-02   2.52e-02   7.55e-03
## 2262 -1.37e-02 -8.86e-03   1.16e-02 -1.04e-02 -4.18e-03 -9.21e-03 -2.47e-03
## 2263   2.33e-05 -1.66e-04 -3.06e-05 -1.14e-04 -8.66e-06 -7.40e-05   1.25e-05
## 2264 -6.37e-04 -7.31e-04 -1.52e-05   1.34e-05   5.98e-05   2.64e-04 -3.05e-05
## 2265   1.53e-02 -8.58e-04 -1.00e-02 -9.89e-03 -8.82e-03 -7.41e-03 -1.46e-02
## 2266   1.11e-02   4.29e-03 -5.01e-03 -9.84e-04   1.81e-02 -2.86e-03   1.35e-02
## 2267 -3.16e-02   4.39e-03   2.06e-02   8.67e-03   2.23e-02   9.57e-03 -1.20e-02
## 2268 -4.14e-03   2.16e-02   6.84e-03   9.42e-03 -2.61e-02   9.83e-03   5.74e-03
## 2269 -7.42e-04 -1.54e-03 -2.91e-04 -1.96e-04 -1.12e-04 -2.37e-04 -4.78e-04
```

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## 2270  2.38e-02  2.95e-02 -1.82e-02  3.61e-02 -2.37e-02  3.41e-02  1.39e-02
## 2271 -1.51e-02 -7.40e-05 -7.14e-03 -4.92e-03 -5.22e-03 -3.00e-03 -1.21e-02
## 2272  7.75e-03 -8.28e-03  1.68e-02  1.07e-02 -1.29e-02 -2.73e-02 -7.22e-03
## 2273 -9.39e-03  2.28e-02  1.64e-02 -2.80e-02  1.89e-02  3.97e-02  7.90e-03
## 2274 -5.48e-03  1.75e-02  7.01e-03 -2.29e-02  3.30e-03  7.32e-03 -4.52e-04
## 2275  1.74e-03 -6.63e-04 -3.86e-06 -3.49e-04 -9.10e-05 -3.86e-04 -2.63e-04
## 2276  2.65e-02 -2.00e-02  1.14e-02  1.47e-03  2.11e-02 -5.73e-02 -2.20e-02
## 2277 -3.17e-02 -3.27e-02 -9.05e-03 -9.75e-03  3.60e-02 -1.27e-02 -1.79e-02
## 2278 -1.54e-03 -7.80e-03 -3.92e-02 -1.96e-02  1.81e-02 -1.73e-02  7.82e-03
## 2279  1.37e-02  4.61e-04 -8.25e-03 -5.95e-03 -6.54e-03 -5.39e-03 -1.33e-02
## 2280 -2.38e-03  9.27e-03  5.57e-03 -1.41e-02 -1.83e-02  9.31e-03  2.99e-03
## 2281 -1.29e-02  1.46e-02 -3.51e-02  3.72e-02  2.72e-02 -2.35e-02 -4.44e-02
## 2282 -6.46e-03  1.31e-02  5.79e-03  7.62e-03 -2.37e-02 -2.74e-02  1.28e-02
## 2283 -1.77e-03  8.40e-03  1.25e-02 -4.29e-02  5.89e-03  2.75e-02 -7.65e-04
## 2284 -2.17e-02 -1.06e-02 -3.69e-02  6.18e-03  1.29e-02  9.86e-03 -3.10e-02
## 2285 -1.10e-04  2.64e-04 -1.14e-03  2.65e-04  1.33e-05  2.35e-04 -7.82e-05
## 2286 -3.21e-03 -3.18e-03 -9.62e-03 -6.59e-03  2.55e-02 -1.33e-02  2.10e-02
## 2287 -1.17e-02  9.16e-04 -5.03e-03 -1.52e-03 -5.67e-03 -3.01e-03  1.48e-02
## 2288 -2.02e-03 -1.24e-03  1.50e-03  1.16e-03  9.77e-04  7.78e-04  1.41e-03
## 2289 -2.13e-03 -4.29e-03  1.89e-03 -5.08e-03  1.04e-03  1.58e-03  1.83e-03
## 2290 -1.22e-02  1.02e-02  2.04e-02 -2.26e-04  1.71e-02 -4.95e-03  8.24e-03
## 2291 -5.94e-03 -1.40e-02 -1.41e-02 -1.38e-02 -1.13e-02 -1.33e-02 -1.07e-02
## 2292 -6.58e-03  2.98e-02  7.29e-03  1.00e-02  5.47e-03  7.14e-03  1.89e-03
## 2293 -1.11e-02  1.79e-02  1.88e-02 -3.70e-02  1.24e-02  3.04e-02  3.33e-03
## 2294  6.09e-04  3.67e-03  8.50e-03  7.64e-03 -4.00e-03  6.99e-03  8.78e-03
## 2295  7.22e-04 -1.19e-03  7.76e-04  5.40e-04 -8.04e-04 -1.29e-03 -4.01e-04
## 2296 -1.23e-02  1.35e-02  2.11e-02  3.56e-02 -3.83e-02 -3.21e-02  1.37e-02
## 2297  2.40e-02 -1.61e-02  1.19e-02  8.90e-03  1.66e-02 -4.72e-02  3.39e-02
## 2298 -3.09e-03 -3.12e-03  1.88e-03  2.15e-03  1.57e-03  1.37e-03  2.16e-03
## 2299  6.48e-03 -2.99e-02 -1.18e-02  4.10e-02 -6.65e-03 -1.85e-02 -7.69e-04
## 2300 -1.01e-02 -2.05e-03 -2.21e-03 -5.55e-03  9.26e-03  7.56e-03 -1.80e-03
## 2301  1.15e-02 -4.48e-03 -2.14e-02  7.32e-03  1.79e-02  9.19e-03 -1.26e-02
## 2302 -2.12e-02  7.63e-05  1.32e-02  9.87e-03  9.88e-03  8.54e-03  1.93e-02
## 2303 -4.44e-03  1.15e-02 -1.59e-02  1.09e-02  8.41e-03 -1.38e-02 -1.75e-02
## 2304 -4.26e-03 -1.45e-03 -7.10e-04 -2.11e-03 -8.41e-04  3.55e-03 -3.63e-04
## 2305  2.16e-03  1.77e-03  1.21e-02  1.06e-02  1.26e-02 -6.99e-03 -4.33e-03
## 2306  5.92e-04  1.24e-03  1.18e-03  1.40e-03  7.42e-04  8.39e-04  9.73e-04
## 2307 -1.64e-02 -1.35e-02  1.45e-02 -1.53e-02 -8.53e-03 -1.58e-02 -4.52e-03
## 2308 -7.26e-04 -2.62e-03 -5.46e-04 -3.29e-04 -2.79e-04 -5.13e-05 -6.94e-04
## 2309  6.84e-03 -6.12e-03  1.51e-02  1.17e-02 -8.47e-03 -1.56e-02 -1.49e-03
## 2310 -3.00e-03 -3.16e-03  1.80e-03  2.13e-03  1.51e-03  1.31e-03  2.36e-03
## 2311  1.09e-02  1.31e-02  7.13e-03  8.12e-03  9.88e-03 -1.13e-02 -9.42e-03
## 2312 -1.80e-04 -6.60e-03 -1.81e-03 -2.25e-03 -1.97e-03 -2.25e-03 -2.53e-03
## 2313  3.57e-04 -9.33e-05  1.12e-05  4.37e-05  2.21e-05  2.71e-05  7.43e-06
## 2314 -3.07e-05  7.60e-05  5.74e-05  1.57e-04  1.06e-04 -5.64e-04  1.68e-04
## 2315 -2.37e-02 -2.27e-03  1.26e-02  8.93e-03  2.10e-02  1.14e-02 -1.45e-02
## 2316 -2.42e-03 -1.65e-03  1.82e-03  1.85e-03  1.40e-03  1.17e-03  1.83e-03
## 2317  1.76e-03 -8.87e-04 -6.82e-03  8.83e-03 -1.18e-02  7.12e-03 -1.16e-02
## 2318  1.24e-03  1.11e-03 -2.12e-04 -5.74e-04 -2.89e-04 -6.17e-04 -5.48e-05
## 2319 -1.24e-02  3.55e-03 -1.25e-02 -4.71e-03  2.00e-02 -9.20e-03  9.81e-03
```

```
## 2320 -1.63e-02  1.24e-02 -1.09e-02 -7.17e-03  2.77e-02  3.66e-02 -1.62e-02
## 2321 -5.75e-04 -7.38e-03 -1.59e-03 -2.77e-03 -2.73e-03 -2.90e-03 -2.22e-03
## 2322  2.92e-04 -1.06e-03 -7.54e-04  4.14e-03 -5.22e-04 -2.36e-03 -7.31e-05
## 2323 -2.82e-02 -3.68e-03  1.65e-02  7.00e-03 -2.91e-02  7.03e-03 -2.36e-02
## 2324  9.72e-03 -2.00e-03  1.79e-02  8.45e-03 -2.04e-02  8.79e-03 -1.18e-02
## 2325  2.41e-03 -1.68e-03 -3.88e-03  9.23e-03  1.00e-02 -7.61e-03  1.22e-02
## 2326  1.46e-02  1.75e-02 -1.58e-02  8.45e-03  6.80e-03  6.64e-03  7.96e-03
## 2327  1.25e-02 -5.08e-03 -1.13e-03 -2.10e-03 -1.36e-03 -1.83e-03 -1.11e-03
## 2328 -4.54e-03  6.11e-03  4.91e-03 -5.87e-03 -5.91e-03  6.30e-03 -7.73e-03
## 2329 -1.40e-03 -6.63e-04  1.14e-03  1.10e-03 -9.34e-04  1.78e-03 -3.14e-04
## 2330  1.93e-02  1.83e-03  1.48e-02  2.89e-03  1.56e-02  2.10e-03 -3.42e-02
## 2331 -3.56e-03  1.09e-02  6.13e-03 -2.03e-02 -2.37e-02  1.02e-02  3.20e-03
## 2332  2.28e-02 -7.11e-04 -1.44e-02 -1.04e-02 -1.15e-02 -7.50e-03 -1.73e-02
## 2333 -5.80e-03  1.31e-03  1.92e-02 -1.72e-02  1.76e-02 -2.22e-02  8.69e-03
## 2334  3.77e-03  2.65e-03 -3.79e-04 -9.50e-04 -5.73e-04 -4.28e-04  1.72e-04
## 2335 -8.76e-03 -8.41e-04 -7.00e-03 -6.41e-04 -9.55e-03 -2.27e-03  9.83e-03
## 2336 -8.77e-04 -1.22e-04  4.83e-03 -5.02e-03 -4.71e-03  5.89e-03  6.09e-03
## 2337 -1.29e-04  7.65e-04  1.54e-04  4.00e-04 -3.56e-05  2.76e-04 -3.50e-05
## 2338  1.18e-02 -1.87e-02  1.42e-02 -2.33e-02  1.84e-02 -2.29e-02 -1.10e-02
## 2339 -7.18e-03  2.99e-02  8.37e-03  1.10e-02  5.41e-03  9.14e-03  4.68e-03
## 2340  1.64e-03 -2.58e-03  6.57e-03 -6.44e-03 -7.56e-03 -6.16e-03  6.27e-03
## 2341 -3.94e-04 -7.28e-03 -1.44e-03 -2.67e-03 -2.63e-03 -2.30e-03 -2.40e-03
## 2342  1.49e-05  1.77e-03 -1.23e-03  6.92e-03 -1.81e-03  7.00e-03  1.01e-02
## 2343  1.15e-02 -3.90e-03 -1.27e-03 -7.97e-04 -8.08e-04 -7.33e-04 -1.03e-03
## 2344 -5.46e-04 -5.39e-04  2.63e-03 -3.22e-03 -3.78e-03  1.96e-03  1.28e-03
## 2345 -2.42e-04  3.32e-04  3.44e-04 -3.57e-03  8.06e-04  1.25e-03 -3.28e-03
## 2346  2.74e-02 -1.25e-03  1.16e-02  3.54e-03  1.29e-02  6.91e-03 -3.50e-02
## 2347  3.59e-03 -2.31e-03  3.48e-03  1.88e-03  3.99e-03  2.02e-03 -3.31e-03
## 2348 -6.57e-04 -7.73e-03 -2.07e-03 -3.64e-03 -2.72e-03 -2.92e-03 -3.08e-03
## 2349 -2.34e-02 -3.63e-03  1.09e-02  6.15e-03  1.52e-02  9.35e-03  3.35e-02
## 2350 -3.62e-04 -9.79e-04 -1.16e-04  4.78e-04  3.53e-04  8.17e-04  1.91e-04
## 2351  4.75e-03 -6.35e-03  3.10e-03  2.66e-03 -4.33e-03 -6.50e-03 -2.51e-03
## 2352 -7.17e-03  1.61e-02  6.79e-03  6.72e-03  3.74e-03  4.83e-03  2.27e-03
## 2353 -2.73e-04 -3.78e-04  2.59e-04  2.67e-04  3.02e-04 -4.25e-04 -3.39e-04
## 2354  1.11e-04  1.25e-04  6.30e-06  7.47e-06  1.32e-05  3.81e-05  4.24e-05
## 2355  1.23e-02  5.17e-03 -1.26e-02 -1.48e-02 -1.42e-02  6.65e-03 -1.77e-02
## 2356  2.59e-03  1.88e-03 -3.22e-04 -8.41e-04 -5.38e-04 -5.71e-04 -3.43e-05
## 2357  9.05e-03 -4.83e-02 -1.50e-02 -2.28e-02 -9.92e-03 -1.82e-02 -7.91e-03
## 2358 -1.41e-03 -1.81e-04  7.81e-03 -1.36e-02  7.10e-03  6.05e-03  8.51e-03
## 2359 -5.52e-03  2.79e-02  7.23e-03  9.48e-03  4.53e-03  9.15e-03  3.36e-03
## 2360  2.08e-02 -1.14e-02 -3.10e-02  7.09e-03 -3.52e-02  6.12e-03  1.78e-02
## 2361  1.84e-02 -1.63e-02  1.26e-02  7.86e-03 -2.64e-02 -3.85e-02 -2.38e-02
## 2362  1.33e-02 -6.65e-04 -7.25e-03 -3.92e-03 -5.20e-03 -2.27e-03 -1.03e-02
## 2363  1.18e-02  6.31e-03 -5.76e-03 -2.55e-03  2.13e-02 -6.06e-03  1.57e-02
## 2364  9.68e-06 -3.32e-04 -1.26e-05 -1.93e-04  2.47e-05 -1.17e-04  7.44e-05
## 2365  1.05e-04 -2.11e-04  6.25e-04 -1.85e-04 -9.70e-05 -1.80e-04  7.69e-04
## 2366  4.73e-05 -2.35e-04 -6.55e-05 -1.71e-04 -2.23e-05 -1.07e-04 -1.90e-06
## 2367  2.27e-02 -1.09e-02 -3.90e-03 -6.51e-03 -5.15e-03 -5.64e-03 -4.60e-03
## 2368 -4.99e-03 -4.60e-03  3.28e-03  2.79e-03  2.15e-03  2.00e-03  4.04e-03
## 2369  1.66e-04 -2.60e-04 -1.85e-04 -2.19e-04 -1.34e-04  1.89e-04 -1.01e-04
```

```
## 2370  1.20e-04 -6.28e-03 -1.88e-03 -2.25e-03 -2.00e-03 -2.16e-03 -2.66e-03
## 2371 -6.25e-04 -2.85e-04 -4.34e-05 -2.01e-04 -4.57e-06 -1.50e-04  8.44e-06
## 2372 -6.72e-03  2.18e-02 -2.02e-02  9.79e-03  9.05e-03  1.37e-02 -2.31e-02
## 2373 -2.75e-03  3.56e-03 -3.86e-03 -4.35e-03  1.70e-03  3.02e-03  7.18e-04
## 2374  3.09e-02 -5.42e-03 -2.21e-02 -1.61e-02 -1.56e-02 -9.99e-03 -2.22e-02
## 2375 -1.05e-02  9.01e-03  2.31e-02 -6.90e-03  1.90e-02 -8.26e-03  1.21e-02
## 2376  3.07e-03 -5.74e-03 -6.14e-03  8.57e-03  1.32e-02 -1.42e-02 -4.07e-03
## 2377 -4.93e-04 -3.04e-03 -7.79e-04 -4.35e-04 -3.61e-04  3.54e-05 -8.56e-04
## 2378  6.83e-04 -3.00e-03 -4.55e-03 -3.82e-03  3.63e-03 -4.41e-03  2.10e-03
## 2379  4.96e-04  9.34e-03  1.10e-02  1.05e-02  7.83e-03  7.63e-03  8.14e-03
## 2380  5.60e-03  1.32e-03  1.90e-02  9.27e-03 -1.97e-02  6.52e-03  2.85e-02
## 2381  4.51e-03  5.02e-03 -1.76e-02  1.19e-02  7.34e-03  9.66e-03  6.36e-03
## 2382 -4.43e-03  9.52e-03 -6.13e-03  6.10e-03  2.97e-03  3.82e-03  1.77e-03
## 2383  2.92e-02 -2.18e-02 -4.62e-02  1.68e-03 -3.60e-02  1.04e-02 -1.99e-02
## 2384 -6.96e-03  3.08e-02  6.67e-03  8.92e-03  8.25e-03  1.11e-02  1.31e-02
## 2385 -2.84e-03 -3.31e-03 -5.24e-03  2.28e-03  1.80e-03  2.40e-03  2.66e-03
## 2386 -5.33e-04 -2.59e-03 -3.99e-04  1.05e-04 -1.77e-04  1.44e-04 -4.50e-04
## 2387  2.88e-02  3.28e-02  6.63e-03  6.14e-03  6.63e-03  8.75e-03 -3.60e-02
## 2388  1.92e-02 -6.32e-03  1.45e-02  5.71e-03 -3.27e-02  9.42e-03 -2.49e-02
## 2389 -1.54e-02  1.24e-02 -2.16e-02  3.38e-02  2.01e-02 -2.38e-02  8.28e-03
## 2390  1.06e-03  2.75e-03 -3.62e-03  7.95e-03  7.58e-03  6.30e-03  8.19e-03
## 2391  1.10e-02  3.88e-03  1.87e-02  1.11e-02 -2.34e-02  1.28e-02 -1.83e-02
## 2392  6.86e-03 -6.50e-03 -1.36e-02 -1.82e-02  1.56e-02  1.12e-02  1.88e-02
## 2393  1.00e-02  2.88e-03 -3.38e-03 -1.24e-04 -7.99e-03 -4.24e-03  9.57e-03
## 2394  4.42e-03  5.22e-03 -2.09e-02  1.17e-02  7.72e-03  9.74e-03  8.27e-03
## 2395  2.75e-03  2.70e-03  9.13e-03  6.29e-03 -2.34e-02  1.26e-02 -1.90e-02
## 2396 -1.13e-02 -2.49e-02  8.99e-03 -2.24e-02 -1.94e-02 -2.23e-02  2.07e-02
## 2397 -4.52e-03  1.07e-02 -1.69e-02  8.73e-03  3.93e-03 -2.08e-02  2.54e-03
## 2398 -5.60e-05 -5.21e-03 -1.17e-03 -1.41e-03 -1.68e-03 -1.68e-03 -1.83e-03
## 2399  4.40e-03 -1.63e-03  2.39e-03  3.01e-03  2.30e-03  2.53e-03  3.33e-03
## 2400  6.31e-03 -6.02e-03 -9.65e-03 -1.48e-02  1.25e-02  1.19e-02 -1.21e-02
## 2401  1.36e-02  6.28e-03 -6.49e-03 -2.83e-03  1.87e-02 -6.92e-03  7.81e-03
## 2402  1.17e-02  7.35e-03  2.05e-02 -1.40e-03 -9.04e-03 -5.46e-03  9.80e-03
## 2403  1.51e-02  3.32e-06 -8.89e-03 -6.88e-03 -7.25e-03 -5.21e-03 -1.36e-02
## 2404  5.19e-04  4.23e-04 -7.33e-05 -2.59e-04 -1.41e-04 -2.28e-04 -8.25e-05
## 2405  8.29e-04 -5.77e-03 -1.31e-02  8.84e-03 -9.32e-03 -1.17e-02 -7.07e-03
## 2406  6.95e-03  6.23e-04 -1.29e-02  1.20e-02  1.08e-02  6.49e-03  1.26e-02
## 2407 -1.09e-04 -1.05e-04 -1.42e-04  8.77e-05  6.70e-05  5.38e-05  7.38e-05
## 2408  1.54e-03 -1.91e-03  3.61e-02 -4.29e-02 -3.12e-02  4.40e-02 -2.31e-02
## 2409  2.44e-03 -4.62e-03  5.35e-03 -6.59e-03 -6.00e-03 -4.74e-03  1.05e-02
## 2410 -1.56e-03 -3.46e-03 -6.02e-04 -9.30e-04 -5.82e-04 -5.85e-04 -8.90e-04
## 2411 -7.39e-03 -4.38e-03 -1.69e-02 -6.46e-03 -1.81e-02 -5.55e-03  1.14e-02
## 2412  1.40e-02 -2.11e-03  1.54e-02  8.93e-03 -1.99e-02  1.78e-02 -7.78e-03
## 2413  3.50e-03 -3.47e-03 -1.43e-02  1.03e-02  7.42e-03 -1.69e-02  5.45e-03
## 2414  1.36e-02 -8.61e-03 -2.42e-02  8.50e-03 -3.14e-02  5.49e-03  1.80e-02
## 2415 -2.58e-03  8.02e-03  4.54e-03  8.14e-03 -9.54e-03 -7.64e-03  3.83e-03
## 2416  4.46e-03 -1.23e-03  8.11e-03 -1.96e-02  9.51e-03  1.04e-02 -2.28e-02
## 2417 -3.39e-03  3.12e-03  7.76e-03  5.67e-03 -1.06e-02  5.14e-03  9.49e-03
## 2418 -2.43e-02  5.82e-04  1.27e-02  6.32e-03  9.64e-03  3.80e-03  1.88e-02
## 2419 -8.01e-04 -2.61e-03 -4.56e-04 -1.92e-04 -2.96e-04  1.04e-05 -6.94e-04
```

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## 2420 -6.60e-03  1.57e-02  1.42e-02  2.92e-02  9.53e-03 -5.47e-02  1.67e-03
## 2421 -1.56e-03 -6.32e-03 -1.43e-03 -3.05e-03 -2.46e-03 -3.05e-03 -2.45e-03
## 2422  1.92e-03 -9.75e-06 -1.86e-02  9.34e-03 -2.17e-02  8.63e-03  7.86e-03
## 2423 -5.69e-03 -1.19e-02 -1.15e-02 -1.34e-02 -1.66e-02 -1.46e-02 -2.08e-02
## 2424 -1.23e-02  3.43e-03 -1.92e-02 -8.93e-03  2.18e-02 -1.31e-02  9.56e-03
## 2425 -9.87e-03 -3.65e-03 -4.00e-03 -6.89e-03 -6.29e-03  5.88e-03  6.66e-03
## 2426 -3.41e-03  7.41e-03  4.52e-03 -5.12e-03 -6.76e-03  8.02e-03  3.63e-03
## 2427 -4.34e-03 -1.47e-02 -1.23e-02 -9.91e-03 -9.17e-03 -7.86e-03 -8.08e-03
## 2428  5.63e-03 -2.27e-03 -3.91e-04 -1.04e-03 -5.98e-04 -2.01e-03 -1.36e-03
## 2429  3.88e-03 -8.34e-03  6.79e-03 -1.21e-02 -1.07e-02 -1.02e-02  1.28e-02
## 2430 -2.21e-04 -5.39e-03 -1.17e-03 -1.22e-03 -1.64e-03 -1.90e-03 -1.83e-03
## 2431 -6.32e-03  2.06e-02  7.68e-03  8.13e-03 -2.28e-02  1.04e-02 -2.35e-02
## 2432 -2.05e-02 -7.26e-03  1.45e-02 -2.70e-02  9.11e-03  6.27e-03  1.09e-02
## 2433 -2.70e-03  5.12e-03 -1.50e-02 -1.35e-02 -1.73e-02  8.79e-03  1.67e-03
## 2434 -1.84e-02  2.41e-02 -6.44e-03  3.24e-02 -1.23e-02  2.85e-02  1.49e-02
## 2435 -5.20e-04 -1.69e-03 -2.50e-04 -3.67e-05 -8.48e-05 -2.39e-05 -3.72e-04
## 2436 -1.40e-03 -4.22e-03 -6.84e-04 -1.67e-03 -1.55e-03 -2.17e-03 -1.49e-03
## 2437 -2.56e-02  2.50e-04  1.29e-02  7.08e-03  1.60e-02  6.65e-03 -3.39e-02
## 2438 -9.93e-03  9.71e-05 -4.43e-03  1.34e-04 -4.97e-03 -5.45e-04  1.47e-02
## 2439  1.07e-05 -3.98e-05 -2.90e-05 -1.02e-04 -1.24e-05  3.73e-04  6.33e-06
## 2440 -9.37e-03  2.71e-03  1.95e-02 -3.38e-03 -1.42e-02 -4.92e-03  1.22e-02
## 2441 -1.50e-02 -5.25e-03  1.27e-02 -1.65e-02  9.22e-03  8.52e-03  1.12e-02
## 2442 -1.40e-02  5.52e-03  2.26e-02 -4.27e-03 -9.35e-03 -5.64e-03  2.11e-02
## 2443 -1.98e-02 -6.60e-03  1.21e-02  8.56e-03 -3.56e-02  9.27e-03  2.11e-02
## 2444 -1.04e-02  7.77e-03  1.85e-02  5.81e-04  1.62e-02 -2.64e-03  8.86e-03
## 2445 -6.40e-03  2.00e-02  6.86e-03  7.54e-03 -2.25e-02  9.65e-03 -2.38e-02
## 2446  1.46e-05 -1.73e-04  6.52e-04 -1.62e-04  5.25e-06 -1.13e-04  7.08e-05
## 2447 -1.69e-02  1.70e-02  2.68e-02  3.34e-02 -2.85e-02 -2.36e-02  1.36e-02
## 2448 -1.23e-02 -2.12e-03 -9.18e-03 -3.77e-03 -6.18e-03 -1.11e-03 -1.08e-02
## 2449  2.56e-02  2.69e-03  1.30e-02  4.95e-03  8.42e-03  9.53e-04  1.86e-02
## 2450 -2.26e-03  7.18e-04 -9.55e-05 -1.61e-04 -9.80e-05 -4.61e-05  1.80e-04
## 2451  1.42e-02  1.92e-02  2.68e-02 -7.33e-03 -1.14e-02  3.13e-02 -2.33e-02
## 2452  1.90e-04 -5.08e-05  3.09e-07  1.68e-05  1.06e-05  1.23e-05  9.87e-07
## 2453 -1.92e-02  3.46e-04 -7.15e-03  1.02e-02 -8.98e-03  1.02e-02 -8.25e-03
## 2454  3.47e-03 -2.25e-03  1.59e-02 -1.63e-02 -6.17e-03  1.66e-02 -2.76e-03
## 2455 -7.30e-04 -8.13e-03 -2.14e-03 -3.82e-03 -2.89e-03 -3.12e-03 -3.01e-03
## 2456  8.06e-04  6.50e-04 -8.06e-05 -3.70e-04 -1.75e-04 -3.06e-04 -6.55e-05
## 2457  1.55e-03  1.64e-03  3.21e-05  1.62e-04  2.53e-04  5.17e-04  6.67e-04
## 2458 -1.78e-03 -9.81e-04 -1.87e-02 -1.73e-02  5.56e-03 -1.63e-02  6.94e-03
## 2459  2.30e-02 -3.25e-03  1.09e-02  4.63e-03  1.58e-02  5.89e-03  3.34e-02
## 2460 -1.28e-02  2.31e-04 -6.32e-03 -3.92e-03 -4.61e-03 -3.07e-03 -1.05e-02
## 2461 -4.97e-03 -9.36e-03 -1.03e-02 -9.33e-03 -1.39e-02 -1.26e-02 -1.91e-02
## 2462  1.83e-03  1.27e-03 -2.40e-04 -6.43e-04 -3.77e-04 -4.25e-04 -1.60e-04
## 2463  5.01e-03 -7.57e-04  1.51e-02  1.17e-02  1.76e-02 -1.46e-02 -2.58e-03
## 2464 -5.46e-03 -1.49e-03  3.13e-02 -5.12e-03 -1.47e-02 -1.11e-02  2.30e-02
## 2465 -8.56e-04 -1.88e-03 -2.68e-04 -1.50e-04 -2.51e-04 -1.45e-04 -5.46e-04
## 2466  3.65e-04 -1.38e-04  1.31e-05 -1.18e-05  6.71e-06 -1.31e-05 -1.52e-05
## 2467 -7.92e-03  1.59e-04  2.05e-02 -1.43e-02 -2.82e-02 -1.46e-02  1.43e-02
## 2468 -5.58e-03 -4.50e-03  4.16e-03  2.57e-03  5.21e-03  3.65e-03 -4.78e-03
## 2469 -4.02e-04 -5.19e-03 -1.07e-03 -1.16e-03 -1.57e-03 -1.90e-03 -1.75e-03
```

```
## 2470   7.71e-03  -6.23e-03  -1.58e-02   9.34e-03  -1.61e-02   1.22e-02  -7.20e-03
## 2471  -1.67e-03  -1.17e-03  -5.44e-04  -5.73e-04  -4.26e-04  -4.93e-04   2.33e-03
## 2472   4.81e-03  -2.91e-03   2.61e-03   2.64e-03   1.84e-03   1.49e-03   2.76e-03
## 2473  -2.00e-02  -1.93e-02   1.03e-02  -4.49e-02   1.38e-02   1.17e-02   2.89e-02
## 2474  -4.84e-03   2.50e-02   6.85e-03   1.04e-02   5.20e-03   8.69e-03   2.87e-03
## 2475  -1.09e-03  -9.64e-04   8.99e-04   7.44e-04  -1.47e-03   7.43e-04  -1.38e-03
## 2476  -2.99e-03  -9.58e-03  -2.78e-02  -1.15e-02  -2.84e-02  -9.59e-03   1.38e-02
## 2477   7.48e-04  -2.54e-04  -2.07e-05  -4.74e-05   4.14e-05  -1.16e-04  -1.20e-04
## 2478  -6.63e-03   2.88e-02   7.79e-03   1.04e-02   5.09e-03   8.84e-03   3.84e-03
## 2479  -1.24e-02   2.28e-02   2.15e-02   3.94e-02   2.95e-02  -1.43e-02   2.75e-02
## 2480  -6.71e-04  -4.83e-03  -9.57e-04  -1.19e-03  -1.36e-03  -1.89e-03  -1.54e-03
## 2481  -1.50e-02   3.24e-03  -9.95e-03  -6.22e-03   2.68e-02  -5.58e-03  -1.57e-02
## 2482   1.14e-02  -4.20e-03   1.60e-02   1.51e-02   1.83e-02  -2.40e-02   2.96e-02
## 2483  -1.65e-03   8.15e-04  -4.94e-03  -4.30e-03   2.13e-03  -5.20e-03   4.02e-04
## 2484   1.75e-02  -3.11e-02  -2.32e-02  -2.79e-02   4.88e-02   4.69e-02  -1.52e-02
## 2485  -2.66e-03  -1.50e-03   2.01e-03   2.12e-03   2.64e-03   2.48e-03  -3.33e-03
## 2486   6.50e-03   6.96e-04   1.44e-02   1.47e-02   1.98e-02  -1.01e-02  -6.22e-04
## 2487  -1.21e-03  -2.48e-03  -3.62e-04  -7.12e-04  -6.99e-04  -1.34e-03  -1.11e-03
## 2488  -6.94e-03   2.01e-02  -1.32e-02   4.04e-02  -2.24e-02   3.56e-02   2.80e-02
## 2489   2.56e-02  -1.16e-02  -4.29e-02   4.92e-03   1.41e-02   6.08e-03   3.31e-02
## 2490  -1.41e-02  -6.25e-03  -2.18e-02  -1.69e-02  -1.65e-02  -1.01e-02  -2.05e-02
## 2491  -1.54e-03  -2.47e-03  -2.98e-04  -6.49e-04  -4.58e-04  -6.14e-04  -6.29e-04
## 2492  -4.07e-04  -8.45e-04  -1.28e-04   2.06e-04   2.38e-04   5.65e-04  -3.92e-05
## 2493  -4.15e-04  -6.07e-03  -1.69e-03  -1.91e-03  -1.81e-03  -2.42e-03  -2.51e-03
## 2494  -4.27e-03   7.44e-03  -1.07e-02   7.03e-03   3.68e-03  -1.31e-02   2.13e-03
## 2495  -1.52e-03   2.03e-03  -2.38e-03  -2.24e-03  -2.63e-03   3.12e-03  -3.50e-03
## 2496  -2.27e-04   2.40e-04   2.94e-04  -2.00e-04   3.55e-04  -1.99e-04  -2.42e-04
## 2497   3.22e-03   2.07e-03  -3.93e-04  -8.89e-04  -4.87e-04  -3.69e-04  -5.71e-05
## 2498  -3.19e-04   1.63e-04  -7.24e-06   2.51e-05   2.71e-05   7.39e-05   6.65e-05
## 2499   2.31e-04   3.47e-04   1.03e-05  -1.23e-06   1.80e-05   5.36e-05   7.89e-05
## 2500   1.51e-02   1.30e-02  -1.00e-02   3.16e-02  -7.67e-03  -8.87e-03  -1.29e-02
## 2501  -1.08e-03  -2.00e-03  -1.47e-04  -3.38e-04  -3.69e-04  -3.47e-04  -3.87e-04
## 2502  -7.54e-04   2.49e-04  -1.74e-05   2.35e-05  -3.92e-05   1.47e-04   1.44e-04
## 2503  -2.19e-04   8.09e-05  -3.73e-06   1.41e-05  -1.28e-06   1.53e-05   1.09e-05
## 2504   9.60e-04  -1.74e-03  -1.81e-03   7.76e-03  -9.12e-04  -3.02e-03   8.54e-04
## 2505  -6.01e-04   2.52e-04  -2.94e-05   2.12e-05  -1.37e-05   3.15e-05   3.81e-05
## 2506  -1.45e-02  -2.24e-04  -5.89e-03  -3.38e-03  -4.34e-03  -2.75e-03  -1.03e-02
## 2507  -1.84e-02  -8.23e-03   1.24e-02  -1.94e-02  -1.32e-02   1.28e-02   2.13e-02
## 2508  -3.17e-03   2.66e-03   4.30e-03  -7.24e-03  -7.41e-03  -6.29e-03   6.21e-03
## 2509   1.31e-03   1.03e-03  -1.23e-04  -5.20e-04  -2.97e-04  -4.28e-04  -7.95e-05
## 2510  -1.10e-02   2.98e-03   2.11e-02  -4.07e-03  -1.01e-02  -2.92e-03  -1.94e-02
## 2511   5.66e-04  -2.36e-03  -6.81e-04  -1.64e-03  -3.42e-04  -9.20e-04   3.06e-05
## 2512  -7.77e-03   1.67e-06  -5.49e-03  -2.05e-04  -8.01e-03  -1.83e-03   8.12e-03
## 2513   1.42e-02   3.45e-04  -7.21e-03  -3.49e-03  -5.66e-03  -2.26e-03  -1.02e-02
## 2514   1.72e-02  -9.06e-03  -3.12e-02   4.24e-03   1.92e-02   9.72e-03  -1.77e-02
## 2515   2.92e-02  -1.20e-02   9.29e-03   1.58e-03  -4.42e-02   7.03e-03  -3.19e-02
## 2516  -8.43e-04   5.60e-04  -1.48e-03  -1.02e-03  -9.39e-04  -6.10e-04  -1.07e-03
## 2517  -8.03e-03  -4.42e-03  -1.54e-02  -6.74e-03  -1.50e-02  -3.59e-03  -2.44e-02
## 2518   6.53e-03   8.31e-03   6.06e-03   6.35e-03  -5.68e-03  -6.97e-03  -4.86e-03
## 2519   1.02e-03   8.97e-04  -1.04e-04  -4.47e-04  -2.54e-04  -4.02e-04  -4.79e-05
```

```
## 2520  3.73e-03  2.52e-03 -6.50e-04 -1.12e-03 -5.78e-04 -8.05e-04  7.07e-05
## 2521 -1.58e-04  5.58e-04  2.10e-04  4.66e-04 -1.62e-03  5.56e-04 -1.81e-03
## 2522 -8.45e-04  2.80e-02  8.51e-03  1.01e-02  8.91e-03  9.54e-03  1.18e-02
## 2523 -1.30e-02  1.48e-04 -6.19e-03 -2.87e-03 -7.53e-03 -3.74e-03 -1.72e-02
## 2524  1.58e-02  1.63e-03 -9.01e-03 -4.60e-03 -9.71e-03 -6.75e-03  1.95e-02
## 2525  2.83e-02 -4.39e-02 -2.82e-02  4.16e-02  4.04e-02 -3.73e-02 -2.86e-02
## 2526 -2.03e-02 -2.68e-02  1.04e-02  5.93e-03 -2.99e-02 -4.09e-02 -1.27e-02
## 2527 -9.27e-05  3.61e-05 -1.25e-06  5.29e-06  9.24e-07  6.80e-06  6.77e-06
## 2528 -2.22e-02 -7.81e-03  1.67e-02  1.17e-02 -9.99e-03 -1.91e-02 -3.33e-03
## 2529 -1.13e-03  1.05e-03  2.74e-03 -2.01e-03  3.61e-03  3.53e-03 -1.61e-03
## 2530  4.03e-04 -2.65e-03 -6.58e-04 -1.72e-03 -1.02e-03 -1.96e-03  4.62e-03
## 2531 -8.51e-04 -1.00e-03  7.19e-04  9.64e-04  5.52e-04  7.44e-04  9.55e-04
## 2532 -5.75e-02  2.47e-02  6.23e-03  6.74e-03  4.08e-03  5.15e-03  9.62e-03
## 2533 -4.28e-04  2.10e-03  3.76e-04  1.16e-03 -7.55e-05  6.77e-04 -5.05e-06
## 2534 -7.27e-04  3.53e-03  8.14e-03  9.94e-03  1.02e-02 -7.60e-03 -8.53e-03
## 2535 -2.50e-03  8.43e-04 -2.37e-04 -3.99e-04 -2.40e-04 -1.42e-04 -1.58e-05
## 2536  9.83e-05 -3.75e-04 -1.00e-04 -2.80e-04 -5.90e-05 -1.64e-04 -7.59e-06
## 2537 -9.79e-04  4.60e-04  2.44e-03 -1.84e-03 -1.09e-03  3.09e-03 -1.08e-03
## 2538 -6.82e-03  1.28e-02  7.98e-03  9.19e-03  1.03e-02 -9.66e-03 -7.81e-03
## 2539 -1.70e-02  1.16e-02 -7.18e-03  3.22e-02 -1.30e-02 -8.13e-03  1.55e-02
## 2540  2.17e-02  1.39e-02  5.00e-03 -2.18e-02 -1.74e-02  1.51e-02 -1.77e-02
## 2541  1.89e-03 -1.30e-03 -2.43e-03  1.49e-03  1.79e-03  1.58e-03  2.54e-03
## 2542 -5.68e-03  4.61e-03  7.06e-03 -1.56e-02  9.09e-03 -1.38e-02 -1.39e-02
## 2543  3.40e-05  1.53e-04  3.47e-04  2.46e-04 -4.40e-04  2.98e-04 -2.92e-04
## 2544 -2.48e-02  1.15e-03  1.39e-02  7.19e-03  1.03e-02  4.21e-03  1.77e-02
## 2545  4.21e-05 -6.56e-03 -1.91e-03 -2.30e-03 -2.02e-03 -2.22e-03 -2.64e-03
## 2546  1.42e-03  9.79e-04 -2.05e-04 -5.90e-04 -2.84e-04 -4.06e-04 -1.19e-04
## 2547 -6.21e-04 -5.04e-03 -1.20e-03 -1.57e-03 -1.48e-03 -1.74e-03 -2.32e-03
## 2548  4.29e-03 -1.91e-03 -1.66e-04 -3.14e-04 -2.38e-04 -7.61e-04 -5.93e-04
## 2549 -4.98e-04 -7.40e-03 -2.59e-03 -3.96e-03 -2.80e-03 -4.43e-03 -4.22e-03
## 2550 -6.45e-03  2.11e-02  7.75e-03  9.17e-03 -2.28e-02  8.63e-03  5.15e-03
## 2551 -5.22e-03  1.55e-02  6.97e-03 -2.40e-02  6.29e-03  1.10e-02 -2.88e-02
## 2552  7.78e-03 -7.61e-03  1.42e-02 -1.94e-02 -1.80e-02  7.83e-03  1.32e-02
## 2553 -5.07e-03  2.57e-02  7.04e-03  1.08e-02  5.42e-03  9.02e-03  3.21e-03
## 2554 -8.07e-04 -1.44e-03 -1.96e-04 -1.47e-04 -2.35e-04 -2.28e-04 -4.48e-04
## 2555  2.45e-05 -2.42e-04 -2.81e-05 -1.61e-04  6.67e-06 -9.89e-05  4.40e-05
## 2556 -1.49e-02  1.87e-02  2.51e-02  3.96e-02 -2.27e-02 -1.65e-02 -3.27e-02
## 2557  1.75e-04 -3.41e-04 -3.02e-04 -9.43e-04 -6.45e-04  2.46e-03 -7.54e-04
## 2558 -8.47e-04  8.74e-04  2.15e-03  2.48e-03  2.94e-03 -1.32e-03 -8.75e-04
## 2559 -1.20e-02  8.15e-03  2.21e-02 -3.77e-03  1.87e-02 -6.06e-03  1.08e-02
## 2560 -3.47e-02 -2.30e-02 -1.17e-02 -1.54e-02  2.78e-02  2.95e-02  2.30e-02
## 2561  9.08e-03 -2.76e-03 -5.80e-04 -1.47e-04  3.93e-05  9.64e-04  6.16e-05
## 2562 -4.10e-03 -3.45e-03  2.72e-03  2.19e-03  1.77e-03  1.50e-03  3.20e-03
## 2563 -7.42e-03  4.26e-03  1.80e-02 -2.15e-02  2.67e-02 -1.90e-02  2.34e-02
## 2564 -3.36e-04 -7.07e-04 -7.69e-05  3.31e-04  2.32e-04  5.34e-04  1.12e-04
## 2565 -2.71e-03  9.17e-04 -1.85e-04 -2.85e-04 -2.67e-04 -1.40e-05  1.92e-04
## 2566 -1.05e-02 -1.22e-03 -1.25e-02 -4.67e-03 -1.64e-02 -6.95e-03  1.14e-02
## 2567 -1.51e-02 -2.58e-03  1.35e-02  1.30e-02 -3.82e-03 -7.18e-03  1.79e-03
## 2568 -2.67e-03  1.00e-03 -1.28e-04 -2.35e-04 -2.45e-04  1.47e-06  2.41e-04
## 2569  7.48e-03 -3.60e-02 -7.51e-03 -1.02e-02 -9.15e-03 -1.26e-02 -1.51e-02
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## 2570 -7.27e-03 -3.11e-03 -1.56e-02 -4.60e-03 -1.78e-02 -5.82e-03  1.20e-02
## 2571 -9.55e-04 -2.85e-03 -5.50e-04 -9.15e-04 -9.19e-04 -1.32e-03 -1.41e-03
## 2572 -1.47e-02 -8.54e-03 -4.78e-03  9.72e-03 -5.16e-03 -1.09e-02 -1.08e-03
## 2573 -9.53e-03  1.91e-03 -2.20e-03  6.10e-04 -5.44e-03 -2.18e-03  7.46e-03
## 2574  2.55e-02  1.57e-02 -1.76e-02 -9.96e-03  2.08e-02  3.57e-02  8.80e-03
## 2575  7.68e-04  7.54e-04  3.05e-06 -1.90e-04 -1.83e-04 -3.14e-04  7.63e-05
## 2576  1.40e-02 -1.02e-02  1.91e-02  9.18e-03  2.20e-02 -4.06e-02 -1.21e-02
## 2577 -5.10e-04 -5.54e-03 -1.43e-03 -1.87e-03 -1.58e-03 -1.93e-03 -2.37e-03
## 2578  2.55e-02 -1.94e-02 -3.97e-02  3.14e-03 -3.53e-02  1.13e-02 -1.59e-02
## 2579  2.10e-03 -2.07e-03 -2.62e-03  1.42e-03  1.58e-03  1.32e-03  2.89e-03
## 2580 -3.63e-03  3.74e-03 -3.59e-03 -4.68e-03  2.80e-03  3.24e-03 -6.94e-03
## 2581 -9.90e-05 -1.02e-04  1.65e-06  4.26e-05  2.93e-05  6.63e-05 -7.93e-07
## 2582 -9.01e-04 -1.92e-03 -2.29e-04 -4.58e-04 -6.78e-04 -1.11e-03 -7.65e-04
## 2583 -3.97e-04 -1.06e-03 -1.04e-04 -2.60e-05 -1.08e-04 -1.67e-05 -2.41e-04
## 2584 -3.46e-03  1.30e-02  6.16e-03  9.97e-03  5.03e-03 -1.56e-02  2.86e-03
## 2585 -1.10e-02 -5.52e-04 -5.40e-03 -1.79e-03 -3.83e-03 -3.27e-04 -8.42e-03
## 2586 -2.19e-02 -8.89e-03 -2.35e-02  8.88e-03 -2.25e-02  7.22e-03  2.40e-02
## 2587  3.52e-03  7.57e-04 -9.59e-03  1.07e-02  1.76e-02  9.82e-03 -6.09e-03
## 2588 -5.36e-04 -5.34e-03 -1.33e-03 -1.74e-03 -1.81e-03 -2.07e-03 -2.35e-03
## 2589  2.80e-03  1.95e-03 -4.70e-04 -1.03e-03 -6.05e-04 -6.94e-04 -2.42e-05
## 2590  7.29e-04 -1.28e-03 -1.59e-03  6.03e-03 -7.18e-04 -2.63e-03  3.65e-04
## 2591  3.89e-04  9.87e-04  8.02e-04  8.49e-04 -2.73e-04 -3.74e-04 -3.21e-04
## 2592 -6.27e-03  1.74e-02 -1.39e-02  8.99e-03  7.26e-03  1.04e-02 -1.72e-02
## 2593  5.10e-04 -2.38e-03 -1.63e-03 -5.07e-03 -1.84e-03  7.19e-03 -9.44e-04
## 2594 -2.04e-02 -6.01e-03  1.30e-02  9.58e-03 -3.58e-02  9.82e-03  2.16e-02
## 2595  6.95e-03 -4.33e-03  4.15e-03  3.42e-03  4.52e-03  2.75e-03 -8.51e-03
## 2596 -1.92e-02  7.16e-04  1.24e-02  1.22e-02  1.10e-02  9.31e-03  1.76e-02
## 2597  8.05e-05 -1.79e-04 -1.78e-04  1.41e-03 -2.48e-04 -5.27e-04  1.88e-03
## 2598  1.09e-03 -3.02e-03 -1.90e-03  8.63e-03 -1.99e-03 -5.62e-03  6.54e-04
## 2599  5.60e-06 -3.69e-05 -2.65e-06 -2.40e-05 -2.68e-07 -1.27e-05  6.13e-06
## 2600  1.38e-02 -4.39e-03  1.52e-02  8.65e-03 -2.10e-02  1.22e-02 -1.14e-02
## 2601 -1.06e-03 -2.46e-03 -4.12e-04  5.56e-05  2.02e-04  1.53e-03  2.48e-04
## 2602  1.30e-02 -1.48e-02 -2.03e-02 -2.82e-02  1.71e-02  1.19e-02 -1.46e-02
## 2603  1.33e-02 -3.72e-04 -6.96e-03 -3.45e-03 -5.27e-03 -2.07e-03 -1.03e-02
## 2604 -1.04e-02  1.83e-02 -2.13e-02  3.65e-02 -1.72e-02  4.17e-02 -1.37e-02
## 2605 -5.96e-03  5.26e-03  1.79e-02 -1.86e-02  1.95e-02 -2.03e-02  8.72e-03
## 2606  1.09e-03 -1.30e-02 -2.57e-02 -2.74e-02  4.41e-02 -2.01e-02 -1.88e-02
## 2607  1.86e-02 -7.33e-04 -1.14e-02 -8.40e-03 -9.25e-03 -6.18e-03 -1.57e-02
## 2608  2.09e-02  1.03e-02 -2.13e-02  9.14e-03  1.06e-02 -2.15e-02 -1.81e-02
## 2609 -1.51e-02  4.73e-03  2.15e-02 -3.82e-03 -3.95e-03 -3.15e-03 -1.00e-02
## 2610 -7.30e-03  1.80e-02 -5.91e-02  2.65e-02 -5.38e-02  3.52e-02 -6.49e-02
## 2611 -3.06e-03 -2.99e-03  1.99e-03  2.42e-03  1.61e-03  1.25e-03  2.72e-03
## 2612  1.17e-02 -4.60e-02 -1.42e-02 -1.84e-02 -8.86e-03 -1.52e-02 -6.72e-03
## 2613  1.33e-05  2.67e-02  7.68e-03  1.28e-02  1.10e-02  1.04e-02  1.01e-02
## 2614 -5.65e-04 -1.38e-03 -1.66e-04 -1.13e-05 -1.05e-04 -1.01e-04 -2.70e-04
## 2615 -1.30e-02  2.03e-02  2.21e-02 -7.41e-03  2.00e-02  3.38e-02  1.02e-02
## 2616 -2.81e-03  1.89e-03  5.23e-03 -1.39e-02 -1.40e-02 -1.26e-02 -1.66e-02
## 2617  3.00e-03 -3.17e-03  1.70e-03 -3.71e-03  1.15e-03  1.33e-03  1.45e-03
## 2618  1.50e-02  2.92e-02  9.59e-03  1.07e-02  6.90e-03  8.06e-03  5.54e-03
## 2619  2.28e-02 -1.32e-02  1.16e-02 -3.29e-02  8.81e-03  9.63e-03  1.38e-02
```

```
## 2620   1.81e-02   7.21e-03  -1.67e-02   9.31e-03  -2.00e-02  -1.92e-02   5.51e-03
## 2621   3.94e-03  -5.46e-03  -6.56e-03  -1.24e-02   8.26e-03   6.88e-03   8.80e-03
## 2622  -8.83e-04  -9.99e-04  -3.15e-03  -3.30e-03  -3.01e-03   3.80e-03   3.73e-03
## 2623   3.80e-03  -1.12e-03  -1.48e-04   1.61e-04   1.91e-04   4.40e-04  -1.55e-04
## 2624  -1.17e-02  -3.05e-02  -2.71e-02  -2.98e-02   7.54e-03  -3.12e-02   1.24e-02
## 2625   1.66e-02   3.64e-04  -1.03e-02  -9.84e-03  -9.70e-03  -7.77e-03  -1.47e-02
## 2626   7.32e-04  -9.65e-04   4.56e-03  -1.80e-03   4.12e-03  -2.34e-03   4.00e-03
## 2627  -8.42e-03   3.61e-03  -2.16e-03   1.66e-03   1.28e-02  -7.15e-04   6.81e-03
## 2628  -3.29e-03   6.02e-03  -3.12e-03   4.27e-03  -3.09e-03   5.00e-03   4.40e-03
## 2629   7.56e-04  -2.90e-03  -1.07e-03  -2.74e-03   5.06e-03  -3.18e-03  -2.78e-03
## 2630   1.30e-02   1.21e-02  -7.25e-03  -5.21e-03  -1.02e-02   2.95e-02   1.85e-02
## 2631  -8.45e-04   2.58e-04  -9.96e-06  -3.83e-05  -4.12e-05  -2.92e-05   3.95e-05
## 2632   2.09e-04  -1.87e-03  -5.07e-04  -1.74e-03  -2.53e-04  -1.40e-03  -1.06e-04
## 2633  -3.68e-06  -4.16e-04   1.17e-03  -6.09e-04  -9.27e-04  -6.85e-04   1.07e-03
## 2634   4.67e-02   2.47e-02   2.08e-02  -3.24e-02   1.54e-02   2.92e-02   4.10e-03
## 2635  -3.91e-02  -3.30e-02  -1.53e-02   4.20e-02  -7.43e-03  -1.58e-02  -1.38e-03
## 2636  -1.67e-02  -2.12e-02  -2.10e-02   9.34e-03  -2.00e-02  -2.62e-02   2.50e-02
## 2637  -2.52e-03   2.14e-03  -1.45e-02  -1.30e-02   3.77e-03  -1.54e-02  -2.58e-04
## 2638   3.74e-02  -2.67e-04  -2.74e-02  -1.84e-02   2.54e-02  -1.63e-02  -4.18e-02
## 2639  -1.22e-02  -3.88e-03  -1.57e-02  -8.86e-03  -1.47e-02  -7.74e-03  -2.64e-02
## 2640  -5.89e-03   6.01e-04   3.61e-02  -1.55e-02   4.22e-02  -1.61e-02  -1.26e-02
## 2641  -9.01e-05  -6.33e-03  -1.67e-03  -1.97e-03  -1.85e-03  -1.91e-03  -2.72e-03
## 2642  -1.30e-03   1.42e-03  -1.06e-03   1.74e-03  -7.17e-04  -6.67e-04  -7.50e-04
## 2643  -1.62e-04  -8.59e-03  -2.38e-03  -4.06e-03  -3.49e-03  -3.33e-03  -3.14e-03
## 2644   1.23e-02   9.34e-03   6.40e-03  -1.35e-02  -1.58e-02   6.38e-03   2.08e-03
## 2645  -1.50e-03   5.00e-04  -4.08e-05  -1.21e-04  -1.22e-04  -2.60e-05   9.99e-05
## 2646   1.95e-02  -1.71e-02   1.26e-02  -3.42e-02  -3.22e-02   9.67e-03   1.56e-02
## 2647   2.08e-02   3.86e-04  -1.23e-02  -5.39e-03  -1.63e-02  -9.20e-03   1.06e-02
## 2648  -5.75e-03   2.85e-02   5.96e-03   1.00e-02   8.92e-03   1.08e-02   1.17e-02
## 2649   6.99e-03  -7.57e-03  -8.75e-03   2.12e-03  -1.01e-02   2.00e-03   4.07e-03
## 2650   1.04e-02   2.88e-03  -3.41e-03  -4.60e-04  -8.13e-03  -3.68e-03   8.15e-03
## 2651  -1.70e-02   5.51e-03   2.36e-02  -5.32e-03  -7.99e-03  -5.57e-03   2.01e-02
## 2652  -3.85e-03   7.96e-03   4.45e-03   6.38e-03   5.27e-03  -5.78e-03   5.36e-03
## 2653   1.68e-02   1.57e-02   8.18e-03  -2.03e-02   7.09e-03   8.93e-03   8.24e-03
## 2654  -3.44e-04  -6.96e-04  -5.34e-05   4.06e-04   2.32e-04   5.95e-04   1.08e-04
## 2655  -1.17e-03  -1.27e-03  -1.70e-03   8.18e-04   5.87e-04   5.19e-04   9.10e-04
## 2656  -4.85e-03   1.20e-02   7.09e-03  -1.50e-02   3.85e-03   8.44e-03   2.15e-03
## 2657   2.88e-04   6.37e-04   6.77e-04   6.21e-04   8.70e-04   6.54e-04  -1.01e-03
## 2658  -6.21e-03  -2.09e-03  -6.58e-03  -4.14e-03   2.39e-02  -1.21e-02   1.85e-02
## 2659   2.22e-03  -5.05e-03  -4.52e-03  -9.43e-03  -4.28e-03   1.08e-02  -2.44e-03
## 2660   1.70e-03  -2.20e-03  -3.23e-03  -6.87e-03   8.54e-03   7.56e-03  -5.96e-03
## 2661  -1.55e-02  -1.51e-02  -1.29e-02  -1.65e-02   1.39e-02  -1.71e-02   1.80e-02
## 2662   2.51e-03  -2.82e-03   1.58e-03  -3.48e-03   1.22e-03   1.09e-03   1.27e-03
## 2663  -2.50e-04   1.57e-03   1.12e-04   7.57e-04  -1.60e-04   4.33e-04  -1.75e-04
## 2664  -1.12e-03   2.87e-02   6.76e-03   7.72e-03   9.11e-03   8.50e-03   9.86e-03
## 2665  -1.69e-02   1.83e-02   2.56e-02   3.35e-02  -1.17e-02  -9.18e-03  -2.16e-02
## 2666   3.69e-03  -4.97e-03   1.22e-02  -7.84e-03   1.10e-02  -8.98e-03  -6.34e-03
## 2667   2.15e-03  -3.46e-03  -3.94e-03   8.65e-03   1.23e-02  -1.03e-02  -3.04e-03
## 2668  -6.20e-04  -1.57e-03  -2.65e-04  -2.01e-04  -1.31e-04  -9.04e-05  -5.03e-04
## 2669  -1.36e-02   1.28e-02  -1.13e-02   3.35e-02  -1.54e-02  -9.72e-03   1.41e-02
```

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## 2670 -8.59e-04 -7.38e-03 -2.31e-03 -3.72e-03 -2.92e-03 -4.57e-03 -4.05e-03
## 2671  4.17e-04  3.92e-04 -3.26e-05 -1.93e-04 -1.25e-04 -1.96e-04 -6.63e-05
## 2672 -8.99e-04 -1.93e-03 -2.51e-04 -1.36e-04 -2.36e-04 -1.34e-04 -5.29e-04
## 2673  1.57e-02  3.13e-04 -9.74e-03 -7.21e-03 -7.37e-03 -6.28e-03 -1.37e-02
## 2674 -7.32e-04 -1.71e-03 -3.01e-04 -2.27e-04 -2.23e-04 -1.79e-04 -5.13e-04
## 2675 -1.40e-02 -3.13e-04 -6.80e-03 -4.14e-03 -5.51e-03 -2.60e-03 -1.12e-02
## 2676  9.65e-03 -5.43e-03  4.13e-03  3.04e-03  2.44e-03  1.80e-03  5.21e-03
## 2677 -5.00e-05 -2.07e-04  5.43e-04 -3.42e-04 -4.40e-04 -3.71e-04  4.77e-04
## 2678 -3.64e-02 -4.39e-02 -1.02e-02 -1.54e-02 -7.34e-03 -1.20e-02 -4.10e-03
## 2679 -1.78e-02  9.89e-03 -9.49e-03  3.00e-02 -6.15e-03 -6.44e-03 -1.13e-02
## 2680  6.24e-04 -1.39e-03 -1.87e-03  7.18e-03  1.02e-02 -5.52e-03 -9.52e-04
## 2681 -1.06e-06  4.32e-06  3.66e-06  1.10e-05  5.99e-06 -3.74e-05  1.18e-05
## 2682 -1.28e-02  1.78e-03 -9.91e-03 -4.16e-03  2.60e-02 -2.35e-03 -1.39e-02
## 2683 -1.67e-02 -1.14e-02  1.30e-02  1.20e-02 -1.51e-02 -2.21e-02  2.44e-02
## 2684 -1.60e-02  5.13e-03  2.41e-02 -4.37e-03 -5.35e-03 -2.96e-03 -1.10e-02
## 2685 -5.04e-05 -2.20e-03 -3.14e-04 -1.82e-03 -6.49e-05 -1.48e-03  1.84e-04
## 2686  1.53e-02  5.94e-04 -7.93e-03 -2.92e-03 -8.36e-03 -2.73e-03  1.76e-02
## 2687 -4.98e-03  1.64e-02  6.14e-03 -1.85e-02  8.44e-03  1.41e-02  9.75e-03
## 2688 -5.25e-03  1.24e-02  6.76e-03 -1.43e-02  3.55e-03  7.45e-03  1.18e-03
## 2689  3.26e-03  2.37e-03 -1.63e-04 -5.06e-04 -4.28e-04 -4.50e-04  5.28e-04
## 2690 -4.57e-04 -4.69e-03 -1.01e-03 -1.18e-03 -1.24e-03 -1.65e-03 -1.69e-03
## 2691  1.61e-03  5.10e-04 -1.42e-03 -1.45e-03 -1.48e-03 -1.43e-03  1.69e-03
## 2692  6.14e-04  6.33e-04 -3.03e-03  1.42e-03  2.15e-03  1.76e-03 -2.33e-03
## 2693 -5.06e-03 -4.87e-03  3.59e-03  3.13e-03  2.23e-03  2.15e-03  4.85e-03
## 2694  5.98e-05 -6.44e-03 -1.88e-03 -2.26e-03 -1.99e-03 -2.18e-03 -2.63e-03
## 2695  1.21e-02 -1.35e-02 -2.01e-02  9.76e-03  1.58e-02 -3.61e-02 -2.20e-02
## 2696 -2.88e-04  8.24e-03  8.70e-03  9.22e-03  6.50e-03  6.13e-03  4.73e-03
## 2697  1.22e-03  1.36e-03 -1.24e-05 -2.25e-05  1.91e-04  4.09e-04  4.17e-04
## 2698 -4.40e-03  2.47e-02  6.36e-03  1.01e-02  5.01e-03  8.68e-03  2.37e-03
## 2699 -3.28e-02 -3.85e-02 -8.58e-03 -1.09e-02 -4.23e-03 -9.57e-03 -3.92e-03
## 2700 -3.33e-03  6.38e-03  3.41e-03  4.21e-03 -3.26e-03  3.93e-03  4.02e-03
## 2701 -2.77e-03  1.04e-03 -2.19e-04 -3.11e-04 -3.23e-04 -4.23e-05  1.93e-04
## 2702  1.60e-02  5.27e-03 -9.27e-03 -9.37e-03  2.71e-02 -7.85e-03 -1.74e-02
## 2703  1.08e-02  1.71e-02 -4.48e-03 -2.02e-03  1.91e-02  2.57e-02  8.78e-03
## 2704 -1.06e-02  8.58e-03 -5.56e-03  2.62e-02 -8.49e-03 -3.30e-03  1.14e-02
## 2705 -2.43e-03  2.06e-04 -2.06e-02  4.95e-03 -1.83e-02  7.23e-03 -1.65e-02
## 2706 -9.66e-04 -2.12e-03 -3.43e-04 -1.43e-04 -1.19e-04 -1.90e-04 -5.93e-04
## 2707  2.89e-02 -4.77e-03 -1.96e-02 -1.47e-02 -2.61e-02 -1.97e-02  7.80e-03
## 2708  3.95e-03  4.34e-04  8.27e-03 -1.67e-02  6.99e-03  9.33e-03  3.91e-03
## 2709 -4.89e-05 -8.97e-03 -2.63e-03 -4.40e-03 -3.44e-03 -3.43e-03 -3.11e-03
## 2710  2.70e-03 -9.66e-04  1.15e-02  1.09e-02 -4.24e-03 -6.65e-03  1.74e-02
## 2711  9.77e-03 -6.13e-03 -1.45e-03 -3.57e-03 -2.70e-03 -4.00e-03 -2.94e-03
## 2712 -6.61e-03  2.24e-02  7.33e-03  1.01e-02  5.26e-03  7.01e-03  2.97e-03
## 2713 -4.62e-03 -5.14e-03  2.55e-03  2.15e-03  1.64e-03  1.49e-03  3.75e-03
## 2714  3.04e-04  1.36e-03  1.52e-03  1.38e-03  1.72e-03  1.31e-03 -1.47e-03
## 2715 -1.03e-03  1.20e-03  1.17e-03 -8.54e-04  1.42e-03 -7.38e-04 -9.21e-04
## 2716 -3.54e-02 -4.76e-02 -1.37e-02 -1.82e-02 -9.56e-03 -1.34e-02 -5.21e-03
## 2717  1.48e-02  1.41e-04 -6.86e-03 -2.42e-03 -8.41e-03 -2.71e-03 -1.74e-02
## 2718  1.04e-04  1.27e-04  3.16e-06 -5.99e-05 -3.74e-05 -7.50e-05 -1.26e-05
## 2719 -9.52e-04 -4.65e-03 -1.04e-03 -1.54e-03 -1.33e-03 -1.83e-03 -1.97e-03
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## 2720   1.58e-03   1.81e-03  -1.80e-05   1.82e-05   1.60e-04   5.00e-04   5.07e-04
## 2721   4.08e-03   1.07e-02   1.02e-02   1.21e-02   8.87e-03   1.01e-02   6.81e-03
## 2722  -1.56e-04  -2.34e-04   7.68e-06   1.11e-04   6.73e-05   1.73e-04   4.01e-05
## 2723  -1.06e-02   2.71e-03  -3.07e-03   6.33e-04  -7.11e-03  -2.83e-03   9.00e-03
## 2724   1.31e-03  -5.85e-03  -1.38e-02  -1.45e-02  -9.95e-03   1.39e-02  -1.01e-02
## 2725  -1.13e-02   1.24e-03  -4.04e-03  -1.63e-03  -5.68e-03  -2.70e-03  -1.42e-02
## 2726   4.68e-03  -6.27e-03  -8.83e-03   1.13e-02   1.80e-02  -1.38e-02  -3.42e-03
## 2727   2.31e-03  -5.24e-03  -3.89e-03  -8.30e-03  -4.50e-03   7.39e-03  -3.69e-03
## 2728  -2.23e-04  -5.32e-03  -9.73e-04  -1.16e-03  -1.53e-03  -1.43e-03  -1.85e-03
## 2729  -7.29e-03   3.23e-02   7.46e-03   8.69e-03   8.08e-03   1.06e-02  -3.36e-02
## 2730  -5.12e-04  -5.79e-03  -1.53e-03  -2.01e-03  -1.81e-03  -2.20e-03  -2.35e-03
## 2731   5.46e-03   6.39e-03   1.68e-02   8.81e-03   1.05e-02   3.37e-03   1.26e-02
## 2732   2.42e-03   2.86e-03  -9.46e-03   1.07e-02   1.43e-02   5.61e-03   1.82e-02
## 2733   1.63e-03  -1.53e-03   1.23e-02   8.98e-03  -2.83e-03  -7.45e-03  -6.94e-05
## 2734  -1.82e-03   2.80e-03   2.08e-03  -1.68e-03  -1.35e-03   3.59e-03  -1.65e-03
## 2735   1.00e-03   6.76e-04   1.20e-02   1.00e-02   1.37e-02  -7.68e-03  -1.11e-03
## 2736   8.49e-03  -4.77e-02  -1.28e-02  -2.01e-02  -9.33e-03  -1.67e-02  -5.29e-03
## 2737   1.06e-02   1.59e-03  -3.68e-03   6.02e-04  -7.35e-03  -2.07e-03   8.90e-03
## 2738  -6.63e-03  -4.56e-03   4.93e-03   3.22e-03   6.16e-03   3.91e-03  -4.46e-03
## 2739  -1.16e-03  -6.58e-04  -1.51e-04  -3.89e-04  -2.86e-05  -2.19e-04   8.52e-05
## 2740  -1.58e-02  -3.15e-03   1.30e-02   1.24e-02  -4.40e-03  -8.32e-03   4.97e-04
## 2741  -8.42e-03   5.51e-04  -3.02e-03   4.42e-04  -4.11e-03   9.49e-05   1.21e-02
## 2742  -1.43e-04  -1.47e-04   2.05e-05   9.69e-05   5.89e-05   1.07e-04   3.84e-05
## 2743  -3.55e-04  -7.88e-03  -2.28e-03  -3.97e-03  -3.18e-03  -3.31e-03  -3.03e-03
## 2744  -4.70e-03  -7.77e-03  -7.84e-03  -5.02e-03  -1.43e-02  -1.12e-02   2.05e-02
## 2745   1.12e-02   1.80e-02   7.93e-03   9.30e-03  -9.70e-03   1.15e-02  -9.15e-03
## 2746  -3.46e-04  -5.25e-03  -1.55e-03  -1.84e-03  -1.23e-03  -1.73e-04  -1.18e-03
## 2747   1.18e-03   1.05e-02   1.12e-02   1.11e-02   7.60e-03   7.88e-03   8.25e-03
## 2748  -3.41e-03   2.08e-02  -3.06e-02   3.65e-02  -2.57e-02   4.90e-02  -1.54e-02
## 2749  -1.10e-02   1.58e-03  -2.88e-03  -1.00e-03  -7.29e-03  -3.22e-03   8.37e-03
## 2750   5.28e-03  -1.03e-02   7.30e-03  -1.39e-02  -1.56e-02  -1.48e-02   6.16e-03
## 2751  -1.06e-03  -2.23e-03  -4.30e-04  -7.72e-04  -7.01e-04  -1.33e-03  -1.04e-03
## 2752   4.40e-04   2.72e-02   6.98e-03   8.35e-03   8.23e-03   8.59e-03   1.03e-02
## 2753   3.97e-04  -2.42e-04   3.35e-03  -1.43e-03  -1.64e-03   2.51e-03   2.68e-03
## 2754  -1.86e-04  -6.30e-03  -1.74e-03  -2.18e-03  -1.92e-03  -2.20e-03  -2.51e-03
## 2755  -5.83e-05  -6.21e-03  -1.74e-03  -2.09e-03  -1.67e-03  -1.85e-03  -2.70e-03
## 2756  -1.37e-03  -3.48e-03  -5.86e-04  -1.05e-03  -6.58e-04  -4.38e-04  -8.27e-04
## 2757  -2.02e-03  -1.19e-02  -1.04e-02  -7.35e-03  -1.20e-02  -7.58e-03  -1.68e-02
## 2758  -1.50e-02  -6.42e-03   1.15e-02   1.32e-02  -6.69e-03  -1.03e-02  -1.44e-03
## 2759  -5.77e-03  -1.77e-03  -1.73e-03  -3.15e-03   3.70e-03   3.11e-03   3.55e-03
## 2760   5.26e-03   3.11e-04  -4.38e-03  -3.85e-03  -5.40e-03  -4.84e-03   8.25e-04
## 2761  -2.17e-02   1.05e-03   1.43e-02   1.01e-02   1.07e-02   8.30e-03   1.83e-02
## 2762   1.18e-03  -5.16e-03  -1.58e-03  -4.02e-03  -1.48e-03  -3.55e-03  -5.66e-04
## 2763   6.33e-03  -6.05e-03   1.36e-02   1.07e-02  -1.36e-02  -1.75e-02   1.35e-02
## 2764  -6.19e-04  -2.97e-03  -6.36e-04  -2.58e-04  -3.60e-04   1.01e-04  -8.20e-04
## 2765   5.05e-03   3.18e-02   7.09e-03   9.72e-03   9.18e-03   1.13e-02   1.44e-02
## 2766  -1.25e-02   5.25e-04  -7.48e-03  -2.27e-03  -1.12e-02  -4.59e-03   1.05e-02
## 2767  -4.45e-03   1.04e-02   5.90e-03  -1.90e-02  -1.97e-02   9.85e-03   9.55e-03
## 2768  -4.85e-03  -5.57e-03   3.37e-03   2.44e-03  -7.55e-03   3.08e-03   7.64e-03
## 2769   1.12e-03   5.08e-03   8.17e-03   9.24e-03  -1.73e-02   7.20e-03   6.74e-03
```

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## 2770 -3.33e-03  1.37e-02  6.17e-03  1.02e-02  5.30e-03 -1.69e-02  3.29e-03
## 2771 -3.47e-02 -3.79e-02 -3.58e-02  3.72e-02 -2.70e-02  4.87e-02 -1.29e-02
## 2772  2.08e-02  4.42e-03  2.47e-02 -6.82e-03 -8.76e-03 -3.20e-03 -1.32e-02
## 2773 -4.69e-04 -5.70e-03 -1.51e-03 -1.97e-03 -1.71e-03 -2.07e-03 -2.40e-03
## 2774 -1.93e-02 -9.40e-04 -2.35e-02  1.36e-02  1.24e-02  1.43e-02  1.90e-02
## 2775 -1.25e-02  6.92e-04 -6.35e-03 -1.97e-03 -7.01e-03 -3.58e-03  1.65e-02
## 2776  1.39e-02 -6.59e-03  4.39e-02  3.60e-02  4.19e-02  3.09e-02  5.63e-02
## 2777  5.05e-03 -7.17e-03 -2.62e-02  8.08e-03  1.16e-02 -3.11e-02  1.52e-02
## 2778  5.13e-03  3.02e-03  4.07e-03 -4.25e-03 -3.15e-03 -2.64e-03 -3.29e-03
## 2779  7.74e-03 -9.81e-03 -1.35e-02 -2.11e-02  1.30e-02  8.97e-03  1.85e-02
## 2780  1.25e-02  1.93e-02 -6.56e-03 -4.18e-03  2.14e-02  2.79e-02  9.49e-03
## 2781  1.20e-02 -1.06e-02 -1.67e-02  1.42e-02 -9.04e-03 -1.28e-02 -2.60e-03
## 2782 -2.30e-03  4.70e-03 -4.70e-03 -3.79e-03  2.76e-03  5.00e-03  1.47e-03
## 2783 -2.85e-03  9.11e-04 -3.00e-04 -4.27e-04 -2.73e-04 -6.21e-05 -9.30e-05
## 2784  6.40e-04 -7.99e-04 -1.18e-03 -2.83e-03  3.89e-03  3.87e-03  3.95e-03
## 2785  1.75e-02 -4.27e-03  1.50e-02  6.67e-03 -3.08e-02  9.36e-03 -2.40e-02
## 2786 -1.40e-02  2.66e-02  1.84e-02  2.86e-02 -5.39e-02  1.98e-02  6.60e-03
## 2787 -1.44e-03  1.97e-03  1.55e-03 -1.37e-03 -9.48e-04  2.44e-03 -1.16e-03
## 2788 -4.63e-03  1.63e-02 -1.49e-02  8.83e-03  3.97e-03  7.01e-03  1.43e-03
## 2789  2.50e-02 -1.55e-02  1.13e-02 -4.25e-02  8.00e-03  8.15e-03  1.48e-02
## 2790 -3.63e-03  6.02e-03 -8.24e-03 -7.84e-03  3.01e-03  5.47e-03  5.54e-04
## 2791 -1.17e-02 -1.74e-03 -7.13e-03 -2.94e-03 -4.55e-03 -6.64e-04 -9.35e-03
## 2792  3.91e-03 -3.24e-03  1.53e-02 -1.67e-02  1.23e-02  8.27e-03 -1.38e-02
## 2793 -1.02e-02  5.11e-03 -2.18e-03  9.28e-04  1.37e-02 -2.95e-03  6.40e-03
## 2794  1.35e-02  6.45e-03 -6.15e-03 -1.67e-03  1.81e-02 -7.10e-03  8.31e-03
## 2795  9.41e-04  1.38e-03  6.72e-05  8.16e-05  2.14e-04  2.80e-04  4.50e-04
## 2796 -9.68e-04 -3.98e-03 -5.83e-04 -8.28e-04 -1.19e-03 -1.70e-03 -1.34e-03
## 2797  1.24e-03 -1.93e-03 -2.73e-03  9.58e-03  1.27e-02 -7.45e-03 -6.70e-04
## 2798 -1.15e-02  1.31e-02 -1.43e-02 -5.89e-03  1.83e-02  3.36e-02  8.85e-03
## 2799 -4.54e-04 -5.22e-04 -3.47e-05 -1.41e-05  1.43e-05  1.55e-04 -5.50e-05
## 2800 -3.31e-03 -2.42e-02 -2.05e-02 -2.77e-02 -2.33e-02 -2.64e-02 -1.69e-02
## 2801  5.76e-03 -5.22e-03  4.53e-03  2.42e-03 -6.94e-03  3.72e-03 -3.47e-03
## 2802  2.60e-03  3.50e-03 -2.64e-03 -2.97e-03 -2.03e-03  4.93e-03 -2.43e-03
## 2803 -2.28e-04 -2.69e-03 -5.15e-04 -8.55e-05 -3.32e-04  2.46e-04 -5.06e-04
## 2804 -2.01e-02 -2.10e-02  9.64e-03 -4.32e-02  1.93e-02  1.34e-02 -1.86e-02
## 2805 -8.61e-04  1.44e-03 -1.44e-02  8.22e-03 -1.74e-02  5.46e-03  5.63e-03
## 2806  9.41e-04 -1.10e-03  1.38e-02  9.70e-03 -3.54e-03 -1.02e-02 -5.44e-04
## 2807  2.91e-04  2.71e-04 -2.81e-05 -1.62e-04 -8.51e-05 -1.61e-04 -4.00e-05
## 2808 -5.32e-03  7.13e-03  1.39e-02 -3.74e-02 -5.40e-02  3.40e-02  5.74e-03
## 2809 -1.75e-03  5.36e-04 -2.68e-05 -7.39e-05 -7.07e-05 -2.59e-05  1.14e-04
## 2810  7.59e-04  1.21e-03  2.07e-03  1.70e-03 -3.91e-03  1.84e-03  3.51e-03
## 2811  1.20e-02  1.70e-02 -7.19e-03 -4.93e-03  2.46e-02  2.95e-02  1.79e-02
## 2812  5.27e-05 -5.30e-04 -4.64e-04 -1.98e-03 -3.25e-04  5.18e-03  1.02e-04
## 2813  2.28e-04  2.07e-04 -6.05e-06 -8.08e-05 -7.31e-05 -9.84e-05  3.71e-06
## 2814  2.87e-02  1.47e-02 -2.02e-02  3.68e-02 -2.60e-02 -1.78e-02  1.71e-02
## 2815 -2.78e-03  8.50e-03 -1.58e-02 -1.42e-02  3.54e-03  8.45e-03  1.00e-04
## 2816  1.32e-03 -6.36e-04 -1.03e-04 -1.76e-04 -1.31e-04 -2.47e-04 -3.05e-04
## 2817 -1.12e-02 -7.32e-04 -4.76e-03 -1.53e-03 -3.74e-03  3.87e-04 -8.01e-03
## 2818 -4.72e-02 -3.68e-03  4.04e-02  3.83e-02  4.47e-02  4.57e-02 -3.13e-02
## 2819 -6.63e-04 -7.56e-04 -6.67e-05 -2.41e-05  9.72e-05  1.94e-04 -2.36e-05
```

```
## 2820   1.68e-03   1.12e-03  -3.68e-05  -3.42e-04  -2.90e-04  -2.21e-04   1.07e-04
## 2821   1.82e-02  -9.65e-03  -3.05e-03  -5.80e-03  -4.33e-03  -5.48e-03  -3.95e-03
## 2822  -5.48e-03   2.14e-02   6.56e-03   1.07e-02   6.43e-03   9.64e-03   4.01e-03
## 2823  -4.62e-03   2.19e-02  -2.40e-02   9.15e-03   3.74e-03   9.02e-03   2.68e-03
## 2824  -3.28e-04  -1.99e-03  -4.97e-04   5.41e-04   6.09e-04   1.72e-03   1.49e-04
## 2825   1.60e-02  -1.21e-03  -9.08e-03  -4.74e-03  -6.59e-03  -2.67e-03  -1.18e-02
## 2826   3.33e-03  -4.19e-03   2.78e-03   2.00e-03   3.45e-03  -5.72e-03  -2.38e-03
## 2827  -9.97e-03   7.51e-03   1.80e-02  -9.03e-04   1.83e-02  -1.69e-03   1.41e-02
## 2828   6.08e-03   6.52e-03  -5.84e-03   6.10e-03   5.35e-03  -6.25e-03  -8.32e-03
## 2829   3.42e-03  -3.75e-03   2.34e-03   2.09e-03   3.33e-03  -5.17e-03  -2.21e-03
## 2830  -2.64e-04  -4.01e-04  -1.94e-05   2.70e-06  -3.90e-05  -7.56e-05  -7.56e-05
## 2831   1.46e-04   1.29e-04  -1.32e-04  -1.51e-04   1.25e-04  -2.04e-04   4.72e-05
## 2832   6.31e-03   1.81e-05  -1.26e-02   9.68e-03   1.73e-02   9.81e-03  -8.84e-03
## 2833   1.76e-04   2.72e-02   7.17e-03   8.50e-03   8.44e-03   8.72e-03   1.06e-02
## 2834  -2.02e-05  -1.99e-05   8.29e-08   7.48e-06   4.91e-06   1.12e-05  -4.78e-07
## 2835   8.99e-04   9.15e-04  -5.91e-05  -4.27e-04  -2.55e-04  -4.49e-04   1.30e-05
## 2836  -1.02e-02  -1.49e-02  -1.11e-02  -1.20e-02   7.91e-03  -1.59e-02   9.17e-03
## 2837   3.91e-03   1.02e-02   9.89e-03   1.16e-02   8.97e-03   9.85e-03   6.89e-03
## 2838   6.27e-03  -1.21e-02   6.60e-03  -1.72e-02  -1.59e-02  -1.64e-02   1.21e-02
## 2839   1.20e-03   8.55e-04  -1.85e-04  -5.46e-04  -2.75e-04  -4.17e-04  -1.17e-04
## 2840  -9.75e-03   7.82e-03  -2.53e-03   2.25e-02  -5.91e-03  -1.38e-03   1.01e-02
## 2841  -1.66e-02  -2.67e-02  -2.95e-02   8.98e-03  -2.76e-02  -3.38e-02   2.95e-02
## 2842  -6.26e-03   1.72e-02   6.55e-03  -2.73e-02   8.11e-03   1.18e-02   1.10e-02
## 2843   1.23e-02  -2.45e-03  -2.03e-02   1.13e-02   1.05e-02   6.36e-03   1.29e-02
## 2844  -3.88e-03   7.28e-03   5.21e-03  -7.18e-03  -9.33e-03   7.63e-03   3.54e-03
## 2845  -6.62e-04  -5.62e-03  -1.32e-03  -1.76e-03  -1.81e-03  -2.12e-03  -2.31e-03
## 2846   2.77e-03  -1.45e-03   1.86e-02   9.94e-03   1.91e-02  -2.37e-02  -6.31e-03
## 2847  -1.80e-03  -1.47e-03   1.23e-03   1.25e-03   1.02e-03   8.18e-04   1.23e-03
## 2848   4.62e-03  -2.24e-03   2.67e-03   2.68e-03   1.76e-03   1.43e-03   2.81e-03
## 2849   2.67e-03   3.69e-03   1.32e-02   1.03e-02  -1.01e-02   9.04e-03   1.27e-02
## 2850   1.66e-02   1.15e-02   6.59e-03  -1.68e-02  -1.63e-02   1.21e-02  -1.89e-02
## 2851   6.13e-04   5.75e-04  -4.03e-05  -2.92e-04  -1.79e-04  -2.99e-04  -6.39e-05
## 2852   2.86e-02   3.26e-02   6.99e-03   8.79e-03   3.85e-03   8.15e-03   3.02e-03
## 2853   8.58e-04  -1.38e-03   8.94e-04  -1.56e-03  -1.25e-03   6.69e-04  -1.19e-03
## 2854  -1.26e-03  -7.81e-03  -1.92e-03  -3.53e-03  -2.88e-03  -3.63e-03  -2.68e-03
## 2855  -1.42e-03  -1.47e-03   1.22e-03   1.55e-03   9.32e-04   1.19e-03   1.54e-03
## 2856   5.63e-04   3.55e-03   2.04e-02   9.35e-03  -9.66e-03   9.32e-03  -4.59e-03
## 2857   1.21e-02   2.00e-03  -5.70e-03  -3.47e-03  -7.69e-03  -4.93e-03  -1.75e-02
## 2858   1.70e-02  -3.46e-04  -1.00e-02  -7.37e-03  -8.22e-03  -5.51e-03  -1.45e-02
## 2859  -4.57e-03   2.59e-02   6.71e-03   1.06e-02   5.20e-03   8.99e-03   2.90e-03
## 2860  -3.22e-03   8.76e-03  -2.19e-02   7.23e-03   6.21e-03  -2.13e-02  -2.58e-02
## 2861   2.78e-04  -5.91e-04  -5.65e-04  -1.17e-03  -3.01e-04   3.30e-03  -9.57e-05
## 2862  -2.22e-02  -8.93e-03  -3.23e-02   7.94e-03   1.40e-02   9.76e-03   2.89e-02
## 2863  -8.13e-04  -2.04e-03  -2.83e-04  -1.47e-04  -1.78e-04  -3.88e-05  -5.95e-04
## 2864  -2.26e-02  -5.79e-03  -2.33e-02   8.47e-03   1.41e-02   9.82e-03  -2.26e-02
## 2865   1.17e-02   2.52e-03  -4.90e-03  -1.36e-03  -8.89e-03  -4.90e-03   8.56e-03
## 2866   1.60e-03  -4.01e-04   1.18e-02   1.12e-02  -9.43e-04  -5.15e-03   1.60e-03
## 2867  -1.16e-02  -7.17e-05  -8.17e-03  -3.27e-03  -8.89e-03  -3.88e-03   1.68e-02
## 2868   2.04e-04  -5.08e-05  -1.90e-06   1.89e-05   8.22e-06   1.59e-05  -5.77e-06
## 2869  -1.12e-02   5.42e-04  -1.03e-02  -3.11e-03  -1.41e-02  -6.58e-03   1.15e-02
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## 2870   2.09e-03   1.41e-03  -1.05e-04  -4.77e-04  -3.58e-04  -3.02e-04   2.11e-04
## 2871  -1.17e-02  -1.14e-03  -1.04e-02  -5.50e-03  -1.17e-02  -4.89e-03  -2.23e-02
## 2872  -1.11e-03  -3.94e-03  -8.83e-04  -1.30e-03  -8.35e-04  -4.28e-04  -1.05e-03
## 2873  -5.85e-03  -3.14e-03   1.66e-02  -2.14e-02  -3.42e-02  -1.93e-02   1.18e-02
## 2874  -2.46e-02  -6.55e-03   1.50e-02   8.14e-03  -2.64e-02   1.06e-02  -2.04e-02
## 2875  -2.25e-03   3.88e-04   1.59e-02  -1.83e-02   1.97e-02  -1.69e-02   1.17e-02
## 2876  -2.37e-02  -2.31e-03   1.28e-02   7.54e-03   1.56e-02   9.66e-03   2.98e-02
## 2877  -3.84e-03   4.88e-03   4.78e-03  -6.75e-03   5.62e-03  -6.69e-03   5.62e-03
## 2878  -8.80e-03   3.03e-02   7.10e-03   6.74e-03   1.15e-02   1.19e-02  -2.45e-02
## 2879  -2.37e-03   7.43e-04  -1.77e-04  -3.06e-04  -1.89e-04  -5.26e-05  -4.97e-05
## 2880  -2.30e-03  -2.83e-03   1.60e-03   2.19e-03   1.43e-03   1.77e-03   2.39e-03
## 2881   4.10e-04  -3.13e-03  -8.00e-04  -2.74e-03  -3.85e-04  -1.94e-03   9.67e-06
## 2882  -1.02e-02  -7.88e-03   9.69e-03  -7.57e-03  -3.83e-03  -7.15e-03  -2.22e-03
## 2883   8.11e-03  -4.21e-02  -1.09e-02  -1.43e-02  -6.69e-03  -1.36e-02  -5.58e-03
## 2884   1.40e-02  -6.31e-04  -8.57e-03  -5.33e-03  -5.57e-03  -3.00e-03  -1.20e-02
## 2885  -5.15e-04  -6.98e-04  -2.23e-03  -2.50e-03  -2.41e-03   3.03e-03  -3.25e-03
## 2886   4.25e-02  -1.05e-02  -3.19e-02  -2.46e-02  -2.26e-02  -1.08e-02  -2.56e-02
## 2887   1.21e-02   1.74e-03  -5.64e-03  -3.40e-03  -7.72e-03  -4.99e-03  -1.77e-02
## 2888   5.11e-05  -6.77e-03  -1.94e-03  -2.33e-03  -2.03e-03  -2.23e-03  -2.63e-03
## 2889  -4.54e-02  -2.75e-02   4.33e-02   4.22e-02  -1.01e-02  -2.02e-02   1.09e-03
## 2890   2.92e-02  -2.48e-02  -4.06e-02   3.33e-02   4.85e-02   3.68e-02  -2.28e-02
## 2891  -1.43e-03  -2.46e-03  -3.65e-04  -6.83e-04  -4.70e-04  -6.06e-04  -7.08e-04
## 2892  -9.62e-04  -4.61e-03  -1.14e-03  -1.55e-03  -1.01e-03  -3.82e-04  -1.09e-03
## 2893   1.43e-03  -5.02e-04  -3.71e-05   4.75e-05   1.01e-04   1.42e-04  -7.00e-05
## 2894   5.42e-03  -1.30e-02  -1.76e-02  -1.58e-02  -1.07e-02  -8.22e-03  -9.19e-03
## 2895   1.43e-03   3.14e-03   3.18e-03   2.96e-03   2.78e-03   2.48e-03   5.28e-03
## 2896   1.46e-02  -1.15e-03  -8.46e-03  -5.45e-03  -5.86e-03  -2.32e-03  -1.20e-02
## 2897   1.62e-04   1.41e-04  -5.00e-04  -1.69e-03   4.28e-03   4.22e-03  -1.62e-03
## 2898  -2.05e-02  -1.29e-02   1.29e-02  -4.01e-02   8.53e-03   6.72e-03   1.34e-02
## 2899   2.93e-03  -2.71e-03  -1.26e-02   1.05e-02   7.02e-03  -1.58e-02   5.91e-03
## 2900   2.64e-02  -4.46e-03  -1.94e-02  -1.67e-02  -1.55e-02  -1.13e-02  -2.09e-02
## 2901  -1.36e-02  -6.18e-03   1.16e-02   1.39e-02  -1.37e-02  -1.62e-02   1.63e-02
## 2902  -3.92e-03   1.50e-02   7.20e-03   1.06e-02   4.75e-03  -1.90e-02   4.44e-03
## 2903   1.86e-02   2.56e-04  -9.90e-03  -4.19e-03  -1.45e-02  -7.19e-03   1.04e-02
## 2904  -1.37e-02   1.14e-02  -8.20e-03   3.18e-02  -1.27e-02  -6.95e-03   1.35e-02
## 2905  -1.35e-03   2.29e-03  -1.79e-03   2.51e-03   1.51e-03  -1.96e-03   9.25e-04
## 2906   4.59e-03  -1.44e-03  -2.92e-05   3.75e-05   5.97e-05   3.45e-04   1.05e-04
## 2907   1.56e-02   5.83e-03  -9.49e-03  -9.68e-03   3.00e-02  -9.13e-03  -1.63e-02
## 2908   1.33e-02  -8.37e-03  -2.66e-02   6.13e-03  -2.77e-02   5.08e-03   2.87e-02
## 2909  -4.78e-05  -3.24e-04  -3.65e-04  -3.35e-04  -1.90e-04  -1.96e-04  -2.62e-04
## 2910  -9.26e-03   2.27e-02   7.83e-03   8.21e-03   1.15e-02   1.23e-02  -1.34e-02
## 2911   1.16e-03   1.91e-03   1.67e-03   1.94e-03   1.10e-03   1.30e-03   1.37e-03
## 2912  -6.16e-04  -4.58e-03   6.15e-03  -9.48e-03   6.07e-03  -1.04e-02   6.42e-03
## 2913   2.00e-03   1.54e-03  -1.59e-04  -1.27e-04  -9.41e-05  -1.27e-04   1.04e-05
## 2914   4.43e-03  -4.00e-04  -3.03e-02   6.00e-03  -2.85e-02   7.81e-03   1.79e-02
## 2915  -2.29e-03   5.07e-03  -7.75e-03   7.85e-03   1.06e-02   9.84e-03  -5.41e-03
## 2916   7.86e-03  -5.22e-03   3.38e-03   2.58e-03   2.02e-03   1.62e-03   4.24e-03
## 2917  -1.03e-02   1.81e-03  -4.00e-03  -1.76e-05  -7.66e-03  -3.15e-03   8.36e-03
## 2918   2.41e-02   1.17e-02  -1.59e-02   3.63e-02  -1.97e-02  -1.32e-02   1.59e-02
## 2919  -1.26e-02  -4.84e-03   1.11e-02  -1.09e-02  -8.50e-03   8.13e-03  -8.77e-03
```

```
## 2920  1.82e-02  6.22e-03  2.61e-02 -8.55e-03 -8.51e-03 -7.49e-03 -1.50e-02
## 2921 -1.39e-02 -2.85e-03  1.28e-02  1.18e-02 -3.13e-03 -7.90e-03  8.92e-04
## 2922  1.31e-04 -1.05e-03 -1.39e-04 -6.82e-04 -1.49e-06 -4.24e-04  1.92e-04
## 2923 -2.07e-02 -8.66e-04  1.22e-02  8.79e-03  9.77e-03  8.16e-03  1.92e-02
## 2924  7.03e-03  2.64e-03  6.24e-04  9.85e-04 -7.64e-03  1.57e-03 -8.01e-03
## 2925  1.73e-04 -1.44e-03 -2.12e-03 -1.79e-03  1.97e-03 -2.29e-03  1.37e-03
## 2926  3.67e-03 -9.68e-04 -9.79e-05  2.81e-04  2.15e-04  3.66e-04  1.03e-04
## 2927  1.26e-02 -1.05e-02 -2.45e-02  6.08e-03 -2.41e-02  9.22e-03 -1.25e-02
## 2928  1.65e-03 -3.95e-03 -5.33e-03  1.28e-02 -2.49e-03 -9.13e-03  1.33e-03
## 2929 -1.65e-03  6.70e-04 -5.57e-05  3.43e-05  3.86e-06  5.70e-05  6.90e-05
## 2930 -6.35e-04 -4.21e-03 -8.09e-04 -9.50e-04 -1.15e-03 -1.51e-03 -1.63e-03
## 2931  6.33e-03 -3.14e-03  2.97e-03  3.11e-03  1.97e-03  1.65e-03  3.43e-03
## 2932  1.17e-02 -7.37e-03 -2.05e-02  6.91e-03 -1.96e-02  1.11e-02 -9.93e-03
## 2933  1.78e-03  1.04e-03 -4.27e-03  9.14e-03 -5.96e-03  8.54e-03  1.51e-02
## 2934  2.50e-03 -3.28e-03 -5.30e-03  1.05e-02  1.22e-02 -9.63e-03  1.47e-02
## 2935  1.73e-02  2.26e-02  2.75e-02 -8.84e-03  3.13e-02  3.79e-02 -1.80e-02
## 2936  6.82e-03 -1.39e-03  3.15e-02 -9.93e-03  3.00e-02 -1.36e-02  2.71e-02
## 2937  2.21e-04 -4.37e-04 -5.15e-04 -1.34e-03 -7.82e-04  2.86e-03 -1.07e-03
## 2938  4.60e-04  4.61e-04  1.42e-05 -1.17e-04 -1.05e-04 -2.00e-04  3.82e-05
## 2939  5.78e-03 -1.74e-03 -3.65e-04 -4.74e-04 -1.58e-04  2.06e-04 -1.70e-04
## 2940  4.18e-03 -1.43e-02 -1.65e-02 -1.87e-02  8.63e-03 -1.72e-02 -2.09e-02
## 2941 -1.61e-02 -1.11e-02  1.17e-02 -2.72e-02  9.97e-03  1.02e-02  1.26e-02
## 2942  4.94e-03 -2.03e-03  1.52e-02  1.20e-02  1.04e-02 -1.95e-02  1.36e-02
## 2943 -1.71e-02 -3.91e-03 -8.81e-03  9.28e-03 -1.21e-02  8.72e-03 -9.79e-03
## 2944 -7.67e-03 -2.26e-04 -1.71e-02 -5.78e-03  1.81e-02 -7.24e-03  9.21e-03
## 2945  6.20e-04 -4.99e-04 -8.23e-04  6.06e-04  9.02e-04  7.01e-04 -4.42e-04
## 2946 -3.21e-04 -8.61e-03 -2.47e-03 -4.19e-03 -3.23e-03 -3.33e-03 -3.16e-03
## 2947 -3.98e-03  6.10e-03  5.35e-03 -1.00e-02  7.13e-03 -9.39e-03  7.53e-03
## 2948 -1.58e-03 -5.28e-03 -8.19e-04 -1.93e-03 -1.94e-03 -2.53e-03 -1.73e-03
## 2949 -1.33e-02  1.15e-02  2.28e-02 -4.47e-03  2.02e-02 -8.39e-03  9.32e-03
## 2950 -1.58e-02 -1.88e-03 -9.23e-03 -8.04e-03 -7.56e-03 -5.02e-03 -1.30e-02
## 2951 -1.09e-02  1.83e-03 -3.39e-03  4.10e-04 -7.17e-03 -2.86e-03  8.89e-03
## 2952 -1.98e-02 -4.85e-03 -1.14e-02  8.44e-03 -1.15e-02  1.10e-02 -5.55e-03
## 2953  2.62e-02 -7.91e-03 -3.77e-02  7.70e-03  7.83e-03  6.10e-03  1.86e-02
## 2954 -5.67e-05 -6.24e-03 -1.67e-03 -1.96e-03 -1.85e-03 -1.90e-03 -2.73e-03
## 2955  1.14e-02 -1.90e-02 -1.39e-02 -1.77e-02  1.21e-02 -2.01e-02 -1.56e-02
## 2956 -1.36e-02  1.17e-02 -9.96e-03  3.23e-02 -1.37e-02 -8.46e-03  1.34e-02
## 2957 -3.36e-03  9.40e-03 -1.56e-02  8.48e-03  3.89e-03 -1.71e-02  2.56e-03
## 2958 -7.31e-03 -1.58e-03 -1.89e-02 -2.22e-02 -1.54e-02  3.89e-02 -1.67e-02
## 2959  7.58e-03 -3.38e-03 -4.05e-04 -1.02e-03 -9.19e-04 -1.16e-03 -7.57e-04
## 2960  1.08e-02  6.37e-03  5.14e-03 -8.76e-03  4.52e-03 -9.59e-03  2.37e-03
## 2961 -1.22e-02 -4.24e-03 -3.31e-02 -2.52e-02  3.30e-02 -1.71e-02 -3.06e-02
## 2962  7.46e-04  1.18e-02  1.18e-02  5.45e-03  1.77e-02  9.74e-03 -2.51e-02
## 2963  8.73e-04 -2.40e-03 -1.12e-03 -1.65e-03 -3.65e-04 -1.16e-03 -1.33e-04
## 2964 -1.81e-02 -1.75e-02 -3.66e-02  7.71e-03 -3.22e-02  1.11e-02  3.04e-02
## 2965  1.13e-04 -2.74e-04  1.02e-03 -2.43e-04 -2.44e-06 -1.95e-04  8.40e-05
## 2966  1.43e-02 -1.05e-03 -7.92e-03 -4.09e-03 -5.77e-03 -2.28e-03 -1.12e-02
## 2967 -2.98e-03 -1.99e-03  2.20e-03  1.73e-03  1.48e-03  1.21e-03  2.21e-03
## 2968  7.23e-04  1.30e-03  1.15e-03  1.33e-03  7.33e-04  9.03e-04  8.27e-04
## 2969  5.07e-02  5.46e-03  1.55e-02 -2.78e-02  2.00e-02 -2.82e-02  6.51e-03
```

```
## 2970 -1.72e-02  2.01e-02  2.69e-02  3.74e-02 -1.58e-02 -1.19e-02 -2.55e-02
## 2971 -3.98e-03  1.54e-02  5.81e-03  1.06e-02  8.89e-03 -2.11e-02  1.10e-02
## 2972  1.43e-02 -7.47e-03 -2.09e-03 -4.09e-03 -3.60e-03 -4.20e-03 -3.19e-03
## 2973  1.19e-04 -8.61e-03 -2.66e-03 -4.35e-03 -3.45e-03 -3.39e-03 -3.23e-03
## 2974 -1.54e-02 -1.70e-02 -1.70e-02  1.10e-02 -2.08e-02 -2.42e-02  1.64e-02
## 2975 -3.18e-03  4.83e-03  3.42e-03  3.79e-03 -4.50e-03 -4.63e-03  2.06e-03
## 2976 -2.65e-03  9.18e-04 -2.01e-04 -2.54e-04 -2.01e-04 -1.13e-04  1.86e-04
## 2977  2.73e-03  2.03e-03 -2.37e-04 -5.43e-04 -5.05e-04 -5.66e-04  2.80e-04
## 2978 -5.94e-04 -7.95e-04 -2.09e-05 -1.54e-04 -1.48e-04 -2.29e-04 -1.38e-04
## 2979 -5.32e-03 -5.14e-03  3.31e-03  2.82e-03  2.16e-03  1.98e-03  4.29e-03
## 2980  9.14e-03 -3.41e-03 -8.21e-04 -7.53e-04 -5.81e-04 -1.07e-03 -1.07e-03
## 2981  8.89e-03 -1.51e-02 -1.12e-02 -1.37e-02 -7.10e-03 -8.49e-03 -2.58e-03
## 2982 -1.26e-02  6.05e-03  1.06e-02  1.04e-02  9.25e-03  9.34e-03  1.09e-02
## 2983 -6.44e-06 -6.69e-06  6.24e-07  4.12e-06  2.31e-06  4.49e-06  1.27e-06
## 2984  1.59e-04 -8.42e-04 -8.15e-04 -2.57e-03 -5.13e-04  5.81e-03  1.77e-05
## 2985  2.70e-04 -7.59e-03 -1.93e-03 -3.26e-03 -3.12e-03 -2.72e-03 -2.43e-03
## 2986 -4.47e-03 -1.19e-02 -1.12e-02 -9.90e-03 -1.37e-02 -1.20e-02 -2.01e-02
## 2987 -1.94e-02 -8.15e-03  1.52e-02  1.14e-02 -1.46e-02 -2.42e-02 -1.35e-02
## 2988  3.62e-03 -2.80e-03 -1.38e-02  9.82e-03  6.85e-03 -1.64e-02  4.96e-03
## 2989 -3.07e-04 -3.33e-03 -6.82e-04 -1.05e-05 -1.83e-04  2.59e-04 -4.05e-04
## 2990  1.59e-04  3.13e-04  5.87e-04  5.21e-04 -7.19e-04  5.92e-04 -4.86e-04
## 2991  3.63e-03  9.60e-03  1.00e-02  1.19e-02  9.03e-03  1.02e-02  6.45e-03
## 2992  1.96e-02  1.26e-02  7.37e-03 -1.98e-02 -2.33e-02  8.95e-03  3.01e-03
## 2993 -1.77e-03 -6.88e-03  1.54e-02 -1.95e-02 -2.93e-02 -1.16e-02  2.86e-02
## 2994 -1.89e-02 -9.03e-03 -3.36e-02  8.22e-03  8.48e-03  7.98e-03  1.69e-02
## 2995 -8.98e-04 -4.16e-03 -7.19e-04 -1.00e-03 -1.18e-03 -1.76e-03 -1.34e-03
## 2996 -1.31e-02  9.90e-05 -7.54e-03 -2.61e-03 -7.94e-03 -4.15e-03  1.78e-02
## 2997 -4.34e-04 -5.99e-03 -1.58e-03 -2.06e-03 -1.84e-03 -2.20e-03 -2.39e-03
## 2998 -3.44e-03  2.63e-03  4.73e-03 -7.37e-03 -5.88e-03 -5.42e-03 -6.43e-03
## 2999 -1.87e-02  9.37e-03 -2.09e-02 -1.67e-02 -1.46e-02  4.10e-02 -2.31e-02
## 3000  1.23e-02  2.30e-03 -5.20e-03 -3.70e-03 -1.13e-02 -5.96e-03  1.01e-02
## 3001 -2.66e-03 -7.84e-03 -2.06e-03 -5.14e-03 -3.91e-03 -5.99e-03 -4.01e-03
## 3002 -1.18e-02 -2.10e-03 -8.59e-03 -3.52e-03 -5.74e-03 -9.49e-04 -1.06e-02
## 3003  2.75e-02  1.86e-03  2.36e-02 -1.13e-02 -1.17e-02 -5.95e-03 -1.67e-02
## 3004 -6.26e-04 -3.17e-03 -6.95e-04 -2.84e-04 -3.81e-04  1.14e-04 -8.38e-04
## 3005  2.30e-02 -1.08e-02 -4.26e-03 -6.93e-03 -5.27e-03 -5.89e-03 -4.64e-03
## 3006  9.62e-03 -4.54e-03  1.73e-02 -2.52e-02  1.01e-02  6.26e-03  1.34e-02
## 3007 -4.27e-04 -9.89e-04 -5.13e-05  6.10e-04  3.83e-04  9.23e-04  2.31e-04
## 3008 -2.01e-03 -1.71e-03  1.56e-03  1.18e-03 -2.01e-03  1.46e-03 -1.30e-03
## 3009  1.74e-02  3.00e-02  9.61e-03  9.59e-03  1.38e-02  1.43e-02 -1.69e-02
## 3010  7.94e-03  1.90e-03  1.89e-02  7.96e-03 -2.24e-02  6.20e-03 -1.92e-02
## 3011  2.97e-03 -1.61e-03  1.90e-03  1.76e-03  1.37e-03  9.45e-04  1.70e-03
## 3012  8.66e-03 -3.65e-02 -8.36e-03 -1.08e-02 -9.98e-03 -1.32e-02 -1.55e-02
## 3013 -2.52e-03  2.63e-03 -6.93e-03 -5.47e-03  3.76e-03 -6.18e-03  2.65e-03
## 3014  1.91e-04 -6.20e-05  1.88e-07 -1.19e-05  5.72e-06 -2.65e-05 -3.03e-05
## 3015  1.61e-02 -3.19e-02  4.08e-02 -3.72e-02 -1.80e-02  4.89e-02 -1.11e-02
## 3016  3.87e-04 -1.23e-03  3.19e-03 -2.90e-03  3.00e-03 -3.55e-03  2.02e-03
## 3017 -1.43e-04 -6.20e-03 -1.75e-03 -2.17e-03 -1.93e-03 -2.19e-03 -2.53e-03
## 3018 -3.08e-05 -6.45e-03 -1.75e-03 -2.07e-03 -2.07e-03 -2.14e-03 -2.65e-03
## 3019 -5.26e-03 -4.94e-03  3.45e-03  2.93e-03  2.29e-03  2.13e-03  4.34e-03
```

```
## 3020 -2.93e-04 -5.12e-03 -1.03e-03 -1.33e-03 -1.60e-03 -1.68e-03 -1.70e-03
## 3021 -2.10e-03  6.66e-04 -1.72e-04 -2.86e-04 -1.86e-04 -6.62e-05 -7.23e-05
## 3022 -1.19e-02 -8.95e-04 -9.10e-03 -4.06e-03 -9.25e-03 -4.27e-03  1.78e-02
## 3023 -7.52e-04 -8.34e-03 -2.12e-03 -3.87e-03 -3.34e-03 -3.42e-03 -2.93e-03
## 3024 -1.55e-02  3.70e-02  4.00e-02  4.06e-02  4.46e-02  4.00e-02 -1.25e-02
## 3025 -3.64e-02 -5.93e-02 -1.85e-02 -2.45e-02 -1.42e-02 -2.20e-02 -1.14e-02
## 3026  1.20e-02  1.89e-03 -5.93e-03 -2.48e-03 -7.34e-03 -4.96e-03  1.74e-02
## 3027  3.85e-02 -9.37e-03 -2.70e-02 -1.68e-02 -1.79e-02 -6.96e-03 -2.27e-02
## 3028 -3.58e-04 -7.98e-04 -1.37e-04  1.89e-04  2.17e-04  5.42e-04 -5.85e-05
## 3029  1.97e-04 -1.36e-03 -1.12e-03 -3.22e-03 -6.92e-04  7.26e-03 -6.71e-05
## 3030 -1.46e-02  9.55e-04 -4.95e-03 -2.80e-03 -7.28e-03 -3.86e-03  1.80e-02
## 3031 -2.63e-02  5.16e-03  1.69e-02  1.02e-02  1.17e-02  4.34e-03  1.71e-02
## 3032 -3.61e-04 -8.65e-04  1.54e-03 -1.45e-03 -1.25e-03 -1.37e-03 -1.73e-03
## 3033 -6.27e-04 -1.33e-03 -1.85e-04 -1.53e-04 -1.14e-04 -1.11e-04 -4.03e-04
## 3034  2.70e-04 -1.68e-03 -3.82e-03 -1.09e-02  1.51e-02  1.03e-02 -3.94e-03
## 3035 -2.97e-04 -3.94e-04 -4.32e-04 -5.71e-04 -2.66e-04 -4.43e-04 -3.76e-04
## 3036 -3.08e-03  8.65e-03  9.64e-03 -5.29e-02  3.14e-03  2.08e-02 -5.79e-03
## 3037 -4.11e-03  1.98e-02 -2.12e-02  9.36e-03  3.42e-03  8.80e-03  2.97e-03
## 3038  4.07e-03 -9.88e-03  3.67e-02 -2.60e-02 -1.90e-02 -1.74e-02 -1.13e-02
## 3039 -4.67e-03 -8.43e-03 -1.22e-02 -1.01e-02  3.28e-02 -9.55e-03 -1.08e-02
## 3040  8.43e-03 -4.21e-02 -1.15e-02 -1.50e-02 -6.65e-03 -1.38e-02 -5.84e-03
## 3041 -6.09e-03  9.99e-03 -7.23e-03  6.69e-03 -7.50e-03  7.20e-03  7.39e-03
## 3042  1.83e-03 -1.75e-03  1.24e-02  9.36e-03 -3.25e-03 -8.45e-03 -5.32e-04
## 3043  3.13e-02  5.28e-03  2.77e-02 -1.71e-02 -2.23e-02 -1.36e-02 -3.22e-02
## 3044 -4.85e-03  2.53e-02  6.94e-03  1.08e-02  5.13e-03  8.99e-03  2.63e-03
## 3045  6.32e-04  2.84e-02  7.52e-03  9.00e-03  8.78e-03  9.23e-03  1.21e-02
## 3046  1.49e-02  1.27e-02 -8.66e-03 -7.27e-03 -1.18e-02  2.99e-02 -2.35e-02
## 3047 -5.17e-03 -4.97e-03  3.27e-03  2.70e-03  2.23e-03  1.95e-03  4.39e-03
## 3048  1.21e-02  1.33e-02  7.23e-03 -1.42e-02  3.86e-03  5.68e-03  1.40e-03
## 3049  7.47e-04 -7.75e-05  8.39e-03  7.23e-03 -8.47e-04 -3.31e-03  1.05e-03
## 3050  6.40e-04 -1.40e-03 -1.47e-03  7.86e-03  1.02e-02 -5.26e-03 -4.22e-04
## 3051 -1.22e-02 -1.06e-02 -3.23e-02 -2.54e-02 -2.23e-02 -1.44e-02 -2.73e-02
## 3052  1.43e-03  1.59e-03  1.59e-03 -1.09e-03  1.66e-03 -1.01e-03 -1.88e-03
## 3053 -5.68e-04 -1.47e-03 -2.24e-04 -5.10e-05 -1.49e-04 -1.42e-04 -3.18e-04
## 3054 -3.70e-02 -4.82e-02 -1.71e-02 -2.32e-02  4.18e-02 -2.42e-02 -1.60e-02
## 3055  2.35e-04 -7.19e-05  1.07e-05  3.11e-06 -4.44e-06 -4.61e-06  2.04e-06
## 3056  4.66e-04  6.75e-03  9.08e-03  8.95e-03 -1.57e-02  1.23e-02 -1.74e-02
## 3057 -1.03e-02  8.34e-03  1.97e-02 -8.07e-04  1.74e-02 -4.22e-03  9.22e-03
## 3058  1.35e-03 -1.17e-03  8.51e-03  9.54e-03 -1.64e-02 -2.07e-02  6.91e-03
## 3059  1.16e-02 -1.86e-03  1.84e-02  8.27e-03 -2.09e-02  1.24e-02 -9.17e-03
## 3060 -2.13e-02  2.91e-03  1.51e-02  1.09e-02  1.04e-02  8.17e-03  1.66e-02
## 3061 -5.89e-03  2.92e-02  7.74e-03  1.00e-02  4.82e-03  9.56e-03  4.18e-03
## 3062  2.24e-02  2.46e-03  1.49e-02  9.45e-03  1.01e-02  6.62e-03  2.07e-02
## 3063  1.43e-02  7.48e-03  2.47e-02 -4.11e-03 -9.15e-03 -6.21e-03 -1.99e-02
## 3064  3.64e-03 -4.94e-03 -7.74e-03 -1.25e-02  1.32e-02  1.11e-02  1.66e-02
## 3065 -8.70e-04 -8.06e-03 -2.01e-03 -3.75e-03 -3.25e-03 -3.39e-03 -2.89e-03
## 3066  4.74e-03 -1.31e-02 -1.64e-02 -1.57e-02  9.44e-03 -1.58e-02  9.61e-03
## 3067  2.13e-03  9.90e-04 -1.72e-03 -1.61e-03 -1.26e-03 -9.94e-04 -1.33e-03
## 3068 -1.08e-03 -4.93e-04  8.45e-04  8.58e-04  1.04e-03  9.59e-04 -1.25e-03
## 3069 -1.09e-03 -1.29e-03 -4.95e-03 -5.67e-03 -3.44e-03  7.93e-03 -3.71e-03
```

```
## 3070   9.59e-03   7.30e-03  -9.13e-03  -9.94e-03   2.77e-03   5.00e-03   7.99e-04
## 3071   1.92e-05   7.65e-04  -2.98e-03   8.38e-03  -2.89e-03   9.56e-03  -6.85e-04
## 3072   8.98e-03  -2.35e-02   4.20e-02   3.80e-02  -1.06e-02  -2.37e-02  -1.29e-03
## 3073   1.24e-04  -2.27e-04  -1.45e-04   1.17e-04   1.72e-04  -2.33e-04  -9.29e-05
## 3074  -8.95e-03   2.72e-04  -3.55e-03   1.41e-04  -4.02e-03  -4.72e-04   1.27e-02
## 3075   7.28e-03  -2.54e-02   3.72e-02  -5.94e-03  -1.14e-02  -1.34e-02   3.17e-02
## 3076   4.51e-03   1.08e-02   9.83e-03   1.17e-02   8.83e-03   9.88e-03   6.96e-03
## 3077   1.46e-02   7.96e-04  -7.97e-03  -5.86e-03  -1.06e-02  -7.23e-03   2.21e-02
## 3078   4.24e-04   3.78e-04   3.88e-04  -3.08e-04   3.21e-04  -4.10e-04   1.44e-04
## 3079  -7.16e-04   3.35e-04   1.45e-05   4.62e-05   6.22e-05   1.57e-04   1.27e-04
## 3080  -7.85e-04  -5.06e-03  -1.35e-03  -1.73e-03  -1.16e-03  -3.42e-04  -1.06e-03
## 3081  -1.23e-02   1.06e-02   2.02e-02   1.41e-03   1.63e-02  -3.49e-03   8.71e-03
## 3082   1.96e-02  -2.03e-02   1.24e-02   8.39e-03  -2.76e-02  -3.73e-02   3.20e-02
## 3083  -1.13e-02   5.40e-04  -6.60e-03  -2.52e-03  -6.91e-03  -3.80e-03   1.50e-02
## 3084   4.35e-04  -4.45e-04  -6.00e-04   3.22e-04   2.63e-04   2.00e-04   3.25e-04
## 3085   5.14e-03  -3.13e-03   3.22e-03   3.22e-03   2.51e-03   1.61e-03   3.76e-03
## 3086   6.60e-03  -3.70e-02  -7.74e-03  -8.73e-03  -8.31e-03  -1.26e-02   4.02e-02
## 3087  -7.21e-04  -3.55e-03  -8.04e-04  -2.58e-04  -9.28e-05   1.37e-04  -9.32e-04
## 3088  -5.82e-03  -1.49e-02  -1.44e-02  -1.43e-02  -1.09e-02  -1.33e-02  -1.10e-02
## 3089  -2.73e-03   5.47e-03  -5.76e-03   5.78e-03   3.24e-03  -5.79e-03   2.49e-03
## 3090  -6.23e-03   1.40e-02  -9.65e-03   7.07e-03   6.06e-03   8.21e-03  -1.35e-02
## 3091  -2.01e-02  -6.97e-03   1.08e-02   9.20e-03  -2.82e-02   1.11e-02   3.06e-02
## 3092  -1.17e-03  -1.57e-04  -1.57e-03   2.94e-03  -9.10e-04  -1.50e-03  -8.30e-04
## 3093   8.29e-05  -5.79e-03  -1.28e-03  -1.50e-03  -1.77e-03  -1.70e-03  -1.88e-03
## 3094   2.65e-02   7.79e-03   2.47e-02  -1.05e-02   3.14e-02  -6.41e-03  -2.01e-02
## 3095  -7.93e-04  -2.75e-03  -5.14e-04  -2.23e-04  -3.27e-04   8.08e-06  -7.31e-04
## 3096   4.71e-03  -2.91e-03  -1.02e-02   9.30e-03  -1.41e-02   8.34e-03  -1.24e-02
## 3097   3.73e-03  -2.56e-03   1.33e-02  -1.34e-02   8.30e-03   6.52e-03   8.78e-03
## 3098   6.70e-03  -1.76e-02  -1.77e-02   3.65e-02  -1.42e-02   4.25e-02  -3.97e-03
## 3099   2.12e-03   2.43e-02   8.08e-03   1.59e-02   1.15e-02   1.54e-02   1.25e-02
## 3100   2.31e-02   3.05e-03   1.33e-02   4.95e-03   8.99e-03   1.06e-03   1.79e-02
## 3101  -3.53e-03   8.30e-03   4.67e-03   6.63e-03   3.71e-03  -1.01e-02   1.70e-03
## 3102   9.40e-04   8.32e-04  -3.64e-05  -2.79e-04  -1.95e-04  -3.77e-04   1.15e-04
## 3103  -2.37e-05   1.96e-04   3.31e-05   1.30e-04   6.57e-06   8.27e-05  -1.18e-05
## 3104  -1.17e-02  -1.06e-02  -6.01e-03  -9.12e-03   1.26e-02  -7.67e-03  -2.94e-03
## 3105   1.69e-03  -6.85e-04  -1.89e-05  -1.24e-04   7.00e-06   3.74e-05  -8.63e-05
## 3106   1.53e-04  -6.25e-03  -1.80e-03  -2.08e-03  -2.10e-03  -2.11e-03  -2.74e-03
## 3107  -1.29e-03  -1.30e-02   1.05e-02  -4.61e-02   7.96e-03  -5.40e-02  -4.43e-03
## 3108  -1.07e-05   9.45e-05   2.80e-05   7.68e-05  -2.80e-04   8.59e-05  -3.01e-04
## 3109   1.09e-02   3.23e-03   1.83e-02   7.87e-03   2.21e-02   9.80e-03  -1.23e-02
## 3110  -3.84e-03   9.28e-03   4.32e-03   7.80e-03  -1.87e-02  -2.06e-02  -1.76e-02
## 3111  -1.72e-02   9.69e-03   2.49e-02  -6.15e-03   2.93e-02  -5.94e-03  -1.50e-02
## 3112  -1.77e-02  -8.41e-04  -1.05e-02   1.13e-02  -1.02e-02   1.11e-02   1.97e-02
## 3113   7.12e-04  -2.30e-03  -2.15e-03   7.84e-03  -2.51e-03  -7.26e-03  -4.30e-04
## 3114  -2.36e-04  -4.04e-04  -5.74e-05  -5.96e-05  -5.46e-05  -7.50e-05  -1.45e-04
## 3115  -8.25e-03  -3.59e-03  -1.37e-02  -5.08e-03  -1.21e-02  -2.89e-03   1.99e-02
## 3116   1.43e-04  -5.49e-05   3.97e-06  -6.06e-06   9.74e-07  -7.52e-06  -7.77e-06
## 3117   1.31e-02  -3.41e-02  -1.57e-02  -1.91e-02  -1.67e-02   4.42e-02   4.91e-02
## 3118   7.01e-04   6.52e-04   4.19e-05   1.61e-04   1.35e-04   4.37e-04   3.07e-04
## 3119  -2.15e-02   1.13e-03   1.45e-02   1.02e-02   1.08e-02   8.31e-03   1.72e-02
```

```
## 3120   8.23e-03 -6.11e-03  3.14e-03  2.30e-03 -1.23e-02  1.83e-03  4.73e-03
## 3121   4.83e-05 -5.99e-03 -1.81e-03 -2.18e-03 -1.97e-03 -2.16e-03 -2.63e-03
## 3122   1.11e-03 -4.62e-03 -5.74e-03 -5.36e-03  3.52e-03 -7.14e-03  1.94e-03
## 3123  -7.04e-04 -8.33e-03  3.25e-02 -1.81e-02 -1.28e-02 -1.43e-02 -1.13e-02
## 3124  -1.96e-04 -5.19e-03 -1.05e-03 -1.30e-03 -1.44e-03 -1.46e-03 -1.80e-03
## 3125   6.09e-04  7.59e-04 -3.09e-03  7.74e-03 -4.72e-03  7.77e-03 -4.68e-03
## 3126  -3.64e-03  4.24e-03  4.31e-03 -7.90e-03  7.55e-03 -6.60e-03 -8.14e-03
## 3127  -3.86e-03 -4.29e-03  3.29e-03  2.80e-03  3.18e-03  3.44e-03 -6.11e-03
## 3128  -1.65e-02 -1.36e-02  1.17e-02  1.09e-02  1.04e-02 -3.91e-02  1.91e-02
## 3129  -1.10e-03 -8.08e-04 -2.16e-03  2.91e-03 -2.09e-03 -2.90e-03  3.59e-03
## 3130  -6.78e-04 -1.75e-03 -2.19e-04 -3.88e-04 -5.13e-04 -8.28e-04 -7.35e-04
## 3131  -1.04e-02  6.93e-03 -1.79e-02 -8.21e-03 -2.05e-02  3.51e-02  1.15e-02
## 3132   2.08e-02 -1.86e-03 -1.42e-02 -1.03e-02 -9.96e-03 -7.87e-03 -1.69e-02
## 3133   7.00e-03 -1.03e-02 -1.08e-02  1.13e-02 -8.41e-03 -1.42e-02 -2.37e-03
## 3134   8.75e-03 -4.21e-02 -1.16e-02 -1.51e-02 -6.86e-03 -1.41e-02 -5.46e-03
## 3135  -9.36e-03  1.76e-05 -1.87e-02 -2.46e-02 -1.89e-02  4.10e-02 -1.34e-02
## 3136  -1.90e-02 -3.80e-03  1.32e-02  1.19e-02 -2.69e-02  1.02e-02  1.90e-02
## 3137   1.21e-02  2.19e-02  2.56e-02 -2.74e-03  2.29e-02  3.00e-02 -2.04e-02
## 3138  -6.03e-04  2.81e-02  8.33e-03  9.92e-03  8.72e-03  9.43e-03  1.15e-02
## 3139   2.17e-02  6.80e-03 -2.08e-02  7.21e-03 -2.15e-02 -2.15e-02 -2.26e-02
## 3140  -6.27e-05 -5.81e-03 -1.74e-03 -2.13e-03 -1.93e-03 -2.16e-03 -2.58e-03
## 3141   1.63e-02  7.48e-03  2.46e-02 -7.57e-03 -7.51e-03 -7.03e-03 -1.36e-02
## 3142   1.29e-02  1.84e-02  2.50e-02 -4.98e-03 -1.25e-02  2.84e-02  1.06e-02
## 3143  -2.08e-02 -2.04e-02  1.24e-02 -3.49e-02 -2.18e-02  1.49e-02 -1.30e-02
## 3144  -1.30e-02 -2.87e-03  1.11e-02 -1.05e-02  8.00e-03  7.02e-03  7.91e-03
## 3145  -3.39e-03  1.09e-02  5.37e-03  9.78e-03 -1.80e-02 -1.81e-02  1.11e-02
## 3146   1.86e-03  1.05e-02  1.10e-02  1.02e-02  8.06e-03  8.60e-03  7.97e-03
## 3147  -1.55e-02 -8.12e-03  1.25e-02 -2.17e-02  9.86e-03  9.36e-03  1.29e-02
## 3148  -1.42e-02 -1.71e-02  1.18e-02 -1.61e-02 -1.21e-02 -1.39e-02  2.16e-02
## 3149   1.43e-02  1.31e-02  6.35e-03 -1.35e-02  3.80e-03  6.77e-03  4.35e-04
## 3150  -1.94e-02 -4.84e-03 -3.16e-02  9.31e-03  9.10e-03  5.07e-03  1.33e-02
## 3151  -5.00e-04 -1.29e-03 -1.46e-04 -4.26e-05 -1.90e-04 -7.33e-05 -2.72e-04
## 3152  -9.35e-04 -4.14e-03 -9.41e-04 -1.39e-03 -1.50e-03 -1.93e-03 -1.95e-03
## 3153   1.12e-02 -5.02e-02 -1.47e-02 -2.14e-02 -1.09e-02 -1.73e-02 -6.12e-03
## 3154   1.35e-02 -4.20e-02 -1.45e-02 -1.76e-02  4.51e-02 -1.57e-02 -1.03e-02
## 3155   3.05e-02 -4.75e-03  7.64e-03 -6.19e-03  1.89e-02  1.60e-03 -2.83e-02
## 3156   1.74e-03  3.46e-03  3.39e-03  2.23e-03  4.07e-03  3.27e-03 -5.13e-03
## 3157  -5.57e-04 -2.72e-03 -6.48e-04 -3.70e-04 -3.17e-04 -1.67e-07 -7.85e-04
## 3158   2.35e-02  3.03e-02  7.17e-03  7.59e-03  1.19e-02  1.01e-02 -2.31e-02
## 3159   9.26e-03 -8.03e-04 -2.00e-02  9.90e-03  1.62e-02  6.02e-03  2.37e-02
## 3160  -2.38e-02 -1.17e-02 -2.28e-02  7.64e-03 -2.03e-02  1.32e-02 -9.25e-03
## 3161  -6.92e-04 -1.75e-03 -2.32e-04 -1.91e-05 -1.58e-04 -1.44e-04 -2.91e-04
## 3162  -3.73e-03  1.04e-02  5.11e-03  8.15e-03  4.62e-03 -1.34e-02  2.09e-03
## 3163   3.97e-03 -2.60e-03  2.80e-03  2.18e-03  2.78e-03  1.89e-03 -5.34e-03
## 3164  -1.18e-03 -1.66e-03 -1.55e-04 -5.03e-04 -4.86e-04 -5.09e-04 -4.92e-04
## 3165  -1.32e-03  1.54e-03 -1.53e-03  1.93e-03 -1.74e-03 -1.66e-03 -2.12e-03
## 3166   1.30e-02 -1.27e-03 -2.32e-02  1.14e-02  2.21e-02  1.61e-02 -1.04e-02
## 3167  -1.15e-03 -2.01e-03 -2.12e-04  4.16e-05  2.01e-04  1.04e-03  6.60e-05
## 3168   2.26e-02  7.15e-03  2.34e-02 -7.86e-03 -1.79e-02 -1.16e-02  1.14e-02
## 3169  -8.74e-04 -2.64e-03 -6.07e-04 -2.32e-04 -2.69e-04 -2.16e-04 -7.53e-04
```

```
## 3170 -4.55e-03  8.76e-03  9.80e-03  7.94e-03  1.29e-02  9.73e-03 -8.86e-03
## 3171  2.16e-02 -4.39e-04 -1.09e-02 -7.23e-03 -1.43e-02 -4.73e-03 -2.24e-02
## 3172  1.34e-03 -3.64e-04  1.05e-06  9.93e-05  9.45e-05  6.49e-05 -2.52e-05
## 3173  1.06e-03  8.38e-04 -4.17e-03  1.88e-03  1.94e-03  1.97e-03  3.14e-03
## 3174  4.48e-02  8.68e-03 -3.71e-02  3.76e-02 -3.32e-02 -2.40e-02  3.48e-02
## 3175 -1.06e-03 -1.56e-03 -1.70e-04  3.21e-05  7.93e-05  7.96e-04  5.89e-05
## 3176 -1.07e-04 -6.36e-03 -1.69e-03 -2.03e-03 -2.04e-03 -2.14e-03 -2.61e-03
## 3177 -1.56e-03 -1.25e-03  1.23e-03  1.06e-03  1.25e-03  9.73e-04 -2.44e-03
## 3178 -1.71e-02  1.89e-04  1.40e-02  1.31e-02  1.87e-02 -8.81e-03 -3.93e-04
## 3179 -2.43e-03 -1.08e-02 -9.45e-03 -5.71e-03 -1.09e-02 -6.47e-03  2.82e-02
## 3180 -6.76e-04 -1.25e-03  6.17e-04 -1.32e-03  4.59e-04  5.55e-04  5.68e-04
## 3181 -4.64e-03 -1.73e-02 -1.43e-02 -1.49e-02 -1.20e-02 -1.04e-02 -8.69e-03
## 3182  2.05e-03  1.48e-03 -3.09e-04 -7.95e-04 -4.40e-04 -5.63e-04 -7.05e-05
## 3183 -1.95e-02 -7.23e-03 -1.60e-02  9.56e-03 -1.90e-02  9.94e-03 -1.45e-02
## 3184  9.58e-03 -3.07e-02 -1.45e-02  3.92e-02 -7.82e-03 -1.93e-02 -2.46e-03
## 3185 -7.54e-04 -4.43e-03 -8.20e-04 -1.01e-03 -1.39e-03 -1.84e-03 -1.56e-03
## 3186 -3.26e-04  1.83e-04  9.29e-04  1.08e-03 -2.84e-04 -5.06e-04 -2.89e-04
## 3187  2.40e-03  5.28e-03 -2.27e-02  8.04e-03  7.12e-03  6.20e-03  4.89e-03
## 3188  5.27e-04  5.17e-04  3.58e-05  5.31e-05  4.48e-06 -6.83e-05  8.41e-05
## 3189 -3.16e-04 -1.20e-03 -1.52e-04  7.05e-04  4.37e-04  1.17e-03  2.43e-04
## 3190  5.77e-03 -1.37e-03  3.25e-02 -1.39e-02  2.76e-02 -1.48e-02  2.75e-02
## 3191 -1.71e-02 -1.14e-02 -2.68e-02  1.12e-02 -2.97e-02  9.97e-03  1.73e-02
## 3192 -3.56e-04 -3.75e-03 -8.97e-04 -3.11e-04 -3.84e-04  3.59e-04 -8.99e-04
## 3193  1.77e-02 -4.20e-02  3.81e-02 -2.02e-02 -2.46e-02 -2.84e-02  3.11e-02
## 3194  7.66e-03 -4.81e-03 -1.68e-02  1.05e-02 -1.27e-02  1.58e-02 -5.06e-03
## 3195 -2.62e-03  9.42e-04 -1.87e-04 -2.52e-04 -2.28e-04 -1.69e-04  2.00e-04
## 3196 -9.02e-03  7.47e-03  2.16e-02 -1.33e-02  2.14e-02 -1.59e-02  1.05e-02
## 3197  5.41e-03  7.97e-03 -5.10e-03  6.59e-03  7.27e-03 -4.04e-03 -4.30e-03
## 3198 -6.60e-03  3.00e-02  6.08e-03  8.15e-03  8.16e-03  1.07e-02  1.28e-02
## 3199 -5.20e-03 -5.26e-03  3.57e-03  3.15e-03  2.21e-03  2.15e-03  5.02e-03
## 3200 -7.43e-04 -1.40e-03 -8.31e-05 -2.89e-04 -2.81e-04 -2.13e-04 -2.85e-04
## 3201 -9.18e-06  2.31e-04  4.54e-06  1.15e-04 -9.16e-06  7.35e-05 -5.71e-05
## 3202 -2.88e-04 -6.12e-03 -1.59e-03 -1.96e-03 -1.99e-03 -2.16e-03 -2.54e-03
## 3203 -4.87e-04 -8.09e-03 -2.15e-03 -3.72e-03 -3.08e-03 -3.04e-03 -3.20e-03
## 3204  7.66e-03  1.19e-02 -8.89e-03  7.06e-03 -9.06e-03  7.75e-03  8.34e-03
## 3205 -9.89e-03  1.87e-03 -2.17e-03  6.81e-04 -5.49e-03 -2.19e-03  7.80e-03
## 3206  2.52e-03 -2.71e-03 -3.27e-03  1.56e-03 -2.98e-03  2.18e-03  3.61e-03
## 3207 -7.44e-04 -2.56e-03 -4.71e-04 -2.29e-04 -2.50e-04  2.38e-05 -7.69e-04
## 3208 -1.83e-02 -5.11e-03 -1.36e-02  9.99e-03 -1.84e-02  7.69e-03  1.47e-02
## 3209 -3.62e-04 -4.73e-06  4.64e-03 -4.62e-03 -5.76e-03  5.40e-03  3.42e-03
## 3210  4.35e-03  3.35e-03 -1.11e-02  1.08e-02  1.18e-02  8.12e-03  1.32e-02
## 3211  8.10e-03 -2.21e-04 -1.51e-02  1.08e-02  1.10e-02  6.39e-03  1.45e-02
## 3212  8.50e-03 -4.14e-02 -1.35e-02 -2.23e-02  4.37e-02 -1.86e-02 -1.11e-02
## 3213 -2.47e-04 -8.75e-03 -2.36e-03 -4.08e-03 -3.48e-03 -3.34e-03 -3.08e-03
## 3214 -5.15e-03  3.08e-04 -1.44e-03  4.17e-03 -2.49e-03  3.54e-03  4.05e-03
## 3215  4.96e-03 -1.15e-03 -1.64e-04  4.20e-04  2.24e-04  5.67e-04  8.22e-05
## 3216 -3.44e-03 -4.99e-03 -6.59e-03  1.95e-03  2.35e-03  2.20e-03 -6.61e-03
## 3217  5.04e-03  1.16e-04  9.79e-03  1.11e-02  8.59e-03 -2.31e-02  7.98e-03
## 3218 -4.86e-03  2.30e-02  6.34e-03  9.82e-03  5.18e-03  8.54e-03  2.14e-03
## 3219  3.67e-03  4.10e-03 -1.91e-02  1.06e-02  8.17e-03  8.69e-03  5.35e-03
```

```
## 3220 -3.23e-02 -2.06e-02 -5.98e-03 -7.16e-03 -1.23e-02  3.38e-02  2.70e-02
## 3221 -7.56e-03  1.57e-02  7.28e-03 -2.82e-02  1.07e-02  1.30e-02 -2.31e-02
## 3222 -3.74e-04 -6.30e-03 -1.67e-03 -2.14e-03 -1.88e-03 -2.23e-03 -2.43e-03
## 3223 -8.09e-03  2.79e-02  8.63e-03  9.17e-03  7.85e-03  9.66e-03 -2.71e-02
## 3224  3.87e-03 -7.20e-04 -8.53e-03  1.11e-02 -7.68e-03  1.36e-02 -1.63e-03
## 3225 -1.08e-02  1.19e-03 -4.92e-03 -6.32e-04 -8.32e-03 -3.62e-03  9.17e-03
## 3226  2.22e-03  1.49e-03 -2.61e-04 -7.34e-04 -3.94e-04 -4.35e-04 -9.42e-05
## 3227 -2.39e-03 -2.02e-03 -1.54e-02 -1.45e-02 -1.28e-02 -1.23e-02 -1.32e-02
## 3228 -1.34e-03  2.53e-03 -2.32e-03 -1.87e-03  1.44e-03  2.39e-03  6.70e-04
## 3229  3.56e-03  7.56e-03  1.05e-02  8.73e-03 -2.95e-02  7.48e-03  9.75e-03
## 3230 -2.85e-04 -3.86e-04  3.37e-06  2.27e-04  1.29e-04  2.86e-04  6.88e-05
## 3231  2.00e-04  1.47e-03  1.47e-03  1.33e-03  1.82e-03  1.68e-03 -1.11e-03
## 3232  1.87e-02  1.97e-02 -1.89e-02  9.11e-03  4.26e-03  6.88e-03  1.50e-03
## 3233  1.51e-03  1.16e-03 -1.23e-04 -1.15e-04 -7.21e-05 -1.28e-04 -3.59e-05
## 3234 -3.03e-05 -4.10e-05  4.19e-07  2.08e-05  1.31e-05  2.70e-05  3.16e-06
## 3235 -4.62e-03  1.39e-02  6.92e-03  9.15e-03  4.72e-03 -1.78e-02  3.62e-03
## 3236 -8.03e-03  1.27e-02  1.86e-02  3.23e-02 -4.85e-02 -3.84e-02  1.39e-02
## 3237 -4.22e-04  2.81e-02  8.20e-03  9.81e-03  8.58e-03  9.34e-03  1.12e-02
## 3238 -2.86e-04 -1.33e-03 -1.41e-04  5.92e-04  3.99e-04  1.22e-03  2.67e-04
## 3239  2.07e-03  3.47e-03 -2.27e-02  8.60e-03  1.05e-02  9.62e-03  1.47e-02
## 3240  2.16e-02  1.58e-02  6.45e-03 -2.22e-02  3.30e-03  8.14e-03  2.21e-04
## 3241  2.70e-02  2.86e-02  3.02e-02 -2.62e-02  3.61e-02  4.31e-02 -2.96e-02
## 3242  8.13e-03 -4.10e-02 -9.73e-03 -1.36e-02 -1.18e-02 -1.55e-02  4.31e-02
## 3243  5.40e-05 -7.43e-04 -4.20e-04  4.73e-03 -9.17e-05 -1.38e-03  7.04e-04
## 3244 -8.60e-03 -8.69e-06 -4.87e-03 -9.84e-04 -6.43e-03 -4.35e-04 -1.38e-02
## 3245 -5.10e-03  1.57e-02 -1.87e-02  9.60e-03 -2.29e-02  8.62e-03  5.23e-03
## 3246 -1.24e-03 -5.03e-03 -1.35e-03 -1.65e-03 -9.53e-04 -6.95e-04 -9.11e-04
## 3247 -1.04e-02  1.67e-02  2.11e-02  3.65e-02 -2.07e-02 -1.10e-02  1.69e-02
## 3248  1.31e-02  7.32e-03  6.67e-03 -9.63e-03  5.60e-03 -1.08e-02  4.29e-03
## 3249  1.11e-02 -1.37e-02  1.59e-02 -2.88e-02 -1.79e-02  1.24e-02 -9.56e-03
## 3250 -2.79e-02 -1.79e-02 -3.69e-02  2.07e-03 -3.16e-02  9.40e-03 -1.63e-02
## 3251  7.30e-04 -4.83e-03 -1.77e-03 -5.49e-03  1.01e-02 -6.06e-03 -1.72e-03
## 3252  4.52e-03 -1.67e-03  3.31e-03  3.18e-03  2.73e-03  2.85e-03  4.05e-03
## 3253 -2.33e-02 -7.53e-03 -2.90e-02  5.89e-03  1.85e-02  1.12e-02 -1.55e-02
## 3254  4.78e-03  1.09e-02  1.06e-02  1.04e-02  8.47e-03  1.01e-02  7.90e-03
## 3255 -1.98e-02  8.04e-04  1.31e-02  1.24e-02  1.14e-02  9.31e-03  1.68e-02
## 3256  2.90e-02  2.01e-02  2.76e-02 -2.04e-02 -1.81e-02  4.39e-02 -2.43e-02
## 3257  5.55e-03 -3.06e-03  2.88e-03  2.73e-03  2.28e-03  1.59e-03  3.12e-03
## 3258 -1.59e-02  1.38e-06 -2.04e-02 -1.46e-02  2.82e-02 -1.21e-02  2.32e-02
## 3259 -7.26e-03 -4.23e-03 -3.08e-03  6.54e-03 -5.04e-03 -6.92e-03  6.32e-03
## 3260 -1.79e-02 -1.97e-02  1.38e-02  1.07e-02 -2.77e-02 -3.34e-02 -1.86e-02
## 3261  2.84e-02 -3.70e-03 -2.08e-02 -1.56e-02 -1.44e-02 -9.85e-03 -2.27e-02
## 3262  3.96e-03  2.46e-03 -6.71e-04 -1.27e-03 -6.89e-04 -6.24e-04  6.07e-05
## 3263 -1.52e-05 -2.10e-05 -7.14e-07  9.26e-08 -2.26e-06 -4.73e-06 -4.31e-06
## 3264  1.48e-02  1.53e-02  6.91e-03 -1.48e-02  1.07e-02  1.22e-02 -1.35e-02
## 3265  8.20e-05 -4.12e-05 -3.61e-06 -1.06e-05 -8.59e-06 -1.93e-05 -1.88e-05
## 3266  3.06e-02 -2.24e-02  9.69e-03  3.40e-03  2.05e-02 -5.34e-02 -1.93e-02
## 3267 -8.44e-03  4.46e-03  1.67e-02  7.31e-04 -7.30e-03 -9.73e-04  8.85e-03
## 3268 -1.68e-02  1.10e-02 -7.02e-03  2.85e-02 -5.16e-03 -5.28e-03 -1.02e-02
## 3269  3.05e-02 -5.99e-03 -2.25e-02 -1.90e-02 -1.73e-02 -1.23e-02 -2.16e-02
```

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## 3270 -1.87e-02 -1.78e-02 -1.64e-02  9.84e-03 -1.45e-02 -2.24e-02 -6.22e-03
## 3271 -7.53e-04 -1.29e-03 -1.88e-04  5.42e-04  4.97e-04  9.87e-04  1.32e-04
## 3272  1.33e-02  1.38e-03 -6.54e-03 -3.98e-03 -8.47e-03 -5.46e-03 -1.88e-02
## 3273 -5.92e-04 -2.47e-03 -4.42e-04 -4.05e-05 -2.08e-04 -3.39e-05 -3.94e-04
## 3274  3.09e-04  6.20e-04 -2.89e-04  5.79e-04  6.07e-04 -2.80e-04 -2.93e-04
## 3275 -1.65e-03  2.44e-03  2.68e-03 -2.28e-03  2.50e-03 -2.94e-03  1.48e-03
## 3276  2.38e-03 -3.24e-03  2.58e-03  1.82e-03  2.92e-03 -4.21e-03 -1.63e-03
## 3277 -1.85e-02  3.69e-03 -8.26e-03  1.21e-02  1.84e-02  1.57e-02 -1.64e-03
## 3278  2.05e-03  2.15e-04 -5.38e-03  8.42e-03 -3.98e-03  9.51e-03 -2.28e-03
## 3279  5.82e-04  5.78e-04 -3.99e-05  8.68e-05  1.26e-04  2.21e-04  1.22e-04
## 3280  1.01e-02  4.51e-03  1.81e-02  9.08e-03  1.53e-02  8.41e-03 -2.07e-02
## 3281  4.99e-03 -3.99e-03  3.27e-03  2.67e-03 -6.33e-03  2.64e-03 -5.40e-03
## 3282 -7.88e-03 -3.27e-03 -1.36e-02 -3.75e-03 -1.57e-02 -4.97e-03  1.08e-02
## 3283 -1.47e-02  8.30e-03 -1.32e-02 -1.08e-02 -2.10e-02  2.66e-02  6.37e-03
## 3284 -5.46e-04 -9.99e-04 -5.85e-06  6.08e-04  3.90e-04  8.66e-04  2.73e-04
## 3285  8.88e-03 -1.59e-03 -1.48e-02  9.42e-03  1.25e-02  8.40e-03 -1.79e-02
## 3286  5.04e-03 -3.27e-03  8.32e-03 -1.75e-02 -1.94e-02  1.09e-02  5.92e-03
## 3287 -2.22e-03  3.12e-03  3.79e-03 -4.58e-03  2.72e-03 -6.34e-03  1.25e-03
## 3288  5.05e-03  7.51e-04 -3.18e-02  6.26e-03  1.56e-02  1.32e-02 -2.37e-02
## 3289  2.94e-02  2.56e-02 -3.18e-02  6.96e-03  6.33e-03  9.02e-03  1.07e-02
## 3290  1.49e-02 -7.25e-04 -9.84e-03 -8.24e-03 -7.07e-03 -5.83e-03 -1.50e-02
## 3291 -6.20e-03 -5.91e-03  3.72e-03  2.68e-03  4.52e-03  3.07e-03  9.17e-03
## 3292 -6.38e-03  1.79e-02  7.18e-03  8.13e-03 -1.91e-02  7.52e-03  3.99e-03
## 3293  3.03e-03  2.20e-03  2.55e-03 -2.21e-03 -1.65e-03 -1.48e-03 -2.18e-03
## 3294 -1.78e-04 -6.28e-03 -1.65e-03 -2.00e-03 -2.02e-03 -2.14e-03 -2.58e-03
## 3295  5.72e-04 -3.57e-03 -6.79e-04 -2.56e-03 -7.28e-04 -2.07e-03 -1.89e-04
## 3296 -6.55e-04 -1.20e-03 -9.28e-05  4.06e-05 -1.44e-04 -1.60e-04 -2.27e-04
## 3297  1.33e-02 -7.65e-04 -7.24e-03 -3.90e-03 -5.17e-03 -2.25e-03 -1.02e-02
## 3298 -1.44e-02  7.11e-03  2.51e-02 -9.09e-03  1.98e-02 -1.74e-02  8.58e-03
## 3299 -1.95e-02  5.86e-03  2.76e-02 -7.75e-03 -7.09e-03 -5.49e-03 -1.11e-02
## 3300  1.31e-04 -1.02e-03 -1.70e-03  8.09e-03 -7.12e-04 -4.60e-03  7.50e-04
## 3301  9.85e-03  5.65e-03  1.82e-02  8.22e-03  2.21e-02  7.71e-03 -1.44e-02
## 3302 -1.57e-02 -1.90e-02 -2.65e-02  1.24e-02  9.63e-03 -3.48e-02  1.78e-02
## 3303  2.70e-03  4.03e-03 -2.43e-03  3.87e-03  3.91e-03 -1.86e-03 -2.06e-03
## 3304  8.60e-03 -1.99e-03 -6.52e-04  3.23e-04  4.50e-04  9.69e-04 -6.88e-05
## 3305 -7.43e-04 -1.87e-03 -2.82e-04 -1.56e-04 -1.92e-04 -6.49e-05 -5.92e-04
## 3306  1.28e-02 -1.52e-04 -6.12e-03 -3.22e-03 -7.94e-03 -3.25e-03  1.94e-02
## 3307 -8.66e-04 -3.14e-03 -1.04e-02 -1.40e-02  6.51e-03  6.79e-03 -1.62e-02
## 3308  7.22e-05 -6.72e-03 -1.94e-03 -2.33e-03 -2.03e-03 -2.22e-03 -2.64e-03
## 3309  1.39e-04 -6.26e-03 -1.88e-03 -2.22e-03 -1.91e-03 -2.06e-03 -2.72e-03
## 3310 -1.39e-02 -1.22e-03 -9.53e-03  1.18e-02 -1.16e-02  1.09e-02  1.31e-02
## 3311  1.20e-03 -3.68e-03 -3.86e-03  7.79e-03 -3.25e-03 -9.16e-03 -1.61e-03
## 3312  1.07e-03 -3.63e-03 -9.70e-03 -9.70e-03 -8.66e-03  8.94e-03 -1.18e-02
## 3313  3.76e-03 -2.54e-03  2.78e-03  2.60e-03 -4.60e-03  3.18e-03  5.91e-03
## 3314 -6.93e-03 -1.04e-02 -1.60e-02 -1.88e-02  3.79e-02 -1.72e-02 -1.46e-02
## 3315  6.40e-03 -1.89e-02 -6.12e-03  3.87e-02 -1.19e-02 -1.59e-02  3.13e-02
## 3316 -8.22e-03  1.61e-02  6.54e-03 -2.45e-02  7.12e-03  7.09e-03  7.05e-03
## 3317 -8.82e-04  2.47e-04 -5.08e-05 -9.52e-05 -8.28e-05 -2.70e-05  1.48e-05
## 3318 -9.79e-03 -3.49e-04 -4.87e-03 -9.44e-04 -5.84e-03 -8.39e-04 -1.35e-02
## 3319 -9.01e-04 -3.38e-03 -4.44e-04 -7.77e-04 -1.17e-03 -1.43e-03 -1.24e-03
```

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## 3320 -1.81e-02 -6.01e-03  1.14e-02  1.15e-02 -3.38e-02  1.05e-02  2.03e-02
## 3321 -1.18e-02  1.40e-03 -4.34e-03 -1.56e-03 -6.25e-03 -2.82e-03 -1.51e-02
## 3322  2.31e-02 -2.72e-02  3.81e-02 -2.78e-02  3.91e-02  4.03e-02  4.84e-02
## 3323  1.02e-03  1.02e-03 -3.47e-03  8.45e-03 -3.95e-03  7.65e-03  1.28e-02
## 3324 -2.13e-02 -3.45e-04  1.31e-02  9.80e-03  9.92e-03  8.65e-03  1.98e-02
## 3325 -5.69e-03  1.45e-02  7.56e-03  1.00e-02  5.29e-03 -1.82e-02  4.18e-03
## 3326 -7.87e-03 -1.90e-03 -2.18e-02 -7.67e-03  2.05e-02 -9.49e-03  1.12e-02
## 3327  8.96e-03 -4.57e-02 -1.25e-02 -1.93e-02 -9.82e-03 -1.63e-02 -6.19e-03
## 3328 -1.64e-04 -5.12e-04 -5.49e-05  1.75e-04  1.28e-04  3.81e-04  3.61e-06
## 3329 -1.09e-02  8.43e-03  2.07e-02 -1.03e-02  2.04e-02 -1.45e-02  9.21e-03
## 3330  1.51e-02 -7.22e-03 -2.47e-03 -3.48e-03 -2.82e-03 -3.82e-03 -3.57e-03
## 3331  1.31e-03  9.16e-04 -1.96e-04 -5.57e-04 -2.76e-04 -3.94e-04 -1.28e-04
## 3332  2.35e-02  1.40e-03  1.39e-02  8.73e-03  9.67e-03  6.43e-03  2.00e-02
## 3333  1.69e-02  1.79e-02 -1.09e-02 -9.03e-03  2.48e-02  3.17e-02 -2.91e-02
## 3334 -5.45e-03 -4.94e-03  3.45e-03  2.78e-03  2.42e-03  2.00e-03  4.41e-03
## 3335 -1.06e-02 -2.54e-05 -4.42e-03  4.28e-05 -4.84e-03 -6.43e-04  1.57e-02
## 3336 -7.63e-03  1.80e-02  6.95e-03  7.22e-03  3.91e-03  3.58e-03  1.42e-03
## 3337 -5.97e-04 -3.90e-03 -8.59e-03 -9.66e-03 -6.17e-03  1.01e-02 -6.76e-03
## 3338 -7.15e-04 -2.52e-03 -4.60e-04 -2.28e-04 -2.12e-04  5.23e-05 -7.83e-04
## 3339 -1.49e-02 -1.54e-03 -8.95e-03 -5.38e-03 -6.28e-03 -3.93e-03 -1.26e-02
## 3340  7.14e-04  1.55e-03 -3.26e-03  7.93e-03 -3.48e-03  8.84e-03 -1.25e-03
## 3341  2.88e-02 -8.09e-04  9.53e-03  1.93e-04  1.34e-02  1.00e-03  3.42e-02
## 3342 -3.69e-04 -5.39e-04 -8.10e-06  2.63e-04  1.89e-04  3.66e-04  1.19e-04
## 3343 -2.32e-04  2.41e-03 -3.77e-03  1.03e-02 -4.65e-03  1.13e-02 -1.44e-03
## 3344 -1.10e-02  4.65e-03 -4.34e-03 -4.11e-04  1.58e-02 -3.87e-03  7.49e-03
## 3345  7.80e-03 -4.28e-02 -1.08e-02 -1.42e-02 -6.51e-03 -1.36e-02 -5.14e-03
## 3346  1.07e-02 -2.64e-02  4.02e-02 -2.43e-02 -1.08e-02  4.55e-02 -7.32e-03
## 3347 -1.11e-02  9.76e-04 -3.69e-03 -1.46e-03 -5.24e-03 -2.47e-03 -1.37e-02
## 3348 -2.31e-02 -9.92e-03 -3.27e-02  7.27e-03  1.48e-02  8.51e-03  2.87e-02
## 3349 -4.19e-04 -9.29e-04  2.53e-03 -2.32e-03  2.93e-03 -2.59e-03  2.67e-03
## 3350  3.70e-05 -3.35e-05 -5.82e-05  4.02e-04 -1.02e-04 -1.55e-04  3.70e-04
## 3351 -3.63e-02 -4.62e-02 -1.26e-02 -1.90e-02 -8.38e-03 -1.28e-02 -6.51e-03
## 3352  6.75e-03 -3.54e-02 -9.24e-03 -1.64e-02  3.83e-02 -1.86e-02 -2.07e-02
## 3353 -2.02e-03  3.21e-03  3.49e-03 -5.17e-03  2.56e-03 -6.51e-03  7.96e-04
## 3354 -1.28e-03 -6.79e-03 -1.69e-03 -3.38e-03 -2.77e-03 -3.27e-03 -2.61e-03
## 3355  1.62e-02  5.50e-03 -9.39e-03 -4.43e-03  2.51e-02 -8.03e-03  1.92e-02
## 3356  2.72e-03  3.04e-03 -2.76e-03  3.26e-03 -3.43e-03 -4.61e-03  2.80e-03
## 3357  6.20e-03 -1.97e-02  4.07e-02  3.99e-02 -5.94e-03 -1.92e-02 -4.23e-04
## 3358 -9.97e-04 -6.87e-04 -3.56e-03  4.12e-03 -2.04e-03 -2.82e-03 -2.01e-03
## 3359 -1.49e-02  1.60e-02 -1.01e-02  3.34e-02  2.09e-02 -9.65e-03  1.21e-02
## 3360 -4.79e-04 -9.85e-04 -1.84e-04  2.56e-04  2.54e-04  6.84e-04 -8.23e-06
## 3361 -2.35e-02 -1.05e-04  1.52e-02  1.06e-02 -1.51e-02  1.69e-02 -5.21e-03
## 3362  1.55e-03  7.73e-04 -1.28e-03 -1.26e-03 -9.40e-04 -7.16e-04 -1.11e-03
## 3363  6.42e-03 -1.07e-03 -1.18e-02  1.18e-02 -1.28e-02  1.32e-02  2.38e-02
## 3364  2.41e-02  2.05e-02  7.96e-03 -2.79e-02  3.31e-03  6.60e-03 -3.57e-04
## 3365 -8.98e-04 -3.99e-03 -6.90e-03 -8.65e-03 -7.99e-03  4.96e-03  6.04e-03
## 3366  3.41e-03  2.79e-02  6.15e-03  1.11e-02  1.15e-02  1.28e-02  9.03e-03
## 3367  3.71e-03 -7.42e-03 -9.28e-03  8.94e-03  1.73e-02 -2.16e-02 -7.26e-03
## 3368 -1.08e-02 -1.12e-03 -5.25e-03 -2.00e-03 -3.41e-03 -3.48e-04 -8.12e-03
## 3369  7.64e-03 -2.33e-02  4.05e-02  3.89e-02 -7.21e-03 -1.55e-02  1.88e-03
```

```
## 3370   3.76e-03   2.41e-03 -5.75e-04 -1.18e-03 -6.20e-04 -5.81e-04  1.02e-04
## 3371 -1.99e-04 -7.53e-03 -1.79e-03 -2.95e-03 -2.98e-03 -3.03e-03 -2.29e-03
## 3372 -2.06e-03   7.55e-04 -1.76e-05 -9.89e-05 -1.62e-04   2.79e-05  1.60e-04
## 3373   7.75e-03 -5.05e-03   3.83e-03   3.04e-03   2.22e-03   1.91e-03  4.53e-03
## 3374   5.60e-05 -6.21e-03 -1.74e-03 -2.04e-03 -2.07e-03 -2.11e-03 -2.69e-03
## 3375 -6.65e-03   1.19e-03 -1.35e-03   1.51e-03 -4.20e-03   8.17e-05  6.23e-03
## 3376 -3.10e-03   2.04e-03   3.94e-03 -4.86e-03 -3.82e-03 -3.52e-03 -4.20e-03
## 3377 -3.75e-03   1.35e-03 -3.76e-04 -5.40e-04 -3.88e-04 -1.05e-04  2.86e-05
## 3378 -1.35e-02 -3.70e-04 -7.37e-03 -4.52e-03 -5.92e-03 -2.80e-03 -1.18e-02
## 3379   1.59e-02   4.61e-03 -1.05e-02 -8.71e-03   2.91e-02 -7.57e-03 -1.81e-02
## 3380 -1.03e-02   1.57e-03 -5.04e-03 -5.80e-04 -8.67e-03 -3.71e-03  8.48e-03
## 3381   2.35e-03   2.48e-03   2.55e-03 -2.30e-03   2.48e-03 -2.63e-03  2.28e-03
## 3382 -4.54e-04 -6.17e-03 -1.49e-03 -1.90e-03 -1.92e-03 -2.14e-03 -2.43e-03
## 3383 -2.39e-03   2.85e-03   2.58e-03 -2.66e-03 -3.49e-03   1.97e-03  9.49e-04
## 3384 -2.12e-02 -4.54e-04   1.27e-02   9.20e-03   1.00e-02   8.36e-03  2.05e-02
## 3385   3.61e-04   4.38e-04   3.84e-05   5.03e-05   3.89e-05   1.34e-04  1.49e-04
## 3386   5.10e-05 -6.01e-03 -1.82e-03 -2.19e-03 -1.97e-03 -2.17e-03 -2.64e-03
## 3387 -4.82e-03   1.08e-02   4.78e-03   5.54e-03   3.15e-03   4.23e-03  2.63e-03
## 3388   5.05e-04 -1.69e-04   1.15e-02   9.65e-03 -5.19e-04 -4.15e-03  1.76e-03
## 3389   9.84e-03   8.17e-03 -9.22e-03 -8.10e-03   4.39e-03   7.63e-03  1.69e-03
## 3390   1.89e-03 -4.00e-03 -2.97e-03 -5.43e-03 -5.46e-03   4.49e-03  5.03e-03
## 3391 -7.73e-03 -1.75e-03 -2.27e-03 -4.08e-03   7.66e-03   6.56e-03 -1.77e-03
## 3392 -1.96e-03 -1.94e-03   1.35e-03   1.53e-03   1.01e-03   9.31e-04  1.57e-03
## 3393   1.71e-03 -3.91e-03 -3.22e-03 -6.20e-03 -4.61e-03   8.08e-03  1.18e-02
## 3394   7.63e-03   9.82e-03   6.14e-03   7.53e-03 -5.22e-03 -5.07e-03 -4.89e-03
## 3395   1.77e-02   8.40e-04   1.34e-02   8.22e-03   1.51e-02   8.34e-03 -2.72e-02
## 3396   3.44e-04   3.14e-04 -1.42e-06   4.19e-06 -6.76e-06 -6.62e-05  3.99e-05
## 3397 -1.37e-02   5.75e-03   2.14e-02 -1.80e-03 -5.99e-03 -3.22e-03 -1.52e-02
## 3398 -3.58e-04 -6.26e-03 -1.53e-03 -1.89e-03 -1.77e-03 -1.93e-03 -2.58e-03
## 3399 -1.37e-03   2.37e-03 -2.13e-03 -1.73e-03   1.45e-03   2.54e-03  6.80e-04
## 3400   1.67e-03 -4.60e-03   8.99e-03 -5.49e-03   6.05e-03 -8.47e-03  6.43e-03
## 3401 -9.63e-04 -1.88e-03 -1.93e-04 -1.04e-04 -2.00e-04 -1.32e-04 -4.70e-04
## 3402 -4.27e-04 -2.54e-04 -1.44e-06 -6.56e-05 -3.43e-06 -9.12e-05 -7.44e-05
## 3403   9.64e-03 -3.87e-02   4.00e-02 -2.11e-02 -9.50e-03 -1.79e-02 -3.70e-03
## 3404   3.61e-04 -2.77e-03 -8.94e-04 -2.63e-03 -5.05e-04 -2.16e-03 -1.29e-04
## 3405   8.30e-03 -4.25e-02 -9.80e-03 -1.39e-02 -1.23e-02 -1.63e-02  4.72e-02
## 3406 -4.12e-03 -1.51e-03   1.69e-02 -1.15e-02 -2.68e-02 -1.03e-02  1.19e-02
## 3407 -1.00e-03   2.71e-03 -5.84e-03 -3.24e-03   3.68e-03 -3.13e-03  2.33e-03
## 3408 -2.45e-02   1.31e-03   1.60e-02   8.89e-03   1.90e-02   1.07e-02 -1.14e-02
## 3409 -1.31e-04 -5.42e-04   1.71e-03 -9.52e-04 -1.35e-03 -1.02e-03  1.52e-03
## 3410 -3.66e-03 -2.34e-02 -4.60e-02 -3.35e-02 -3.87e-02 -2.87e-02  2.24e-02
## 3411 -5.68e-03   1.49e-02   6.65e-03 -2.60e-02   9.32e-03   1.21e-02 -2.12e-02
## 3412 -3.20e-03   7.20e-03 -1.20e-02   9.09e-03   4.36e-03 -1.30e-02  2.56e-03
## 3413   3.83e-03 -7.87e-03 -6.61e-03 -1.22e-02 -6.43e-03   9.27e-03 -4.85e-03
## 3414 -3.57e-03   3.71e-05 -2.83e-04   3.29e-03   3.43e-03 -1.19e-03 -5.96e-04
## 3415   1.62e-02   9.27e-03 -1.64e-02 -1.90e-02   5.19e-03   8.11e-03 -2.41e-02
## 3416 -1.69e-04   1.32e-03   1.66e-04   5.90e-04   6.87e-04   8.40e-04 -2.60e-03
## 3417   7.42e-05   7.49e-05 -2.43e-04   1.62e-04   8.64e-05   1.02e-04  1.06e-04
## 3418   7.04e-03 -3.29e-02 -1.54e-02   3.65e-02 -1.03e-02 -2.29e-02 -4.27e-03
## 3419   1.36e-02   2.34e-03 -6.07e-03 -1.66e-03 -1.06e-02 -5.74e-03  1.00e-02
```

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## 3420 -1.98e-02  5.35e-03  1.52e-02  1.41e-02  1.28e-02  1.21e-02  1.74e-02
## 3421  1.41e-02  5.73e-04 -8.34e-03 -5.99e-03 -6.65e-03 -5.57e-03 -1.31e-02
## 3422  1.87e-02  3.74e-04  1.47e-02  4.75e-03  2.13e-02  8.59e-03 -1.76e-02
## 3423 -9.94e-03  1.40e-02 -2.88e-02  4.14e-02  2.85e-02 -1.32e-02  2.96e-02
## 3424  7.65e-04  9.76e-04  7.75e-06 -2.01e-05  1.03e-04  2.20e-04  2.82e-04
## 3425 -7.14e-03 -3.43e-03 -2.91e-03 -4.16e-03 -3.34e-03  6.67e-03  8.64e-03
## 3426 -1.09e-02  4.29e-03 -9.25e-03 -2.92e-03  1.75e-02 -6.56e-03  7.76e-03
## 3427 -1.92e-03 -2.22e-03  1.20e-03  1.51e-03  8.61e-04  8.47e-04  1.54e-03
## 3428  2.71e-03 -4.86e-03 -4.67e-03 -9.52e-03 -4.57e-03  1.02e-02 -2.69e-03
## 3429 -2.77e-03  6.49e-03  5.65e-03 -8.95e-03  4.93e-03 -9.05e-03  3.13e-03
## 3430 -2.17e-02 -1.64e-03  1.29e-02  9.19e-03  1.05e-02  8.55e-03  1.96e-02
## 3431 -1.14e-03 -3.25e-03 -6.55e-04 -1.05e-03 -6.65e-04 -4.32e-04 -9.55e-04
## 3432  9.19e-03  1.57e-02 -9.66e-03  8.42e-03  5.12e-03  7.62e-03  3.49e-03
## 3433 -1.06e-02  6.14e-04 -6.92e-03 -1.64e-03 -1.10e-02 -4.17e-03  9.58e-03
## 3434  3.25e-03 -1.36e-02  1.02e-02 -3.86e-02  6.46e-03 -4.54e-02  1.01e-04
## 3435 -3.07e-03 -2.81e-03  2.09e-03  2.27e-03  1.77e-03  1.50e-03  2.45e-03
## 3436 -2.96e-03  4.04e-03 -5.10e-03 -4.64e-03 -6.61e-03  5.48e-03  2.44e-03
## 3437 -1.97e-02 -1.58e-02  1.37e-02  8.31e-03 -1.75e-02 -2.71e-02 -7.86e-03
## 3438 -1.19e-02 -1.28e-02 -7.71e-03 -1.14e-02 -7.98e-03 -1.10e-02 -8.62e-03
## 3439 -8.34e-05  1.38e-04  5.89e-03 -7.17e-03 -8.07e-03  7.29e-03  4.60e-03
## 3440  6.42e-03 -6.07e-03 -1.14e-02  1.16e-02  1.84e-02 -1.67e-02 -4.71e-03
## 3441  3.17e-03 -5.25e-03 -5.18e-03 -1.03e-02 -5.18e-03  1.13e-02 -2.97e-03
## 3442  6.62e-03  2.06e-03 -1.14e-02  1.28e-02  1.21e-02  1.07e-02  1.35e-02
## 3443  9.59e-03 -2.85e-02 -1.28e-02 -2.28e-02 -1.84e-02  4.04e-02 -2.28e-02
## 3444  3.80e-03 -2.86e-04 -7.36e-03  1.13e-02 -9.69e-03  1.17e-02 -7.52e-03
## 3445 -8.97e-05  2.13e-03 -4.70e-03  9.73e-03 -4.80e-03  1.05e-02 -1.80e-03
## 3446 -1.89e-02  6.55e-03  1.40e-02  1.03e-02  1.11e-02  7.04e-03  1.19e-02
## 3447 -5.54e-03  2.89e-02  7.46e-03  9.78e-03  4.58e-03  9.32e-03  3.80e-03
## 3448  5.76e-04  4.92e-03  1.45e-02  9.77e-03 -4.25e-03  1.08e-02 -9.05e-04
## 3449 -1.86e-04  1.99e-03 -1.74e-02  9.11e-03 -2.24e-02  5.86e-03  8.08e-03
## 3450  9.97e-03  3.02e-03 -3.48e-03 -3.19e-04 -7.86e-03 -4.16e-03  8.46e-03
## 3451 -4.76e-04 -5.99e-04 -7.78e-04  4.02e-04  2.87e-04  2.48e-04  3.59e-04
## 3452  1.36e-05 -8.50e-03 -2.45e-03 -4.08e-03 -3.53e-03 -3.30e-03 -3.23e-03
## 3453  2.25e-02  5.54e-04 -1.32e-02 -6.04e-03 -1.71e-02 -9.87e-03  1.26e-02
## 3454  6.66e-03 -1.78e-03 -1.46e-04  2.38e-05 -1.02e-05  4.86e-04  2.61e-04
## 3455 -1.89e-02 -8.17e-03  1.53e-02  1.03e-02 -9.09e-03 -1.77e-02 -3.31e-03
## 3456 -4.77e-04  5.87e-04 -4.93e-04 -4.96e-04  3.38e-04  4.71e-04  1.22e-04
## 3457 -1.20e-02  7.10e-04 -5.12e-03 -2.06e-03 -6.78e-03 -3.11e-03 -1.61e-02
## 3458  1.07e-02 -7.75e-03  1.69e-02 -2.81e-02  1.42e-02  1.03e-02 -2.08e-02
## 3459 -2.21e-02 -4.17e-03 -1.96e-02  9.70e-03  1.44e-02  8.78e-03  2.31e-02
## 3460 -6.31e-03  2.76e-02  7.77e-03  9.77e-03  4.89e-03  9.19e-03  3.84e-03
## 3461 -1.46e-03  5.91e-04 -9.44e-05  5.48e-06 -1.14e-05  6.13e-05  7.55e-06
## 3462  1.03e-02  1.77e-03 -3.62e-03  4.63e-04 -7.11e-03 -2.02e-03  7.96e-03
## 3463 -3.72e-05 -5.63e-03 -1.38e-03 -1.47e-03 -1.63e-03 -1.96e-03 -1.87e-03
## 3464 -3.18e-02 -1.16e-03  1.53e-02  3.17e-03  2.21e-02  7.86e-03 -1.95e-02
## 3465 -4.80e-03  1.28e-02  6.84e-03 -1.62e-02  4.07e-03  8.39e-03  2.13e-03
## 3466 -9.48e-04 -1.68e-03 -1.53e-04 -9.75e-05 -1.89e-04 -1.68e-04 -4.22e-04
## 3467  4.02e-03 -1.66e-03 -1.06e-02  9.77e-03 -1.10e-02  9.26e-03 -6.97e-03
## 3468 -1.18e-02  1.68e-02 -2.45e-02 -1.45e-02  1.87e-02  3.58e-02  7.65e-03
## 3469  1.69e-03 -3.29e-03 -4.34e-03 -1.03e-02  7.77e-03  4.69e-03  7.89e-03
```

```
## 3470 -4.00e-04 -3.22e-03 -5.57e-04  1.60e-04 -2.13e-04  3.04e-04 -4.00e-04
## 3471  3.75e-04  1.26e-03  1.69e-02 -1.38e-02  1.76e-02  1.13e-02 -4.29e-03
## 3472  1.84e-02  3.36e-03  1.52e-02  9.67e-03  1.01e-02  6.47e-03  1.81e-02
## 3473  1.88e-02  1.37e-02  6.86e-03 -2.10e-02 -1.65e-02  1.47e-02 -1.58e-02
## 3474  9.37e-03 -4.34e-02 -1.23e-02 -1.57e-02 -7.07e-03 -1.42e-02 -6.05e-03
## 3475  2.91e-03  1.88e-03 -1.80e-04 -5.47e-04 -5.26e-04 -2.95e-04  2.47e-04
## 3476  2.44e-02  2.99e-02  7.43e-03  1.11e-02  5.14e-03  8.54e-03  2.73e-03
## 3477 -7.00e-03  2.20e-02  7.36e-03  8.34e-03  4.46e-03  7.22e-03  2.60e-03
## 3478 -1.56e-02 -7.90e-03 -2.12e-02  1.07e-02 -2.46e-02  8.93e-03  1.43e-02
## 3479 -2.32e-02 -6.45e-03  1.57e-02 -2.70e-02  1.44e-02  7.47e-03  2.08e-02
## 3480 -1.55e-02  2.74e-04 -6.29e-03 -3.53e-03 -4.77e-03 -3.01e-03 -1.04e-02
## 3481  4.26e-03 -4.08e-03 -6.61e-03 -9.94e-03  1.06e-02  9.83e-03 -9.54e-03
## 3482  1.79e-03  1.45e-03 -2.56e-04 -7.48e-04 -4.53e-04 -6.30e-04 -2.82e-05
## 3483  2.58e-02  3.09e-02  6.17e-03  9.18e-03  8.52e-03  9.11e-03  1.13e-02
## 3484  1.34e-02  4.63e-04 -1.31e-02 -1.30e-02 -1.03e-02 -9.83e-03 -1.05e-02
## 3485  1.09e-02 -3.87e-02 -1.39e-02 -1.81e-02  4.41e-02 -1.66e-02 -1.16e-02
## 3486 -3.36e-03  3.83e-03 -4.28e-03  4.74e-03 -4.44e-03 -4.33e-03 -5.57e-03
## 3487  4.68e-03  5.33e-03 -1.94e-02  1.14e-02  7.75e-03  9.66e-03  5.72e-03
## 3488 -6.46e-03  2.64e-02  7.51e-03  9.54e-03  5.03e-03  9.31e-03  3.47e-03
## 3489 -1.29e-02  8.92e-04 -8.05e-03 -3.85e-03 -8.23e-03 -4.21e-03  1.75e-02
## 3490 -1.12e-02 -4.45e-04 -4.86e-03 -1.46e-03 -3.46e-03 -1.59e-04 -7.95e-03
## 3491 -1.46e-02 -6.79e-03  1.15e-02 -1.81e-02  9.14e-03  8.63e-03  9.44e-03
## 3492 -2.53e-02  2.02e-03  1.33e-02  7.57e-03  1.02e-02  3.14e-03  1.89e-02
## 3493  3.65e-02  1.07e-02 -2.99e-02  3.72e-02 -1.99e-02 -1.77e-02 -2.35e-02
## 3494  4.11e-04  2.72e-02  7.00e-03  8.37e-03  8.25e-03  8.61e-03  1.03e-02
## 3495  2.66e-03  7.40e-04 -6.74e-03  1.09e-02 -8.01e-03  1.08e-02  1.94e-02
## 3496 -4.03e-04 -4.43e-04 -5.73e-04  2.68e-04  3.34e-04  2.43e-04  4.73e-04
## 3497 -9.35e-04 -1.32e-03  8.11e-03 -1.39e-02 -8.88e-03  1.15e-02 -8.37e-03
## 3498  1.52e-03 -1.79e-03 -3.21e-03  8.56e-03  1.23e-02 -7.59e-03 -1.43e-03
## 3499  3.53e-03  2.48e-03 -4.54e-04 -1.03e-03 -6.71e-04 -6.00e-04  8.50e-05
## 3500  3.24e-03  1.03e-02  1.06e-02  1.01e-02  8.14e-03  9.20e-03  7.67e-03
## 3501  1.80e-02 -1.58e-02  1.30e-02 -3.27e-02 -3.02e-02  9.49e-03  1.59e-02
## 3502 -4.96e-05 -6.25e-03 -1.81e-03 -2.21e-03 -1.97e-03 -2.20e-03 -2.59e-03
## 3503  5.85e-05 -2.98e-04 -6.18e-05 -2.04e-04 -2.94e-05 -1.14e-04  6.22e-06
## 3504 -5.52e-03  2.89e-02  7.45e-03  9.77e-03  4.56e-03  9.31e-03  3.77e-03
## 3505  2.32e-02  1.40e-03  1.38e-02  8.64e-03  9.55e-03  6.25e-03  1.98e-02
## 3506  5.35e-04 -1.53e-04 -1.29e-05  1.47e-05  1.88e-05  2.71e-05 -2.82e-05
## 3507  4.59e-03 -2.14e-03 -4.41e-04 -1.06e-03 -5.73e-04 -1.54e-03 -1.32e-03
## 3508 -7.38e-04 -4.57e-03 -8.12e-04 -1.04e-03 -1.04e-03 -1.53e-03 -1.52e-03
## 3509  1.24e-03 -3.10e-03  7.58e-03 -3.33e-03 -8.20e-04 -2.31e-03  6.39e-04
## 3510 -4.22e-03  7.58e-03 -1.39e-02 -1.43e-02  3.13e-03  7.30e-03  4.39e-04
## 3511  8.45e-03 -4.41e-02 -1.12e-02 -1.47e-02 -6.76e-03 -1.40e-02 -4.45e-03
## 3512  6.73e-02  4.69e-02  1.08e-02  3.07e-02  8.97e-03  2.58e-02  4.71e-03
## 3513  1.87e-04 -6.43e-03 -1.95e-03 -2.30e-03 -2.04e-03 -2.19e-03 -2.70e-03
## 3514  8.58e-03  6.66e-03  1.98e-02  7.82e-03  1.61e-02  5.37e-03 -2.34e-02
## 3515 -9.84e-04 -5.04e-03 -1.24e-03 -1.59e-03 -1.57e-03 -2.34e-03 -2.16e-03
## 3516  1.60e-03 -2.34e-03  1.59e-03  1.33e-03 -1.40e-03 -2.11e-03 -6.24e-04
## 3517 -2.19e-04 -3.98e-04 -3.87e-05 -1.11e-05 -3.68e-05 -6.10e-05 -9.59e-05
## 3518 -3.25e-04  1.53e-03  3.55e-04  8.87e-04 -9.45e-06  6.58e-04  1.76e-05
## 3519 -9.84e-03 -1.84e-04 -5.48e-03 -1.20e-03 -6.46e-03 -1.05e-03 -1.42e-02
```

```
## 3520 -7.86e-03  3.53e-03  1.90e-02 -1.32e-02  2.59e-02 -1.02e-02  2.31e-02
## 3521  9.93e-03 -3.88e-02 -1.09e-02 -1.50e-02  4.20e-02 -1.23e-02 -5.99e-03
## 3522 -1.42e-02  7.78e-04 -6.13e-03 -3.63e-03 -5.32e-03 -2.51e-03 -1.05e-02
## 3523  4.02e-03  2.90e-02  7.59e-03  1.45e-02  1.18e-02  1.33e-02  1.12e-02
## 3524 -2.33e-02 -6.32e-03  1.11e-02  5.57e-03 -4.17e-02  3.94e-03  2.13e-02
## 3525  2.33e-02  1.39e-02  7.14e-03  8.11e-03 -2.38e-02 -2.41e-02 -2.50e-02
## 3526 -6.48e-04 -2.50e-03 -5.18e-04 -2.60e-04 -2.87e-04  1.08e-05 -8.22e-04
## 3527  1.14e-02 -3.55e-02 -1.09e-02 -1.30e-02  3.79e-02 -1.65e-02 -2.05e-02
## 3528 -8.78e-04 -4.77e-03 -1.14e-03 -1.46e-03 -1.18e-03 -2.65e-04 -1.06e-03
## 3529  4.46e-02  3.90e-02  2.10e-02  3.30e-02 -4.79e-02  2.78e-02  1.15e-02
## 3530  9.82e-04 -1.69e-03 -1.83e-03  6.64e-03 -9.69e-04 -2.98e-03  7.78e-04
## 3531  2.81e-02 -8.35e-03 -3.97e-02  6.79e-03  6.92e-03  5.61e-03  1.78e-02
## 3532 -3.25e-03  9.14e-03 -7.51e-03  6.81e-03 -8.46e-03  6.34e-03  3.30e-03
## 3533  8.96e-03  4.43e-03  3.04e-04  1.21e-03  7.49e-04  1.43e-03  1.92e-03
## 3534  1.06e-02 -4.52e-02 -1.32e-02 -1.61e-02 -7.93e-03 -1.46e-02 -6.35e-03
## 3535  4.64e-03  2.43e-03  2.61e-04  1.16e-03  5.38e-05  6.68e-04 -3.29e-04
## 3536 -1.65e-03  2.06e-04  7.19e-03 -1.03e-02  6.82e-03  5.82e-03 -1.32e-02
## 3537  8.71e-04 -7.23e-03 -7.31e-03 -7.12e-03 -6.48e-03 -6.36e-03  8.04e-03
## 3538 -3.36e-04  2.38e-03  4.54e-04  9.68e-04  3.42e-04  1.14e-03 -5.89e-03
## 3539 -1.64e-02  8.89e-03  2.64e-02 -1.25e-02  2.75e-02 -1.20e-02  2.47e-02
## 3540  6.11e-03  5.45e-03  2.04e-02  1.01e-02  2.08e-02  1.10e-02 -9.01e-03
## 3541 -3.66e-03 -5.25e-03 -6.54e-03  2.51e-03  1.62e-03  1.86e-03  3.16e-03
## 3542 -2.52e-03 -2.80e-03  2.08e-03  2.24e-03  1.30e-03  1.90e-03  2.75e-03
## 3543  3.45e-04 -1.27e-03  4.26e-03 -1.61e-03  4.14e-03 -2.22e-03  4.54e-03
## 3544  5.82e-03 -3.19e-03  3.60e-03  2.41e-03  5.06e-03  2.86e-03 -5.24e-03
## 3545  2.72e-02  1.19e-02 -2.01e-02 -1.27e-02 -2.49e-02  3.34e-02  9.98e-03
## 3546  1.28e-02  1.77e-03 -6.85e-03 -4.75e-03 -8.21e-03 -5.88e-03 -1.98e-02
## 3547  2.58e-04 -9.63e-04 -7.68e-04 -1.97e-03 -1.02e-03  4.91e-03  5.79e-03
## 3548 -2.35e-03  8.36e-04  6.56e-05 -2.68e-05 -7.52e-05 -5.71e-05  2.97e-04
## 3549 -2.12e-02  4.84e-04  1.50e-02  1.19e-02  1.01e-02  9.28e-03  2.04e-02
## 3550 -1.27e-02 -9.18e-04 -1.06e-02 -4.41e-03 -1.02e-02 -5.46e-03  1.90e-02
## 3551 -3.72e-04 -2.76e-03 -5.73e-04 -4.34e-05 -2.21e-04  9.78e-05 -4.60e-04
## 3552  1.24e-04 -1.05e-02 -1.92e-02 -2.59e-02 -1.75e-02  9.41e-03 -1.77e-02
## 3553  1.15e-02  5.13e-03  1.39e-02  1.15e-02  2.09e-02  1.43e-02 -9.14e-03
## 3554 -2.67e-04 -4.39e-04 -6.52e-05  9.03e-05  1.01e-04  2.41e-04 -3.94e-05
## 3555 -4.84e-03  2.42e-02  6.58e-03  9.96e-03  4.87e-03  8.14e-03  2.52e-03
## 3556 -1.71e-02  9.36e-03 -1.82e-02 -1.39e-02 -1.38e-02  3.91e-02 -2.07e-02
## 3557 -1.09e-02  4.51e-03  1.87e-02 -3.50e-05 -5.11e-03 -6.11e-04 -1.26e-02
## 3558  1.34e-02 -1.07e-02  1.57e-02 -3.83e-02  1.51e-02  6.75e-03  2.43e-02
## 3559  1.36e-03  2.79e-03 -4.21e-03  9.33e-03  1.09e-02  8.32e-03  1.32e-02
## 3560  7.79e-03 -3.37e-02  3.76e-02 -1.44e-02 -6.20e-03 -1.44e-02 -4.14e-03
## 3561  4.82e-03  4.54e-03 -4.25e-03  5.05e-03 -4.04e-03 -4.39e-03 -3.65e-03
## 3562  2.02e-02  2.12e-02  2.77e-02 -1.25e-02 -1.59e-02  3.60e-02 -2.99e-02
## 3563 -1.99e-02 -2.07e-02 -2.57e-02  7.92e-03  1.81e-02 -3.16e-02 -1.33e-02
## 3564 -6.95e-04 -2.79e-03 -6.53e-04 -4.01e-04 -3.45e-04 -8.64e-05 -7.69e-04
## 3565 -4.43e-04 -8.43e-04 -6.28e-05  3.97e-04  2.90e-04  6.18e-04  1.77e-04
## 3566 -9.22e-03  1.90e-02  8.52e-03  8.50e-03 -1.74e-02  9.02e-03  1.18e-02
## 3567 -2.80e-02  4.50e-03  1.78e-02  9.27e-03  1.66e-02  6.96e-03  2.79e-02
## 3568 -1.45e-03 -4.66e-03 -7.24e-04 -1.71e-03 -1.69e-03 -2.23e-03 -1.67e-03
## 3569 -1.42e-04 -8.82e-03 -2.42e-03 -4.12e-03 -3.52e-03 -3.34e-03 -3.12e-03
```

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## 3570 -3.12e-03  2.00e-04  9.88e-03  7.34e-03  1.14e-02 -1.54e-02 -8.98e-03
## 3571  8.46e-05 -4.72e-05 -1.79e-06 -1.61e-05 -1.67e-05 -2.88e-05 -1.85e-05
## 3572  2.29e-02 -3.73e-02  3.77e-02 -3.56e-02 -3.07e-02  3.65e-02 -3.45e-02
## 3573 -3.99e-03  5.71e-03 -6.82e-03 -7.39e-03  4.00e-03  5.37e-03 -1.14e-02
## 3574  8.57e-03  4.85e-04  1.69e-02  1.16e-02 -2.15e-02  7.70e-03  1.88e-02
## 3575  6.10e-03 -1.85e-02 -9.46e-03 -1.27e-02  3.43e-02  3.53e-02  2.72e-02
## 3576  7.11e-03 -4.68e-03  4.69e-03  3.01e-03  4.77e-03  2.81e-03  8.96e-03
## 3577 -2.35e-02 -2.69e-03  1.26e-02  6.18e-03  1.42e-02  9.92e-03 -3.11e-02
## 3578 -2.77e-04 -2.59e-03 -7.44e-03  7.56e-03 -5.02e-03 -7.04e-03 -4.23e-03
## 3579 -1.86e-02 -1.24e-02  1.26e-02 -3.35e-02  9.78e-03  9.39e-03  1.51e-02
## 3580 -1.52e-02 -8.90e-03  1.29e-02 -1.36e-02  1.44e-02 -1.51e-02 -1.18e-02
## 3581 -1.39e-02  2.63e-02 -1.93e-02  3.63e-02  4.11e-02  3.89e-02 -1.54e-02
## 3582 -9.69e-03  5.04e-03  1.77e-02  1.48e-03 -6.53e-03 -1.08e-03  9.98e-03
## 3583  2.67e-02  1.82e-02 -3.00e-02  5.93e-03 -2.89e-02  8.61e-03  1.21e-02
## 3584  1.34e-02  2.09e-02  7.10e-03  8.49e-03  7.36e-03  6.47e-03  8.30e-03
## 3585 -1.08e-03 -1.47e-03 -1.69e-04 -4.15e-04 -3.08e-04 -4.80e-04 -4.54e-04
## 3586  1.48e-02  3.54e-02  2.95e-02  3.29e-02 -9.57e-03  3.46e-02 -1.51e-02
## 3587  8.86e-03 -4.18e-02 -1.16e-02 -1.51e-02 -6.93e-03 -1.41e-02 -5.63e-03
## 3588  1.64e-02 -6.23e-04 -1.05e-02 -7.48e-03 -7.88e-03 -6.30e-03 -1.48e-02
## 3589  3.50e-03  3.57e-03 -2.27e-02  1.06e-02  1.17e-02  1.09e-02  1.44e-02
## 3590  1.45e-02  2.04e-05 -7.72e-03 -4.11e-03 -5.72e-03 -2.51e-03 -1.04e-02
## 3591  7.28e-03 -2.28e-02  4.29e-02  3.85e-02 -9.50e-03 -2.28e-02 -3.04e-04
## 3592 -2.33e-02 -1.30e-02  1.48e-02  9.24e-03  2.11e-02 -3.27e-02 -1.05e-02
## 3593 -7.05e-03  3.01e-02  7.64e-03  1.03e-02  5.79e-03  7.40e-03  2.35e-03
## 3594  3.90e-03  5.37e-04 -3.13e-03 -3.23e-03 -3.85e-03 -3.85e-03 -5.03e-03
## 3595 -1.04e-02  4.22e-03  2.18e-02 -1.70e-02  3.45e-02 -8.22e-03 -2.60e-02
## 3596 -2.31e-04 -3.88e-04 -2.38e-05 -8.22e-05 -1.20e-04 -2.22e-04 -1.59e-04
## 3597  9.40e-03  4.79e-03 -9.09e-03 -1.03e-02 -1.24e-02  5.74e-03  1.46e-03
## 3598  9.10e-03 -4.64e-02 -1.26e-02 -1.95e-02 -9.83e-03 -1.64e-02 -6.00e-03
## 3599 -8.05e-04 -2.08e-03 -3.08e-04 -5.41e-04 -6.46e-04 -1.08e-03 -8.13e-04
## 3600 -6.27e-03  1.45e-02 -1.19e-02  7.15e-03  3.58e-03  5.68e-03  2.00e-03
## 3601 -2.22e-04  5.07e-03  1.67e-02  1.13e-02 -4.07e-03  1.24e-02  9.12e-05
## 3602 -2.17e-03  5.07e-03  4.44e-03 -5.52e-03  4.28e-03 -6.19e-03  2.28e-03
## 3603 -1.35e-02 -8.17e-03 -2.43e-02 -1.87e-02 -1.80e-02 -1.10e-02 -2.22e-02
## 3604  2.51e-03  6.96e-04 -6.11e-03  1.03e-02 -6.05e-03  1.27e-02 -1.88e-03
## 3605 -1.16e-02  5.72e-03 -5.00e-03 -4.62e-04  1.68e-02 -4.90e-03  8.33e-03
## 3606 -1.45e-02 -3.98e-03 -8.01e-03  1.16e-02  1.67e-02 -7.77e-03 -1.35e-03
## 3607  1.72e-02  3.24e-03  1.48e-02  8.99e-03  1.01e-02  6.07e-03  1.73e-02
## 3608 -4.75e-03  6.77e-03  1.05e-02  7.13e-03 -1.10e-02  1.02e-02 -9.98e-03
## 3609  5.55e-04  5.30e-04 -1.64e-03  9.61e-04  4.31e-04  6.98e-04  7.03e-04
## 3610 -1.23e-02  8.88e-03  2.31e-02 -5.67e-03  1.97e-02 -6.60e-03  1.08e-02
## 3611 -6.54e-03 -6.82e-04 -1.71e-03 -3.25e-03  5.25e-03  3.95e-03  5.43e-03
## 3612 -1.24e-03 -5.39e-03 -8.83e-03 -3.91e-03  2.42e-02 -8.04e-03  2.03e-02
## 3613  6.83e-03  1.07e-02 -7.10e-03  6.00e-03  3.02e-03  3.45e-03  1.47e-03
## 3614  1.00e-02 -5.87e-03  3.83e-03  2.69e-03  2.42e-03  1.64e-03  5.23e-03
## 3615  1.04e-04 -7.08e-03 -1.58e-02  7.30e-03 -1.64e-02 -2.19e-02 -1.88e-02
## 3616 -5.64e-03 -1.63e-02 -1.62e-02 -1.70e-02 -1.18e-02 -1.37e-02 -1.29e-02
## 3617 -4.97e-03 -5.40e-03  2.79e-03  2.32e-03  1.91e-03  1.68e-03  3.97e-03
## 3618 -2.72e-02  3.88e-03  1.76e-02  1.04e-02  1.27e-02  4.61e-03  1.64e-02
## 3619  1.71e-03 -9.15e-04 -7.21e-03  1.03e-02 -1.15e-02  7.04e-03  2.08e-02
```

```
## 3620   2.81e-03   1.73e-03  -2.19e-04  -6.05e-04  -4.44e-04  -2.75e-04   2.43e-04
## 3621  -3.58e-03   6.19e-03  -9.36e-03   6.91e-03   3.33e-03  -1.12e-02   2.30e-03
## 3622  -7.69e-04  -2.88e-03  -5.83e-04  -2.63e-04  -3.66e-04  -1.12e-07  -7.76e-04
## 3623  -2.36e-03   1.75e-03   5.43e-03  -1.85e-02  -1.86e-02  -1.64e-02  -2.10e-02
## 3624   9.74e-03  -2.66e-03  -6.71e-04  -2.96e-04  -5.16e-05   7.86e-04   3.35e-04
## 3625   2.35e-03   3.09e-02   7.17e-03   8.98e-03   8.03e-03   8.96e-03   1.25e-02
## 3626   9.14e-03  -2.85e-02  -1.07e-02   3.84e-02  -6.04e-03  -1.14e-02  -1.21e-04
## 3627   1.59e-02  -1.12e-03   1.57e-02   1.04e-02  -3.17e-02   7.29e-03   2.12e-02
## 3628  -2.56e-02   9.11e-04   1.40e-02   7.62e-03   1.01e-02   4.45e-03   2.01e-02
## 3629   3.29e-05  -2.28e-04  -6.49e-05  -1.76e-04  -1.50e-05  -1.42e-04  -2.82e-05
## 3630  -2.23e-03   7.14e-04  -9.81e-05  -1.92e-04  -1.60e-04   3.63e-05   1.57e-04
## 3631  -4.28e-04  -4.46e-03  -7.93e-04  -1.02e-03  -1.37e-03  -1.39e-03  -1.69e-03
## 3632   2.00e-03   2.88e-02   7.72e-03   9.99e-03   8.93e-03   1.07e-02   1.16e-02
## 3633   1.09e-02  -3.77e-02   3.80e-02  -1.65e-02  -8.38e-03  -1.08e-02  -1.43e-03
## 3634   1.06e-03   6.03e-03   1.98e-02   1.17e-02  -8.19e-03   1.30e-02  -2.80e-03
## 3635  -1.08e-02   7.81e-03   2.21e-02  -4.90e-03   2.28e-02  -4.21e-03  -2.44e-02
## 3636  -3.04e-03   4.64e-03   3.45e-03   4.17e-03  -2.09e-03  -1.94e-03  -2.10e-03
## 3637   1.56e-02  -1.10e-02  -3.00e-02   3.71e-03  -2.80e-02   8.16e-03  -1.56e-02
## 3638   1.39e-04   1.74e-04   1.78e-05   1.68e-05   2.19e-05   5.25e-05   6.65e-05
## 3639   1.60e-03  -4.17e-04  -6.75e-06   1.22e-04   6.38e-05   1.79e-04   1.15e-05
## 3640  -3.19e-04  -5.56e-03  -1.50e-03  -1.87e-03  -1.93e-03  -2.12e-03  -2.51e-03
## 3641  -1.19e-02  -3.60e-03   1.09e-02   1.14e-02  -8.29e-03  -1.03e-02   1.28e-02
## 3642  -2.47e-02   1.90e-03   1.40e-02   7.33e-03   1.02e-02   4.15e-03   1.81e-02
## 3643   4.33e-03   4.07e-03   1.64e-02   1.29e-02  -1.12e-02   1.26e-02   2.52e-02
## 3644  -3.74e-03   1.33e-03  -3.55e-04  -5.26e-04  -3.77e-04  -1.13e-04   4.03e-05
## 3645   2.49e-03  -7.88e-04  -1.51e-05  -4.75e-04  -1.62e-04  -5.47e-04  -3.09e-04
## 3646  -6.50e-05  -3.38e-05   2.31e-06  -7.98e-06   1.05e-07  -1.34e-05  -9.85e-06
## 3647  -4.38e-03  -1.68e-02  -1.45e-02  -1.50e-02  -1.23e-02  -1.06e-02  -8.51e-03
## 3648  -4.29e-04  -4.12e-03  -6.41e-03  -6.38e-03   8.51e-03  -4.19e-03  -4.68e-03
## 3649  -1.94e-02  -8.38e-03  -1.96e-02   1.08e-02  -1.88e-02   1.00e-02   2.39e-02
## 3650  -1.11e-03  -3.03e-03  -5.76e-04  -9.07e-04  -8.45e-04  -1.48e-03  -1.43e-03
## 3651  -4.00e-03   8.71e-03  -4.13e-03   5.19e-03   3.65e-03   4.45e-03   2.16e-03
## 3652   3.66e-03  -1.21e-03  -1.18e-04  -5.72e-05  -2.94e-05   1.93e-04  -7.15e-05
## 3653  -2.92e-03   9.39e-03   5.55e-03   9.14e-03  -1.52e-02  -1.39e-02   3.85e-03
## 3654   6.89e-04  -2.17e-03  -1.69e-03  -3.88e-03  -1.37e-03   6.04e-03  -1.08e-03
## 3655   3.56e-03  -1.36e-03   8.70e-03   1.15e-02  -1.53e-02  -1.43e-02   1.03e-02
## 3656  -1.75e-02   5.75e-03   1.35e-02   1.10e-02   1.63e-02   1.23e-02  -4.40e-03
## 3657   1.19e-02  -5.02e-02  -1.54e-02  -2.22e-02  -1.10e-02  -1.78e-02  -5.91e-03
## 3658  -2.49e-02  -2.90e-03   1.15e-02   3.68e-03   1.93e-02   1.09e-02  -1.91e-02
## 3659  -4.15e-03   1.60e-02   7.22e-03   1.04e-02   5.30e-03  -2.15e-02   4.53e-03
## 3660   3.55e-04  -6.69e-04  -8.10e-04  -2.06e-03  -1.22e-03   4.34e-03  -1.54e-03
## 3661  -8.82e-03  -7.73e-03  -2.85e-02  -1.68e-02  -2.26e-02  -1.24e-02   2.50e-02
## 3662  -2.76e-02   3.81e-03   1.76e-02   1.45e-02  -1.47e-02   2.23e-02  -1.97e-03
## 3663  -5.79e-03   1.23e-02   6.32e-03  -1.28e-02   7.19e-03   1.03e-02  -1.67e-02
## 3664   8.39e-03  -1.59e-02  -1.39e-02  -2.43e-02  -1.40e-02   1.28e-02  -8.23e-03
## 3665   6.76e-03  -3.63e-03  -6.84e-04  -1.24e-03  -1.33e-03  -2.21e-03  -1.76e-03
## 3666  -1.39e-02  -8.77e-05  -6.30e-03  -3.88e-03  -4.50e-03  -3.04e-03  -1.04e-02
## 3667  -2.43e-02  -6.40e-02  -2.70e-02  -2.45e-02  -3.21e-02  -2.85e-02   3.05e-02
## 3668  -9.69e-03   3.18e-03   2.04e-02  -9.56e-03  -2.22e-02  -1.22e-02   1.17e-02
## 3669   9.38e-03  -4.64e-02  -1.31e-02  -2.02e-02  -9.87e-03  -1.69e-02  -5.66e-03
```

```
## 3670 -4.35e-05 -6.72e-03 -1.77e-03 -2.10e-03 -2.09e-03 -2.16e-03 -2.63e-03
## 3671 -1.78e-03  1.51e-03 -4.04e-03 -3.42e-03  3.18e-03 -3.22e-03 -5.85e-03
## 3672  4.90e-03  1.27e-03  9.74e-03  1.29e-02  9.23e-03 -2.04e-02  7.71e-03
## 3673  1.75e-02  1.05e-03 -1.68e-02 -1.63e-02  8.46e-03 -1.57e-02 -1.58e-02
## 3674 -4.43e-05  2.77e-02  8.28e-03  1.37e-02  1.08e-02  1.07e-02  9.90e-03
## 3675 -6.47e-03  1.68e-04 -1.59e-02 -1.87e-02 -2.09e-02  3.84e-02  3.69e-02
## 3676 -6.30e-03 -8.48e-04 -1.97e-02 -7.28e-03  1.78e-02 -8.27e-03  8.60e-03
## 3677  1.41e-02  4.44e-04 -8.32e-03 -5.98e-03 -6.60e-03 -5.57e-03 -1.30e-02
## 3678  7.53e-03 -8.47e-03 -8.82e-03  2.82e-03 -8.27e-03  4.64e-03 -4.31e-03
## 3679  8.24e-03  4.56e-03  1.67e-02  1.05e-02  1.11e-02  6.45e-03  1.54e-02
## 3680 -8.00e-04 -2.22e-03  4.99e-03 -5.88e-03  5.44e-03 -5.85e-03 -7.30e-03
## 3681 -1.41e-02 -2.11e-03 -1.01e-02 -6.45e-03 -6.76e-03 -4.40e-03 -1.33e-02
## 3682  2.62e-02  2.05e-02  2.98e-02 -2.03e-02 -3.11e-02  3.02e-02  1.06e-02
## 3683  9.21e-03 -9.82e-04  1.54e-02  9.16e-03 -1.55e-02  1.11e-02 -9.07e-03
## 3684  1.33e-02 -4.89e-04 -7.25e-03 -3.94e-03 -5.25e-03 -2.30e-03 -1.04e-02
## 3685 -2.81e-03  3.59e-03  3.33e-02 -8.34e-03  2.89e-02 -1.61e-02  2.41e-02
## 3686  8.01e-03  1.36e-02 -8.72e-03  7.25e-03  6.36e-03  7.14e-03 -1.27e-02
## 3687  2.83e-02  1.80e-02 -2.94e-02  6.41e-03 -3.05e-02  9.42e-03 -3.17e-02
## 3688  8.23e-03  1.02e-02  5.62e-03 -8.23e-03  5.76e-03  7.68e-03 -1.25e-02
## 3689 -6.92e-03  2.16e-02 -6.47e-02  2.33e-02  4.93e-03  1.68e-02 -4.31e-03
## 3690  1.32e-02 -4.42e-03 -2.40e-02  8.15e-03  1.89e-02  9.70e-03 -1.31e-02
## 3691  9.51e-03 -3.24e-02 -1.44e-02 -2.14e-02 -1.08e-02  4.32e-02 -7.96e-03
## 3692  1.06e-02 -6.05e-03  1.49e-02 -2.20e-02  1.33e-02  9.69e-03 -1.86e-02
## 3693  4.27e-03 -1.25e-03 -7.78e-03  9.17e-03 -1.37e-02  6.51e-03  1.16e-02
## 3694 -3.00e-03  3.80e-03 -5.70e-03  5.64e-03 -4.85e-03 -4.74e-03  5.15e-03
## 3695  5.00e-03  3.14e-02  6.29e-03  1.32e-02  1.28e-02  1.35e-02  1.09e-02
## 3696  3.32e-03 -8.01e-04 -4.95e-05  3.25e-04  2.00e-04  4.12e-04  2.98e-05
## 3697 -1.49e-02  8.13e-03 -1.26e-02  3.26e-02 -7.56e-03 -4.16e-03 -1.10e-02
## 3698 -3.50e-04 -2.68e-03 -4.47e-04 -5.33e-05 -2.93e-04  2.33e-04 -4.41e-04
## 3699 -7.20e-04 -9.39e-04  6.08e-04  7.87e-04  8.89e-04 -1.08e-03  1.25e-03
## 3700 -3.93e-03 -6.48e-03 -6.65e-03  1.71e-03 -5.76e-03  3.38e-03 -3.55e-03
## 3701  1.52e-02 -1.18e-02  1.44e-02  1.11e-02 -2.48e-02 -3.06e-02  1.90e-02
## 3702  3.58e-03  2.52e-03 -4.26e-04 -1.00e-03 -6.39e-04 -5.51e-04  1.15e-04
## 3703 -5.27e-04 -1.46e-03 -2.84e-04  4.09e-04  4.34e-04  1.14e-03  7.91e-05
## 3704  2.64e-02  3.10e-02  6.88e-03  1.07e-02  5.08e-03  8.56e-03  2.96e-03
## 3705 -5.86e-04 -2.63e-03 -4.15e-04  2.64e-05 -1.41e-04  7.91e-05 -3.37e-04
## 3706  4.06e-04  2.62e-04 -3.42e-04 -3.43e-04  4.49e-04 -4.00e-04  4.15e-04
## 3707 -1.26e-03  1.53e-03  1.71e-03 -1.57e-03  1.80e-03 -1.62e-03 -2.80e-03
## 3708  3.45e-02 -6.31e-03 -2.21e-02 -1.19e-02 -2.06e-02 -7.25e-03 -3.14e-02
## 3709  5.37e-03 -5.86e-03  3.55e-03  3.05e-03  5.12e-03 -7.81e-03 -3.58e-03
## 3710 -2.65e-02  1.95e-04  1.24e-02  4.44e-03  1.51e-02  4.88e-03  3.08e-02
## 3711 -1.03e-02  5.67e-03  1.85e-02 -1.06e-03 -8.74e-03 -3.64e-03  8.85e-03
## 3712 -4.85e-03  1.30e-02  5.21e-03  6.82e-03 -1.32e-02  5.72e-03  2.43e-03
## 3713  4.01e-03 -3.62e-03  1.71e-02 -2.00e-02  1.70e-02  1.03e-02 -8.15e-03
## 3714 -4.74e-04 -1.31e-03 -2.83e-04 -2.14e-04 -1.83e-04 -1.30e-04 -5.04e-04
## 3715 -2.48e-03  3.80e-03  3.12e-03 -3.96e-03 -5.31e-03  3.25e-03  9.32e-04
## 3716  5.44e-04  2.73e-02  7.06e-03  8.49e-03  8.43e-03  8.85e-03  1.06e-02
## 3717  8.02e-04 -2.96e-03 -4.03e-03 -3.30e-03  3.37e-03 -3.79e-03  2.16e-03
## 3718 -9.37e-04 -4.30e-03 -6.92e-04 -9.23e-04 -1.30e-03 -1.81e-03 -1.43e-03
## 3719 -8.60e-04  4.45e-04  1.91e-05  6.26e-05  7.45e-05  2.01e-04  1.61e-04
```

```
## 3720   1.37e-02 -8.00e-05 -8.55e-03 -6.43e-03 -6.40e-03 -5.57e-03 -1.32e-02
## 3721  -1.67e-02  1.13e-02 -1.04e-02 -7.09e-03 -1.29e-02  3.31e-02 -2.43e-02
## 3722  -8.88e-03  1.91e-03 -2.72e-03  2.24e-04 -5.83e-03 -2.42e-03  6.87e-03
## 3723  -1.38e-03 -6.00e-04  1.12e-03  1.44e-03  1.08e-03  1.14e-03  1.44e-03
## 3724   5.89e-04  5.08e-04  6.76e-07  3.16e-05 -9.61e-06 -6.89e-05  4.77e-05
## 3725  -7.22e-03  5.87e-03  1.90e-02 -1.76e-02  2.04e-02 -1.95e-02  1.01e-02
## 3726  -2.07e-02 -6.39e-04  1.24e-02  8.90e-03  9.82e-03  8.17e-03  1.91e-02
## 3727   9.30e-03  4.40e-03  5.62e-03 -6.68e-03 -7.15e-03 -4.89e-03 -8.85e-03
## 3728   3.26e-04 -5.34e-04  2.92e-03 -1.82e-03  3.17e-03 -1.95e-03  2.31e-03
## 3729   1.46e-04 -7.78e-04 -1.13e-03  6.08e-03 -6.69e-04 -3.18e-03  1.82e-04
## 3730   2.83e-02 -1.89e-03  1.03e-02  2.89e-03  1.32e-02  5.35e-03 -3.62e-02
## 3731  -9.30e-04 -4.94e-03 -1.11e-03 -1.41e-03 -9.52e-04 -1.17e-04 -1.25e-03
## 3732  -3.24e-02 -3.97e-02 -9.66e-03 -1.17e-02 -4.80e-03 -9.91e-03 -4.43e-03
## 3733  -1.40e-04  4.11e-03  8.98e-03  7.41e-03 -1.49e-02  1.01e-02 -1.33e-02
## 3734   8.58e-03 -3.32e-03 -1.00e-03 -1.03e-03 -7.41e-04 -8.37e-04 -1.33e-03
## 3735  -2.22e-02 -1.62e-04  1.45e-02  1.20e-02  1.08e-02  8.59e-03  2.18e-02
## 3736  -2.67e-04  1.64e-03  1.97e-04  7.87e-04  4.11e-04  8.27e-04 -4.34e-03
## 3737   8.62e-03 -1.99e-02 -1.05e-02 -1.68e-02 -1.33e-02 -1.70e-02 -1.22e-02
## 3738   7.98e-03 -3.44e-02 -1.65e-02  3.79e-02 -1.09e-02 -2.39e-02 -3.29e-03
## 3739  -1.58e-02 -7.67e-05 -1.37e-02  1.26e-02  1.16e-02  1.16e-02  1.32e-02
## 3740   1.25e-02  7.83e-03  2.27e-02 -1.09e-03 -9.83e-03 -5.74e-03  1.13e-02
## 3741   1.47e-02 -2.15e-04 -8.53e-03 -6.65e-03 -6.93e-03 -5.07e-03 -1.31e-02
## 3742   2.32e-02  1.24e-02 -2.11e-02  1.01e-02  3.62e-03 -2.37e-02  3.28e-03
## 3743  -4.46e-04  5.90e-04 -5.28e-04  7.41e-04 -3.16e-04 -2.85e-04 -3.87e-04
## 3744  -7.70e-03  1.20e-03 -1.57e-03  1.73e-03 -4.38e-03 -2.32e-04  7.15e-03
## 3745  -5.55e-03  4.72e-03  5.91e-03 -2.10e-02 -1.60e-02 -1.66e-02 -1.58e-02
## 3746   2.71e-03 -9.12e-03  1.14e-02 -9.99e-03 -4.70e-03 -9.87e-03 -2.93e-03
## 3747   1.89e-03 -2.04e-03 -2.59e-03  1.51e-03  2.40e-03  1.46e-03 -1.76e-03
## 3748   5.19e-03  1.09e-03  8.79e-03  1.18e-02  8.66e-03 -1.98e-02  6.88e-03
## 3749   1.07e-04 -6.64e-03 -1.94e-03 -2.32e-03 -2.03e-03 -2.21e-03 -2.66e-03
## 3750  -1.38e-02  7.04e-05 -6.99e-03 -4.09e-03 -5.25e-03 -3.27e-03 -1.13e-02
## 3751  -6.43e-03 -1.47e-02 -1.39e-02 -1.36e-02 -1.09e-02 -1.31e-02 -1.07e-02
## 3752  -1.99e-03  3.44e-03  2.38e-03  3.56e-03 -1.82e-03 -1.49e-03  3.35e-03
## 3753  -3.15e-03  1.23e-02  5.51e-03 -1.49e-02  4.08e-03  8.77e-03  2.11e-04
## 3754  -1.40e-02  5.23e-03 -5.37e-03 -1.17e-03  2.12e-02 -4.29e-03  1.61e-02
## 3755  -1.85e-02 -7.43e-03  1.07e-02  7.63e-03 -3.66e-02  8.99e-03  1.99e-02
## 3756  -8.60e-04 -1.55e-03  8.32e-04  1.01e-03  7.15e-04 -2.00e-03  9.95e-04
## 3757   2.23e-02  2.89e-02  7.62e-03  8.46e-03  3.93e-03  6.92e-03  2.56e-03
## 3758   1.36e-02  1.56e-03 -6.74e-03 -3.21e-03 -8.43e-03 -4.77e-03  1.72e-02
## 3759   1.25e-02 -4.53e-03 -1.50e-03 -1.24e-03 -1.02e-03 -7.32e-04 -1.66e-03
## 3760   1.83e-02 -8.08e-03 -2.83e-03 -3.75e-03 -3.36e-03 -4.12e-03 -3.83e-03
## 3761   7.38e-03 -2.05e-02 -9.99e-03  3.91e-02  4.35e-02 -1.38e-02 -3.20e-03
## 3762   3.55e-05 -5.96e-04  2.27e-03 -6.63e-04  5.85e-05 -4.29e-04  2.26e-04
## 3763   4.60e-03  1.18e-03 -1.00e-02  9.66e-03  9.14e-03  5.32e-03  1.09e-02
## 3764   9.68e-03 -5.55e-03 -7.60e-04 -2.61e-03 -2.48e-03 -3.86e-03 -2.01e-03
## 3765   1.63e-03  1.25e-03 -6.68e-05 -4.07e-04 -3.50e-04 -3.55e-04  1.68e-04
## 3766   1.19e-02  1.83e-03 -5.92e-03 -2.45e-03 -7.33e-03 -4.97e-03  1.77e-02
## 3767   1.13e-02  1.26e-02 -3.99e-03  2.84e-02 -9.48e-03 -6.07e-03  1.20e-02
## 3768  -6.58e-03 -1.73e-02 -1.62e-02 -1.92e-02 -1.40e-02 -1.61e-02 -1.16e-02
## 3769   8.61e-03  1.58e-02 -1.06e-02  7.55e-03 -9.94e-03  9.04e-03 -9.29e-03
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## 3770 -9.16e-03 -1.25e-04 -1.70e-02 -5.24e-03  1.95e-02 -7.77e-03  1.04e-02
## 3771 -8.80e-03  2.03e-02  8.28e-03  8.70e-03  8.19e-03  9.18e-03 -1.42e-02
## 3772  1.34e-03  1.22e-03 -1.16e-04 -5.73e-04 -3.30e-04 -5.36e-04  3.26e-05
## 3773  2.36e-02  2.74e-02  6.41e-03  9.81e-03  4.97e-03  8.00e-03  1.83e-03
## 3774 -3.75e-02 -3.38e-02  2.82e-02  2.58e-02  3.08e-02  2.91e-02  5.76e-02
## 3775  8.93e-04 -1.43e-03 -1.10e-03 -1.46e-03  9.21e-04  7.08e-04 -9.18e-04
## 3776 -6.87e-04 -1.77e-03 -3.77e-04 -2.81e-04 -2.79e-04 -2.15e-04 -5.85e-04
## 3777  2.29e-02  4.10e-04  1.44e-02  6.76e-03  1.31e-02  7.99e-03 -2.95e-02
## 3778  1.58e-03 -1.02e-03 -6.10e-03  9.55e-03 -7.61e-03  9.72e-03 -3.28e-03
## 3779 -8.45e-03  1.80e-03 -1.30e-02 -3.32e-03  1.75e-02 -5.92e-03  8.56e-03
## 3780 -1.03e-02  3.25e-03 -4.54e-03 -5.58e-04  1.78e-02 -1.05e-03 -1.58e-02
## 3781  1.26e-02  2.49e-03  1.60e-02  1.08e-02  1.09e-02  6.06e-03  1.76e-02
## 3782 -1.73e-02 -2.22e-03  1.54e-02  1.03e-02  1.54e-02 -1.40e-02 -3.20e-03
## 3783  5.95e-02  4.29e-02  1.75e-02  2.34e-02  3.65e-03  1.37e-02  1.39e-03
## 3784 -3.55e-04 -5.81e-03 -1.59e-03 -2.05e-03 -1.84e-03 -2.18e-03 -2.42e-03
## 3785  1.45e-03  2.47e-02  6.95e-03  3.70e-03  2.27e-03 -1.71e-03  7.54e-03
## 3786 -2.06e-02  2.46e-04  1.28e-02  9.16e-03  9.85e-03  8.04e-03  1.82e-02
## 3787  2.01e-02 -9.98e-04 -1.13e-02 -3.64e-03 -1.40e-02 -5.43e-03  1.02e-02
## 3788 -5.02e-04 -5.88e-03 -1.44e-03 -1.85e-03 -1.89e-03 -2.14e-03 -2.41e-03
## 3789 -4.97e-03  1.63e-02 -2.15e-02  8.46e-03 -2.47e-02  8.40e-03  4.35e-03
## 3790 -2.47e-02 -1.68e-03  1.43e-02  7.08e-03  1.52e-02  9.93e-03 -2.75e-02
## 3791 -3.38e-02 -4.45e-02 -1.20e-02 -1.35e-02 -5.73e-03 -1.07e-02 -3.94e-03
## 3792  9.50e-03  1.05e-02  7.32e-03 -1.20e-02 -8.75e-03  1.05e-02 -9.09e-03
## 3793  9.31e-03 -6.86e-03  1.78e-02  1.02e-02  2.03e-02 -2.74e-02 -8.06e-03
## 3794 -4.84e-02 -1.39e-02 -2.56e-02  3.86e-02  5.15e-02  4.68e-02 -9.45e-03
## 3795  2.42e-04 -5.11e-04  1.57e-03 -4.21e-04 -5.35e-04 -5.38e-04  1.47e-03
## 3796 -1.60e-02  1.44e-02  2.35e-02 -8.51e-03 -9.04e-03  3.74e-02 -1.44e-02
## 3797  1.14e-04 -6.62e-03 -1.94e-03 -2.32e-03 -2.03e-03 -2.21e-03 -2.66e-03
## 3798 -8.33e-03  1.84e-03  1.59e-02 -4.48e-02 -5.17e-02  2.90e-02  1.90e-02
## 3799  2.09e-02 -5.63e-03 -3.01e-02  1.00e-02  9.66e-03  6.84e-03  1.51e-02
## 3800  1.33e-02 -4.94e-05 -6.98e-03 -3.52e-03 -5.37e-03 -2.15e-03 -1.05e-02
## 3801 -2.29e-02 -3.52e-03 -2.66e-02  8.61e-03  9.31e-03  4.85e-03  1.48e-02
## 3802 -1.30e-02  1.03e-02  2.32e-02 -3.15e-03  1.98e-02 -7.49e-03  9.93e-03
## 3803 -1.73e-04 -5.29e-03 -1.19e-03 -1.23e-03 -1.65e-03 -1.89e-03 -1.87e-03
## 3804 -2.22e-05 -3.28e-05 -3.31e-06 -4.29e-06 -4.00e-06 -6.81e-06 -1.12e-05
## 3805 -4.63e-03  2.36e-02  6.76e-03  1.08e-02  5.16e-03  8.22e-03  3.38e-03
## 3806 -1.99e-03  5.69e-03  5.63e-03 -1.59e-02  3.93e-03 -1.68e-02  1.77e-03
## 3807 -1.04e-03 -3.98e-03 -8.95e-04 -1.28e-03 -7.79e-04 -3.53e-04 -1.11e-03
## 3808  2.15e-04  2.14e-03 -1.78e-03  8.13e-03 -1.28e-03  9.57e-03  1.01e-03
## 3809 -3.12e-03 -2.76e-03  2.43e-03  2.72e-03  1.79e-03  1.72e-03  2.85e-03
## 3810 -1.44e-02 -4.32e-04 -6.82e-03 -4.20e-03 -4.77e-03 -3.21e-03 -1.07e-02
## 3811  3.35e-03  4.19e-03 -3.52e-03 -3.64e-03 -3.50e-03  4.89e-03  3.98e-03
## 3812  6.36e-04  4.99e-04 -3.94e-05 -1.91e-04 -1.17e-04 -2.22e-04  1.89e-05
## 3813  1.39e-03 -3.70e-03 -2.15e-03 -3.87e-03  9.07e-03 -2.93e-03 -8.23e-04
## 3814 -1.16e-03  1.27e-03  6.51e-03 -8.42e-03  5.38e-03  6.83e-03  3.64e-03
## 3815  8.67e-04 -6.49e-03 -1.93e-03 -6.30e-03 -2.69e-03 -6.87e-03 -2.28e-03
## 3816 -1.15e-02 -9.24e-04 -5.08e-03 -1.79e-03 -3.33e-03 -2.50e-04 -7.82e-03
## 3817  2.75e-02 -1.70e-02 -3.99e-02  4.56e-03 -4.09e-02  7.87e-03 -2.91e-02
## 3818 -5.95e-03 -5.47e-03  4.51e-03  3.16e-03  4.06e-03  3.38e-03 -9.37e-03
## 3819 -6.98e-03  3.03e-02  6.63e-03  8.48e-03  8.26e-03  1.06e-02  1.31e-02
```

```
## 3820  1.21e-03  8.82e-04 -1.60e-04 -5.40e-04 -2.58e-04 -4.11e-04 -8.69e-05
## 3821 -3.30e-04 -3.91e-03 -9.49e-04 -3.30e-04 -3.95e-04  3.89e-04 -9.05e-04
## 3822  2.59e-03  1.74e-03 -1.79e-04 -6.01e-04 -4.85e-04 -4.00e-04  3.03e-04
## 3823 -6.90e-03  1.10e-03  1.92e-02 -6.82e-03 -2.05e-02 -6.80e-03  1.23e-02
## 3824 -1.07e-02  6.00e-03  1.84e-02  6.25e-04 -6.70e-03 -2.33e-03  8.93e-03
## 3825 -1.29e-02  5.65e-03 -1.40e-02  3.23e-02 -1.71e-02 -1.13e-02 -2.56e-02
## 3826  6.32e-03  7.75e-03 -6.65e-03  6.25e-03  7.33e-03 -7.30e-03 -6.57e-03
## 3827  2.63e-02  2.35e-02  4.60e-03  5.76e-03 -2.49e-02  1.10e-02 -2.33e-02
## 3828  3.80e-02 -5.26e-02 -3.89e-02  3.89e-02 -4.21e-02 -4.59e-02  3.83e-02
## 3829 -6.84e-04 -1.54e-03 -1.16e-04  1.04e-04 -1.29e-04 -6.78e-05 -2.60e-04
## 3830 -4.88e-04 -7.87e-04 -5.90e-04 -7.42e-04  6.04e-04  6.26e-04 -3.38e-04
## 3831  1.33e-02  2.19e-02  2.65e-02 -6.87e-03  1.85e-02  2.27e-02  6.90e-03
## 3832  1.64e-02 -6.75e-03  1.56e-02  5.43e-03 -2.67e-02  1.18e-02 -1.29e-02
## 3833 -7.91e-04 -4.48e-03 -8.01e-04 -9.95e-04 -1.38e-03 -1.84e-03 -1.53e-03
## 3834  5.11e-04 -1.60e-04  9.63e-06 -1.59e-05  4.19e-05 -7.50e-05 -6.38e-05
## 3835 -1.02e-02  2.15e-03  2.23e-02 -3.33e-03 -1.62e-02 -4.19e-03  1.48e-02
## 3836  1.40e-02  1.80e-03  1.53e-02  8.90e-03  2.19e-02  9.77e-03 -1.50e-02
## 3837  1.51e-02 -1.50e-03 -8.05e-03 -6.47e-03 -7.72e-03 -2.68e-03 -1.18e-02
## 3838 -3.96e-02 -1.53e-02 -2.54e-02  3.92e-02  3.04e-02  2.94e-02  3.10e-02
## 3839  1.44e-02  5.29e-03 -8.53e-03 -6.08e-03  2.82e-02 -6.91e-03 -1.58e-02
## 3840 -6.72e-03  2.58e-02  8.52e-03  1.08e-02  4.91e-03  8.44e-03  4.57e-03
## 3841 -7.73e-04 -7.75e-03 -2.06e-03 -3.70e-03 -2.83e-03 -3.09e-03 -2.99e-03
## 3842 -3.84e-03  1.98e-02 -1.99e-02  1.02e-02  4.26e-03  8.66e-03  1.82e-03
## 3843 -7.95e-03  1.57e-02  1.80e-02  3.19e-02  1.18e-02 -5.15e-02  4.93e-03
## 3844  4.79e-04 -2.44e-04  5.51e-04  4.98e-04  3.68e-04  2.81e-04  4.72e-04
## 3845 -2.48e-04 -2.24e-04  1.36e-05  4.15e-05  1.03e-05  6.88e-05  2.93e-05
## 3846 -1.76e-04 -8.49e-03 -2.44e-03 -4.02e-03 -2.96e-03 -2.97e-03 -3.34e-03
## 3847  6.81e-03  4.34e-03  1.33e-02  1.01e-02  9.71e-03  5.71e-03  1.09e-02
## 3848  5.08e-03 -1.42e-02 -8.12e-03 -1.45e-02  1.40e-02 -1.47e-02 -6.66e-03
## 3849 -1.49e-03  1.80e-03 -1.67e-03  2.01e-03  1.54e-03 -2.39e-03 -2.85e-03
## 3850  1.94e-03 -7.69e-03 -4.47e-03  1.03e-02 -4.94e-03 -1.28e-02 -9.82e-04
## 3851 -4.02e-04 -6.17e-03 -1.58e-03 -2.00e-03 -1.59e-03 -1.89e-03 -2.52e-03
## 3852 -1.59e-03  2.89e-04 -1.91e-03 -2.08e-03 -1.59e-03 -1.45e-03 -1.86e-03
## 3853  3.85e-03 -4.78e-04 -7.68e-03  1.03e-02 -9.75e-03  1.16e-02 -8.63e-03
## 3854  1.28e-03  8.71e-03  1.06e-02  9.97e-03  7.26e-03  8.15e-03  7.28e-03
## 3855 -1.59e-02 -1.14e-02 -1.43e-02  1.40e-02 -8.76e-03 -1.08e-02 -1.90e-04
## 3856 -2.86e-03  8.76e-04 -2.46e-04 -3.90e-04 -2.38e-04 -5.95e-05 -4.87e-05
## 3857  2.27e-02 -1.68e-02 -3.85e-02  1.52e-03 -3.22e-02  8.95e-03 -1.72e-02
## 3858 -1.17e-02  4.53e-03  2.14e-02 -5.42e-03 -1.58e-02 -8.44e-03  1.20e-02
## 3859  1.73e-02 -7.19e-03 -2.37e-03 -2.89e-03 -3.25e-03 -3.39e-03 -3.25e-03
## 3860  6.31e-03 -1.48e-03 -2.03e-04  5.60e-04  3.43e-04  8.22e-04  2.08e-04
## 3861 -6.83e-03  1.53e-02 -1.37e-02  8.99e-03 -9.54e-03  1.43e-02 -8.78e-03
## 3862  2.57e-02  5.70e-03  2.65e-02 -1.48e-02 -1.26e-02 -1.02e-02 -1.96e-02
## 3863  5.14e-03  2.51e-03 -1.25e-02  1.07e-02  1.94e-02  1.32e-02 -6.02e-03
## 3864 -2.48e-03  9.14e-05  6.32e-03 -7.26e-03 -4.51e-03  6.90e-03 -4.55e-03
## 3865 -1.03e-02  5.95e-03 -2.23e-03  1.04e-03  1.41e-02 -3.13e-03  6.89e-03
## 3866 -1.98e-02 -2.29e-02  1.19e-02  1.08e-02 -2.24e-02 -3.42e-02 -8.34e-03
## 3867  1.67e-04  9.78e-05 -1.12e-03  5.39e-04 -1.14e-03  7.48e-04 -7.89e-04
## 3868 -6.14e-03  2.64e-02  7.66e-03  9.52e-03  4.29e-03  8.42e-03  2.96e-03
## 3869 -1.12e-02  1.83e-02  2.07e-02 -1.88e-02  1.62e-02  3.19e-02  4.09e-03
```

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## 3870  1.83e-02 -8.33e-03 -3.21e-02  4.97e-03  2.02e-02  1.05e-02 -1.69e-02
## 3871 -2.40e-03  6.07e-03 -1.83e-02  3.72e-02  2.54e-02 -3.04e-02  2.05e-02
## 3872 -6.57e-05  6.98e-04  4.83e-05  3.82e-04 -1.65e-05  2.35e-04 -1.39e-04
## 3873  9.13e-03 -4.61e-02 -1.25e-02 -1.95e-02 -9.98e-03 -1.67e-02 -5.53e-03
## 3874  1.58e-02  1.26e-02  8.00e-03  9.80e-03 -1.27e-02 -1.43e-02 -1.01e-02
## 3875 -5.56e-03 -6.87e-03  4.34e-03  2.72e-03 -8.43e-03  4.57e-03 -4.15e-03
## 3876 -5.89e-03  2.63e-02  7.19e-03  9.16e-03  4.54e-03  8.75e-03  3.01e-03
## 3877  2.07e-02 -1.21e-02  1.35e-02 -3.66e-02  8.80e-03  8.72e-03  1.45e-02
## 3878  1.91e-02 -1.15e-02  1.45e-02  9.27e-03  1.55e-02 -4.04e-02 -2.47e-02
## 3879  2.59e-02  5.74e-04  1.26e-02  7.77e-03  8.87e-03  5.95e-03  1.99e-02
## 3880 -7.21e-04 -1.38e-03 -2.20e-03 -8.31e-03  1.31e-02  8.98e-03 -2.96e-03
## 3881  1.98e-02  6.00e-03  2.82e-02 -1.26e-02 -1.13e-02 -9.60e-03 -1.62e-02
## 3882  1.42e-02  1.79e-03 -6.90e-03 -6.34e-03 -1.06e-02 -6.91e-03 -2.01e-02
## 3883 -5.27e-04 -2.66e-03 -6.41e-04 -3.87e-04 -2.66e-04  1.68e-05 -8.51e-04
## 3884 -2.67e-03  1.21e-02  7.48e-03 -4.72e-02  8.00e-03  2.95e-02 -1.58e-03
## 3885  5.33e-03  7.68e-03  4.36e-03 -4.96e-03  3.66e-03  4.99e-03  1.56e-03
## 3886 -8.11e-04 -4.74e-03 -1.05e-03 -1.47e-03 -1.45e-03 -1.79e-03 -2.14e-03
## 3887 -7.88e-03  2.57e-02 -2.47e-02  9.25e-03  4.16e-03  7.04e-03  2.34e-03
## 3888  8.06e-05 -6.70e-04 -7.98e-05 -3.21e-04  7.40e-05 -2.30e-04  1.60e-04
## 3889 -2.62e-03  8.86e-04 -5.43e-05 -2.46e-04 -1.90e-04 -1.45e-04  1.14e-04
## 3890 -5.08e-04 -7.94e-04 -2.55e-05  4.50e-05 -8.39e-05 -1.19e-04 -1.44e-04
## 3891 -4.36e-05  3.96e-04  6.71e-06  2.17e-04 -8.24e-06  1.42e-04 -1.08e-04
## 3892  3.30e-03 -1.47e-03 -2.04e-04 -3.37e-04 -3.16e-04 -5.28e-04 -6.35e-04
## 3893  5.39e-03 -1.23e-02 -1.19e-02 -2.35e-02 -1.29e-02  9.69e-03 -9.02e-03
## 3894 -4.93e-04 -8.36e-04 -4.19e-05  4.51e-05 -9.34e-05 -1.12e-04 -1.69e-04
## 3895  2.59e-04 -1.25e-03 -1.05e-03  6.03e-03 -2.17e-04 -2.23e-03  8.45e-04
## 3896  4.93e-03  6.44e-04  9.12e-03 -1.79e-02  7.67e-03  1.08e-02  4.57e-03
## 3897 -1.28e-02 -4.96e-03 -5.98e-03  9.35e-03  8.24e-03 -1.37e-02  9.91e-03
## 3898 -1.10e-03 -3.01e-03 -4.33e-04 -7.50e-04 -9.09e-04 -1.51e-03 -1.02e-03
## 3899 -5.58e-03 -1.29e-02 -1.35e-02 -1.38e-02 -1.62e-02 -1.55e-02  3.62e-02
## 3900  1.41e-02  6.75e-04 -7.29e-03 -5.90e-03 -1.01e-02 -6.22e-03  2.01e-02
## 3901 -1.64e-02 -1.42e-02  1.26e-02  1.11e-02 -2.06e-02 -2.72e-02 -1.66e-02
## 3902  9.89e-04 -5.64e-03 -2.22e-03 -4.95e-03 -1.11e-03 -3.80e-03 -3.59e-04
## 3903 -3.95e-04 -1.17e-03 -2.43e-04  2.65e-04  3.19e-04  8.39e-04 -7.16e-05
## 3904 -9.69e-03  7.32e-03  1.94e-02 -1.34e-02  2.02e-02 -1.71e-02  8.85e-03
## 3905  1.35e-02 -3.74e-02 -1.90e-02  3.99e-02 -1.30e-02 -2.38e-02 -2.28e-03
## 3906  3.98e-04 -1.28e-03 -4.27e-04 -6.95e-04 -1.38e-04 -5.12e-04  6.06e-05
## 3907 -2.94e-03  1.05e-03 -1.32e-04 -2.14e-04 -2.92e-04  2.26e-05  2.23e-04
## 3908 -6.28e-04 -1.14e-03 -1.62e-04 -1.50e-04 -1.58e-04 -1.86e-04 -3.50e-04
## 3909 -1.08e-02 -2.16e-03  9.36e-03 -6.27e-03 -6.17e-03  7.53e-03  8.50e-03
## 3910 -1.86e-02  1.25e-03  1.26e-02  1.30e-02  1.11e-02  8.50e-03  1.86e-02
## 3911  1.50e-02 -1.30e-03 -8.24e-03 -6.37e-03 -7.45e-03 -3.38e-03 -1.13e-02
## 3912  1.98e-02  9.76e-04 -1.14e-02 -5.67e-03 -1.54e-02 -8.25e-03  9.80e-03
## 3913 -1.10e-02  2.26e-03 -3.47e-03  2.75e-04 -7.29e-03 -3.07e-03  9.60e-03
## 3914  3.73e-04  3.13e-04  5.36e-03  4.96e-03 -1.70e-03 -2.40e-03  5.39e-03
## 3915  1.35e-02  6.38e-03 -1.29e-02 -1.24e-02 -1.56e-02  6.93e-03  1.84e-03
## 3916  4.49e-04  7.44e-03  2.02e-02  8.76e-03  1.98e-02  6.74e-03 -8.31e-03
## 3917  1.17e-02  1.86e-03 -5.30e-03 -2.98e-03 -7.58e-03 -4.66e-03 -1.76e-02
## 3918 -1.02e-02 -1.56e-02 -2.96e-02 -2.35e-02 -2.84e-02 -2.09e-02 -4.34e-02
## 3919  8.38e-03  9.04e-03 -8.31e-03  8.73e-03  7.39e-03 -8.63e-03  7.63e-03
```

```
## 3920   3.96e-03   6.49e-04  -1.80e-02   9.76e-03  -1.99e-02   9.12e-03   6.85e-03
## 3921   2.60e-03   2.97e-02   8.48e-03   1.38e-02   9.69e-03   1.22e-02   1.05e-02
## 3922  -2.69e-02  -8.88e-03   1.40e-02   6.12e-03  -2.71e-02   1.26e-02  -1.21e-02
## 3923  -4.65e-03   1.03e-02   4.57e-03   5.35e-03   3.31e-03   4.41e-03   2.47e-03
## 3924   9.23e-04  -3.22e-03   7.26e-03  -3.45e-03  -1.34e-03  -3.31e-03  -1.21e-04
## 3925  -4.37e-03   1.79e-03  -1.13e-02  -1.12e-02   5.92e-03  -1.19e-02   6.26e-03
## 3926  -1.28e-02   2.60e-03  -4.80e-03  -1.47e-03   2.21e-02  -9.01e-04  -9.51e-03
## 3927  -4.25e-04  -5.53e-03  -1.46e-03  -1.89e-03  -1.59e-03  -1.92e-03  -2.41e-03
## 3928   2.51e-03  -4.79e-03  -7.58e-03  -5.90e-03   5.58e-03  -6.63e-03   4.08e-03
## 3929   2.64e-03   1.66e-03  -1.77e-04  -5.58e-04  -4.09e-04  -2.60e-04   2.39e-04
## 3930  -2.34e-03   6.02e-04   4.10e-03  -1.68e-02  -1.66e-02  -1.51e-02   7.53e-03
## 3931  -5.03e-04  -8.40e-03  -2.19e-03  -3.80e-03  -3.12e-03  -3.08e-03  -3.19e-03
## 3932  -3.57e-03   1.44e-02   6.49e-03  -1.61e-02   4.57e-03   9.67e-03   1.32e-03
## 3933   1.43e-02   1.08e-03  -8.06e-03  -7.92e-03  -1.08e-02  -7.79e-03  -2.22e-02
## 3934   1.16e-03   8.57e-03   1.00e-02   9.12e-03   7.54e-03   7.89e-03   6.36e-03
## 3935  -8.10e-04  -6.97e-03  -1.47e-03  -2.65e-03  -2.22e-03  -2.62e-03  -2.17e-03
## 3936   7.70e-03  -4.37e-02  -1.07e-02  -1.43e-02  -6.47e-03  -1.39e-02  -4.14e-03
## 3937  -6.09e-03   2.93e-02   6.91e-03   9.62e-03   5.12e-03   6.87e-03   1.41e-03
## 3938  -6.09e-04  -2.73e-03  -4.00e-04   1.39e-04  -2.04e-04   1.28e-04  -3.75e-04
## 3939  -1.28e-02   1.62e-02  -2.06e-02   3.41e-02  -1.87e-02   3.95e-02  -1.14e-02
## 3940  -1.17e-02   2.70e-02  -1.30e-02   3.97e-02   2.91e-02   3.34e-02   2.77e-02
## 3941  -3.13e-03   9.12e-03   5.48e-03  -1.45e-02  -1.81e-02   9.25e-03   2.09e-03
## 3942  -1.54e-02   4.95e-03   1.24e-02   1.04e-02   1.42e-02   1.04e-02  -2.46e-03
## 3943   1.62e-02   1.43e-02   7.66e-03  -1.42e-02   4.34e-03   8.14e-03   2.12e-03
## 3944  -5.47e-03  -6.45e-03  -2.10e-02  -7.79e-03  -2.18e-02  -7.82e-03   1.12e-02
## 3945  -5.12e-03  -4.70e-03   3.52e-03   2.80e-03   3.67e-03   2.81e-03   7.22e-03
## 3946   2.97e-04  -5.56e-04  -5.96e-04   4.07e-03  -3.01e-04  -1.39e-03   3.95e-04
## 3947   1.63e-02   2.85e-03  -9.54e-03  -7.56e-03   2.73e-02  -5.12e-03  -1.46e-02
## 3948   2.07e-02  -3.49e-06   1.32e-02  -6.67e-04   2.16e-02   2.77e-03  -2.27e-02
## 3949  -1.39e-03   9.07e-03   1.12e-02   7.19e-03   1.60e-02   1.01e-02  -1.81e-02
## 3950  -1.13e-02   9.16e-03   1.91e-02   5.02e-04   1.57e-02  -3.20e-03   7.84e-03
## 3951   4.56e-04   5.47e-03   1.36e-02   1.17e-02  -1.57e-03   1.36e-02   1.23e-03
## 3952  -1.46e-02  -1.55e-03  -1.16e-02  -7.23e-03  -8.91e-03  -4.48e-03  -1.42e-02
## 3953  -5.19e-03   8.86e-03   4.84e-03   5.02e-03  -5.09e-03   5.46e-03   5.64e-03
## 3954  -3.94e-03   2.21e-02   5.37e-03   8.29e-03  -2.39e-02   1.07e-02  -2.69e-02
## 3955   4.19e-03   5.19e-03  -2.13e-02   1.02e-02   7.08e-03   9.31e-03   6.58e-03
## 3956  -9.18e-03  -3.37e-04  -4.40e-03  -8.97e-04  -5.81e-03  -3.34e-04  -1.30e-02
## 3957   2.63e-03   1.73e-03  -2.98e-04  -6.41e-04  -4.11e-04  -5.48e-04   2.72e-04
## 3958   4.68e-05  -2.24e-04   7.97e-04  -1.68e-04   1.98e-05  -1.37e-04   8.41e-05
## 3959   3.19e-03   2.89e-04  -1.14e-02   1.19e-02  -1.00e-02   1.42e-02  -3.70e-03
## 3960  -6.94e-05   3.32e-04   7.36e-05   3.14e-04  -1.16e-03   2.57e-04   2.28e-05
## 3961  -8.93e-04  -1.64e-03  -2.89e-04  -1.46e-04  -2.01e-04  -3.09e-04  -5.14e-04
## 3962   3.22e-03   2.02e-03  -2.75e-04  -6.81e-04  -5.40e-04  -3.24e-04   3.16e-04
## 3963  -2.05e-02  -1.03e-03   1.27e-02   1.02e-02   1.00e-02   7.77e-03   1.96e-02
## 3964  -1.92e-04   2.31e-04   2.55e-04  -2.08e-04   2.86e-04  -2.46e-04   2.53e-04
## 3965  -5.86e-02   1.58e-02   3.09e-03  -2.19e-03  -2.72e-03  -7.60e-03   2.70e-03
## 3966  -4.62e-03   7.10e-03   4.96e-03  -7.46e-03   2.77e-03   4.32e-03   8.83e-04
## 3967  -5.71e-04  -4.80e-03   6.53e-03  -7.43e-03  -4.94e-03  -6.04e-03  -4.42e-03
## 3968   1.04e-02   1.03e-02   6.15e-03  -1.13e-02  -8.63e-03   1.02e-02  -9.51e-03
## 3969  -9.48e-03  -1.33e-03  -8.69e-03  -3.02e-03  -9.00e-03  -2.17e-03  -1.76e-02
```

```
## 3970 -5.47e-03 -1.50e-02 -1.49e-02 -1.47e-02 -1.12e-02 -1.35e-02 -1.06e-02
## 3971 -2.66e-03 -1.72e-03 -5.75e-04 -1.09e-03 -2.07e-04 -6.34e-04  6.54e-05
## 3972 -2.33e-02 -4.76e-03  9.38e-03  5.30e-03  2.09e-02  1.15e-02 -1.94e-02
## 3973 -6.90e-04  2.69e-04 -3.57e-05  1.85e-06 -9.01e-06  1.21e-05 -2.80e-06
## 3974 -1.30e-02  1.04e-02  2.27e-02 -4.33e-03  2.02e-02 -9.41e-03  9.79e-03
## 3975  2.34e-02  1.62e-03  1.19e-02  6.23e-03  1.63e-02  3.76e-03  3.16e-02
## 3976 -3.24e-03  9.97e-04 -1.75e-04 -3.05e-04 -8.64e-05 -8.29e-05  9.01e-05
## 3977 -6.39e-03 -1.44e-02 -1.40e-02 -1.38e-02 -1.12e-02 -1.34e-02 -1.04e-02
## 3978 -4.01e-03  1.45e-03 -4.67e-04 -6.79e-04 -4.07e-04 -1.64e-04  1.14e-04
## 3979 -5.96e-03  9.47e-03 -1.71e-02 -1.85e-02  3.34e-03  5.67e-03 -8.43e-04
## 3980 -3.00e-04  9.27e-04  2.77e-04  3.92e-04  5.08e-04  6.34e-04 -1.84e-03
## 3981 -1.34e-02 -1.08e-03 -9.53e-03 -6.02e-03 -6.59e-03 -4.27e-03 -1.29e-02
## 3982  2.12e-03  5.80e-04 -1.74e-03 -1.92e-03 -2.00e-03 -1.71e-03 -2.79e-03
## 3983  4.63e-03 -1.50e-03  9.22e-03 -2.34e-02  9.60e-03  1.15e-02  1.29e-02
## 3984 -2.84e-02 -3.93e-03  1.45e-02  5.45e-03  2.22e-02  1.23e-02 -1.56e-02
## 3985 -1.77e-02  1.63e-02  2.49e-02 -4.13e-03 -8.24e-03  2.94e-02 -1.89e-02
## 3986 -1.57e-03 -2.81e-03  1.28e-03  1.36e-03  1.04e-03 -3.70e-03  1.59e-03
## 3987 -6.15e-03 -7.91e-03  3.52e-03  1.76e-03 -8.87e-03  3.87e-03 -5.30e-03
## 3988 -3.24e-03 -6.03e-03  1.71e-02 -1.74e-02 -3.29e-02 -1.87e-02  9.31e-03
## 3989  2.94e-02  1.42e-02 -2.40e-02  3.69e-02 -1.58e-02 -1.61e-02 -2.09e-02
## 3990 -5.47e-04 -8.79e-04 -1.03e-04  2.51e-04  2.49e-04  5.80e-04  3.79e-05
## 3991 -1.89e-03  3.09e-03 -1.17e-03  2.04e-03  1.83e-03  2.08e-03  1.83e-03
## 3992 -1.99e-03  2.96e-03 -3.19e-03 -3.07e-03  1.53e-03  2.36e-03  4.88e-04
## 3993  1.37e-02 -8.62e-04 -7.50e-03 -4.06e-03 -5.32e-03 -2.31e-03 -1.04e-02
## 3994  1.03e-02  1.51e-05  1.99e-02  6.64e-03 -2.26e-02  9.29e-03 -1.14e-02
## 3995  4.41e-03 -5.77e-03 -7.02e-03  1.11e-02 -3.92e-03 -7.38e-03  3.80e-04
## 3996 -4.52e-03 -3.94e-03  2.96e-03  3.02e-03  3.81e-03  2.71e-03  6.63e-03
## 3997 -1.95e-04 -2.04e-04 -1.76e-06  7.63e-05  5.19e-05  1.20e-04 -4.56e-07
## 3998 -5.36e-03 -4.20e-03  4.29e-03  3.57e-03  5.81e-03  4.14e-03 -4.21e-03
## 3999 -5.45e-02  2.49e-02  1.03e-02  1.65e-02  1.27e-02  1.40e-02  1.15e-02
##       dfb.StrM  dfb.Cntr  dfb.PprB  dfb.PymM  dfb.MntC  dfb.TtlC     dffit
## 1     7.32e-03  7.29e-03 -1.26e-02 -1.31e-03 -1.02e-02  1.84e-02  6.94e-02
## 2     2.84e-03  1.76e-03  3.45e-03  5.65e-03  1.86e-03 -1.18e-03  1.68e-02
## 3     3.92e-04 -2.74e-03  2.54e-02 -2.08e-02  1.63e-02  2.90e-03 -9.12e-02
## 4     2.21e-03 -8.72e-04  2.03e-03 -2.72e-03  2.06e-03 -1.59e-03  1.02e-02
## 5    -1.31e-02 -8.91e-03  8.60e-03 -7.97e-04 -2.06e-02  2.82e-05 -3.88e-02
## 6     7.22e-03  1.66e-04  3.06e-03 -2.64e-03 -6.66e-03  1.52e-02 -3.58e-02
## 7     2.48e-02 -5.33e-03 -6.54e-03 -1.12e-02  1.22e-02 -1.09e-02  7.63e-02
## 8     5.45e-03 -2.27e-03  1.08e-02  9.70e-03  6.18e-04  9.49e-03  4.65e-02
## 9     7.76e-03  1.83e-02  5.14e-03 -9.01e-03 -3.88e-03  1.31e-02 -6.51e-02
## 10   -1.11e-03  1.48e-03 -2.66e-03  2.95e-03 -9.98e-04  7.07e-04 -1.25e-02
## 11    1.61e-03 -4.25e-03 -1.11e-02  1.03e-02 -3.70e-03  2.02e-03  3.77e-02
## 12   -8.03e-06  3.03e-03  5.85e-04 -1.49e-03 -8.75e-04  1.39e-03  5.08e-03
## 13   -1.05e-03  1.00e-04  1.65e-02 -1.55e-03  3.67e-03  8.82e-03  3.77e-02
## 14    1.25e-02  2.76e-02  4.25e-03  2.60e-02  1.23e-02 -4.75e-03 -7.78e-02
## 15   -8.57e-03 -1.84e-02 -7.99e-03  5.93e-03  1.13e-02 -1.87e-02  6.26e-02
## 16   -2.05e-04 -1.09e-03 -2.57e-03  4.45e-05 -1.69e-04 -2.95e-03 -7.22e-03
## 17   -1.32e-04 -5.95e-04  4.48e-04  9.73e-04  1.18e-04 -8.72e-04  2.40e-03
## 18    2.62e-04  1.88e-03  2.59e-03 -1.87e-03  1.00e-03  3.28e-03  9.66e-03
## 19   -1.47e-02  2.63e-02 -2.76e-02  2.16e-02  5.92e-03 -2.29e-04 -1.16e-01
```

```
## 20     -2.22e-02 -5.97e-03 -8.69e-03  6.62e-03  1.67e-02 -1.69e-02  7.03e-02
## 21      2.65e-02 -5.69e-03  1.22e-02  1.56e-03  1.86e-02 -1.30e-02 -7.99e-02
## 22     -6.74e-04  1.80e-03  1.96e-03 -6.86e-03 -3.97e-03  3.50e-03  1.31e-02
## 23      1.04e-02  1.96e-02 -1.80e-02 -1.38e-02  4.51e-02 -3.84e-02 -9.06e-02
## 24      6.24e-04  1.16e-03 -7.71e-04  5.81e-06 -5.59e-05 -9.54e-05  3.49e-03
## 25     -3.55e-04  3.49e-03 -1.56e-03  4.79e-04  2.13e-04  8.47e-04 -6.51e-03
## 26      3.99e-04 -5.93e-03 -6.11e-03 -9.81e-03 -4.35e-03 -2.25e-03  2.67e-02
## 27      1.49e-02  2.38e-02  4.75e-03 -1.27e-02  2.42e-03 -7.85e-03 -7.67e-02
## 28     -1.16e-02 -3.90e-03 -2.53e-02  4.21e-03  3.82e-03 -2.81e-02 -1.07e-01
## 29      2.30e-03 -1.44e-03  2.92e-03 -3.35e-04  4.65e-03 -8.87e-04 -1.11e-02
## 30      3.01e-02  1.11e-02  1.39e-02 -2.20e-02  1.77e-02  4.28e-04 -8.90e-02
## 31      1.98e-03  1.36e-03 -8.23e-04  1.89e-04  5.70e-04  1.05e-03  5.07e-03
## 32     -1.99e-02  7.65e-03 -7.20e-03 -1.95e-02  1.87e-02 -4.06e-02  1.16e-01
## 33      7.87e-04  3.99e-06  9.34e-04  1.62e-03  4.46e-04 -9.23e-04  4.90e-03
## 34     -2.40e-03 -4.41e-03  4.12e-03 -1.35e-02 -1.09e-02  9.19e-03  2.31e-02
## 35      2.73e-03  5.33e-03  1.67e-02 -2.69e-02 -1.19e-02  1.56e-02  5.93e-02
## 36     -5.95e-03 -2.05e-03 -3.57e-03  2.43e-03 -2.09e-03 -4.12e-03 -1.25e-02
## 37     -1.34e-02 -7.79e-03  9.50e-03 -8.75e-04 -2.10e-02  2.59e-04 -4.03e-02
## 38      1.50e-02 -1.19e-02 -6.66e-03 -3.48e-03  1.02e-02  5.77e-03  4.63e-02
## 39      1.01e-02  1.25e-02  3.74e-03 -8.62e-03 -2.24e-03  1.24e-02 -5.60e-02
## 40      9.05e-03  2.05e-03  3.35e-03  1.82e-02 -3.56e-03  1.41e-02 -4.44e-02
## 41      3.21e-03  1.19e-02  7.53e-03  8.03e-03  1.99e-03  2.82e-03  3.39e-02
## 42     -1.65e-03 -1.38e-03  1.31e-03 -1.04e-04  7.81e-04 -2.50e-04 -6.00e-03
## 43     -3.63e-04  7.62e-04  1.56e-03  2.61e-03 -2.05e-03  2.30e-03  9.19e-03
## 44     -3.06e-03 -1.66e-03  2.08e-03 -4.91e-05  1.57e-03  6.86e-04 -8.33e-03
## 45      7.87e-03 -9.38e-03 -8.84e-03  3.48e-03 -1.13e-02 -1.49e-02  5.72e-02
## 46     -1.87e-02 -1.49e-02 -5.26e-03  1.05e-02  7.90e-03  4.18e-03  5.80e-02
## 47      1.58e-03  2.31e-03  1.26e-02  9.31e-03 -4.40e-03  4.07e-03  4.14e-02
## 48     -1.76e-02 -6.07e-03  5.37e-03 -8.70e-04 -1.60e-02  6.93e-03 -3.97e-02
## 49     -2.32e-03  3.09e-03 -2.23e-03 -5.02e-04 -2.06e-03  4.90e-04  1.03e-02
## 50     -3.53e-03 -1.61e-03  4.54e-03 -6.17e-04 -8.64e-05  1.43e-03 -1.50e-02
## 51      2.56e-02 -9.43e-03 -2.48e-03  1.04e-02  5.74e-04  1.62e-03  6.73e-02
## 52      1.75e-02  5.38e-03  6.67e-03  1.05e-02 -1.33e-02  2.50e-02 -7.00e-02
## 53      8.35e-03 -1.19e-02 -7.50e-03 -5.67e-03 -1.71e-02 -5.27e-03  5.73e-02
## 54     -9.25e-03 -7.52e-03  4.24e-03  7.97e-03 -8.70e-03  8.38e-03 -4.99e-02
## 55      1.20e-03  6.58e-04  6.92e-04  2.46e-05  7.50e-04  2.87e-04 -3.55e-03
## 56      8.78e-03 -1.13e-03  1.36e-03 -3.11e-03 -2.75e-03  6.56e-03 -3.54e-02
## 57     -2.82e-03 -1.30e-03 -3.75e-03 -7.30e-04  9.37e-05  1.07e-02  3.17e-02
## 58     -8.78e-04 -3.28e-03 -2.26e-03  6.08e-03 -4.37e-03  7.26e-03  2.86e-02
## 59     -5.96e-06  1.41e-03  5.53e-04 -6.70e-04 -3.82e-04 -2.28e-05  3.62e-03
## 60      1.73e-03  4.75e-03 -1.99e-03  1.41e-04  1.18e-05  9.16e-03  1.86e-02
## 61     -6.18e-03 -1.90e-02 -3.86e-03  1.12e-02 -2.64e-03  5.74e-03  5.70e-02
## 62      1.71e-02 -1.35e-02 -2.24e-03 -1.17e-02 -1.73e-03  9.71e-03  4.48e-02
## 63     -1.78e-03 -1.31e-03 -1.50e-03  1.28e-03 -2.47e-03  2.30e-03 -8.36e-03
## 64      4.96e-03  4.23e-03 -7.66e-03 -4.10e-03 -1.12e-03  7.10e-04  2.78e-02
## 65      1.03e-02  4.36e-05 -2.07e-02 -2.15e-03 -1.25e-02  1.27e-02 -4.32e-02
## 66     -2.40e-02 -5.98e-03 -9.33e-03  1.07e-03 -1.37e-02 -1.69e-02  6.49e-02
## 67      1.33e-02  1.02e-02 -6.72e-03  8.09e-03  1.22e-02  2.16e-03  4.16e-02
## 68     -3.69e-03  8.01e-03  4.92e-03  6.30e-03 -5.82e-05 -3.31e-03  2.07e-02
## 69      3.33e-05 -1.49e-03 -1.16e-03  2.98e-03 -8.88e-04  1.99e-03 -7.46e-03
```

```
## 70      1.71e-02 -1.28e-03 -1.43e-02  1.88e-02  2.39e-02 -1.33e-02  7.00e-02
## 71      3.29e-03 -2.32e-03  1.06e-02  8.35e-03 -2.44e-03  4.76e-03  3.68e-02
## 72     -2.52e-04 -1.10e-03 -1.68e-03  6.85e-04 -2.84e-04 -1.29e-03  4.12e-03
## 73      6.77e-04  4.89e-03 -2.58e-03 -4.21e-03 -5.39e-04  6.48e-03  2.06e-02
## 74      4.21e-05 -1.64e-04  5.39e-04  4.03e-04  4.77e-05  5.59e-04 -1.48e-03
## 75     -2.28e-02 -7.65e-03 -1.03e-02 -1.91e-02 -7.60e-03 -3.83e-03  5.16e-02
## 76     -2.85e-03  7.82e-04  1.47e-02  6.60e-03 -9.07e-04  4.63e-03  3.79e-02
## 77     -9.12e-03  1.58e-03  6.45e-03 -1.97e-03 -1.78e-04  2.45e-03  2.30e-02
## 78      5.78e-04 -3.53e-03  7.57e-03  7.81e-03 -1.39e-03 -9.59e-04  3.24e-02
## 79     -2.03e-02 -1.03e-02 -6.94e-03  4.31e-03 -1.69e-02 -9.82e-03  5.69e-02
## 80     -7.41e-04 -2.00e-03 -4.38e-03 -1.45e-03 -2.89e-03 -2.04e-03  1.13e-02
## 81     -1.86e-02 -4.50e-03  6.76e-03 -3.90e-04 -1.77e-02  6.39e-03 -5.04e-02
## 82     -1.71e-02 -9.28e-03  1.70e-02  5.16e-04 -3.29e-03  6.65e-04  6.66e-02
## 83     -1.73e-02 -2.81e-03  9.85e-03  2.58e-02 -1.84e-02  5.04e-03 -6.57e-02
## 84     -5.63e-03 -1.79e-02 -3.33e-03 -1.42e-02 -1.17e-06 -3.59e-03  4.59e-02
## 85     -6.68e-06  3.30e-04 -4.63e-04 -4.04e-04 -5.01e-05 -2.41e-04  1.20e-03
## 86     -2.50e-02  3.68e-03 -5.06e-03 -1.69e-02  1.38e-02 -3.66e-02  9.22e-02
## 87      7.30e-03  4.14e-03 -6.21e-03 -9.33e-03 -3.12e-03  1.57e-03  3.09e-02
## 88     -4.55e-05 -1.70e-03 -1.14e-03  3.06e-03 -6.28e-04  1.29e-03 -7.25e-03
## 89      7.27e-06  5.26e-04 -8.07e-04  7.24e-04  6.17e-05 -3.71e-04  1.82e-03
## 90      1.38e-02 -9.63e-03  1.59e-02  1.42e-02  1.56e-04  2.77e-03  5.82e-02
## 91      1.33e-02 -9.36e-03  1.62e-02 -1.63e-02  1.59e-02 -1.46e-03  5.03e-02
## 92      1.75e-02  3.79e-03  2.76e-02  4.07e-04  3.02e-02 -9.78e-03  8.21e-02
## 93      1.10e-03 -7.94e-04  1.79e-03 -3.12e-03  1.78e-03 -7.58e-04 -7.06e-03
## 94     -3.47e-03 -1.51e-02 -2.32e-03 -7.59e-04 -6.85e-03  7.80e-03  3.29e-02
## 95     -6.50e-05  5.74e-03 -1.99e-03 -3.81e-03 -2.06e-03  7.56e-03  1.70e-02
## 96     -1.24e-02 -1.08e-03  1.10e-02 -4.09e-03 -1.78e-02  9.38e-03 -5.77e-02
## 97     -1.74e-03  3.17e-03  3.03e-03 -2.84e-04  1.20e-03  7.55e-04 -1.23e-02
## 98      9.94e-03  2.35e-02 -1.87e-02 -1.60e-02  4.08e-02 -3.20e-02 -8.75e-02
## 99      1.55e-05 -1.49e-03 -1.03e-03  2.47e-03 -6.17e-04  1.64e-03 -6.33e-03
## 100     1.10e-02  6.53e-03  3.49e-03 -6.82e-03 -1.36e-03  1.39e-02 -6.17e-02
## 101    -2.47e-03 -4.67e-03  4.28e-03  3.28e-03 -1.07e-02  9.11e-03  2.15e-02
## 102    -2.09e-03 -5.20e-03  3.43e-03 -2.17e-03 -9.24e-03  8.43e-03  2.02e-02
## 103     2.19e-02  2.83e-03  1.58e-02 -1.36e-02  1.11e-02 -4.87e-04  4.56e-02
## 104     8.16e-03 -2.29e-03  7.98e-03 -4.97e-03  6.72e-04 -4.84e-03  2.98e-02
## 105    -6.58e-03 -3.79e-02  1.52e-02  2.94e-02  9.77e-03 -5.51e-02 -1.25e-01
## 106     7.86e-03  2.90e-03  1.44e-02  9.92e-03 -1.73e-03  2.02e-02  5.40e-02
## 107    -1.97e-03 -2.08e-03 -2.24e-03  4.51e-03 -1.01e-03  6.42e-03  2.02e-02
## 108     5.11e-03  5.08e-03  6.44e-03  9.11e-03  6.86e-03  2.42e-04  3.10e-02
## 109    -6.31e-03  1.00e-02  2.36e-02  2.12e-02  1.47e-02  3.12e-03  5.71e-02
## 110     2.99e-04  6.60e-04 -2.33e-03  2.22e-04 -4.36e-03  9.44e-03 -1.71e-02
## 111    -3.91e-02  3.23e-02  9.36e-03 -1.83e-02 -3.83e-03 -7.37e-03 -1.06e-01
## 112    -1.64e-03  1.79e-03 -1.99e-03  5.02e-04 -2.39e-04  1.01e-03 -9.21e-03
## 113     2.39e-02 -1.26e-02 -4.96e-03  7.69e-03  7.90e-03 -3.02e-04  5.35e-02
## 114    -1.79e-02  4.60e-03  5.78e-03 -1.01e-02 -1.03e-02 -6.91e-03 -6.11e-02
## 115    -2.04e-03  2.74e-03 -2.50e-03  2.92e-03  1.60e-03 -2.29e-03  1.51e-02
## 116     2.11e-02 -2.65e-03  2.43e-02  1.34e-03  3.11e-02 -2.85e-02  8.56e-02
## 117     4.13e-03  9.99e-03  3.73e-03 -6.15e-03  5.50e-03  1.17e-03  2.19e-02
## 118     1.25e-02  3.53e-03  5.58e-03 -3.63e-03 -1.13e-02  1.80e-02 -5.56e-02
## 119     7.36e-06  2.09e-04  8.04e-05  2.12e-04  5.14e-05 -8.79e-05  5.39e-04
```

```
## 120     1.32e-02 -1.13e-02 -7.29e-03 -6.36e-03  1.53e-02 -1.03e-02  5.90e-02
## 121    -1.56e-03  6.50e-04 -4.65e-03 -1.42e-03  1.20e-03  1.07e-02  3.97e-02
## 122    -2.27e-03 -5.75e-03  4.41e-03  3.99e-03 -9.34e-03  7.08e-03  2.01e-02
## 123    -1.06e-02 -7.84e-03  7.10e-03 -1.14e-03 -1.41e-02  3.47e-03 -3.70e-02
## 124     1.94e-03 -3.55e-03  8.44e-03  8.72e-03 -3.85e-04  3.21e-03  3.50e-02
## 125    -1.97e-03 -5.97e-03  3.71e-03  3.62e-03 -8.20e-03  7.20e-03  2.09e-02
## 126     1.71e-02  1.92e-02 -7.58e-03  4.13e-03  1.50e-02 -5.15e-04  4.04e-02
## 127    -1.73e-02  3.51e-03  7.46e-03 -7.40e-03 -6.44e-03  1.74e-03 -6.14e-02
## 128     1.11e-04 -1.91e-04  1.16e-03  7.59e-04  9.41e-05  1.63e-03 -3.69e-03
## 129    -2.51e-03 -4.64e-03  4.16e-03  3.21e-03 -1.08e-02  9.06e-03  2.13e-02
## 130    -6.44e-03 -2.64e-03 -3.59e-03  5.71e-03 -2.06e-03 -4.84e-03  3.29e-02
## 131    -3.09e-02  4.60e-03 -8.91e-03  6.03e-03  2.03e-02 -9.08e-03  7.42e-02
## 132     2.94e-02  3.00e-02  1.82e-02  1.42e-02  2.21e-02  1.87e-02 -1.17e-01
## 133    -2.49e-03 -2.54e-03 -2.74e-03  2.62e-03 -2.89e-03  6.80e-04 -1.31e-02
## 134     3.06e-02 -7.19e-03  1.40e-02  2.76e-03  1.26e-02 -2.18e-02 -7.60e-02
## 135    -5.71e-03 -4.45e-03 -2.48e-02  3.32e-03  1.02e-02 -2.28e-02 -7.22e-02
## 136    -4.76e-05  3.77e-03 -3.87e-03 -1.26e-03 -1.65e-03 -1.05e-03  9.83e-03
## 137     1.24e-02 -4.72e-03 -9.64e-03 -2.16e-02  1.62e-02  9.02e-04  5.35e-02
## 138    -3.58e-05 -5.65e-04 -1.42e-03 -4.88e-03 -2.78e-03  5.04e-03 -1.11e-02
## 139     3.39e-05 -5.67e-04  1.37e-03 -1.33e-03 -3.42e-04  1.12e-03 -3.71e-03
## 140    -1.07e-02 -9.92e-03  6.24e-03 -1.21e-02 -1.41e-02  8.49e-04 -4.53e-02
## 141     2.27e-03 -1.19e-03  2.45e-03 -3.13e-04  5.29e-03 -1.51e-03 -1.23e-02
## 142     4.93e-02  1.85e-02 -2.73e-02 -3.30e-03  1.12e-02  1.96e-02 -1.05e-01
## 143    -1.36e-03  1.83e-02 -3.30e-03 -8.70e-03  3.35e-03  1.04e-02  3.85e-02
## 144     6.11e-03  7.75e-04 -3.58e-03 -3.16e-04  4.17e-03  2.67e-03  2.08e-02
## 145     1.03e-04 -2.15e-04 -5.90e-04  7.09e-04  7.32e-05  1.36e-03 -3.47e-03
## 146     2.25e-03  1.20e-03 -7.77e-04  2.21e-06  7.16e-04  1.06e-03  4.53e-03
## 147    -8.10e-04  4.58e-03  2.38e-03  2.69e-03 -5.64e-03  6.80e-03  1.57e-02
## 148    -5.47e-03 -8.87e-03  1.94e-02  2.21e-03  1.50e-02 -2.10e-02 -6.41e-02
## 149     6.38e-03  2.48e-03  6.22e-03 -3.34e-03 -1.15e-03 -1.53e-03  2.61e-02
## 150    -1.90e-02 -1.06e-02 -9.12e-03  1.17e-02 -7.20e-03 -9.69e-03  4.78e-02
## 151    -2.02e-02 -1.06e-02 -9.93e-03  1.61e-03 -1.28e-02 -5.67e-03  5.86e-02
## 152     9.68e-03 -1.02e-03 -1.90e-02 -1.16e-02 -1.37e-02  1.42e-02 -4.27e-02
## 153    -6.25e-04 -1.73e-03 -1.64e-03 -1.31e-04 -2.68e-03  5.93e-03  1.24e-02
## 154     3.35e-03 -1.85e-03 -4.63e-03 -3.93e-03  1.08e-03  9.44e-04 -1.71e-02
## 155    -1.98e-03 -5.99e-03  3.34e-03  3.45e-03 -7.74e-03  6.30e-03  1.91e-02
## 156    -2.57e-02 -1.94e-03 -9.35e-03 -3.07e-02  2.20e-02 -1.72e-03  7.77e-02
## 157     2.92e-02 -3.01e-03 -6.12e-03 -2.99e-02  1.07e-02 -2.34e-03  7.08e-02
## 158    -4.14e-04  1.23e-04  1.24e-03  2.25e-03 -1.29e-03  8.58e-04  7.08e-03
## 159     7.83e-03  1.40e-02  4.17e-03  6.66e-03  2.79e-03 -1.70e-03  2.97e-02
## 160    -5.41e-05  1.01e-02  2.19e-03 -8.43e-03 -4.16e-03  4.41e-03  1.93e-02
## 161     6.66e-04 -3.66e-03 -9.30e-03  1.13e-03 -4.27e-03 -7.77e-04  3.66e-02
## 162    -1.75e-02  5.87e-03 -2.65e-02 -6.86e-03 -2.99e-02  9.71e-03 -7.64e-02
## 163     1.88e-02  1.27e-02 -1.30e-02  1.06e-03  2.90e-02  2.44e-04  5.64e-02
## 164    -1.98e-03  1.88e-03 -1.34e-03 -1.50e-03 -1.15e-03 -1.71e-04  6.39e-03
## 165    -4.51e-04  1.72e-03  1.82e-03  2.79e-03 -2.95e-03  3.70e-03  1.17e-02
## 166     4.33e-05 -4.86e-04 -1.46e-03 -4.79e-03 -2.61e-03  5.69e-03 -1.17e-02
## 167    -1.37e-02 -7.99e-03  8.41e-03  2.63e-02 -1.95e-02 -1.82e-03 -4.88e-02
## 168     2.78e-03 -1.42e-03  3.24e-03  2.98e-03  5.58e-03 -8.42e-04 -1.29e-02
## 169     4.04e-02  4.11e-02  1.38e-02 -2.05e-02  1.40e-02  2.47e-02 -1.33e-01
```

```
## 170     -1.63e-03  -6.51e-03   2.96e-03  -5.37e-04  -5.29e-03   2.92e-03   1.43e-02
## 171      8.54e-03   2.84e-04  -5.32e-03  -6.95e-03   7.79e-03  -8.87e-04   2.64e-02
## 172      7.29e-03   3.44e-03   3.59e-03  -3.09e-03  -9.51e-03   2.44e-02  -5.00e-02
## 173     -7.10e-03   2.01e-02   9.18e-03   1.04e-02   2.85e-03  -1.05e-02   4.50e-02
## 174      3.42e-03  -5.89e-03   1.02e-02   2.66e-02  -8.30e-03  -2.06e-02  -9.50e-02
## 175     -3.40e-04  -3.06e-04   1.11e-03  -2.82e-03  -1.03e-03   6.22e-05   5.10e-03
## 176     -2.39e-03  -1.03e-02   4.48e-03   1.37e-03  -6.46e-03  -2.75e-03   2.05e-02
## 177     -1.13e-02  -5.49e-03   5.52e-03  -1.54e-02  -9.94e-03   6.64e-04  -4.48e-02
## 178     -1.38e-02  -3.67e-03  -2.49e-02   2.99e-02  -2.52e-02   6.28e-03  -7.84e-02
## 179     -1.70e-02  -9.55e-03  -5.59e-03  -3.15e-02   1.00e-02  -3.45e-02   9.45e-02
## 180     -2.07e-04  -9.18e-04  -1.11e-03  -1.77e-04  -1.59e-04  -1.34e-03   3.32e-03
## 181     -1.07e-02  -7.06e-03  -2.74e-02   4.59e-02   1.04e-02  -3.09e-02  -1.09e-01
## 182      3.80e-03   3.25e-03   1.38e-02   1.02e-02  -3.89e-03   1.21e-02   4.15e-02
## 183      2.05e-02  -1.71e-03  -2.27e-02   2.39e-02  -1.58e-02   8.26e-03  -5.66e-02
## 184     -6.06e-03  -1.22e-04   5.66e-03  -2.77e-03  -2.29e-03  -2.04e-03   2.23e-02
## 185     -1.78e-02  -5.56e-04   1.10e-02  -4.38e-03  -2.01e-02   1.19e-02  -6.57e-02
## 186     -1.21e-02  -9.85e-03   1.77e-02   2.32e-03   1.33e-02  -3.61e-02  -8.93e-02
## 187      2.53e-03  -2.20e-03  -9.51e-03   1.26e-02  -4.86e-03   6.58e-04   3.97e-02
## 188      7.82e-03  -1.90e-03   1.26e-02  -1.78e-03  -4.16e-04   1.35e-02   4.98e-02
## 189     -6.84e-04   2.07e-03   2.13e-03  -6.44e-04  -3.76e-03   3.54e-03   1.06e-02
## 190      2.06e-03  -7.96e-03   1.02e-02  -2.81e-03  -4.51e-03   2.26e-04   3.12e-02
## 191     -7.13e-03  -8.73e-04  -4.02e-03  -1.19e-03  -2.44e-03  -1.97e-04   1.72e-02
## 192      1.81e-02  -1.82e-03   7.11e-03  -3.13e-03  -1.69e-02   2.15e-02  -6.30e-02
## 193      1.89e-04   2.18e-04  -2.41e-03   4.28e-03  -3.46e-03   7.75e-03  -1.64e-02
## 194     -2.05e-05  -2.14e-04  -3.06e-04   5.38e-06  -2.24e-06  -4.56e-04  -9.59e-04
## 195      1.41e-04  -1.14e-03  -1.63e-03   9.50e-04  -2.01e-03   4.43e-03  -1.08e-02
## 196      2.13e-02  -1.12e-02  -7.64e-03   5.87e-03   1.80e-02  -2.06e-02   6.97e-02
## 197     -2.37e-04   6.13e-03  -5.13e-03  -5.71e-03  -3.52e-03   1.59e-03   1.43e-02
## 198     -2.70e-03  -1.82e-02  -2.07e-03   7.24e-03  -5.28e-03   5.86e-03   3.77e-02
## 199      5.67e-04   1.82e-03  -9.42e-04  -1.70e-03  -2.27e-04   3.69e-03   7.68e-03
## 200     -2.15e-03  -5.13e-03   3.57e-03   2.85e-03  -8.61e-03   8.33e-03   2.20e-02
## 201     -6.52e-03   8.40e-03  -7.77e-03  -5.81e-03   1.79e-02  -1.06e-02   5.95e-02
## 202      1.42e-02  -3.88e-03  -8.64e-03  -1.02e-02   2.10e-02  -1.13e-02   6.04e-02
## 203      3.30e-04   2.12e-03   2.83e-03   1.92e-03   1.23e-03   3.56e-03   9.67e-03
## 204      2.70e-02  -1.21e-03  -9.56e-03  -1.50e-02   2.02e-02  -2.42e-03   7.30e-02
## 205      1.12e-02  -1.03e-02   1.58e-02  -4.52e-03   1.61e-02   4.01e-03   4.04e-02
## 206      1.20e-02   8.30e-03  -6.33e-03  -1.30e-02   1.42e-02  -4.16e-05   4.02e-02
## 207      3.24e-03  -8.76e-04   3.36e-03  -3.75e-04  -1.60e-03   2.51e-03  -1.35e-02
## 208      1.98e-02  -4.87e-03  -2.08e-02   4.62e-05  -2.32e-02   8.69e-03  -5.01e-02
## 209      1.07e-02   1.90e-02   9.17e-03  -7.10e-03  -1.92e-02   3.17e-02  -7.85e-02
## 210     -4.54e-04  -2.19e-03  -1.93e-03  -3.99e-04  -7.42e-04   4.21e-03   1.61e-02
## 211     -5.50e-03  -8.03e-03   1.91e-02   2.14e-02   1.62e-02  -2.18e-02  -6.81e-02
## 212      8.60e-03   4.94e-03   1.55e-02  -2.78e-03  -3.49e-03   2.48e-02   5.70e-02
## 213      1.03e-04  -8.84e-04  -1.27e-03  -4.31e-03  -2.59e-03   4.67e-03  -1.16e-02
## 214     -3.04e-04  -4.08e-04   9.31e-04   2.29e-04  -7.28e-04   6.65e-05   4.46e-03
## 215     -2.74e-02  -2.14e-03   3.64e-02   7.76e-03   1.87e-02  -5.85e-03   8.58e-02
## 216     -7.35e-03  -1.41e-02  -4.02e-03  -6.92e-03  -7.05e-03  -5.21e-03   3.31e-02
## 217     -5.63e-03  -8.00e-04  -3.93e-03  -7.09e-04  -8.03e-03   8.11e-03  -2.32e-02
## 218     -1.92e-03  -7.33e-04   1.09e-03   9.41e-04  -4.34e-04   9.48e-04  -5.19e-03
## 219      3.21e-04  -2.97e-04   3.62e-04   4.07e-04   5.36e-04  -6.72e-05  -1.73e-03
```

```
## 220    3.06e-02   5.62e-03 -8.48e-03 -3.60e-02   2.20e-02 -5.74e-03   7.68e-02
## 221   -1.34e-02  -8.08e-03   8.93e-03 -1.16e-03 -2.07e-02 -1.36e-04 -3.97e-02
## 222    1.12e-04  -2.67e-04 -1.60e-03   2.13e-03 -5.39e-04   3.98e-03 -9.33e-03
## 223   -9.77e-04   5.88e-03 -9.31e-03 -2.00e-03 -8.98e-03   9.50e-03   2.28e-02
## 224   -9.08e-03   8.29e-03 -2.60e-02 -2.25e-02   3.80e-03 -8.38e-03 -1.01e-01
## 225   -1.16e-03   3.60e-03 -7.29e-03 -1.01e-02 -7.92e-03   5.80e-03   1.88e-02
## 226   -1.31e-02   1.25e-02 -1.11e-02   1.48e-02 -1.55e-03 -2.21e-04   6.00e-02
## 227   -6.10e-03  -1.10e-03 -6.25e-03   8.84e-03 -3.03e-03 -4.59e-03   2.55e-02
## 228   -1.72e-02  -2.08e-03 -2.53e-02 -1.75e-02   9.83e-03 -7.76e-03 -8.73e-02
## 229   -2.02e-02  -1.32e-02 -6.48e-03 -7.61e-03   1.03e-02 -3.76e-03   6.37e-02
## 230   -1.84e-03   2.25e-03 -1.64e-03 -3.60e-04 -1.51e-03 -1.88e-04   7.20e-03
## 231   -1.62e-03   8.19e-03 -3.30e-03 -9.29e-04   1.98e-03   2.27e-03   2.13e-02
## 232   -8.41e-03  -1.11e-02 -3.65e-03 -1.89e-03   2.48e-03   2.78e-04   2.93e-02
## 233    2.17e-02  -3.94e-03   9.60e-03 -1.37e-02 -2.02e-02   1.63e-02 -5.82e-02
## 234    7.82e-05  -2.42e-04 -2.20e-03   1.98e-04 -3.01e-03   6.93e-03 -1.46e-02
## 235   -2.58e-03  -9.97e-03   4.84e-03   7.52e-04 -7.51e-03 -1.26e-03   2.02e-02
## 236   -1.41e-03  -8.07e-03   1.65e-02 -1.80e-02   1.94e-02 -1.65e-03 -7.70e-02
## 237    1.07e-02   3.06e-02 -1.16e-02   9.79e-03   5.92e-03   1.12e-02   5.17e-02
## 238    1.72e-02   1.69e-03 -1.06e-02   5.98e-03   1.76e-02 -9.04e-04   6.19e-02
## 239    1.11e-02  -3.01e-03   1.98e-03 -2.58e-03 -6.62e-03   1.30e-02 -4.58e-02
## 240    7.95e-05   4.91e-03   8.62e-04   1.83e-03 -8.07e-04   1.72e-03   7.86e-03
## 241    1.60e-03  -1.59e-03 -3.88e-03   2.62e-03   3.26e-03 -2.39e-03 -1.23e-02
## 242    8.56e-05   3.77e-04   6.51e-04 -4.07e-04   5.02e-06   7.48e-04   1.82e-03
## 243   -4.33e-03  -1.28e-03 -3.36e-03 -1.33e-03 -2.74e-03 -6.11e-05   1.48e-02
## 244   -5.88e-03  -1.07e-02   8.63e-03   4.66e-03   4.51e-04   3.10e-03   2.88e-02
## 245    3.82e-03  -7.51e-04 -1.05e-02   2.38e-03 -1.48e-02 -9.03e-04   5.79e-02
## 246    1.42e-02   6.12e-03   2.53e-02   8.00e-04   2.93e-02 -1.01e-02   7.78e-02
## 247   -1.29e-02   2.56e-03   9.34e-03   1.21e-02 -2.30e-03 -2.47e-03   3.65e-02
## 248   -1.24e-02  -5.85e-03   7.41e-03 -3.49e-03 -1.54e-02   6.07e-03 -5.81e-02
## 249   -2.18e-03  -3.51e-03   2.58e-02 -1.91e-02   1.62e-02 -1.12e-02 -8.10e-02
## 250   -1.09e-02   5.89e-03 -7.28e-03   6.53e-03   4.93e-03 -1.76e-03   4.20e-02
## 251    1.38e-02   1.27e-03 -5.05e-03   5.50e-03   5.56e-03 -8.15e-04   3.11e-02
## 252   -1.60e-02  -4.45e-03 -2.26e-02 -5.73e-04 -3.18e-02 -4.87e-06 -5.88e-02
## 253   -1.83e-02  -7.20e-03 -2.63e-02   2.48e-03   1.40e-02 -1.21e-02 -9.91e-02
## 254   -6.98e-03  -9.62e-04   7.89e-03 -3.01e-03 -5.04e-03 -5.56e-03   2.83e-02
## 255   -3.08e-03  -6.53e-03 -1.03e-02   5.18e-03 -1.32e-02   6.80e-03   2.46e-02
## 256   -6.46e-04   9.18e-04 -1.32e-03   1.51e-03   2.65e-04 -9.05e-04   6.88e-03
## 257    5.05e-05   5.20e-04   8.41e-04 -4.98e-05   2.90e-04   5.90e-04   2.28e-03
## 258   -1.56e-03  -2.10e-03   8.12e-03 -1.46e-03   1.08e-03   4.75e-04   1.97e-02
## 259   -5.44e-03  -6.83e-03   1.93e-02   2.02e-02   1.93e-02 -2.31e-02 -8.05e-02
## 260   -2.26e-02  -1.22e-02 -1.07e-02   5.78e-03 -9.66e-03 -5.74e-03   6.95e-02
## 261    2.57e-02  -4.99e-03   1.17e-02   8.99e-04   1.63e-02 -1.14e-02 -7.84e-02
## 262    7.76e-03  -6.15e-04   1.29e-03 -3.26e-03 -3.65e-03   1.83e-02 -4.07e-02
## 263   -1.81e-02  -1.45e-02 -2.76e-03   1.13e-02 -1.68e-03   4.82e-03   5.84e-02
## 264   -7.09e-03   9.98e-03 -5.32e-03 -6.78e-03   1.99e-03 -2.17e-03   2.59e-02
## 265   -2.48e-03  -2.12e-03   1.10e-02   1.23e-02   3.97e-03 -4.46e-03   3.07e-02
## 266    2.72e-03  -1.57e-03 -3.56e-03 -6.32e-03   3.02e-03 -1.38e-04 -1.38e-02
## 267    5.28e-06  -6.62e-05 -4.52e-05   9.70e-05   8.85e-06   6.48e-05 -2.66e-04
## 268   -1.71e-02  -1.20e-02 -6.23e-03   2.34e-02   1.25e-02 -3.14e-02   9.14e-02
## 269    1.49e-03  -2.06e-02 -1.85e-02 -5.72e-02 -2.69e-02   5.92e-02 -1.40e-01
```

```
## 270    1.72e-05 -6.20e-05  2.94e-04 -1.21e-05  4.60e-06  4.09e-04 -9.05e-04
## 271    1.07e-02  4.99e-03  3.27e-03 -4.12e-03 -9.14e-03  1.29e-02 -5.83e-02
## 272   -2.06e-03 -3.59e-03  3.62e-03 -2.49e-03 -1.02e-03  1.22e-03 -1.23e-02
## 273   -1.28e-02 -7.24e-03 -2.54e-02  4.63e-02  1.00e-02 -4.29e-02 -1.02e-01
## 274   -1.61e-02 -1.14e-02  3.89e-02  7.87e-03  1.41e-02 -2.95e-02  9.82e-02
## 275   -1.46e-02 -8.04e-03 -2.12e-02 -1.38e-02 -2.98e-02  2.24e-03 -4.89e-02
## 276   -1.28e-02 -1.23e-03  8.04e-03 -3.67e-03 -1.98e-02  2.10e-02 -7.07e-02
## 277    9.33e-03  2.85e-02  4.41e-03 -1.59e-02  1.24e-02 -1.24e-02 -7.79e-02
## 278   -2.61e-02 -5.89e-03 -8.22e-03 -1.75e-02 -1.52e-02 -5.02e-03  5.74e-02
## 279   -1.42e-02 -1.30e-02 -1.03e-02  2.02e-03 -1.09e-02 -6.15e-03  6.62e-02
## 280    1.65e-03  6.58e-04  1.29e-02 -2.02e-02 -5.59e-03  5.21e-03  4.25e-02
## 281    5.59e-04 -1.65e-03  9.33e-03  8.68e-03 -1.98e-03 -1.96e-03  3.52e-02
## 282    2.21e-03 -6.80e-04  1.26e-02  4.82e-04 -2.85e-03  2.78e-03  3.69e-02
## 283   -3.30e-03 -6.80e-03  5.62e-03  4.62e-03 -1.40e-02  9.08e-03  3.41e-02
## 284    5.87e-04 -4.91e-03  2.54e-03  3.96e-03 -4.42e-04 -1.05e-03  1.13e-02
## 285    9.29e-03  1.13e-02 -2.60e-02 -1.96e-02 -2.17e-02  1.47e-02 -6.94e-02
## 286    2.08e-02  3.01e-02 -1.06e-02 -9.34e-03  2.34e-02  6.70e-03  5.91e-02
## 287    3.10e-03 -3.03e-03 -9.96e-03  2.22e-03 -7.26e-03  7.94e-03  3.57e-02
## 288   -1.48e-02 -7.42e-03 -2.19e-02 -1.14e-04 -2.81e-02  1.20e-03 -5.64e-02
## 289   -1.10e-02 -8.76e-03  7.00e-03 -1.91e-03 -1.46e-02  6.35e-03 -5.41e-02
## 290   -5.44e-03 -1.74e-03  2.03e-02  2.03e-02  1.72e-02 -2.01e-02 -7.16e-02
## 291   -1.34e-02 -2.19e-03  5.54e-03 -5.42e-03 -1.18e-02  7.24e-04 -4.78e-02
## 292    1.67e-03  1.13e-03  2.62e-03  4.21e-03  1.02e-03 -2.32e-03  1.26e-02
## 293    1.47e-02  6.94e-03  1.21e-02  1.35e-02  2.39e-02 -9.83e-03  4.85e-02
## 294   -2.33e-02  1.03e-02 -5.92e-03  3.79e-03  1.75e-02 -2.16e-02  9.39e-02
## 295   -2.19e-03 -6.43e-03  3.88e-03  4.06e-03 -7.71e-03  4.46e-03  1.74e-02
## 296   -2.47e-03 -4.67e-03  4.29e-03  3.29e-03 -1.07e-02  9.12e-03  2.16e-02
## 297    3.34e-03  2.22e-03  1.98e-03  1.68e-03  3.78e-03  1.89e-03  8.77e-03
## 298   -1.12e-02 -1.32e-02 -3.29e-03  1.18e-02 -3.00e-03 -7.08e-03  7.35e-02
## 299   -1.42e-02 -1.71e-02 -7.02e-03  6.18e-03 -1.79e-02 -1.65e-03  4.91e-02
## 300   -1.28e-02 -3.81e-03  1.44e-02 -1.62e-02 -2.73e-02  8.51e-03 -6.95e-02
## 301   -1.54e-02  1.33e-02 -8.67e-03 -1.92e-02 -9.90e-03  3.47e-03  5.05e-02
## 302    6.45e-03 -3.54e-03  9.31e-04 -1.34e-03 -3.75e-03  8.57e-03 -2.56e-02
## 303   -2.38e-02 -5.08e-03 -1.20e-02  3.54e-03  2.85e-02 -3.05e-02  8.77e-02
## 304    1.46e-04 -1.41e-04 -4.42e-04 -1.25e-05 -2.00e-04  2.39e-04 -1.64e-03
## 305    1.44e-02 -8.53e-03 -7.19e-03  2.08e-02  1.55e-02  2.21e-04  6.16e-02
## 306    6.37e-06 -1.63e-04 -1.20e-04 -3.49e-04 -6.48e-05  2.75e-04 -8.46e-04
## 307   -1.55e-02  2.44e-03  6.26e-03 -8.24e-03 -1.04e-02 -1.66e-03 -5.64e-02
## 308   -3.88e-03  9.17e-03  5.49e-03  7.54e-03  2.20e-03 -3.32e-03  2.52e-02
## 309   -1.33e-02 -1.44e-02  3.27e-02  8.77e-03  5.61e-03 -4.67e-03  7.57e-02
## 310   -6.71e-03 -1.66e-03 -5.09e-03 -1.66e-03 -7.33e-03 -1.23e-03  2.65e-02
## 311   -3.28e-03 -4.55e-03 -1.00e-02 -1.68e-02 -1.73e-02  1.24e-02  3.09e-02
## 312   -1.99e-02 -1.26e-02 -9.35e-03  5.36e-03  1.72e-02 -1.31e-02  6.20e-02
## 313   -7.11e-04  9.58e-03  8.62e-03 -1.56e-03  6.01e-03 -2.48e-03  2.51e-02
## 314    1.94e-02  1.46e-02 -1.13e-02  3.17e-03  2.21e-02  1.46e-03  7.91e-02
## 315   -1.89e-02 -5.40e-03  5.90e-03 -9.11e-04 -1.65e-02  6.25e-03 -4.19e-02
## 316   -2.24e-03 -1.99e-03  7.75e-03 -1.35e-03  2.51e-03  1.91e-03  2.05e-02
## 317    1.39e-04 -4.31e-04  2.39e-03  7.40e-05 -8.87e-04  3.47e-03 -7.08e-03
## 318    4.20e-02  1.36e-02 -3.84e-02  1.38e-02  1.25e-02  1.95e-02 -1.34e-01
## 319    9.26e-03  5.76e-03  4.16e-03 -5.56e-03 -3.01e-03  8.89e-03 -5.49e-02
```

```
## 320    2.67e-02 -1.46e-02 -4.91e-03 -5.97e-03  8.97e-03 -2.96e-04  6.43e-02
## 321    4.51e-02  1.91e-02 -4.65e-02  3.69e-02  5.01e-02  1.07e-02 -1.61e-01
## 322   -4.38e-04  4.55e-04 -8.98e-04  1.14e-03  3.19e-04 -8.54e-04  4.87e-03
## 323    3.35e-03  5.70e-03 -1.31e-02 -1.56e-03 -1.09e-02  1.44e-02  4.31e-02
## 324    2.62e-03  8.51e-03  5.17e-03  6.90e-03  1.83e-03  3.32e-03  2.74e-02
## 325    1.64e-04 -1.47e-04  1.86e-04  2.01e-04 -2.49e-05  1.35e-04 -1.04e-03
## 326   -7.62e-03 -1.92e-02 -2.01e-03 -1.96e-03 -4.00e-03  9.29e-04  4.57e-02
## 327    3.01e-02 -2.81e-03 -7.67e-03  5.28e-03  1.67e-02 -1.49e-02  9.29e-02
## 328   -1.09e-02 -1.00e-02  6.25e-03 -8.62e-04 -1.39e-02 -3.22e-04 -4.12e-02
## 329    1.75e-02 -8.57e-03 -9.00e-03  4.98e-03 -7.56e-03  5.87e-03  7.70e-02
## 330    2.46e-02  3.95e-03 -8.65e-03 -1.22e-02  1.50e-02 -5.85e-03  8.39e-02
## 331    4.53e-05  2.12e-03 -2.38e-03  1.81e-03 -2.71e-04 -1.34e-04  5.17e-03
## 332   -1.16e-03  5.63e-03 -9.36e-03  4.41e-03 -8.86e-03  7.39e-03  2.08e-02
## 333    2.32e-02  8.00e-03 -5.44e-03 -3.25e-03  4.83e-03  3.06e-03  4.41e-02
## 334   -1.14e-02 -6.30e-03  7.28e-03 -2.26e-03 -1.40e-02  2.44e-03 -3.82e-02
## 335   -1.47e-02 -3.93e-03 -1.93e-02 -1.44e-02 -2.21e-02  1.23e-02 -5.52e-02
## 336    5.15e-02  3.62e-02  2.85e-02  3.17e-02  4.43e-02 -9.13e-03 -1.56e-01
## 337    1.96e-03 -5.48e-02  1.17e-02 -1.50e-02 -1.07e-02 -1.02e-02 -9.14e-02
## 338    2.15e-03 -1.61e-03  2.64e-03 -2.67e-03  4.23e-03 -1.00e-03 -1.05e-02
## 339   -1.19e-02 -1.08e-02 -3.61e-03 -7.31e-03  4.28e-03  1.27e-03  5.60e-02
## 340    1.02e-02  4.13e-02  5.56e-03 -1.99e-02  2.14e-02 -2.47e-02 -9.64e-02
## 341    1.40e-03 -6.73e-03  7.84e-03 -8.56e-03 -4.08e-03 -3.28e-04  2.84e-02
## 342    4.61e-03 -1.15e-03 -6.20e-03 -3.11e-04  7.84e-03 -1.83e-03 -2.06e-02
## 343    4.30e-04 -2.23e-03 -7.93e-04 -8.48e-04 -1.05e-03 -1.90e-04  4.48e-03
## 344    1.53e-04  8.91e-04 -4.70e-04 -1.11e-03 -2.78e-04  1.25e-03 -2.87e-03
## 345   -4.30e-04 -9.41e-04 -2.66e-03 -1.11e-03 -1.10e-03 -7.41e-04  6.70e-03
## 346    1.78e-02  1.96e-02 -1.13e-02  2.35e-03  1.52e-02 -4.36e-03  8.18e-02
## 347    8.85e-03 -3.66e-03  3.39e-03 -1.04e-03 -1.19e-02  1.13e-02 -3.37e-02
## 348    2.11e-04 -2.25e-04 -2.12e-03  3.30e-03 -2.56e-03  6.97e-03 -1.43e-02
## 349   -1.92e-02 -8.37e-03 -9.19e-03  3.57e-03 -1.07e-02  3.38e-03  6.83e-02
## 350   -2.79e-03 -4.78e-04  5.43e-03 -3.66e-03  1.18e-03  4.39e-03  1.82e-02
## 351    1.07e-03  1.97e-03 -1.78e-03 -3.95e-04 -1.10e-04 -5.08e-04  5.77e-03
## 352    3.96e-03  9.85e-03  7.18e-03  8.17e-03  3.36e-03  5.29e-03  3.19e-02
## 353   -2.34e-02  9.19e-03 -5.88e-03  4.20e-03  1.79e-02 -2.31e-02  9.37e-02
## 354   -1.34e-02 -2.16e-03  8.69e-03  2.47e-02 -1.47e-02  1.68e-02 -7.12e-02
## 355   -2.07e-02  6.76e-03  1.36e-02 -4.24e-03  1.20e-02 -3.53e-03 -9.93e-02
## 356    2.00e-02 -2.94e-03  6.48e-03  2.41e-02 -1.48e-02  2.47e-03 -5.25e-02
## 357    7.60e-04 -2.09e-03 -1.14e-02  3.04e-03 -1.70e-02  2.31e-03  5.75e-02
## 358   -2.72e-05  8.63e-03 -2.58e-03  4.91e-03  1.37e-03  7.75e-03  2.40e-02
## 359   -1.12e-02  1.66e-02 -2.92e-02  1.61e-02  1.16e-03 -6.20e-03 -1.20e-01
## 360   -6.53e-03  2.61e-03  1.54e-02  5.91e-03  9.30e-03  6.56e-04  4.33e-02
## 361   -2.09e-03 -5.61e-03  3.30e-03  2.98e-03 -7.52e-03  6.44e-03  1.98e-02
## 362   -2.42e-03  1.92e-02 -4.86e-03 -1.13e-02  1.00e-02  2.90e-04  4.11e-02
## 363    1.52e-03 -5.19e-04  2.04e-03 -2.50e-04  6.45e-04 -4.09e-04  8.48e-03
## 364    1.93e-05  1.62e-03 -2.06e-03  1.92e-03  1.29e-04 -1.12e-03  4.94e-03
## 365    1.60e-02 -5.56e-03 -8.80e-03 -2.42e-02  2.05e-02 -1.54e-03  5.96e-02
## 366    8.94e-03  1.66e-03 -2.21e-02  2.29e-02 -1.78e-02  1.84e-02 -5.73e-02
## 367   -2.13e-02 -7.61e-03 -8.70e-03 -1.55e-02 -9.74e-03  4.27e-04  4.51e-02
## 368   -2.51e-03 -4.77e-03  4.21e-03  3.39e-03 -1.11e-02  9.34e-03  2.15e-02
## 369   -5.50e-04 -1.96e-03 -3.03e-03  3.13e-05 -3.32e-03  1.31e-02  3.16e-02
```

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## 370   -7.79e-05 -6.85e-04  7.74e-04 -2.11e-05  3.73e-04 -1.73e-03 -3.85e-03
## 371   -2.42e-04 -5.09e-04  7.85e-04  1.61e-03 -3.46e-04 -2.91e-04  4.18e-03
## 372   -1.42e-02 -5.59e-03  3.86e-03 -1.01e-03 -1.08e-02  8.80e-03 -3.53e-02
## 373    3.57e-03  7.42e-03  2.29e-03  4.09e-03  5.22e-03  5.49e-04  1.81e-02
## 374   -4.65e-03 -1.83e-03 -3.65e-03 -4.80e-04  2.19e-03  3.46e-03  2.61e-02
## 375   -1.15e-02 -1.08e-02 -3.58e-03 -7.50e-03  5.77e-03  5.54e-04  5.65e-02
## 376   -4.99e-03 -1.53e-03  6.93e-03 -1.56e-03 -5.24e-03 -2.53e-03  1.98e-02
## 377    8.71e-03  5.39e-03  1.52e-02  9.55e-03 -2.16e-03  2.38e-02  5.79e-02
## 378    8.59e-03  1.70e-02  4.30e-03  2.18e-02 -4.04e-03  1.69e-02 -6.79e-02
## 379    1.75e-03 -1.40e-03 -2.48e-03 -1.93e-03  1.76e-03  5.84e-04 -8.38e-03
## 380    2.14e-02  1.59e-02  1.90e-02  5.14e-03  2.98e-02 -1.26e-02  6.49e-02
## 381    1.24e-02  3.13e-03 -5.60e-03 -9.47e-03  1.16e-02 -2.96e-03  3.68e-02
## 382   -3.95e-03 -6.03e-03 -2.56e-02 -1.85e-02  6.54e-03 -7.44e-03 -8.27e-02
## 383    3.68e-04 -2.40e-04  5.53e-04  5.36e-04  2.54e-04  3.69e-04 -3.17e-03
## 384    1.73e-02 -5.90e-03  3.97e-03  8.45e-03 -1.11e-02  1.57e-02 -4.51e-02
## 385   -2.16e-04  2.66e-02 -5.04e-03 -1.32e-02  6.72e-03  5.05e-03  4.75e-02
## 386    1.14e-02  2.51e-02 -2.12e-02 -1.97e-02  4.69e-02 -2.28e-02 -1.15e-01
## 387   -2.82e-02  2.37e-02  7.84e-03 -1.88e-02  1.15e-03 -1.19e-02 -9.59e-02
## 388   -6.55e-03 -1.09e-03 -4.68e-03  2.88e-03  3.98e-05 -4.61e-03  2.13e-02
## 389   -1.55e-02 -1.47e-02 -6.86e-03  2.37e-02  5.56e-03  3.90e-03  6.29e-02
## 390    2.62e-03  6.08e-04  1.13e-02 -2.03e-03 -3.99e-03  1.20e-02  4.10e-02
## 391   -1.57e-02 -7.95e-03 -3.52e-03 -2.96e-02  5.34e-03 -2.98e-03  6.96e-02
## 392   -1.81e-02 -1.57e-02 -5.41e-03 -1.79e-02 -2.71e-02 -1.32e-02  6.52e-02
## 393    3.13e-03  8.37e-03 -1.28e-02 -8.36e-04 -1.78e-02  1.69e-02  5.99e-02
## 394   -1.97e-03 -7.04e-03  3.58e-03  4.23e-03 -5.90e-03  2.06e-03  1.55e-02
## 395   -1.32e-02 -1.29e-02 -1.63e-03  1.23e-02 -4.16e-03  6.12e-03  7.07e-02
## 396    1.59e-03 -1.40e-03  1.92e-03 -2.93e-05  3.02e-03 -5.97e-04 -7.58e-03
## 397   -9.62e-03 -2.06e-02 -4.77e-03 -2.02e-02 -5.67e-03 -1.14e-02  7.28e-02
## 398   -1.97e-02  9.85e-03  1.11e-02  1.00e-02 -2.18e-02 -1.36e-03 -7.30e-02
## 399   -1.31e-02 -1.84e-02 -7.30e-03  5.66e-03 -1.36e-02 -7.40e-03  6.81e-02
## 400   -4.05e-04 -2.54e-06  1.32e-03  2.44e-03 -1.26e-03  7.35e-04  7.30e-03
## 401   -3.45e-04 -3.05e-04  9.89e-04 -2.56e-03 -9.99e-04  3.91e-05  4.65e-03
## 402   -6.61e-04  2.31e-03  2.18e-03 -4.29e-03 -4.20e-03  4.28e-03  1.16e-02
## 403    6.67e-03  5.27e-02  7.10e-03  2.21e-03  1.97e-02 -4.46e-02 -1.17e-01
## 404   -2.61e-03  4.33e-03 -4.02e-03  3.62e-03 -1.49e-03  8.66e-04 -1.79e-02
## 405    5.94e-05  7.76e-03 -5.76e-03  3.24e-03 -2.31e-03  2.28e-03  1.31e-02
## 406    1.51e-04 -4.47e-04  2.81e-03  7.20e-05 -9.67e-04  3.94e-03 -8.31e-03
## 407    1.31e-02 -1.13e-03 -4.08e-03 -6.57e-03  1.60e-03  6.86e-03  2.75e-02
## 408   -1.59e-02 -1.06e-02 -4.44e-03  2.52e-02  7.94e-03 -1.08e-02  8.23e-02
## 409    1.00e-02  1.42e-02  3.64e-02 -1.49e-02  5.25e-02 -3.75e-02 -9.12e-02
## 410    1.07e-02  1.42e-02  3.72e-02 -1.41e-02  5.34e-02 -3.74e-02 -9.22e-02
## 411   -7.97e-03 -9.17e-03  4.20e-03 -1.62e-03 -1.03e-02  9.93e-03 -4.33e-02
## 412   -1.09e-03 -1.98e-03 -4.69e-03 -4.91e-03 -3.96e-03 -3.04e-03  1.43e-02
## 413    1.79e-02 -4.22e-03 -8.63e-03  8.61e-03  1.68e-02  2.37e-03  5.81e-02
## 414    1.04e-02 -1.38e-02 -4.67e-03  6.21e-03  2.76e-03 -1.05e-03  3.70e-02
## 415    1.48e-02 -9.68e-03 -4.99e-03 -1.57e-02  8.35e-03  1.19e-02  5.72e-02
## 416    1.14e-02 -3.72e-03  1.99e-02 -2.27e-02  2.02e-02 -1.93e-03  5.68e-02
## 417   -9.40e-04  2.37e-03 -1.33e-03 -1.73e-03  5.38e-04  2.48e-03  8.97e-03
## 418   -2.59e-05  3.59e-03 -4.19e-03  3.74e-03 -1.15e-03 -1.18e-03  1.04e-02
## 419    2.87e-02  1.10e-02 -3.05e-02 -6.15e-03 -2.71e-02  9.85e-03 -8.44e-02
```

```
## 420   -1.31e-02 -7.52e-03  6.75e-03  2.25e-02 -1.18e-02  4.44e-03 -5.58e-02
## 421   -4.04e-03 -7.89e-03 -1.24e-02  6.61e-03 -1.95e-02  9.07e-03  3.85e-02
## 422    1.75e-02  8.11e-03 -1.10e-02 -3.34e-02  2.31e-02  4.52e-03  6.20e-02
## 423   -1.06e-02  4.46e-03  1.62e-02 -5.06e-03  1.66e-02 -1.13e-02  5.54e-02
## 424   -4.54e-04 -1.53e-03  1.42e-03  2.90e-03 -6.88e-04 -1.85e-03  7.49e-03
## 425    5.09e-03 -4.29e-03  9.73e-03 -1.68e-02 -2.43e-03  1.23e-03  4.63e-02
## 426    2.70e-03 -1.14e-02  1.18e-02 -8.51e-03 -5.65e-03  9.54e-04  3.84e-02
## 427   -4.29e-03  7.21e-03 -2.80e-03 -1.45e-02 -6.32e-03  6.85e-03  4.80e-02
## 428   -2.85e-02 -1.54e-03  3.29e-02  4.65e-03  3.06e-02 -1.32e-02  8.52e-02
## 429    1.77e-02  2.51e-03 -9.13e-03 -3.01e-02  1.73e-02  2.58e-03  6.23e-02
## 430   -1.54e-03  3.08e-03 -2.98e-03  2.47e-03  4.47e-04  7.74e-04 -1.25e-02
## 431    1.54e-02  9.84e-02  4.16e-02 -5.36e-02  1.26e-02  6.04e-02 -1.64e-01
## 432    9.54e-04 -4.15e-04  1.91e-03 -2.29e-04 -1.96e-05  1.17e-03 -8.11e-03
## 433    2.57e-03 -2.84e-03  8.34e-03 -7.32e-04 -4.57e-03  3.71e-04  3.67e-02
## 434   -5.63e-03  2.81e-06  1.99e-02  4.12e-02  1.80e-02 -2.03e-02 -8.10e-02
## 435    4.28e-08  1.69e-03 -1.90e-03  4.81e-04 -3.27e-04 -4.43e-04  4.34e-03
## 436    1.57e-02 -1.35e-02 -8.28e-03 -6.87e-03 -6.15e-03 -1.53e-03  5.34e-02
## 437   -2.65e-04 -4.51e-04  8.72e-04 -2.12e-03 -6.63e-04 -3.33e-04  4.42e-03
## 438   -1.97e-04 -9.16e-04  9.28e-04  3.11e-06  5.79e-04 -2.64e-03 -4.98e-03
## 439   -1.80e-02 -1.51e-02 -5.55e-03 -1.94e-02  6.57e-03 -1.57e-04  6.48e-02
## 440    5.33e-03 -4.48e-03  1.03e-02  9.04e-03 -2.11e-03 -7.02e-04  4.12e-02
## 441   -1.13e-02 -2.04e-02 -8.92e-03  8.34e-03  1.78e-02 -3.66e-02  8.91e-02
## 442   -9.05e-03 -1.65e-02  2.49e-02 -4.30e-03 -1.52e-03  9.36e-03  6.32e-02
## 443   -1.65e-03 -2.48e-03 -3.92e-03  1.28e-02 -6.98e-05 -3.09e-05  2.72e-02
## 444   -2.34e-02 -9.16e-03  1.22e-02  2.13e-03 -6.50e-03 -2.69e-03  5.04e-02
## 445   -1.67e-02 -1.10e-02  2.24e-02  6.76e-03  1.80e-02  4.10e-03  5.90e-02
## 446    8.54e-03  3.54e-02  4.19e-03 -1.81e-02  1.51e-02 -2.17e-02 -9.02e-02
## 447   -1.45e-02 -7.65e-03 -2.15e-02 -1.43e-02 -2.87e-02  1.30e-03 -4.90e-02
## 448   -4.75e-05  6.83e-04 -1.20e-03 -1.01e-03 -2.96e-04 -7.38e-04  3.14e-03
## 449   -1.52e-02 -5.24e-03 -1.02e-02  4.47e-03  2.37e-02 -2.91e-02  8.74e-02
## 450    6.70e-05 -2.17e-03 -4.53e-03  3.35e-03 -2.52e-03 -5.68e-03 -1.60e-02
## 451   -1.71e-04 -8.90e-04  5.31e-04  1.16e-03 -4.74e-05 -1.20e-03  2.98e-03
## 452   -1.95e-02 -1.19e-02 -9.15e-03  1.31e-02 -1.07e-02 -8.43e-03  5.17e-02
## 453   -5.69e-03 -1.53e-02 -3.07e-03 -6.39e-03 -5.49e-03 -5.68e-03  3.17e-02
## 454    2.22e-02  9.19e-03  8.96e-03 -7.54e-03 -2.16e-02 -9.30e-04 -6.87e-02
## 455    7.40e-06 -1.20e-04 -1.42e-04 -3.99e-04 -7.95e-05  3.89e-04 -9.61e-04
## 456   -1.49e-02 -1.03e-02 -5.10e-03  8.99e-03  4.45e-03 -2.47e-02  7.17e-02
## 457    1.64e-02  2.64e-03  1.17e-02 -1.23e-02  1.16e-02 -4.41e-03  3.96e-02
## 458   -2.95e-03  5.77e-03  4.07e-03 -5.01e-03 -3.01e-05 -2.36e-03  1.68e-02
## 459   -2.38e-03 -5.04e-03  4.22e-03  3.64e-03 -1.07e-02  8.55e-03  2.48e-02
## 460    1.94e-02  1.60e-02 -1.28e-02  1.64e-03  2.73e-02 -7.82e-03  6.86e-02
## 461   -2.09e-03 -5.63e-03  3.14e-03  2.93e-03 -7.28e-03  5.96e-03  1.89e-02
## 462   -2.03e-02 -8.84e-03 -6.61e-03 -1.93e-02 -1.73e-02 -4.46e-03  5.77e-02
## 463    7.93e-03  2.51e-03 -1.85e-02 -2.11e-03 -1.53e-02  2.08e-02 -5.05e-02
## 464    1.06e-02 -2.40e-03  2.31e-03 -2.11e-03 -7.84e-03  1.80e-02 -3.98e-02
## 465    2.32e-04  1.74e-03 -8.07e-04 -1.43e-03 -1.28e-03  3.13e-03  6.92e-03
## 466   -4.15e-03  3.38e-03 -3.42e-03  6.91e-03  4.60e-03 -3.58e-03  2.00e-02
## 467    8.31e-04  7.20e-03  8.90e-03  5.05e-03  1.07e-03  7.04e-03  2.63e-02
## 468    1.18e-02 -5.32e-04 -2.60e-03  5.45e-03  1.71e-03  8.77e-03  2.62e-02
## 469   -1.62e-05 -1.06e-03 -4.74e-04 -1.44e-03 -5.16e-04  7.22e-04 -4.02e-03
```

```
## 470    4.58e-02   1.12e-02 -2.77e-02 -2.48e-03   7.42e-03 -8.62e-03 -9.43e-02
## 471   -1.08e-03   3.50e-03   3.85e-03   4.86e-03 -5.99e-03   3.70e-03   2.16e-02
## 472    3.97e-02 -5.22e-03   1.57e-02   1.45e-03   1.69e-02 -8.70e-03 -6.87e-02
## 473   -2.24e-02 -5.88e-03 -1.21e-02   1.79e-02 -1.70e-02 -1.13e-02   7.32e-02
## 474    1.22e-03 -6.09e-03   4.41e-03   5.65e-03 -4.89e-04 -1.24e-03   1.97e-02
## 475   -1.23e-02 -6.96e-03   9.91e-03 -1.42e-03 -2.31e-02   8.64e-03 -5.89e-02
## 476   -1.46e-02   7.14e-04   8.08e-03 -6.44e-03 -1.69e-02   7.82e-03 -5.57e-02
## 477   -1.41e-02 -1.37e-02 -4.94e-03   4.49e-03 -1.35e-02 -3.98e-03   4.93e-02
## 478    8.17e-03 -1.00e-02 -9.28e-03   1.80e-03 -6.17e-03 -1.42e-02   4.66e-02
## 479    9.95e-03   2.18e-03   4.57e-03 -1.94e-03 -1.70e-02   1.97e-02 -5.03e-02
## 480   -1.85e-02   4.02e-03 -2.80e-02   3.39e-02 -3.26e-02 -5.30e-03 -8.08e-02
## 481    1.08e-04   4.03e-03   5.80e-04   1.38e-03 -7.78e-04   2.07e-03   7.03e-03
## 482    4.33e-02   4.75e-02   2.18e-02   3.08e-02   1.02e-02   1.77e-02 -1.39e-01
## 483   -2.78e-02   2.76e-03 -7.30e-03   6.60e-03   1.79e-02 -8.32e-04   7.94e-02
## 484   -2.31e-05 -2.38e-03 -1.14e-03 -3.09e-03 -3.29e-03   6.50e-03   1.36e-02
## 485   -2.06e-02 -1.22e-03   7.28e-03 -2.69e-03 -1.78e-02   1.31e-02 -6.16e-02
## 486   -3.55e-03   8.86e-03 -3.69e-03   2.90e-04   5.27e-03   9.32e-03   2.69e-02
## 487   -2.24e-02 -2.23e-04 -4.48e-03   7.58e-03   1.50e-02 -3.34e-02   8.43e-02
## 488    2.82e-04 -3.88e-04   3.58e-04   4.43e-04   6.36e-04 -2.87e-04 -2.06e-03
## 489   -1.08e-02 -6.76e-03   8.10e-03 -6.00e-04 -1.65e-02   3.55e-03 -4.77e-02
## 490    2.03e-04   1.01e-02 -3.23e-03 -6.29e-03   4.12e-04   8.69e-03   2.52e-02
## 491    9.76e-03   3.22e-03 -1.09e-02 -4.13e-04 -1.51e-02 -9.06e-04   5.97e-02
## 492   -1.28e-02 -5.44e-03   1.25e-02 -1.91e-03 -2.34e-02   8.46e-03 -6.38e-02
## 493   -8.92e-03 -1.66e-04   6.85e-03 -4.80e-03 -4.78e-03   1.78e-04   2.35e-02
## 494   -2.46e-03 -4.68e-03   4.33e-03   3.32e-03 -1.07e-02   9.14e-03   2.17e-02
## 495    3.60e-02 -2.58e-02   2.09e-02   3.77e-02   8.69e-03   2.23e-03 -1.17e-01
## 496    8.50e-04 -4.91e-03   3.64e-03   4.58e-03 -2.51e-04 -2.32e-03   1.55e-02
## 497    1.46e-04 -2.85e-04 -2.18e-03   3.40e-03 -2.51e-03   6.74e-03 -1.45e-02
## 498   -8.76e-03 -7.46e-03 -2.69e-02   2.23e-03   1.35e-02 -2.39e-02 -1.01e-01
## 499    2.40e-02   4.77e-03   8.40e-03   2.41e-02 -1.01e-02   2.79e-02 -7.84e-02
## 500   -4.10e-03   1.00e-03   1.55e-02 -3.94e-03   9.09e-03 -1.20e-02   4.14e-02
## 501    8.70e-03   1.03e-02 -3.97e-03   7.95e-04   5.71e-03   6.54e-03   2.73e-02
## 502    6.13e-04   3.15e-04 -4.00e-04   3.13e-04   1.47e-04 -7.39e-05 -1.64e-03
## 503    6.07e-03 -1.01e-02 -3.65e-03 -5.17e-03   4.00e-03   5.19e-04   2.32e-02
## 504   -7.00e-03 -2.14e-03   4.99e-03 -1.03e-04   3.82e-03 -2.64e-04 -2.06e-02
## 505    1.84e-02   1.41e-03   4.12e-03 -5.77e-03 -4.12e-03   1.64e-02 -5.69e-02
## 506    2.01e-02 -7.15e-04 -1.37e-02   2.23e-02   2.18e-02 -1.14e-02   8.36e-02
## 507    1.04e-02   1.75e-03   4.87e-03 -1.90e-03 -1.53e-02   2.03e-02 -5.50e-02
## 508   -1.53e-02   1.79e-03   9.34e-03 -3.63e-03 -2.19e-02   1.03e-02 -6.51e-02
## 509   -2.45e-03 -4.80e-03   4.39e-03   3.51e-03 -1.10e-02   9.43e-03   2.19e-02
## 510   -1.22e-02   6.08e-03   1.47e-02 -6.42e-03   1.94e-02 -1.38e-02   6.41e-02
## 511   -4.06e-03 -1.88e-02 -3.85e-03   8.09e-03 -4.17e-03   7.79e-03   4.51e-02
## 512   -9.13e-03 -7.73e-03   4.74e-03 -2.30e-03 -8.46e-03   2.82e-03 -4.02e-02
## 513   -5.58e-03 -1.74e-02 -1.20e-03 -1.15e-02 -5.27e-03   7.87e-03   4.31e-02
## 514    1.16e-02 -1.30e-02 -7.51e-03 -4.61e-03   8.15e-03 -1.26e-02   5.00e-02
## 515    9.19e-03   3.59e-02 -3.90e-02   2.91e-02 -5.60e-03   4.88e-03 -9.33e-02
## 516    1.43e-03   9.12e-04   2.34e-03   3.61e-03   1.17e-03 -3.94e-04   1.04e-02
## 517    1.87e-02   1.03e-02   3.10e-02   2.22e-03   2.96e-02 -7.45e-04   7.95e-02
## 518   -1.67e-02   6.09e-03   1.09e-02   2.74e-02 -1.70e-02   1.04e-03 -8.48e-02
## 519   -2.07e-03 -5.75e-03   3.56e-03 -5.94e-03 -7.63e-03   4.71e-03   1.60e-02
```

```
## 520    -8.86e-04 -1.57e-03 -2.96e-03  6.63e-03 -1.82e-03  9.74e-03  2.82e-02
## 521     3.76e-03 -4.64e-03 -9.31e-03  6.02e-03 -1.47e-02  3.56e-03  5.79e-02
## 522    -1.19e-02 -1.58e-02  1.74e-02 -1.22e-02  6.62e-03  9.58e-03  4.84e-02
## 523    -1.80e-02  3.89e-03 -2.90e-02  2.81e-02 -2.26e-02 -3.80e-03 -6.60e-02
## 524     8.19e-03  1.28e-02  4.61e-03 -8.55e-03 -9.56e-04  3.43e-03 -5.47e-02
## 525     1.34e-02  4.42e-04  8.40e-03  4.05e-03  8.63e-03  2.73e-03  2.90e-02
## 526     1.44e-04  9.13e-04 -5.74e-04  3.06e-05 -5.98e-04  1.90e-03  4.42e-03
## 527     1.30e-02 -8.87e-04 -3.08e-03 -8.30e-04  3.57e-03  4.24e-03  2.72e-02
## 528    -8.59e-06 -5.12e-04 -1.54e-04 -4.66e-04 -7.95e-05  8.22e-05 -1.26e-03
## 529     1.65e-02  1.29e-02 -3.33e-03 -7.13e-03  1.35e-03  6.17e-03  3.44e-02
## 530     1.18e-04  4.32e-03 -3.74e-03 -1.87e-03 -1.22e-03  1.30e-03  8.48e-03
## 531     1.81e-04  2.44e-04 -2.18e-03  3.44e-04 -3.97e-03  8.26e-03 -1.54e-02
## 532     3.24e-02  1.13e-02 -1.07e-02  7.16e-04  2.85e-02 -1.21e-02  7.38e-02
## 533     7.81e-04 -3.50e-03 -2.26e-03 -2.05e-04 -4.06e-03  1.37e-02  3.46e-02
## 534     1.46e-02 -5.44e-03  4.22e-03 -1.36e-03 -1.05e-02  8.74e-03 -3.46e-02
## 535     3.56e-02 -1.91e-04 -9.64e-03  5.71e-03  1.81e-02 -2.31e-02  8.34e-02
## 536     1.08e-02 -1.28e-02 -3.14e-03 -9.18e-03  4.21e-03  6.31e-03  4.03e-02
## 537     1.80e-03  1.34e-03 -4.59e-03  5.28e-03 -6.75e-04 -1.88e-03  1.58e-02
## 538    -1.72e-03  1.98e-04 -2.13e-03 -3.59e-04  4.77e-04  1.12e-02  3.00e-02
## 539     6.78e-04 -8.59e-04  9.19e-04  1.05e-03  8.63e-04 -3.70e-04 -4.29e-03
## 540    -1.32e-04 -8.21e-04  8.80e-04  1.15e-03  6.16e-04 -2.40e-03 -4.88e-03
## 541    -3.53e-02 -7.20e-04 -1.23e-02  1.80e-02 -1.82e-02  8.68e-04  6.70e-02
## 542    -2.48e-03 -4.79e-03  4.31e-03  3.46e-03 -1.10e-02  9.39e-03  2.17e-02
## 543    -1.75e-02 -3.33e-03  3.92e-03  2.03e-02 -1.02e-02  6.58e-03 -4.56e-02
## 544    -2.55e-02  1.72e-02  2.00e-02  2.00e-02  1.06e-02 -1.07e-03 -1.13e-01
## 545    -1.43e-02  1.25e-02 -8.41e-03 -1.81e-02  1.70e-02  5.59e-03  5.42e-02
## 546    -3.35e-02  1.71e-02  8.82e-03 -3.02e-02 -2.24e-02  3.20e-03 -8.89e-02
## 547    -1.80e-03 -1.68e-03 -1.69e-03 -6.62e-03 -1.79e-03  8.40e-03  2.68e-02
## 548     1.98e-02  5.43e-03 -4.53e-03 -1.13e-02 -1.38e-03  5.28e-03  4.49e-02
## 549    -2.09e-03 -6.43e-03  3.52e-03  3.81e-03 -6.72e-03  3.31e-03  1.58e-02
## 550     6.91e-05  1.77e-03 -1.01e-03 -1.45e-03 -4.55e-04  2.98e-03  6.52e-03
## 551    -9.73e-05 -4.04e-04  3.83e-04  5.14e-04  1.58e-04 -1.03e-03 -2.21e-03
## 552     1.42e-04 -1.58e-03 -1.64e-03  4.23e-03 -1.29e-03  3.27e-03 -1.10e-02
## 553    -4.26e-05  8.26e-03 -6.59e-03 -3.28e-03 -3.71e-03  1.60e-03  1.74e-02
## 554    -1.73e-02  6.23e-03  8.09e-03  2.72e-02 -1.32e-02  1.27e-04 -6.87e-02
## 555    -5.10e-03 -1.54e-03 -2.98e-03 -3.06e-03 -3.08e-03 -1.47e-04  1.35e-02
## 556    -2.38e-03 -4.54e-03  4.24e-03 -1.35e-02 -1.12e-02  9.50e-03  2.33e-02
## 557     1.76e-03 -1.10e-04  1.79e-03  2.35e-03  8.34e-05 -1.12e-03  7.26e-03
## 558     1.66e-02  2.89e-03  2.43e-02  1.57e-03  3.06e-02  5.96e-04  5.20e-02
## 559     3.51e-03 -7.85e-04 -1.15e-02 -8.23e-04 -7.90e-03  6.50e-03  4.09e-02
## 560    -2.24e-03  9.22e-04 -2.84e-03  7.43e-03  1.33e-03  7.60e-03  3.63e-02
## 561    -4.63e-03 -6.13e-03 -1.32e-02  6.60e-03 -2.32e-02  1.04e-02  4.35e-02
## 562    -1.98e-02 -8.22e-03  1.45e-02 -1.10e-02 -7.64e-03 -5.35e-03  5.48e-02
## 563     7.73e-04  1.48e-02 -5.04e-03 -9.11e-04  3.75e-03  1.11e-02  3.47e-02
## 564     1.04e-02 -8.53e-03  1.26e-02 -1.88e-02 -6.87e-03 -3.90e-03  4.76e-02
## 565     5.81e-03 -1.44e-03  5.84e-03 -4.35e-04  3.08e-04 -1.44e-04 -2.04e-02
## 566    -7.40e-03  9.31e-03  1.87e-02  3.76e-03  2.82e-02 -1.67e-02  6.51e-02
## 567    -7.24e-03 -2.99e-03 -5.79e-03 -1.90e-04  2.61e-03 -8.38e-04 -2.34e-02
## 568     8.12e-03  1.31e-02  4.24e-03 -8.64e-03 -1.67e-03  3.12e-03 -5.25e-02
## 569     9.12e-03  1.14e-02 -9.91e-03 -7.44e-03 -1.07e-04  1.29e-03  4.67e-02
```

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## 570    8.25e-05 -6.21e-04  2.06e-03  2.44e-04 -4.30e-04  1.99e-03 -4.96e-03
## 571    1.49e-03  4.12e-03  2.58e-03 -2.63e-03 -1.47e-04 -3.25e-04  1.16e-02
## 572   -1.39e-02  6.76e-03  9.05e-03 -6.59e-03 -7.20e-04 -2.86e-03  3.70e-02
## 573    1.00e-02 -7.53e-03 -4.43e-02  5.35e-03 -9.14e-03 -2.21e-02 -1.00e-01
## 574   -1.11e-02 -1.67e-02 -2.64e-03  1.09e-02 -2.28e-03 -2.24e-02  8.04e-02
## 575    7.86e-04 -8.22e-04  8.22e-04 -1.52e-03  2.99e-04  2.61e-04 -3.84e-03
## 576    2.33e-02  6.91e-03  1.63e-02 -1.62e-02  1.64e-02 -3.23e-03  5.49e-02
## 577    1.83e-02  7.96e-03 -1.21e-02  2.23e-03  2.83e-02  1.00e-05  5.34e-02
## 578   -2.47e-02 -9.30e-03 -6.21e-03  9.00e-03  1.07e-03 -7.30e-03  7.04e-02
## 579   -3.31e-03 -4.70e-03 -1.15e-02  4.51e-03 -1.63e-02  1.11e-02  2.83e-02
## 580    1.17e-02  4.01e-02 -1.86e-02 -2.20e-02  3.96e-02 -2.56e-02 -1.02e-01
## 581   -1.43e-02 -4.42e-03 -2.16e-02 -1.64e-02 -3.45e-02  1.10e-02 -6.55e-02
## 582   -1.39e-02 -3.76e-03  2.98e-03 -1.95e-03 -5.19e-03  1.11e-02 -3.94e-02
## 583   -2.93e-03 -5.61e-03 -1.09e-02  4.38e-03 -1.48e-02  1.11e-02  2.91e-02
## 584   -3.17e-03 -5.11e-03 -1.15e-02  5.02e-03 -1.62e-02  1.10e-02  2.84e-02
## 585   -1.09e-02 -6.06e-03  2.03e-03 -1.10e-03 -6.10e-03  6.86e-03 -3.12e-02
## 586    8.47e-04  1.32e-03 -8.11e-04 -1.92e-04 -1.90e-04 -5.56e-05  3.55e-03
## 587   -5.86e-04  2.78e-03  1.82e-03  2.50e-03 -3.91e-03  5.18e-03  1.37e-02
## 588   -9.09e-04  2.27e-03 -1.31e-03  1.61e-03  2.22e-04  2.63e-03  7.52e-03
## 589    3.84e-03 -1.15e-03 -6.31e-03 -5.52e-03  6.39e-03 -4.13e-03 -2.13e-02
## 590    4.92e-04  1.45e-03 -1.06e-03  7.41e-05 -1.61e-04  3.15e-03  6.76e-03
## 591   -3.53e-04 -1.18e-03  9.72e-04  6.32e-04 -6.23e-04 -1.22e-03  4.74e-03
## 592    1.90e-03 -1.73e-03 -2.28e-03  2.26e-04  2.18e-03 -7.84e-04 -8.68e-03
## 593    1.11e-02 -8.98e-03 -8.53e-03 -5.66e-03  1.17e-02 -9.37e-03  4.86e-02
## 594    3.69e-03  3.42e-03  1.35e-02  9.79e-03 -3.49e-03  1.16e-02  4.08e-02
## 595   -6.98e-03  2.32e-02  2.77e-02 -2.93e-02  2.45e-02  1.93e-02 -1.15e-01
## 596    9.09e-03  1.25e-02  4.63e-03  6.30e-03  4.31e-03 -4.30e-03  3.08e-02
## 597   -2.90e-02 -5.76e-03  1.80e-02  1.38e-02 -6.91e-03 -6.94e-03  6.38e-02
## 598   -1.20e-02  8.10e-03 -5.09e-03 -2.12e-03  6.39e-03  6.45e-03  4.44e-02
## 599    3.07e-05 -5.95e-04  1.78e-03  1.43e-04 -3.50e-04  1.92e-03 -4.79e-03
## 600    1.58e-02 -4.92e-03 -9.69e-03 -1.08e-02  2.15e-02 -3.51e-03  5.61e-02
## 601   -7.83e-04  4.97e-03  2.47e-03  2.71e-03 -5.85e-03  7.29e-03  1.65e-02
## 602    1.03e-02  5.30e-04 -4.41e-03 -6.84e-03  7.85e-03  7.79e-03  3.12e-02
## 603   -2.71e-04  1.28e-02  1.13e-02  5.15e-03  7.39e-03 -1.06e-03  3.12e-02
## 604   -4.63e-03  3.45e-03 -6.98e-03 -1.64e-02  5.19e-03 -7.77e-03  5.00e-02
## 605    1.98e-03 -9.90e-04 -3.89e-03 -2.26e-04  2.75e-03 -1.51e-03 -1.35e-02
## 606   -6.30e-04  9.36e-04  7.59e-04 -3.27e-04  6.04e-05 -3.25e-04  3.31e-03
## 607   -1.05e-06  8.84e-07 -1.82e-06  5.60e-07 -1.02e-06  3.55e-07 -8.23e-06
## 608   -4.36e-04 -1.47e-03 -3.95e-03  2.79e-03  7.56e-05 -5.31e-03 -1.16e-02
## 609    1.04e-02  5.20e-02 -4.78e-02  2.67e-02  2.09e-02 -3.27e-02 -1.29e-01
## 610   -1.05e-02 -9.79e-04  1.99e-02  1.93e-04  8.43e-03 -2.00e-02 -9.81e-02
## 611   -9.75e-03  3.37e-02 -2.56e-02 -3.16e-02  2.82e-03  2.91e-02 -1.33e-01
## 612    2.72e-05 -5.33e-04 -1.58e-03 -5.36e-03 -3.43e-03  5.94e-03 -1.43e-02
## 613   -6.26e-03  7.63e-03 -4.90e-03 -3.27e-03 -3.75e-03 -8.44e-04  5.16e-02
## 614   -2.08e-03  2.00e-03  1.70e-03 -1.83e-03 -2.89e-04 -6.13e-05  7.42e-03
## 615    2.81e-03 -2.91e-03  1.48e-02  1.34e-02 -6.16e-03  4.14e-03  4.59e-02
## 616    8.25e-03  3.80e-03 -1.25e-02 -1.43e-02 -7.62e-03  2.19e-02  5.78e-02
## 617   -3.70e-04 -2.67e-03 -2.36e-03 -3.97e-04 -6.57e-03  1.32e-02  3.56e-02
## 618    5.07e-03 -1.01e-02 -3.00e-03 -5.66e-03  1.46e-03  3.09e-04  2.41e-02
## 619    1.43e-02  8.59e-03 -9.46e-03 -3.36e-02  1.71e-02 -1.26e-02  7.65e-02
```

```
## 620   -2.98e-02   4.36e-04 -1.13e-02 -3.03e-02 -1.72e-02   1.92e-02   8.91e-02
## 621    8.20e-03   5.79e-04 -3.94e-03   4.92e-03   3.78e-03   3.50e-03   2.31e-02
## 622    2.52e-02   7.53e-03 -8.02e-03   6.91e-03   1.55e-02   2.57e-03   4.92e-02
## 623    9.25e-05   3.89e-03   7.88e-04   1.75e-03 -5.62e-04   1.21e-03   6.51e-03
## 624    1.20e-02   2.91e-02 -2.15e-02   6.37e-02   5.08e-02 -3.73e-02 -1.10e-01
## 625   -1.10e-02 -1.45e-02 -5.73e-03   7.42e-03   1.44e-02 -1.01e-02   7.05e-02
## 626    1.61e-02 -6.69e-03   2.30e-02   6.04e-03   1.71e-02 -1.16e-02   6.52e-02
## 627   -1.46e-03 -3.96e-04   1.54e-02 -3.30e-04 -3.49e-03   1.03e-02   3.44e-02
## 628    9.19e-04   3.92e-03   5.64e-03   3.20e-03 -2.46e-06   5.76e-03   1.63e-02
## 629    2.83e-02   2.05e-02 -4.00e-02   6.10e-03 -2.22e-03 -1.14e-02 -9.55e-02
## 630    1.06e-02   3.17e-02   3.05e-03   2.49e-02   1.04e-02   5.84e-03 -9.33e-02
## 631    1.03e-03 -7.95e-03   6.00e-03 -6.10e-03 -2.71e-03 -7.10e-04   2.22e-02
## 632    4.29e-03 -7.22e-04 -6.72e-03 -1.09e-04   6.86e-03 -3.50e-03 -2.13e-02
## 633   -7.10e-04   3.08e-03   2.31e-03   3.02e-03 -4.03e-03   4.26e-03   1.30e-02
## 634   -6.91e-03 -7.19e-04 -5.72e-03 -9.47e-03 -1.97e-03 -2.23e-03   3.35e-02
## 635    8.00e-03   4.75e-02   5.94e-03 -2.14e-02   1.91e-02 -3.42e-02 -1.08e-01
## 636   -1.65e-04   2.05e-02   1.39e-02 -1.40e-02   1.63e-02 -2.61e-03   4.60e-02
## 637   -5.84e-03 -3.32e-03 -5.20e-03 -6.26e-04   2.64e-04   1.08e-03 -2.27e-02
## 638    7.69e-03 -7.80e-05   1.11e-02   2.67e-02   9.65e-03 -2.15e-02 -1.08e-01
## 639    1.67e-02 -3.08e-03   5.04e-03 -2.96e-03 -1.10e-02   7.72e-03 -4.42e-02
## 640    1.62e-04 -1.70e-04 -1.60e-03   2.56e-03 -1.10e-03   4.51e-03 -9.77e-03
## 641   -2.76e-02   4.15e-02 -3.71e-02 -1.39e-02   7.57e-03 -7.96e-03 -1.27e-01
## 642    9.43e-03 -3.97e-03   3.76e-03 -5.42e-04 -1.16e-02   1.17e-02 -3.44e-02
## 643   -1.06e-02   7.54e-03 -4.99e-03 -1.29e-02   5.20e-03   3.03e-03   5.17e-02
## 644   -3.52e-03 -9.96e-03 -1.05e-02 -3.27e-04 -1.55e-02   4.52e-03   3.15e-02
## 645    9.23e-03 -6.88e-05   1.53e-03 -3.95e-03 -1.73e-03   6.44e-03 -3.86e-02
## 646   -5.68e-03 -9.12e-03   1.95e-02 -1.68e-02   1.30e-02 -1.93e-02 -6.54e-02
## 647    6.42e-03 -2.08e-03 -4.01e-03   3.39e-03 -3.39e-03 -9.07e-04   1.99e-02
## 648    1.78e-02 -5.55e-03 -1.90e-02 -1.59e-03 -1.13e-02   1.56e-02 -5.10e-02
## 649    1.56e-02 -1.45e-03   2.53e-02 -1.08e-02   2.02e-02   5.95e-03   6.11e-02
## 650   -1.33e-02 -8.23e-03   8.83e-03   2.70e-02 -1.81e-02 -2.77e-03 -4.90e-02
## 651   -1.51e-02 -6.14e-03   9.88e-03 -1.42e-02 -2.02e-02   7.75e-03 -5.04e-02
## 652   -6.55e-06 -2.74e-04 -8.33e-05 -2.49e-04 -5.45e-05   5.63e-05 -6.69e-04
## 653   -3.00e-03 -8.94e-03   5.50e-03   5.99e-03 -1.10e-02   2.79e-03   2.51e-02
## 654    1.19e-02   2.22e-02 -2.19e-02   7.52e-03   5.15e-02 -3.10e-02 -1.08e-01
## 655   -1.65e-02 -7.58e-03 -7.15e-03 -1.50e-02   2.33e-02 -2.72e-02   8.14e-02
## 656    2.88e-03 -1.45e-03   3.71e-03 -7.06e-05   5.38e-03 -1.43e-03 -1.28e-02
## 657   -2.72e-03 -5.98e-04   2.66e-03 -2.90e-03 -2.17e-03 -8.81e-04   9.99e-03
## 658    4.45e-03 -2.43e-02 -1.34e-02 -1.72e-02   3.26e-02 -4.48e-02 -1.08e-01
## 659   -1.17e-03 -5.63e-03   2.14e-03 -4.32e-03 -2.46e-03 -1.25e-03   1.05e-02
## 660   -1.18e-02 -8.34e-03   1.83e-02 -1.61e-02   1.07e-02 -3.30e-02 -8.17e-02
## 661    3.54e-03 -7.11e-04   1.27e-02   1.08e-02 -2.33e-03   8.39e-03   3.76e-02
## 662   -2.48e-03 -4.66e-03   4.24e-03   3.26e-03 -1.07e-02   9.09e-03   2.14e-02
## 663   -3.85e-04   2.81e-04 -2.50e-04   4.30e-04 -6.60e-05 -3.33e-05   1.11e-03
## 664    9.84e-05 -1.29e-03 -1.71e-03   3.96e-03 -1.51e-03   3.63e-03 -1.11e-02
## 665    2.25e-02   7.78e-03 -1.44e-02   2.14e-02   2.94e-02 -1.04e-02   7.38e-02
## 666   -1.48e-02 -7.10e-03 -2.24e-02 -9.04e-05 -2.82e-02   2.19e-05 -4.81e-02
## 667    6.64e-03 -1.35e-02 -7.30e-03 -1.11e-02   1.04e-03 -4.92e-03   4.44e-02
## 668   -7.10e-03 -3.58e-03 -2.48e-02 -1.93e-02   5.76e-03 -2.01e-02 -7.38e-02
## 669    2.20e-04 -1.81e-04 -5.63e-04   3.81e-04 -1.17e-04   3.56e-04 -2.11e-03
```

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## 670   -1.41e-04 -5.45e-04 -7.41e-04 -6.86e-04 -2.07e-04 -5.79e-04  2.00e-03
## 671    2.03e-05 -5.41e-04 -4.73e-04  2.83e-04 -1.15e-04  8.47e-04 -2.76e-03
## 672   -1.01e-02 -8.22e-03  6.52e-03 -1.20e-02 -1.47e-02  4.43e-03 -3.67e-02
## 673   -3.90e-03 -1.03e-02 -9.50e-03 -7.07e-03 -1.49e-02  1.18e-03  2.88e-02
## 674    2.92e-02  3.00e-02  8.27e-03 -1.42e-02  2.00e-02  1.46e-02 -1.15e-01
## 675    7.39e-04  6.53e-03 -2.99e-03  4.46e-03 -1.00e-03  7.45e-03  2.37e-02
## 676   -4.38e-04 -1.17e-03  1.22e-03 -2.17e-03 -1.05e-03 -1.27e-03  5.63e-03
## 677    3.10e-02 -6.19e-03  1.39e-02  2.00e-03  1.35e-02 -2.21e-02 -7.68e-02
## 678   -1.98e-02  1.01e-03  4.39e-02  2.80e-02  3.72e-02 -6.57e-02  1.23e-01
## 679    1.15e-02 -9.91e-03  1.83e-02 -1.39e-02  9.68e-03  4.53e-03  4.58e-02
## 680    2.07e-02 -2.38e-03 -2.12e-02 -3.09e-04 -2.60e-02  8.84e-03 -5.93e-02
## 681    2.12e-04 -2.50e-04  3.23e-04  3.44e-04  2.47e-04 -1.74e-04 -1.49e-03
## 682    7.95e-03 -5.97e-03 -1.04e-02 -1.06e-02 -9.10e-03 -5.17e-03  4.85e-02
## 683   -3.73e-03  6.67e-03 -4.67e-03 -4.14e-03 -5.54e-04  4.90e-04  5.77e-02
## 684    1.92e-02  1.03e-02  2.76e-02  1.84e-02  3.87e-02 -2.68e-03  6.33e-02
## 685    3.96e-03 -7.71e-04 -1.15e-02 -3.94e-04 -7.63e-03  6.73e-03  4.19e-02
## 686   -9.16e-04 -1.97e-03 -3.67e-03 -3.84e-03 -2.77e-03 -2.82e-03  1.11e-02
## 687   -1.26e-03 -6.37e-03  2.10e-02  1.33e-03  2.25e-02 -1.15e-02 -8.89e-02
## 688    4.12e-03  1.42e-03  6.48e-03  9.05e-03  6.89e-03 -4.30e-03  2.72e-02
## 689   -1.50e-02 -1.50e-02  2.02e-02 -1.47e-02  6.73e-03  6.56e-03  5.14e-02
## 690   -3.24e-03 -4.42e-03 -1.18e-02  4.57e-03 -1.66e-02  1.18e-02  2.93e-02
## 691   -9.76e-03  6.12e-04 -4.78e-03 -6.72e-03 -3.80e-03 -3.18e-03  2.25e-02
## 692    1.24e-04  4.90e-04 -3.43e-04  3.14e-04  2.99e-05  4.16e-04 -1.94e-03
## 693   -1.09e-02 -7.74e-03  6.53e-03  1.01e-02 -1.34e-02  1.94e-03 -3.86e-02
## 694   -1.58e-03  4.02e-03 -9.28e-03  6.72e-03 -9.09e-03  2.80e-03  2.68e-02
## 695   -3.01e-03 -4.80e-03 -1.20e-02  5.40e-03 -1.72e-02  1.21e-02  3.47e-02
## 696    9.45e-04 -1.05e-03  1.16e-03  1.32e-03  2.49e-03 -1.26e-03 -6.23e-03
## 697   -9.72e-03  1.47e-03  2.32e-02  1.55e-04  1.56e-02 -1.22e-02 -8.89e-02
## 698    1.98e-02  8.66e-03 -4.50e-03 -1.38e-02  7.52e-03  6.66e-03  5.31e-02
## 699   -4.65e-03 -1.88e-03  5.36e-03 -6.87e-04  5.40e-05  6.45e-05 -1.79e-02
## 700    2.79e-03  2.06e-03 -1.72e-03 -1.66e-03 -1.08e-03  5.75e-04  8.70e-03
## 701    2.41e-02 -1.11e-02  2.61e-02  6.53e-03  1.37e-02  4.40e-04  5.88e-02
## 702   -2.49e-02 -5.89e-03 -7.50e-03  7.74e-03  1.21e-02  4.39e-04  6.26e-02
## 703   -3.14e-03 -4.85e-03 -1.18e-02  5.06e-03 -1.65e-02  1.15e-02  2.93e-02
## 704    1.60e-03  1.48e-03  1.23e-02  9.36e-03 -4.19e-03  3.79e-03  4.01e-02
## 705   -1.70e-02  8.87e-03  1.41e-02  3.27e-02 -2.34e-02  8.33e-03 -8.79e-02
## 706   -2.58e-03 -3.50e-03  4.40e-03 -6.83e-03 -2.05e-03  2.52e-03 -1.64e-02
## 707   -1.10e-02  1.84e-02 -3.81e-03 -2.39e-02  4.01e-03 -1.05e-02  7.73e-02
## 708    1.83e-02 -7.29e-03 -9.26e-03 -7.32e-03  1.54e-02  1.85e-03  5.69e-02
## 709   -1.54e-02 -1.46e-02  1.60e-02 -5.82e-03 -1.30e-02 -9.76e-03  5.02e-02
## 710    1.09e-02  2.01e-02 -1.78e-02 -1.38e-02  4.67e-02 -3.92e-02 -9.17e-02
## 711    2.03e-02 -9.54e-03 -1.04e-02  2.05e-02  2.20e-02 -8.57e-03  6.94e-02
## 712   -6.01e-05  7.99e-04 -1.37e-03 -2.12e-04 -3.15e-04 -1.11e-03  3.72e-03
## 713    1.48e-02 -9.19e-03 -1.20e-02  2.00e-02  2.51e-02 -1.68e-02  7.80e-02
## 714    3.53e-05 -1.78e-04 -8.13e-04 -2.39e-03 -8.48e-04  2.86e-03 -5.77e-03
## 715    1.89e-02 -1.34e-02 -5.55e-03 -4.36e-03  2.07e-03  6.13e-03  5.08e-02
## 716    2.74e-04 -2.22e-04 -7.35e-04  4.87e-04 -1.56e-04  4.37e-04 -2.73e-03
## 717   -2.38e-02 -7.88e-03 -6.14e-03 -2.52e-02  1.00e-02  1.50e-03  6.55e-02
## 718   -1.51e-02 -1.29e-02 -8.99e-03 -9.54e-03 -1.23e-02 -1.81e-03  6.58e-02
## 719    1.44e-02 -1.56e-02 -3.74e-03  2.04e-04 -7.39e-04  1.10e-02  4.83e-02
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## 720   -5.94e-04   3.48e-03   1.92e-03   2.46e-03  -4.51e-03   6.30e-03   1.53e-02
## 721    1.33e-05  -9.96e-04  -1.70e-03   8.27e-04  -2.35e-03   4.61e-03  -1.10e-02
## 722    1.58e-02  -3.21e-03   5.15e-03  -2.20e-03  -1.30e-02   8.30e-03  -4.35e-02
## 723   -5.49e-03  -7.43e-03   1.97e-02   1.68e-03   1.54e-02  -2.08e-02  -6.50e-02
## 724    1.05e-02   5.36e-03   1.68e-03  -6.88e-03   1.11e-03   9.05e-04  -4.81e-02
## 725   -3.84e-03  -6.24e-03  -1.21e-02   7.18e-03  -1.99e-02   9.39e-03   4.19e-02
## 726    1.99e-04   7.99e-03   2.04e-03   3.96e-03  -1.83e-03   1.42e-03   1.50e-02
## 727    3.24e-02   4.78e-03  -1.06e-02   2.92e-03   3.09e-02  -1.13e-02   8.07e-02
## 728   -2.07e-02   1.38e-02  -3.23e-02   9.08e-03  -1.64e-02   1.59e-02  -9.76e-02
## 729    6.08e-04  -4.42e-04   4.33e-04  -1.14e-05   3.53e-04   2.46e-05  -2.01e-03
## 730   -3.31e-02   3.05e-02   1.18e-02  -1.60e-02  -1.83e-02  -2.63e-03  -9.94e-02
## 731   -2.37e-03  -5.38e-03   4.16e-03   3.58e-03  -9.44e-03   7.19e-03   1.98e-02
## 732    1.37e-02  -4.39e-03  -8.87e-03   5.20e-03   2.01e-02  -2.24e-03   5.34e-02
## 733    6.61e-04   5.18e-04   4.95e-04  -3.68e-04   6.91e-04   5.38e-04   2.00e-03
## 734   -1.91e-02  -1.19e-02   2.76e-02  -2.35e-02   1.30e-02  -5.69e-03   7.32e-02
## 735   -1.10e-02  -1.62e-02   1.62e-02  -6.96e-03  -3.72e-03  -1.70e-03   5.50e-02
## 736   -4.41e-03   5.70e-03   2.21e-02  -5.40e-03   1.22e-02  -1.34e-02   5.27e-02
## 737    1.32e-03  -2.48e-03  -3.75e-03  -9.58e-07  -3.50e-03  -3.54e-03  -1.47e-02
## 738    1.29e-02  -7.15e-03  -4.45e-03  -1.90e-02   3.00e-03   3.53e-03   5.82e-02
## 739    1.68e-03  -1.45e-03   1.78e-03   1.89e-03   4.84e-03  -1.96e-03  -9.69e-03
## 740    1.56e-03   2.39e-03  -2.13e-03   2.88e-03   2.75e-04  -1.03e-03   7.68e-03
## 741    1.82e-02   2.90e-03  -1.53e-02   2.53e-03   2.85e-02  -1.97e-02   7.76e-02
## 742    1.48e-02   4.09e-03  -2.29e-02  -2.51e-03  -1.51e-02   2.14e-02  -6.23e-02
## 743   -1.65e-05   1.94e-04  -5.47e-04   6.33e-04  -1.21e-06  -5.19e-04   1.50e-03
## 744    2.97e-03   2.96e-03  -1.18e-02  -1.24e-02  -1.15e-02   1.36e-02   4.23e-02
## 745    1.10e-03   6.10e-03  -1.69e-03   5.17e-04  -2.43e-03   8.32e-03   2.00e-02
## 746    7.66e-05   7.62e-04  -4.96e-04  -7.88e-04  -5.51e-04   1.53e-03   3.91e-03
## 747    2.23e-02   8.11e-03   2.99e-02   2.10e-02   3.13e-02  -1.16e-02   8.86e-02
## 748    9.93e-06  -6.83e-04  -3.40e-04  -1.02e-03  -3.13e-04   7.67e-04  -2.60e-03
## 749    1.18e-02  -1.80e-03  -2.84e-03  -4.80e-04   3.19e-03   5.76e-03   2.34e-02
## 750    1.25e-03  -5.30e-03  -7.56e-03   9.92e-03  -3.70e-03  -1.45e-03   3.01e-02
## 751    2.24e-03  -1.97e-03   2.79e-03  -1.60e-05   2.33e-03  -8.39e-04  -1.15e-02
## 752   -1.95e-02  -1.06e-02  -1.06e-02  -7.86e-03  -6.20e-03  -9.37e-03   4.77e-02
## 753    2.32e-02   9.12e-04   2.75e-02   2.24e-03   3.16e-02  -3.12e-02   9.38e-02
## 754    8.25e-03   2.46e-03   2.33e-03  -4.16e-03  -1.19e-03   1.25e-02  -4.11e-02
## 755    2.52e-04  -8.28e-04  -1.92e-03   3.60e-03  -2.20e-03   5.80e-03  -1.29e-02
## 756   -2.40e-03  -5.17e-03   4.31e-03   3.65e-03  -1.04e-02   8.44e-03   2.09e-02
## 757    2.46e-02   1.94e-03   7.41e-03   2.69e-02  -1.89e-02   9.96e-03  -7.65e-02
## 758   -2.50e-03  -1.57e-03   1.31e-03   1.26e-03  -1.56e-03  -1.90e-03  -6.88e-03
## 759   -2.42e-03  -4.69e-03   4.43e-03   3.39e-03  -1.06e-02   9.18e-03   2.19e-02
## 760    1.25e-02   7.45e-03  -2.81e-02  -4.44e-03  -1.91e-02   7.25e-03  -5.94e-02
## 761   -1.34e-02  -8.34e-03   9.12e-03  -1.13e-03  -2.04e-02   5.41e-04  -4.78e-02
## 762   -6.62e-03  -1.43e-03  -5.08e-03   4.68e-03  -1.93e-03   1.90e-04  -2.49e-02
## 763    3.86e-05  -5.15e-04  -1.51e-03  -5.34e-03  -3.12e-03   5.82e-03  -1.23e-02
## 764    1.95e-02   1.20e-03  -1.19e-02   1.58e-02  -7.66e-03   1.38e-02   7.22e-02
## 765    1.46e-02   4.95e-05  -9.31e-03   2.33e-02   1.90e-02  -1.19e-02   6.30e-02
## 766   -6.44e-04   1.59e-03   1.91e-03  -6.57e-03  -3.45e-03   3.12e-03   1.09e-02
## 767    1.25e-02  -1.20e-02  -6.50e-03   5.76e-03   1.33e-02   2.39e-03   4.38e-02
## 768   -1.51e-02   7.79e-03   7.28e-03   8.56e-03  -2.89e-04  -3.56e-03   3.58e-02
## 769   -2.92e-03  -6.48e-03  -9.24e-03  -8.05e-03  -1.31e-02   6.96e-03   2.36e-02
```

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## 770    1.06e-02   2.74e-04   3.26e-03  -2.91e-03  -5.95e-03   8.97e-03  -3.67e-02
## 771    1.02e-02   2.00e-02  -1.83e-02  -1.46e-02   4.58e-02  -3.92e-02  -9.11e-02
## 772    2.03e-02   1.62e-03   1.09e-02  -1.72e-02  -1.88e-02   2.22e-02  -7.21e-02
## 773    4.88e-03  -1.70e-02   9.35e-03  -9.83e-03  -1.92e-02   5.59e-03  -6.89e-02
## 774    2.59e-04   3.60e-03  -1.60e-03   1.46e-04  -1.01e-03   5.25e-03   1.12e-02
## 775   -2.59e-02  -4.45e-04   1.76e-02   1.21e-02  -2.25e-03   7.44e-03   7.24e-02
## 776   -9.73e-03  -8.68e-03   6.05e-03  -1.53e-03  -1.62e-02   1.17e-02  -4.48e-02
## 777   -3.56e-03  -1.89e-03  -3.01e-03  -3.10e-05   1.29e-03   1.69e-03   1.90e-02
## 778   -6.26e-03  -4.86e-03  -2.49e-02   3.14e-03   8.42e-03  -2.20e-02  -7.13e-02
## 779    2.10e-03  -1.44e-03   2.02e-03  -5.53e-05   1.35e-03  -5.42e-04  -1.04e-02
## 780    3.44e-03  -9.50e-04   1.16e-02   9.96e-03  -2.27e-03   1.01e-02   4.14e-02
## 781    4.04e-04  -5.79e-03  -6.25e-03  -3.70e-03  -3.69e-03  -1.04e-03   2.41e-02
## 782   -8.58e-03   4.20e-04   2.03e-02   3.66e-04   1.01e-02  -1.06e-02  -7.61e-02
## 783   -1.63e-04   2.03e-04   2.45e-04   2.35e-04  -1.98e-04   2.77e-04  -1.24e-03
## 784    1.00e-02  -1.13e-02   8.31e-03  -1.55e-02   2.57e-03   6.05e-03  -8.58e-02
## 785   -2.22e-03  -2.59e-03  -2.77e-03   2.62e-03  -1.71e-03   7.13e-08  -1.36e-02
## 786    1.77e-03  -9.50e-03  -5.83e-03  -8.63e-03  -5.60e-03  -2.04e-03   2.95e-02
## 787   -1.32e-02   4.39e-03   1.04e-02   3.15e-03  -5.49e-03  -7.58e-03   4.02e-02
## 788   -6.23e-03  -2.74e-03  -6.11e-03   5.73e-03   2.79e-04   2.80e-03  -2.79e-02
## 789    1.43e-04  -1.28e-04  -3.21e-04   2.51e-05  -2.01e-04   1.95e-04  -1.40e-03
## 790   -2.00e-03  -7.25e-04  -1.05e-03   3.25e-05  -1.30e-03  -3.03e-04   5.24e-03
## 791    2.58e-04   1.01e-02  -7.02e-03   3.19e-03  -3.46e-03   5.36e-03   1.77e-02
## 792   -6.07e-04  -5.51e-04  -3.26e-04   1.99e-04  -1.05e-04   1.26e-04  -1.96e-03
## 793   -1.97e-02  -1.65e-03   2.39e-02  -1.68e-02  -9.78e-03   1.15e-02   7.46e-02
## 794   -2.85e-02  -3.37e-03  -1.12e-02   1.30e-02  -1.01e-02  -8.94e-03   6.39e-02
## 795    1.58e-02   9.91e-03   1.63e-02  -5.46e-03   2.12e-02   8.94e-04   4.71e-02
## 796   -3.27e-03  -1.03e-02  -8.83e-03  -1.30e-02  -1.39e-02   3.05e-03   3.02e-02
## 797   -2.06e-03  -5.27e-03   3.56e-03  -2.20e-03  -9.24e-03   8.53e-03   2.06e-02
## 798    4.63e-03  -9.34e-04   1.08e-02  -1.95e-02   6.89e-03  -3.14e-02  -9.37e-02
## 799    1.32e-02   1.68e-02  -4.54e-03   9.77e-04   8.34e-03   1.15e-02   3.88e-02
## 800    1.05e-02   4.21e-03   3.62e-03  -3.37e-03  -8.96e-03   1.70e-02  -4.83e-02
## 801   -1.58e-04   3.48e-03  -4.09e-03   3.45e-03  -1.19e-03  -1.31e-03   1.00e-02
## 802    2.85e-03   3.61e-03  -1.97e-03  -4.86e-04  -3.57e-04  -6.67e-05   9.85e-03
## 803   -1.85e-02  -5.14e-03   5.75e-03  -1.53e-03  -1.71e-02   1.45e-02  -5.17e-02
## 804   -1.35e-03   2.10e-03  -1.73e-03  -1.86e-03  -2.24e-03   1.86e-03   1.03e-02
## 805    3.85e-03  -7.32e-03   7.56e-03  -5.31e-03  -2.32e-03   5.12e-05   2.79e-02
## 806    2.71e-04   1.34e-03  -1.13e-03   7.45e-05  -1.94e-04   2.52e-03   6.44e-03
## 807    1.27e-02   1.30e-02   2.88e-03  -1.02e-02  -5.05e-04   6.11e-05  -6.27e-02
## 808   -1.26e-02  -9.32e-03   9.24e-03  -6.43e-05  -1.99e-02   2.04e-04  -3.88e-02
## 809    7.39e-03  -4.30e-03   8.59e-03   2.79e-02   1.08e-02  -2.34e-02  -8.96e-02
## 810    1.43e-03  -3.52e-02   2.03e-02   1.05e-03  -5.29e-03  -5.36e-02  -1.46e-01
## 811    1.75e-05   1.71e-03   8.06e-04   6.24e-04  -2.86e-04  -7.01e-04   4.92e-03
## 812    3.61e-03   2.17e-03   4.81e-03  -7.71e-03   4.78e-03   4.18e-04   2.38e-02
## 813   -3.33e-03  -5.20e-03   5.94e-03  -1.60e-02  -1.51e-02   9.94e-03   3.28e-02
## 814    3.10e-02  -3.70e-03  -7.20e-03   2.64e-02   1.57e-02  -4.57e-03   7.06e-02
## 815    1.43e-02  -3.54e-03   6.69e-03  -1.26e-02  -1.68e-02   1.34e-02  -4.67e-02
## 816   -9.35e-04  -2.56e-03  -2.77e-03  -6.30e-03   1.24e-03   3.08e-03   2.25e-02
## 817    9.65e-03   1.32e-02   4.19e-03  -7.40e-03  -7.97e-03   2.87e-02  -6.73e-02
## 818   -5.49e-05  -4.37e-05   3.17e-05  -3.81e-06  -3.93e-05  -2.12e-05  -1.57e-04
## 819   -1.08e-03  -1.96e-02  -2.37e-03   8.10e-03  -6.32e-03   1.34e-02   4.32e-02
```

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## 820   -7.39e-04   1.04e-03 -1.08e-03 -2.92e-04 -5.07e-04 -6.42e-05   3.72e-03
## 821   -4.58e-03   6.70e-03 -5.05e-03   8.26e-03   1.11e-05   2.56e-03   4.16e-02
## 822    1.25e-02 -7.27e-03 -1.06e-02 -1.11e-02 -1.22e-02 -5.18e-03   5.38e-02
## 823   -4.03e-05   6.50e-04 -1.31e-03 -1.29e-04 -1.07e-04 -1.37e-03   3.73e-03
## 824   -2.74e-02   6.75e-03   8.41e-03   1.06e-02 -1.66e-02   1.71e-02 -7.45e-02
## 825    7.62e-03 -3.06e-03   8.58e-04   1.28e-02 -2.71e-03   8.77e-03 -3.39e-02
## 826   -2.69e-03 -9.13e-03   4.99e-03   5.68e-03 -9.95e-03   3.43e-03   2.61e-02
## 827   -6.46e-02   3.98e-03 -4.35e-02 -2.23e-02 -3.56e-02 -2.07e-02 -1.35e-01
## 828    1.38e-02 -1.61e-02 -7.83e-03   4.33e-03 -1.76e-03 -5.12e-03   4.89e-02
## 829    1.30e-02   6.06e-03 -4.45e-02 -2.00e-02 -9.73e-03 -9.34e-03 -1.17e-01
## 830   -1.45e-05   6.99e-04   3.04e-04 -3.49e-04 -1.40e-04 -1.65e-04   1.96e-03
## 831    9.84e-03   1.02e-02 -6.33e-03 -1.40e-04   3.03e-03   1.44e-03 -2.69e-02
## 832    2.29e-02 -1.18e-02 -5.22e-03   8.33e-03   6.42e-03 -4.45e-04   5.78e-02
## 833   -1.54e-02 -6.55e-03   3.96e-03 -1.09e-03 -9.50e-03   4.97e-03 -4.17e-02
## 834   -1.26e-02 -1.40e-02 -3.81e-03   7.14e-03 -3.87e-03   7.15e-03   4.49e-02
## 835    5.00e-03   4.48e-03 -3.32e-03   3.81e-04   4.82e-04   1.89e-04 -1.49e-02
## 836   -5.91e-03 -5.59e-03 -2.39e-02 -1.73e-02   8.32e-03 -2.16e-02 -7.32e-02
## 837   -8.30e-03 -1.25e-02 -5.15e-03 -2.98e-03 -8.56e-03 -4.56e-03   2.74e-02
## 838    4.51e-06 -9.87e-04 -4.54e-04   4.96e-04 -1.74e-04   4.97e-04 -2.71e-03
## 839    3.62e-03 -1.02e-02   5.61e-03 -1.61e-02   5.17e-03 -1.99e-02 -8.10e-02
## 840    5.89e-04   5.16e-03 -2.56e-03   2.59e-04 -4.96e-04   7.80e-03   1.76e-02
## 841    5.94e-03 -1.15e-02 -1.75e-02   6.51e-02   3.46e-02 -3.68e-02 -1.18e-01
## 842    5.57e-03 -2.07e-03 -1.12e-02 -2.11e-02 -4.97e-03   1.11e-02   5.31e-02
## 843    9.25e-03 -4.00e-03   3.68e-03 -5.62e-04 -1.18e-02   1.17e-02 -3.42e-02
## 844   -4.37e-04   1.04e-03   1.68e-03   2.76e-03 -2.30e-03   2.54e-03   1.01e-02
## 845    2.72e-03 -2.11e-03   3.43e-03   3.41e-03   3.57e-03 -3.08e-04 -1.37e-02
## 846    3.98e-03   3.88e-03   4.24e-03 -4.53e-03   2.38e-03   3.88e-03   2.51e-02
## 847    2.18e-03 -1.83e-03   3.12e-03 -2.71e-04   5.47e-03 -2.65e-03 -1.22e-02
## 848    4.09e-03 -6.07e-04 -6.59e-03 -3.32e-04   6.49e-03 -3.13e-03 -2.06e-02
## 849   -2.00e-04 -7.10e-04   6.48e-04   8.91e-04   4.06e-04 -2.06e-03 -3.91e-03
## 850   -1.18e-03   1.35e-03 -1.12e-03   1.90e-03 -7.88e-04 -2.08e-04   5.50e-03
## 851   -3.69e-03 -6.03e-03   6.17e-03   4.86e-03 -1.59e-02   8.84e-03   3.21e-02
## 852    8.37e-03 -6.60e-03 -1.04e-02   5.90e-04 -8.47e-03 -5.11e-03   4.68e-02
## 853    5.12e-05 -6.60e-04 -1.84e-03   3.56e-04 -2.41e-03   5.48e-03 -1.18e-02
## 854    1.30e-03   1.18e-03   1.08e-02 -2.00e-02   1.78e-03 -4.02e-02 -1.15e-01
## 855    3.95e-03 -2.44e-03 -5.49e-03   1.23e-04   4.16e-03 -3.03e-03 -1.92e-02
## 856   -3.79e-03 -5.76e-03 -2.64e-02   2.79e-03   8.32e-03 -8.95e-03 -8.14e-02
## 857    1.03e-03 -4.09e-04   1.01e-03   7.09e-04   8.05e-04   4.23e-04   3.33e-03
## 858    1.08e-03 -4.31e-04   2.07e-03 -1.82e-04 -5.27e-05   1.44e-03 -8.65e-03
## 859   -5.23e-04   1.05e-04   1.39e-03 -2.08e-03 -1.59e-03   4.50e-04   6.16e-03
## 860   -1.43e-03   2.70e-03   2.69e-03 -2.25e-03   2.47e-03   2.15e-03   1.06e-02
## 861   -1.37e-02 -2.94e-03   7.97e-03 -5.40e-03 -1.43e-02   4.55e-03 -6.52e-02
## 862    1.11e-02 -3.58e-03   3.30e-03 -1.53e-03 -1.23e-02   1.78e-02 -4.33e-02
## 863    1.10e-02   3.03e-03   3.04e-03   7.93e-03 -5.13e-03   5.88e-03 -4.13e-02
## 864   -1.96e-02   1.93e-03   1.19e-02 -1.83e-02 -2.66e-02   1.75e-02 -7.59e-02
## 865    6.22e-03   4.30e-03 -3.33e-03 -3.55e-03   3.34e-03 -2.76e-03   2.00e-02
## 866   -3.06e-03 -5.60e-03 -1.13e-02   5.29e-03 -1.53e-02   9.88e-03   2.77e-02
## 867    2.20e-02 -7.44e-03 -3.94e-02 -1.99e-02 -2.67e-02 -2.62e-02 -1.11e-01
## 868    2.24e-04   1.86e-02 -1.10e-02   4.59e-03 -7.49e-03   8.74e-03   3.40e-02
## 869    9.36e-04   3.22e-04 -2.93e-04 -3.12e-04   1.06e-04   5.28e-04   1.74e-03
```

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## 870   -2.08e-03 -3.92e-04 -3.79e-03 -1.50e-03  1.26e-03  5.69e-03  2.84e-02
## 871    2.25e-04 -4.15e-04 -1.97e-03  7.45e-04 -3.38e-03  6.78e-03 -1.57e-02
## 872    2.93e-02  4.40e-02  1.05e-02 -1.92e-02  1.08e-02  1.83e-02 -1.26e-01
## 873   -8.33e-05  1.92e-02  1.41e-02 -1.24e-02  9.40e-03  8.20e-03  4.71e-02
## 874    1.88e-02  5.17e-03 -1.19e-02 -1.75e-02 -1.44e-02  2.20e-02  7.48e-02
## 875    1.24e-02  2.18e-02 -2.87e-02 -5.71e-03 -2.65e-02  3.62e-02 -8.91e-02
## 876   -1.70e-03 -2.40e-03  2.73e-03 -2.86e-03  3.02e-04 -1.44e-03  1.19e-02
## 877   -1.41e-03  1.60e-03 -1.68e-03 -1.51e-03  3.95e-04  3.87e-04 -7.49e-03
## 878    1.05e-03 -7.04e-03 -7.03e-03 -1.41e-02 -9.97e-03 -1.84e-03  3.97e-02
## 879    1.44e-02  1.39e-02  8.83e-03 -4.99e-03 -1.95e-02  4.72e-02 -8.54e-02
## 880   -1.06e-03  8.58e-04  2.71e-03 -3.44e-03 -4.16e-03  1.18e-03  1.42e-02
## 881    1.89e-02  9.15e-04 -2.22e-02 -2.00e-03 -2.26e-02  1.41e-02 -5.99e-02
## 882    2.16e-04 -3.23e-03 -2.44e-03  4.32e-03 -1.66e-03  6.86e-03  1.89e-02
## 883    2.61e-03 -1.21e-03 -3.53e-03 -6.48e-04  2.78e-03 -1.80e-03  1.46e-02
## 884   -3.29e-03 -4.44e-03 -1.17e-02  4.49e-03 -1.66e-02  1.17e-02  2.91e-02
## 885    3.67e-02  6.56e-03 -9.22e-03  4.19e-03  1.79e-02 -1.83e-02  9.55e-02
## 886   -1.13e-02  1.87e-02 -6.41e-03 -2.31e-02  4.44e-03 -2.25e-02  8.18e-02
## 887   -5.27e-03  8.40e-03  2.04e-02 -5.98e-03  1.98e-02  2.96e-03  5.24e-02
## 888   -5.10e-02  5.50e-02  1.34e-02 -2.41e-02  4.06e-03 -1.52e-02 -1.27e-01
## 889    1.11e-02 -1.46e-02  1.17e-02  4.59e-03  1.21e-02 -6.45e-03  4.41e-02
## 890    1.26e-02  3.36e-02  5.45e-03  2.59e-02  9.20e-03 -3.05e-03 -8.38e-02
## 891    2.10e-02 -5.76e-03 -7.43e-03 -7.74e-03  8.16e-03  1.01e-03  6.97e-02
## 892   -1.32e-02 -7.50e-03 -2.41e-02  4.47e-03  6.55e-03 -3.94e-02 -8.96e-02
## 893    1.10e-02 -3.36e-04 -4.03e-03  2.43e-04  8.19e-03  5.19e-03  3.09e-02
## 894   -2.46e-02 -9.72e-03 -7.49e-03 -7.17e-03  8.36e-03 -1.37e-02  6.37e-02
## 895    2.27e-05  1.16e-04 -7.69e-05 -1.14e-04 -5.54e-05  2.33e-04  4.88e-04
## 896    2.22e-04  1.66e-02  1.31e-02  6.16e-03  6.17e-03  6.70e-03  3.59e-02
## 897    1.59e-02  1.24e-02  7.92e-03  2.73e-02 -1.64e-02  2.64e-02 -7.98e-02
## 898   -1.43e-02 -1.27e-02 -4.75e-03 -2.55e-03 -7.96e-04  4.26e-03  4.37e-02
## 899   -2.47e-03 -4.99e-03  4.27e-03  3.53e-03 -1.07e-02  8.82e-03  2.12e-02
## 900    9.42e-03  3.27e-03 -2.15e-02  8.80e-03 -1.03e-02  1.75e-02 -5.00e-02
## 901    1.65e-02  9.47e-03 -2.73e-02 -3.38e-03 -2.17e-02  1.70e-02 -7.38e-02
## 902   -1.64e-03 -8.25e-06 -3.61e-03 -1.07e-03  2.82e-04  5.26e-03  2.61e-02
## 903    2.84e-03 -2.44e-03 -3.78e-03  2.52e-04  1.38e-03 -7.72e-04 -1.51e-02
## 904    6.29e-03 -1.34e-03  1.67e-03 -2.19e-03 -3.31e-03  1.26e-02 -3.27e-02
## 905    1.31e-02  3.35e-03 -1.18e-02 -7.33e-04 -1.27e-02  6.68e-03  5.66e-02
## 906   -1.55e-02  7.45e-03 -7.21e-03 -1.32e-02 -4.00e-03 -2.58e-03  3.71e-02
## 907   -1.96e-03 -5.99e-03  3.26e-03  3.27e-03 -6.99e-03  5.65e-03  1.89e-02
## 908    9.62e-04  3.86e-03 -1.57e-03  3.11e-03 -4.34e-04  6.03e-03  1.36e-02
## 909   -1.09e-02 -7.62e-03  7.61e-03 -2.29e-03 -1.37e-02  6.57e-03 -5.60e-02
## 910    2.70e-02  1.86e-03  3.83e-02 -1.38e-02  1.46e-02 -1.89e-02  9.26e-02
## 911   -1.95e-04 -2.42e-03 -2.16e-03 -4.00e-03 -2.41e-03  9.01e-03  1.86e-02
## 912   -6.71e-04  2.06e-03  1.99e-03 -4.06e-03 -3.82e-03  3.76e-03  1.07e-02
## 913    1.13e-04 -1.32e-04  1.94e-03  1.26e-03 -1.33e-04  2.55e-03 -5.74e-03
## 914   -8.29e-03 -8.81e-03  4.97e-03 -1.26e-03 -7.68e-03  2.92e-03 -3.98e-02
## 915    1.35e-02 -2.53e-03 -9.15e-03 -2.43e-02  1.52e-02 -1.53e-03  6.91e-02
## 916    8.01e-04 -6.27e-04  1.41e-03  1.36e-03  2.40e-04  8.71e-04 -6.82e-03
## 917    2.12e-02 -5.42e-03 -9.63e-03  7.81e-03  1.52e-02 -1.40e-03  6.18e-02
## 918   -6.10e-03  1.32e-02 -8.27e-03  2.14e-02  1.93e-02 -2.32e-02  6.66e-02
## 919   -4.10e-05 -1.67e-04  1.09e-04 -1.61e-04 -6.25e-05 -1.94e-04  5.50e-04
```

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## 920   -2.14e-03 -6.28e-03  3.84e-03  3.88e-03 -7.45e-03  4.42e-03  1.72e-02
## 921    1.90e-02  4.00e-03 -1.06e-02  6.04e-03  2.18e-02 -2.38e-03  6.61e-02
## 922   -4.88e-03 -1.49e-03 -2.49e-03 -8.36e-05 -5.29e-03 -5.07e-04  1.56e-02
## 923    1.17e-02 -3.21e-03  2.14e-02  4.54e-03  2.05e-02 -8.47e-03  6.39e-02
## 924   -5.14e-03 -5.57e-03  3.01e-03 -3.75e-03 -1.49e-03 -2.69e-03  1.29e-02
## 925   -7.76e-03 -8.88e-03  4.43e-03 -1.92e-03 -9.00e-03  9.57e-03 -4.41e-02
## 926   -1.75e-02 -8.97e-04  1.00e-02 -4.66e-03 -2.33e-02  1.60e-02 -6.44e-02
## 927   -1.23e-04  4.26e-03 -1.75e-03  3.14e-05  6.61e-04  5.54e-03  1.50e-02
## 928   -1.03e-02  1.00e-02  1.74e-02  6.15e-03  2.45e-02 -1.61e-03  5.57e-02
## 929    1.30e-02 -6.20e-04  2.28e-02 -2.48e-02  2.25e-02 -3.14e-03  5.80e-02
## 930    9.65e-03  1.59e-02  8.01e-03 -9.03e-03  1.53e-02 -1.02e-05  3.23e-02
## 931    2.60e-04 -3.50e-05 -2.02e-03  8.87e-05 -3.11e-03  7.88e-03 -1.45e-02
## 932    1.35e-02 -5.65e-03  2.82e-03 -1.61e-03 -5.80e-03  6.41e-03 -3.38e-02
## 933    6.41e-03  9.69e-03 -1.04e-02  8.84e-03  1.66e-03  4.85e-03  3.95e-02
## 934    3.45e-02  1.52e-02 -7.27e-03  5.17e-03  1.36e-02 -1.91e-02  1.05e-01
## 935   -1.10e-02 -3.86e-03  1.03e-02 -2.76e-03 -1.76e-02  1.11e-02 -5.47e-02
## 936   -4.65e-04 -2.74e-03 -2.04e-03 -1.15e-04 -3.54e-03  6.94e-03  1.97e-02
## 937   -2.05e-03 -6.66e-03  3.73e-03  4.11e-03 -6.93e-03  3.59e-03  1.64e-02
## 938   -2.95e-04 -6.48e-05  9.85e-04 -3.06e-03 -1.13e-03  9.02e-04  5.91e-03
## 939    5.39e-03 -2.75e-03  1.25e-02  1.07e-05  9.41e-04  8.32e-03  4.99e-02
## 940   -2.34e-02 -3.85e-03 -8.30e-03 -1.11e-02  1.63e-02  2.39e-03  6.01e-02
## 941    1.51e-03 -6.90e-04 -3.80e-03  2.83e-03 -3.54e-04  1.43e-03 -1.44e-02
## 942   -7.67e-03 -1.61e-02 -3.01e-03 -1.12e-02 -4.86e-03  6.12e-03  4.15e-02
## 943   -1.25e-02 -5.98e-03 -2.25e-02  2.62e-02 -1.94e-02  2.39e-03 -5.45e-02
## 944   -2.77e-03 -6.15e-03 -1.07e-02  4.59e-03 -1.32e-02  9.26e-03  2.79e-02
## 945    3.50e-02 -1.14e-02 -6.28e-03  2.88e-02  8.35e-03 -4.69e-03  8.94e-02
## 946    8.88e-03  9.59e-03  2.66e-03 -7.61e-03  3.33e-03  4.63e-03 -5.23e-02
## 947   -1.72e-05 -1.39e-03 -5.07e-04  1.81e-03  3.56e-05 -6.52e-05 -3.71e-03
## 948   -4.87e-03 -8.46e-03 -2.46e-02 -1.67e-02  1.33e-02 -1.97e-02 -8.33e-02
## 949    1.48e-02  4.42e-03  2.56e-02  2.10e-03  3.16e-02 -1.05e-02  6.17e-02
## 950    1.49e-03 -6.15e-03  5.02e-03  5.97e-03  1.46e-06 -1.15e-03  2.00e-02
## 951    2.32e-03 -6.72e-03  5.08e-03  9.94e-04 -1.70e-03 -2.34e-03  2.21e-02
## 952   -1.75e-02 -4.32e-03 -5.36e-03  7.17e-03  1.03e-02 -9.88e-03  6.73e-02
## 953   -6.00e-03 -4.51e-03 -2.53e-02  2.40e-02  1.25e-02 -2.44e-02 -8.85e-02
## 954    1.05e-04  1.18e-04 -1.91e-03  2.73e-03 -1.24e-03  5.07e-03 -1.13e-02
## 955    3.64e-03 -3.02e-03  9.29e-03 -2.71e-04 -2.27e-03 -7.46e-04  3.83e-02
## 956   -1.32e-02 -1.05e-02  8.11e-03 -9.79e-03 -5.93e-03 -8.67e-03  3.23e-02
## 957    2.37e-02 -9.43e-03 -6.06e-03  6.99e-03  1.56e-02 -3.04e-03  6.00e-02
## 958    5.15e-03  2.42e-04  1.38e-02 -2.32e-02 -7.29e-03  1.44e-02  6.48e-02
## 959   -9.76e-04  3.35e-03 -8.17e-03  4.62e-03 -6.10e-03  3.66e-03  1.69e-02
## 960    8.45e-03 -2.78e-03  1.62e-02 -2.28e-02 -1.19e-02  1.50e-03  6.54e-02
## 961    2.98e-04 -2.02e-04 -2.16e-04  2.12e-04  1.40e-04  2.50e-05 -1.05e-03
## 962   -5.68e-03 -9.12e-03  1.95e-02 -1.68e-02  1.30e-02 -1.93e-02 -6.54e-02
## 963    1.49e-02  8.39e-03 -2.63e-02  1.22e-02 -1.94e-02  2.76e-02 -8.40e-02
## 964    1.22e-02  2.80e-02 -1.94e-02  9.89e-03  4.63e-02 -3.21e-02 -8.93e-02
## 965   -2.09e-03 -5.42e-03  3.51e-03  2.98e-03 -8.03e-03  7.45e-03  2.11e-02
## 966   -1.16e-02 -2.75e-03 -6.90e-03 -1.50e-04  5.01e-04 -8.73e-04 -2.89e-02
## 967    7.18e-03 -3.21e-03  1.92e-03 -1.34e-03 -7.69e-03  1.14e-02 -2.76e-02
## 968    1.00e-02 -2.63e-03 -1.96e-02 -5.60e-04 -1.82e-02  1.36e-02 -4.36e-02
## 969    1.50e-02 -1.26e-02 -4.04e-03 -1.24e-02 -1.63e-03  3.68e-03  4.48e-02
```

```
## 970    -4.14e-03 -2.52e-03 -2.84e-03  2.85e-03  2.92e-06  3.66e-04 -1.19e-02
## 971    -1.05e-02  2.03e-02  1.50e-02 -1.39e-02  3.69e-03  1.11e-02 -1.12e-01
## 972    -2.11e-04  2.71e-04 -2.10e-04 -2.48e-05 -1.17e-04  8.30e-05  1.09e-03
## 973    -4.61e-03 -2.80e-02  2.37e-02 -3.09e-02 -1.59e-04 -4.65e-02 -1.37e-01
## 974    -1.27e-02 -9.35e-03  9.11e-03 -9.83e-05 -2.02e-02  3.71e-04 -3.88e-02
## 975     1.81e-02  3.96e-03  2.90e-02  3.38e-03  2.79e-02 -1.70e-03  6.16e-02
## 976     5.99e-03 -5.97e-03  6.07e-03 -2.04e-02  1.52e-02 -2.24e-02 -8.67e-02
## 977     1.04e-03  5.27e-05 -2.43e-03 -2.77e-03 -3.53e-05  2.66e-05  8.19e-03
## 978    -2.62e-03 -7.56e-03 -7.33e-03 -1.10e-02 -1.04e-02  3.62e-03  2.13e-02
## 979    -1.55e-05 -9.98e-04 -3.63e-04 -1.14e-03 -2.85e-04  4.08e-04 -2.86e-03
## 980     1.71e-03  2.38e-03 -5.29e-03  2.38e-03 -4.51e-04  3.69e-04  1.69e-02
## 981     1.40e-02 -5.67e-03  4.06e-03 -1.12e-03 -1.14e-02  9.26e-03 -3.42e-02
## 982     3.16e-04  3.97e-04 -2.02e-03  2.91e-03 -1.31e-03  6.14e-03 -1.27e-02
## 983    -1.56e-02  3.48e-03  4.96e-03  2.28e-02 -6.00e-03 -4.08e-04 -6.83e-02
## 984     2.38e-03 -2.09e-03  1.15e-02 -1.81e-02 -5.59e-03  9.64e-03  3.64e-02
## 985    -2.42e-03 -4.37e-03  4.00e-03 -1.33e-02 -1.09e-02  9.10e-03  2.27e-02
## 986    -1.37e-03 -5.84e-03  2.03e-03  2.87e-03 -2.80e-03  8.99e-05  1.16e-02
## 987    -1.37e-04 -2.74e-04  3.51e-04 -4.61e-04 -2.72e-04 -7.76e-05  1.71e-03
## 988     4.27e-03  4.11e-03  2.63e-03 -2.57e-03  4.78e-03  1.68e-03  1.20e-02
## 989     4.33e-05 -4.26e-04 -4.37e-04  1.73e-04 -5.24e-05  8.66e-04 -2.47e-03
## 990     1.82e-05  4.36e-03  1.21e-03 -2.03e-03 -1.43e-03  1.20e-03  9.33e-03
## 991     1.42e-04  8.89e-03  1.88e-03 -4.06e-03 -3.06e-03  3.94e-03  1.72e-02
## 992     5.13e-05  4.48e-03  8.25e-04 -2.17e-03 -1.21e-03  2.19e-03  7.31e-03
## 993    -2.41e-02  2.45e-02 -3.76e-02  9.59e-03 -2.82e-02  9.59e-03 -9.85e-02
## 994    -2.15e-02  8.95e-03  1.10e-02  9.73e-03 -2.39e-02 -9.82e-03 -6.64e-02
## 995     6.97e-03 -3.59e-03  1.10e-03 -1.33e-03 -3.20e-03  8.46e-03 -2.68e-02
## 996     1.09e-04 -1.39e-04 -2.30e-03  3.58e-03 -3.00e-03  7.46e-03 -1.55e-02
## 997    -2.08e-02 -7.36e-03  1.92e-02 -6.43e-04 -6.98e-03 -9.04e-03  5.83e-02
## 998     7.71e-03  1.51e-04  4.39e-03 -2.34e-03 -1.18e-02  1.58e-02 -4.09e-02
## 999    -1.41e-02 -2.70e-04  5.80e-03 -6.84e-03 -1.12e-02  7.71e-04 -5.19e-02
## 1000    1.82e-02  7.52e-03 -1.40e-02  1.95e-02  3.07e-02 -2.94e-04  6.71e-02
## 1001    9.23e-06  3.94e-04  1.31e-04  3.40e-04  3.65e-05 -6.98e-05  9.05e-04
## 1002   -1.92e-03 -6.90e-03  3.30e-03  3.97e-03 -5.25e-03  1.33e-03  1.45e-02
## 1003   -5.60e-03  1.11e-02 -2.79e-03 -2.26e-03 -5.44e-04  1.53e-02  5.81e-02
## 1004    2.02e-02  6.82e-03  6.52e-03 -5.70e-03 -1.47e-02  1.19e-02 -6.11e-02
## 1005   -1.46e-02 -6.91e-03 -2.25e-02 -5.02e-05 -2.78e-02  1.59e-04 -4.80e-02
## 1006    1.58e-02  1.78e-02  7.60e-03  8.56e-03 -5.28e-03  5.80e-03 -7.36e-02
## 1007   -1.43e-03  3.48e-03 -8.72e-03  5.11e-04 -8.99e-03  2.70e-03  2.57e-02
## 1008    1.71e-03  1.40e-03 -1.32e-02  1.05e-02 -6.93e-03  5.02e-03  4.21e-02
## 1009    1.59e-03 -5.50e-04 -2.37e-03 -4.23e-03 -1.81e-03  2.11e-03 -1.11e-02
## 1010   -1.64e-02 -6.91e-03 -6.57e-03 -3.45e-02  2.25e-02 -2.58e-02  8.76e-02
## 1011    1.67e-03  2.48e-03  1.32e-02 -1.12e-03 -5.37e-03  5.27e-03  4.09e-02
## 1012    4.79e-02  2.35e-02 -2.74e-02 -4.36e-03  1.47e-02  2.44e-03 -1.08e-01
## 1013    4.72e-02 -3.10e-02 -2.61e-02  2.17e-02  3.98e-03 -1.65e-02 -1.10e-01
## 1014    4.28e-03 -1.87e-03  3.60e-03 -6.53e-03  2.29e-03  7.61e-04 -1.44e-02
## 1015   -5.13e-04 -1.90e-03 -1.97e-03 -1.74e-03 -1.12e-03 -2.51e-03  6.87e-03
## 1016   -2.50e-02 -2.57e-03 -1.22e-02 -1.00e-03 -8.23e-03  9.94e-03  6.77e-02
## 1017   -2.65e-03 -8.64e-03 -8.34e-03  5.95e-03 -9.27e-03  1.64e-03  2.09e-02
## 1018    1.04e-03 -5.73e-03  3.93e-03 -1.74e-03 -7.00e-05  5.43e-04  1.51e-02
## 1019    1.48e-03  8.90e-04  2.42e-03  3.87e-03  1.40e-03 -1.02e-03  1.19e-02
```

```
## 1020   3.00e-02   1.31e-02  -6.95e-03   3.33e-03   2.06e-02  -2.37e-02   9.71e-02
## 1021  -1.52e-02  -1.39e-02  -5.64e-03   1.05e-02   5.82e-03   4.75e-03   6.82e-02
## 1022   1.56e-02  -7.17e-03  -8.52e-03   2.03e-02   2.04e-02   3.59e-03   5.19e-02
## 1023   8.27e-05   4.25e-03  -1.89e-03  -3.19e-03  -9.69e-05   3.19e-03   1.45e-02
## 1024   6.13e-03  -1.55e-03   1.62e-03  -2.05e-03  -3.45e-03   1.26e-02  -3.20e-02
## 1025   1.71e-02   2.01e-03   1.19e-02  -2.48e-03   6.76e-03   4.19e-03   3.63e-02
## 1026  -2.43e-02   7.13e-03   6.74e-03  -6.35e-03  -1.27e-02   3.79e-03  -5.81e-02
## 1027  -2.08e-02   4.27e-03   9.33e-03  -1.71e-02  -1.90e-02   2.27e-02  -8.55e-02
## 1028   1.16e-02  -1.21e-02  -5.64e-03  -1.23e-02   1.11e-02   8.19e-03   4.36e-02
## 1029  -1.39e-02  -1.47e-02   1.31e-02  -1.41e-02  -1.16e-02  -2.62e-03   4.48e-02
## 1030   8.55e-03  -7.95e-04   3.38e-03  -2.24e-03  -4.88e-03   1.31e-02  -4.24e-02
## 1031   1.21e-04  -5.33e-04  -8.60e-04   1.39e-03  -8.46e-05   1.98e-03  -5.12e-03
## 1032   2.76e-03  -1.33e-03  -5.66e-03   4.76e-03   2.93e-03  -3.67e-03  -2.21e-02
## 1033   3.27e-05  -4.08e-04  -6.39e-04  -1.78e-03  -4.67e-04   1.81e-03  -4.36e-03
## 1034  -6.25e-06  -5.11e-05   4.38e-05   6.09e-05   1.64e-05  -1.01e-04  -2.39e-04
## 1035  -1.56e-02  -8.73e-03   2.12e-02   9.59e-04  -8.59e-03   8.06e-04   6.80e-02
## 1036  -8.93e-03   5.20e-03  -5.81e-03   7.78e-03   1.19e-02   9.37e-03   4.48e-02
## 1037  -2.07e-02   1.95e-02   1.65e-02  -1.29e-02  -2.59e-02   6.82e-03  -9.83e-02
## 1038   1.12e-02   1.29e-05  -2.41e-02   1.00e-02  -1.24e-02   7.99e-03  -5.43e-02
## 1039  -8.65e-04   1.48e-03  -5.53e-03  -7.30e-03  -5.14e-03   3.93e-03   1.50e-02
## 1040   1.61e-02  -1.96e-03   2.19e-02   2.83e-03   2.87e-02   3.49e-03   5.58e-02
## 1041  -2.21e-02   1.22e-02   1.28e-02   3.10e-02  -2.43e-02  -1.35e-02  -8.07e-02
## 1042   2.14e-03   4.90e-03   4.34e-03  -9.18e-03   3.47e-04   1.20e-03   2.07e-02
## 1043  -7.54e-03  -2.02e-02  -4.22e-03  -1.88e-02  -2.36e-03   3.86e-03   5.82e-02
## 1044   6.68e-04  -3.90e-04   5.63e-04  -1.06e-04  -3.62e-04  -1.33e-04   2.17e-03
## 1045   4.07e-03  -1.20e-03  -1.18e-02   1.08e-02  -5.99e-03   5.10e-03   4.27e-02
## 1046  -9.17e-04   6.13e-04  -6.18e-03   4.43e-03  -3.55e-03  -6.99e-06   1.28e-02
## 1047   1.04e-02   2.02e-02  -1.82e-02  -1.46e-02   4.64e-02  -3.96e-02  -9.16e-02
## 1048   3.15e-02   1.04e-02   1.51e-02  -2.17e-03   1.88e-02  -1.57e-03  -1.02e-01
## 1049  -2.52e-02  -5.09e-03  -1.13e-02  -1.16e-02  -6.69e-03   1.21e-02   6.74e-02
## 1050  -8.14e-03  -1.19e-05  -6.58e-03   1.41e-02  -9.31e-03  -3.56e-03   3.74e-02
## 1051   3.14e-02   3.17e-03  -2.41e-02   1.26e-03   8.62e-03  -1.36e-02  -9.17e-02
## 1052   1.08e-02   1.30e-02   2.45e-03   2.13e-02  -2.90e-03  -2.81e-03  -6.10e-02
## 1053  -4.32e-04  -6.38e-04   1.24e-03   2.39e-03  -5.49e-04  -1.01e-03   5.94e-03
## 1054   1.80e-02  -4.99e-03   6.45e-03  -1.54e-03  -1.61e-02   5.91e-03  -4.19e-02
## 1055  -2.15e-02  -6.61e-05   9.45e-03  -1.73e-02  -2.07e-02   1.38e-02  -6.36e-02
## 1056   1.09e-02  -1.56e-03   4.46e-03   2.09e-02  -1.23e-02   1.10e-02  -4.93e-02
## 1057  -2.63e-02   9.48e-03   6.04e-03  -6.30e-03  -1.57e-02   1.26e-02  -6.48e-02
## 1058  -6.92e-04   5.68e-05  -4.38e-03  -5.29e-03  -3.15e-03   1.11e-03   1.04e-02
## 1059   5.64e-04   8.13e-03  -2.47e-03   5.30e-03  -2.43e-03   9.45e-03   2.33e-02
## 1060   2.07e-03  -6.86e-03   5.82e-03  -6.88e-03  -1.28e-03   1.41e-03   2.13e-02
## 1061   5.10e-03  -7.52e-03   8.44e-03  -1.38e-02  -5.13e-03  -2.71e-03   3.46e-02
## 1062   2.73e-03   4.45e-03   4.37e-03   5.86e-03   2.41e-03  -2.53e-04   1.98e-02
## 1063  -2.44e-02   6.82e-03   7.63e-03   2.59e-02  -9.26e-03   5.37e-03  -7.20e-02
## 1064  -1.09e-05  -7.75e-04  -3.64e-04  -1.07e-03  -2.75e-04   6.50e-04  -2.73e-03
## 1065  -1.84e-02  -1.28e-02  -9.07e-03   5.36e-03   1.46e-02  -9.59e-03   6.25e-02
## 1066   1.55e-02   2.27e-02   2.83e-03   2.50e-02   8.81e-03  -9.49e-03  -7.85e-02
## 1067   2.38e-03   4.44e-03   5.15e-03   6.59e-03   3.98e-04  -6.95e-04   2.59e-02
## 1068  -1.50e-02  -6.80e-03  -2.39e-02   3.06e-02  -2.64e-02  -2.12e-03  -5.84e-02
## 1069  -2.29e-03  -7.20e-03   1.93e-02   2.14e-02   2.07e-02  -1.20e-02  -7.95e-02
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## 1070 -3.83e-03  1.89e-02  1.00e-02 -1.40e-02  3.97e-03 -5.51e-04  4.50e-02
## 1071  8.82e-03  4.74e-04  3.32e-03  1.76e-02 -4.46e-03  1.54e-02 -4.29e-02
## 1072 -2.40e-03 -4.71e-03  4.51e-03  3.44e-03 -1.06e-02  9.22e-03  2.21e-02
## 1073 -8.92e-03 -1.55e-02 -2.51e-03 -8.36e-03  1.08e-03  5.24e-03  3.89e-02
## 1074 -4.66e-04 -1.88e-03 -2.20e-03 -3.76e-04 -1.11e-03 -2.10e-03  6.33e-03
## 1075  1.49e-02  4.07e-02  8.19e-03  2.84e-02  6.03e-03  2.00e-02 -9.61e-02
## 1076  1.28e-02  2.20e-02 -5.11e-03 -3.30e-04  9.32e-03  6.48e-03  4.24e-02
## 1077  1.81e-02  7.65e-03 -1.34e-02  1.71e-03  2.93e-02  9.31e-04  6.49e-02
## 1078 -5.87e-05  2.96e-03 -2.66e-03 -2.86e-03 -9.62e-04  2.23e-04  6.47e-03
## 1079 -8.74e-03 -1.76e-02 -2.98e-03  1.16e-02 -9.82e-03  5.56e-03  6.40e-02
## 1080  1.70e-02 -6.19e-03  6.20e-03 -7.13e-04 -1.66e-02  7.20e-03 -4.03e-02
## 1081  2.11e-04  1.01e-03 -5.72e-04  3.58e-04 -2.49e-05  9.95e-04 -2.89e-03
## 1082 -1.60e-02 -3.10e-03  8.25e-03 -3.72e-03 -1.39e-02  4.10e-03 -5.73e-02
## 1083  1.14e-02 -7.19e-04 -2.39e-02  2.20e-02 -1.05e-02  6.88e-03 -5.69e-02
## 1084  1.13e-02 -1.23e-02  1.55e-02 -1.51e-02  1.49e-02 -3.69e-03  4.87e-02
## 1085  7.22e-03  1.31e-03  1.74e-03  5.45e-03 -1.65e-03  1.22e-02 -3.98e-02
## 1086  1.80e-02  3.52e-03 -9.83e-03 -1.27e-02  1.99e-02 -1.25e-03  5.78e-02
## 1087 -2.87e-03 -2.37e-04  1.05e-02 -8.18e-03 -6.41e-04  3.67e-03  2.71e-02
## 1088 -8.13e-03  2.13e-03 -6.56e-03 -1.21e-02 -7.40e-03 -2.21e-03  3.36e-02
## 1089 -7.43e-03 -3.15e-03 -6.10e-03 -6.07e-04 -3.45e-03  4.11e-03 -3.08e-02
## 1090  4.04e-04 -7.59e-04 -1.42e-03 -1.21e-03 -1.24e-03 -1.75e-03 -5.76e-03
## 1091  5.55e-03  3.57e-04  6.01e-03 -6.37e-03 -3.80e-03 -9.78e-04  2.24e-02
## 1092  3.31e-02  1.25e-02 -1.07e-02  5.89e-04  3.05e-02 -1.38e-02  7.59e-02
## 1093 -1.49e-02 -1.31e-02  1.36e-02 -1.85e-02 -7.11e-03 -1.51e-02  5.52e-02
## 1094  8.92e-03 -2.08e-02  8.97e-03 -6.59e-03 -2.40e-02  3.79e-03 -6.54e-02
## 1095 -5.07e-04  2.66e-04 -4.71e-04 -3.31e-04 -4.42e-04 -2.45e-04 -1.64e-03
## 1096  4.15e-03 -4.16e-03 -1.23e-02  1.33e-02 -7.92e-03  1.28e-03  5.69e-02
## 1097 -3.85e-03 -9.60e-03 -1.04e-02 -9.07e-04 -1.48e-02  3.75e-03  3.25e-02
## 1098 -1.50e-03 -6.37e-03  2.64e-03 -2.21e-04 -4.44e-03  1.87e-03  1.26e-02
## 1099 -7.90e-03  8.70e-04  2.25e-02 -2.14e-02  1.22e-02  3.34e-03 -9.75e-02
## 1100 -2.96e-03 -6.18e-04 -3.39e-03  6.68e-03  2.43e-03  5.02e-03  3.38e-02
## 1101 -7.03e-04 -1.01e-03 -4.17e-03  3.71e-03 -1.56e-03 -2.01e-03  9.68e-03
## 1102 -2.90e-02  5.08e-03 -1.06e-02  4.36e-03  2.44e-02 -6.94e-03  7.81e-02
## 1103 -1.23e-03  9.89e-03  9.15e-03 -6.03e-03  2.21e-03  8.38e-03  2.62e-02
## 1104  1.51e-04 -3.27e-04 -1.35e-03  1.86e-03 -4.67e-04  3.55e-03 -8.00e-03
## 1105  1.17e-04 -3.74e-04 -1.16e-03  1.10e-04 -6.12e-04  3.14e-03 -6.85e-03
## 1106  1.91e-03 -7.30e-03 -6.43e-03  1.12e-02 -3.58e-03 -1.20e-03  3.28e-02
## 1107 -6.68e-04 -8.05e-04 -5.76e-04  6.89e-04 -8.19e-04  7.01e-04 -3.36e-03
## 1108  2.33e-02  9.79e-03  1.20e-02  2.84e-02 -2.15e-02  3.15e-02 -8.86e-02
## 1109  1.85e-03 -1.34e-03 -3.08e-03 -4.84e-03  3.12e-03 -4.66e-04 -1.22e-02
## 1110 -2.34e-02  1.48e-02  1.03e-02  6.02e-03 -1.24e-02  1.23e-04 -7.35e-02
## 1111 -1.60e-02 -1.05e-02 -3.38e-03 -8.03e-03  6.93e-04 -8.68e-03  6.50e-02
## 1112  3.41e-03  9.31e-03 -4.81e-03 -1.54e-03 -1.56e-04  1.45e-03  1.95e-02
## 1113 -1.35e-03 -8.76e-04 -6.49e-03  1.73e-03 -5.33e-03 -2.35e-03  1.63e-02
## 1114 -5.97e-03  2.22e-02 -7.09e-03 -1.60e-03  1.00e-02  7.15e-03  4.45e-02
## 1115 -9.44e-03 -1.70e-02 -3.80e-03 -3.06e-03 -1.87e-03  1.79e-03  4.73e-02
## 1116  1.10e-03 -1.05e-04 -2.46e-03  2.18e-03 -1.36e-03  1.52e-03 -1.08e-02
## 1117  1.54e-02 -1.94e-03  2.20e-02 -1.11e-02  2.45e-02  4.95e-03  4.91e-02
## 1118 -3.68e-03 -2.27e-03 -2.97e-03 -7.13e-04 -5.43e-03 -7.32e-04  1.35e-02
## 1119  1.93e-02 -2.68e-02  1.40e-02  1.49e-02  8.03e-03 -1.17e-02 -8.84e-02
```

```
## 1120   2.35e-03   3.07e-03  -5.48e-03  -6.87e-03  -1.31e-03  -1.18e-03   2.03e-02
## 1121   1.06e-03  -3.11e-04  -9.21e-03  -1.94e-02  -1.03e-02   4.74e-03   4.17e-02
## 1122   9.68e-03   1.21e-02   2.00e-03  -9.95e-03   8.76e-03   2.44e-03  -5.95e-02
## 1123  -1.91e-02  -1.45e-03  -2.25e-02  -1.73e-02  -3.00e-02   8.14e-03  -6.35e-02
## 1124   2.36e-03   1.16e-03  -4.81e-03   5.17e-03   2.71e-04  -3.33e-03   1.64e-02
## 1125  -2.53e-03  -8.47e-03  -7.24e-03   2.80e-04  -7.98e-03   3.37e-04   1.79e-02
## 1126   2.77e-02  -1.19e-02  -2.79e-03  -5.06e-03   2.73e-03   7.16e-03   6.83e-02
## 1127  -3.01e-05   2.66e-03  -2.50e-03  -1.24e-03  -9.26e-04   7.20e-04   5.49e-03
## 1128  -1.41e-02   9.29e-03   1.62e-02   3.50e-02   2.90e-02   2.25e-03  -1.03e-01
## 1129   8.08e-03   5.25e-03   2.10e-03   1.67e-02  -2.19e-03   1.97e-02  -5.57e-02
## 1130  -2.19e-03  -5.07e-03   3.17e-03   2.65e-03  -8.41e-03   7.69e-03   2.03e-02
## 1131   1.00e-02  -8.18e-03   1.50e-02   4.28e-03   2.10e-02  -6.75e-03   4.74e-02
## 1132   1.72e-04   1.57e-03  -7.59e-04  -1.30e-03  -1.31e-03   2.91e-03   6.44e-03
## 1133   7.28e-05  -6.28e-04  -1.74e-03   5.63e-04  -2.59e-03   5.34e-03  -1.14e-02
## 1134   9.38e-05   2.45e-04  -1.84e-03  -6.68e-03  -4.25e-03   8.13e-03  -1.57e-02
## 1135   8.29e-03  -6.32e-03  -1.07e-02  -2.24e-02  -1.51e-02  -1.91e-03   6.25e-02
## 1136  -1.22e-03   3.95e-03   3.64e-03   4.63e-03  -6.86e-03   4.28e-03   2.34e-02
## 1137  -7.57e-03   1.30e-02   6.63e-03  -4.21e-03  -6.78e-04  -1.15e-02   3.69e-02
## 1138  -2.87e-03  -6.34e-03  -1.03e-02   4.34e-03  -1.22e-02   8.15e-03   2.73e-02
## 1139   1.86e-02   7.63e-03  -9.96e-03  -1.51e-02   1.84e-02  -2.36e-03   8.63e-02
## 1140   2.16e-03  -3.42e-03   1.43e-02  -7.79e-03  -6.85e-03   6.41e-04   4.58e-02
## 1141   3.05e-02  -7.21e-03   1.39e-02   2.74e-03   1.25e-02  -2.17e-02  -7.59e-02
## 1142   1.20e-02  -8.31e-03  -8.41e-03  -1.74e-02   1.50e-02   2.48e-04   5.25e-02
## 1143   4.10e-03   2.01e-03   4.36e-03   6.22e-03   4.90e-03  -4.52e-04   2.24e-02
## 1144   1.35e-02   4.44e-03  -1.19e-02   5.19e-04  -2.05e-02   3.05e-03   7.02e-02
## 1145   7.58e-03  -3.21e-03   2.08e-03  -1.32e-03  -7.31e-03   1.13e-02  -2.83e-02
## 1146   7.71e-03   4.43e-03   5.80e-03  -1.56e-02  -1.62e-02   1.71e-02  -5.28e-02
## 1147  -2.08e-02  -1.18e-02  -7.31e-03   5.94e-03  -2.65e-03  -4.51e-03   5.35e-02
## 1148  -2.50e-03  -4.66e-03   4.09e-03  -2.58e-03  -1.12e-02   9.32e-03   2.03e-02
## 1149   1.11e-02  -1.05e-03   1.68e-02   1.17e-02  -5.99e-03   4.30e-03   5.18e-02
## 1150   4.61e-03  -6.64e-04  -3.72e-03   6.09e-03  -1.95e-03  -6.46e-04   1.73e-02
## 1151  -7.78e-05   1.48e-03  -2.01e-03  -1.83e-03  -7.83e-04  -6.61e-04   5.20e-03
## 1152  -4.75e-03  -1.85e-03  -3.34e-03  -1.98e-04   1.12e-03  -1.41e-04  -1.24e-02
## 1153   4.21e-05  -1.04e-03  -6.69e-04  -2.00e-03  -6.87e-04   1.63e-03  -4.84e-03
## 1154   2.33e-02   4.38e-03  -2.89e-03   3.95e-06  -2.79e-04   9.62e-03   4.45e-02
## 1155  -1.19e-02  -1.40e-02  -3.73e-03  -6.69e-04  -6.13e-04   3.34e-03   3.82e-02
## 1156  -1.51e-02  -6.59e-03   3.54e-03  -1.47e-03  -9.96e-03   5.55e-03  -4.26e-02
## 1157  -1.70e-02  -6.94e-03  -6.64e-03   7.51e-03   7.70e-03  -9.70e-03   8.53e-02
## 1158  -1.06e-02  -8.35e-03   1.91e-02  -1.55e-02   6.84e-03  -2.41e-02  -9.81e-02
## 1159   2.87e-03   2.22e-03   2.01e-03   1.92e-03   1.52e-03  -5.49e-04  -9.36e-03
## 1160  -1.78e-02  -2.32e-03   3.74e-03   2.16e-02  -9.03e-03   1.27e-02  -5.48e-02
## 1161   2.51e-03  -1.50e-03   1.72e-03   1.46e-03   2.43e-03  -5.01e-04  -8.71e-03
## 1162  -4.91e-04   2.10e-04   1.37e-03  -2.12e-03  -1.73e-03   7.85e-04   6.17e-03
## 1163   8.30e-04   4.11e-04  -1.32e-02   7.51e-04  -1.35e-02   3.23e-03   5.02e-02
## 1164   5.40e-03   1.45e-02  -9.91e-03  -6.26e-03  -4.01e-03   5.26e-03   4.04e-02
## 1165  -6.39e-04   3.56e-03   1.85e-03   2.33e-03  -4.76e-03   6.57e-03   1.54e-02
## 1166   9.39e-03  -2.58e-03  -4.13e-03   3.69e-04  -5.26e-04  -8.18e-03   3.65e-02
## 1167  -4.42e-05  -2.55e-04   2.71e-04  -3.61e-04   5.03e-05  -5.47e-04  -1.39e-03
## 1168   9.99e-03  -7.18e-03   9.79e-03  -1.98e-02  -1.06e-02  -2.20e-02  -1.06e-01
## 1169  -1.68e-02  -1.02e-02  -2.15e-03   1.04e-02  -1.68e-04  -7.96e-03   8.06e-02
```

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## 1170   1.09e-02   1.47e-02   3.69e-02   1.06e-02   5.56e-02  -3.93e-02  -9.21e-02
## 1171   4.04e-03   2.07e-02  -1.14e-02   1.39e-02  -6.31e-03   1.66e-03   5.07e-02
## 1172   1.45e-02   7.32e-04  -1.18e-02  -1.21e-02   1.96e-02  -9.11e-03   6.65e-02
## 1173   9.86e-03   5.42e-03   3.29e-03   7.43e-03  -9.52e-03   3.23e-02  -5.87e-02
## 1174  -3.86e-03   6.86e-03   4.62e-03   7.06e-03  -1.84e-03  -1.07e-03   2.09e-02
## 1175   8.00e-03   1.05e-02   6.11e-03  -4.52e-03  -1.59e-02   2.19e-02  -5.99e-02
## 1176   2.28e-02  -1.51e-02  -2.91e-03   9.47e-03   4.73e-04  -4.02e-03   6.48e-02
## 1177   2.21e-03   5.59e-03  -3.09e-03  -3.58e-03   9.22e-04   1.02e-03   1.21e-02
## 1178  -2.01e-02   9.89e-03   1.35e-02   3.43e-02   2.99e-02  -1.64e-03  -1.02e-01
## 1179  -8.28e-03  -1.68e-02  -5.66e-03   5.50e-03  -5.78e-03  -5.26e-03   4.03e-02
## 1180  -2.53e-03  -1.38e-05  -4.26e-03   7.07e-03   6.48e-03   5.64e-03   3.92e-02
## 1181   2.49e-02  -1.11e-02  -1.20e-02   1.98e-02   1.86e-02  -1.77e-02   7.45e-02
## 1182   3.55e-02  -5.08e-03   1.21e-02  -3.39e-04   1.90e-02  -2.86e-03  -6.57e-02
## 1183   6.44e-04  -5.69e-04  -1.09e-03  -1.06e-03  -4.28e-04  -2.12e-04   4.70e-03
## 1184   2.16e-03   1.16e-02   1.22e-02  -6.62e-03   1.01e-03   1.59e-02   3.71e-02
## 1185  -2.40e-03   5.07e-03  -6.82e-03   7.01e-03   1.12e-02  -2.91e-03   4.65e-02
## 1186  -2.53e-02   1.25e-03   3.01e-02  -1.73e-02   3.22e-02  -2.08e-02   8.39e-02
## 1187  -9.55e-03   1.10e-02  -6.47e-03   7.68e-03   7.38e-03  -6.60e-03   5.29e-02
## 1188   5.78e-04   1.23e-03  -9.96e-04  -2.44e-04  -1.47e-04  -4.54e-04   3.37e-03
## 1189  -1.81e-02  -1.88e-03   4.89e-03  -2.36e-03  -1.09e-02   1.40e-02  -4.41e-02
## 1190  -1.55e-03   3.08e-03   2.67e-03   3.89e-03   1.36e-05  -2.51e-04   1.10e-02
## 1191   1.99e-03  -2.05e-03   1.15e-02   8.90e-04  -3.27e-03   3.07e-03   3.39e-02
## 1192  -3.03e-02  -3.02e-03  -8.64e-03   4.13e-03  -1.78e-02  -6.73e-04   6.48e-02
## 1193   2.50e-03  -1.83e-03  -3.15e-03  -2.44e-03   1.82e-03  -2.10e-04  -1.13e-02
## 1194  -2.74e-03  -7.12e-03  -8.45e-03  -6.67e-03  -1.20e-02   5.26e-03   2.41e-02
## 1195  -1.20e-05   1.42e-03  -1.56e-03  -1.52e-03  -2.86e-04  -3.93e-04   3.82e-03
## 1196   1.32e-02  -4.55e-03   2.16e-02   4.88e-03   2.16e-02  -7.51e-03   6.38e-02
## 1197  -7.20e-03   7.96e-03  -4.60e-03  -4.92e-03   7.04e-03  -6.01e-03   4.95e-02
## 1198   1.72e-03   6.49e-05  -1.01e-02   1.22e-03  -8.87e-03   3.95e-03   3.94e-02
## 1199   1.17e-02  -1.10e-02   8.63e-03   2.84e-02  -1.02e-02  -1.44e-02  -9.94e-02
## 1200   4.49e-06  -1.41e-04  -1.44e-04  -3.87e-04  -7.61e-05   3.47e-04  -9.39e-04
## 1201   6.58e-03  -4.91e-03   1.22e-02  -9.19e-03   1.70e-03   1.17e-02   4.62e-02
## 1202  -1.02e-02  -8.40e-03   6.76e-03  -8.46e-04  -1.42e-02   4.04e-03  -3.61e-02
## 1203   1.90e-02   1.22e-02  -1.28e-02   1.40e-03   2.97e-02  -1.49e-04   5.66e-02
## 1204  -2.00e-02  -1.07e-02  -9.32e-03  -1.12e-02  -1.21e-02  -5.81e-03   6.06e-02
## 1205  -1.73e-02  -6.34e-03   5.43e-03  -6.75e-04  -1.55e-02   6.76e-03  -3.94e-02
## 1206   1.03e-02   2.10e-03  -5.08e-03   5.89e-03   5.78e-03   2.64e-03   2.87e-02
## 1207  -1.72e-02   1.32e-03   1.22e-02  -4.13e-03  -2.54e-02  -2.85e-03  -5.83e-02
## 1208   4.13e-02   1.38e-02   1.59e-02  -4.74e-03   1.72e-02   5.66e-03  -9.39e-02
## 1209   1.78e-02   8.99e-03  -1.24e-02   1.50e-03   2.64e-02   1.84e-03   5.27e-02
## 1210   1.19e-04   1.64e-04  -2.40e-03   4.24e-03  -3.47e-03   7.53e-03  -1.62e-02
## 1211   1.95e-02   3.66e-04   5.00e-03   2.14e-02  -1.08e-02   5.10e-03  -5.07e-02
## 1212   1.83e-02  -3.52e-03   7.28e-03  -1.61e-03  -1.84e-02   6.53e-03  -4.98e-02
## 1213   1.76e-05  -1.42e-03  -1.26e-03   9.34e-04  -1.44e-03   2.83e-03  -8.00e-03
## 1214  -6.72e-04  -2.28e-03  -2.59e-03  -3.25e-04  -1.34e-03  -3.43e-03   8.38e-03
## 1215  -2.31e-02   2.31e-03   4.61e-03   9.30e-03  -8.53e-03   6.70e-03  -5.74e-02
## 1216  -1.06e-02  -1.63e-02  -3.73e-03  -7.89e-04  -1.21e-02   2.68e-03   3.85e-02
## 1217  -2.47e-02  -7.44e-03   1.38e-02  -1.88e-02  -9.31e-03  -2.40e-03   5.13e-02
## 1218   8.50e-03   3.64e-03  -1.34e-02   1.27e-02  -5.51e-03   1.97e-02   5.83e-02
## 1219  -8.33e-03  -1.88e-03  -4.03e-03  -9.13e-03  -1.92e-03   9.30e-04  -2.29e-02
```

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## 1220 -1.05e-02 -7.98e-03  6.25e-03 -1.45e-03 -1.47e-02  3.97e-03 -3.55e-02
## 1221 -6.27e-03 -5.47e-03  2.13e-02 -1.80e-02  1.11e-02 -2.04e-02 -7.79e-02
## 1222  2.14e-02  1.47e-02  1.19e-02 -3.81e-03  1.33e-02  1.23e-04 -9.31e-02
## 1223  1.33e-04 -1.76e-04 -1.66e-03  2.15e-03 -6.36e-04  4.31e-03 -9.74e-03
## 1224  1.18e-02  8.42e-03  1.24e-02 -1.37e-02  1.31e-02 -4.87e-03  4.39e-02
## 1225 -9.28e-03 -1.79e-02 -4.82e-03  2.32e-02  1.02e-03  3.89e-03  6.18e-02
## 1226  3.41e-03 -1.89e-03 -2.49e-03  1.14e-04  9.21e-04 -3.94e-04 -1.13e-02
## 1227  1.67e-02 -1.44e-02  1.86e-02  6.52e-03  7.10e-03  6.19e-04  4.70e-02
## 1228 -1.63e-02 -8.39e-03  8.68e-03 -6.06e-03 -5.74e-03 -2.35e-03  3.52e-02
## 1229 -3.42e-02  1.99e-02 -3.32e-02 -8.34e-03 -2.94e-02 -1.56e-03 -8.73e-02
## 1230  1.88e-04  7.82e-05 -1.81e-03  2.67e-03 -1.15e-03  5.08e-03 -1.10e-02
## 1231 -1.82e-03 -1.43e-03 -2.84e-03  3.10e-03  2.74e-03  2.78e-03  2.19e-02
## 1232  1.69e-02 -4.67e-04 -3.30e-03  1.44e-02 -1.27e-03  5.00e-03  3.69e-02
## 1233 -1.08e-02 -8.01e-03  6.30e-03 -1.29e-03 -1.57e-02  4.38e-03 -3.60e-02
## 1234 -7.08e-04  2.19e-03  1.99e-03  2.79e-03 -3.56e-03  3.37e-03  1.11e-02
## 1235  7.92e-03 -1.62e-03  1.02e-03 -3.04e-03 -3.51e-03  7.23e-03 -3.28e-02
## 1236  8.88e-03 -4.59e-04 -1.05e-02 -1.26e-02 -1.39e-02  4.61e-04  6.04e-02
## 1237 -2.55e-03 -8.67e-03 -8.09e-03  5.78e-03 -8.41e-03  8.35e-04  2.03e-02
## 1238 -2.46e-02 -1.02e-02 -9.62e-03  1.49e-02 -1.15e-02 -4.19e-03  5.01e-02
## 1239  4.28e-03 -6.13e-03  9.33e-03  1.63e-03  5.86e-04  4.65e-03  4.05e-02
## 1240 -6.16e-03 -5.61e-03 -2.47e-02  3.47e-03  8.71e-03 -2.25e-02 -7.11e-02
## 1241  1.32e-02  3.94e-02 -2.27e-02  6.15e-02  4.73e-02 -2.56e-02 -1.09e-01
## 1242 -1.68e-02 -2.35e-03 -4.54e-03  7.57e-03  9.97e-03 -5.96e-03  8.21e-02
## 1243 -1.03e-02 -1.69e-02 -4.44e-03  8.16e-03 -4.04e-04 -2.57e-04  5.12e-02
## 1244  1.50e-02  1.26e-02  1.63e-02 -1.74e-02  1.72e-02 -4.65e-03  5.51e-02
## 1245 -2.45e-02  6.06e-03 -2.61e-02 -3.60e-03 -2.21e-02  1.63e-02 -6.81e-02
## 1246 -6.24e-03 -5.83e-03 -2.39e-02 -1.73e-02  7.15e-03 -2.10e-02 -7.25e-02
## 1247  8.27e-04  7.43e-03  8.66e-03 -5.98e-03  3.45e-03  5.29e-03  2.42e-02
## 1248 -1.34e-02 -7.92e-03 -2.36e-02 -5.01e-04 -2.98e-02  1.05e-02 -5.86e-02
## 1249 -2.50e-03 -4.54e-03  4.04e-03 -2.77e-03 -1.09e-02  9.06e-03  2.02e-02
## 1250  1.88e-02 -4.10e-03  6.77e-03 -1.90e-03 -1.61e-02  6.03e-03 -4.32e-02
## 1251  1.36e-02  8.69e-03  7.89e-03 -6.46e-04  7.23e-03  3.42e-03  2.89e-02
## 1252 -1.49e-02 -9.29e-04  1.94e-02  1.97e-03  8.41e-03 -2.72e-02 -9.32e-02
## 1253  1.57e-03 -7.07e-04  2.57e-03 -3.06e-04  2.93e-03 -1.54e-03 -9.99e-03
## 1254 -1.59e-02  5.43e-03  1.35e-02  5.80e-03  3.74e-03 -5.55e-04  5.19e-02
## 1255 -2.34e-05 -7.19e-04 -3.44e-04 -9.55e-04 -2.57e-04  5.00e-04 -2.33e-03
## 1256  1.12e-02 -1.69e-02 -4.08e-02  8.04e-03 -1.46e-02 -1.17e-02 -1.03e-01
## 1257  1.98e-03  5.31e-03 -1.24e-02  1.17e-02 -8.98e-03  4.59e-03  4.79e-02
## 1258  1.50e-02 -1.88e-03 -1.33e-02  2.80e-03  2.76e-02 -1.68e-02  7.65e-02
## 1259  2.60e-03  2.27e-04 -1.02e-02  1.97e-03 -7.89e-03  3.12e-03  4.63e-02
## 1260  2.94e-02  3.40e-02  3.10e-03  2.23e-02  1.52e-02 -2.91e-02 -1.11e-01
## 1261  3.55e-04  3.37e-03 -1.81e-03 -1.61e-04  2.45e-03  5.44e-03  1.45e-02
## 1262 -3.57e-03  1.37e-04  1.19e-02 -2.32e-03  5.47e-03  6.97e-03  4.26e-02
## 1263  1.59e-02  1.19e-02 -1.25e-02  4.04e-03  2.11e-02 -1.71e-02  9.27e-02
## 1264 -3.03e-04 -1.88e-04  1.58e-04  1.66e-04  1.50e-04 -8.22e-06 -8.22e-04
## 1265  7.58e-03  8.54e-04  1.34e-02 -2.20e-02  7.08e-03 -1.76e-02 -9.68e-02
## 1266  7.86e-08  8.04e-07  1.35e-06 -1.03e-06  3.65e-07  1.08e-06  3.81e-06
## 1267  1.19e-04 -5.46e-04 -1.22e-03  3.70e-04 -6.27e-04  3.08e-03 -7.30e-03
## 1268  3.85e-03 -1.68e-03 -2.53e-03  2.02e-03 -3.26e-05 -3.01e-03  1.26e-02
## 1269 -2.05e-03 -5.66e-03  3.16e-03  3.12e-03 -7.79e-03  6.33e-03  1.88e-02
```

```
## 1270  1.12e-02 -1.32e-02 -6.13e-03  8.59e-03  9.52e-04 -4.63e-03  4.99e-02
## 1271 -4.64e-04  9.37e-03 -3.47e-03 -5.90e-03  1.39e-03  1.17e-02  2.72e-02
## 1272 -2.77e-03 -4.55e-03 -3.24e-03 -7.51e-03 -2.99e-03  2.87e-03 -1.89e-02
## 1273  1.09e-04  4.94e-05 -3.27e-05  4.55e-05  1.45e-05  5.57e-05  2.28e-04
## 1274  1.29e-04 -5.15e-05  3.30e-03 -7.89e-05 -1.57e-03  4.87e-03 -9.37e-03
## 1275 -3.72e-03 -2.48e-03  5.56e-03 -2.40e-03  9.18e-04 -3.24e-03  2.28e-02
## 1276 -8.37e-04  1.01e-03 -5.80e-03 -7.27e-03 -4.72e-03  1.50e-03  1.52e-02
## 1277  1.86e-04  1.65e-03 -7.94e-04 -1.36e-03 -1.34e-03  3.02e-03  6.76e-03
## 1278 -7.50e-04 -5.36e-04 -3.84e-03 -4.44e-03 -2.65e-03 -4.96e-04  9.34e-03
## 1279 -2.84e-02  2.15e-03 -1.26e-02  1.50e-02 -1.98e-02 -1.52e-03  6.78e-02
## 1280  7.51e-04  5.88e-03 -2.92e-03  4.55e-03  1.32e-04  8.08e-03  2.01e-02
## 1281  8.56e-06 -1.02e-03 -1.21e-03 -4.17e-03 -2.16e-03  3.93e-03 -9.54e-03
## 1282  8.89e-03 -3.61e-03  2.44e-03 -1.68e-03 -6.43e-03  8.26e-03 -3.88e-02
## 1283 -1.36e-02  1.18e-02  1.43e-02 -1.07e-02 -3.46e-03 -1.08e-02  5.40e-02
## 1284 -9.73e-03 -2.11e-02 -5.29e-03  8.45e-03  1.95e-03 -1.78e-02  6.24e-02
## 1285  8.80e-05 -8.89e-04 -1.22e-03 -3.84e-03 -1.99e-03  4.29e-03 -9.44e-03
## 1286 -2.20e-03  3.89e-03 -3.68e-03  3.53e-03  1.46e-03  3.00e-03 -1.52e-02
## 1287  6.02e-04 -5.93e-04 -8.65e-04 -4.44e-05  9.14e-04 -1.40e-04 -3.13e-03
## 1288 -1.62e-02  7.71e-05 -2.41e-02 -2.17e-03 -3.43e-02  8.34e-03 -7.69e-02
## 1289  5.58e-04 -6.30e-04 -1.03e-03  7.93e-04  7.62e-04 -1.45e-04 -3.32e-03
## 1290  6.54e-04  3.08e-03 -1.47e-03 -2.70e-03 -2.26e-04  4.87e-03  1.12e-02
## 1291 -6.23e-03 -1.46e-03 -2.57e-02  1.94e-03  8.81e-03 -2.13e-02 -7.32e-02
## 1292  1.32e-03 -7.60e-04  1.39e-03  1.32e-03  1.33e-03 -7.35e-04 -6.62e-03
## 1293  2.84e-02 -1.60e-03  3.30e-02 -3.00e-02  1.86e-02  6.73e-04  8.27e-02
## 1294  1.88e-02  8.28e-03  3.09e-02  2.25e-03  3.17e-02 -5.24e-03  6.70e-02
## 1295 -8.50e-03  2.59e-03  8.95e-03  2.53e-03 -6.42e-04 -6.77e-03  4.02e-02
## 1296 -5.99e-03 -2.82e-04  2.05e-02 -2.45e-03  1.72e-02 -1.89e-02 -8.02e-02
## 1297  7.11e-04  2.99e-03 -1.32e-03  1.40e-04 -6.46e-04  4.85e-03  1.05e-02
## 1298 -3.68e-03 -3.75e-03  6.84e-03 -3.34e-04 -2.09e-03  2.61e-03 -2.18e-02
## 1299 -1.45e-03  2.23e-03 -2.32e-03  3.36e-03 -2.80e-04 -9.14e-04  8.67e-03
## 1300  1.86e-04  2.16e-04 -2.43e-03  4.35e-03 -3.42e-03  7.72e-03 -1.66e-02
## 1301  1.68e-02 -3.11e-03  3.06e-03  1.80e-02 -4.17e-03  3.04e-03 -4.81e-02
## 1302  1.09e-02 -9.75e-03 -7.76e-03 -1.62e-02 -1.20e-02  6.80e-04  4.72e-02
## 1303  1.56e-03  3.24e-02 -5.38e-02  2.26e-03  1.28e-02 -5.24e-02 -1.39e-01
## 1304 -6.08e-03 -2.28e-04 -3.91e-03  5.44e-03 -1.44e-03 -3.64e-03  1.55e-02
## 1305 -1.60e-02 -3.36e-03  2.52e-03 -3.12e-03 -7.45e-03  6.09e-03 -4.04e-02
## 1306 -2.04e-02 -4.76e-04  4.63e-03 -4.14e-03 -1.08e-02  4.30e-03 -4.40e-02
## 1307  9.15e-03  8.12e-03  2.53e-03 -8.13e-03 -6.68e-03  1.92e-03 -4.99e-02
## 1308 -1.10e-02  2.06e-03 -7.03e-03 -2.78e-03 -1.56e-04 -2.29e-03  3.69e-02
## 1309 -5.69e-03 -6.86e-04 -2.96e-03 -3.89e-03 -3.05e-03  7.21e-04  1.40e-02
## 1310  9.76e-03  3.70e-02  5.81e-03 -1.57e-02  7.48e-03  4.46e-03 -8.53e-02
## 1311 -3.68e-02 -8.60e-03  1.82e-02 -1.76e-02 -2.97e-02  9.31e-03 -1.07e-01
## 1312  1.41e-04  3.91e-03  7.05e-04 -1.93e-03 -8.84e-04  2.18e-03  7.00e-03
## 1313 -3.13e-03 -5.88e-03 -1.08e-02  4.97e-03 -1.43e-02  8.44e-03  2.59e-02
## 1314 -3.61e-03 -6.45e-03  6.29e-03  5.25e-03 -1.59e-02  8.69e-03  3.19e-02
## 1315 -2.58e-02 -5.13e-03 -1.28e-02  1.27e-03 -9.88e-03 -6.70e-03  5.49e-02
## 1316  1.12e-02  1.94e-02  4.00e-02 -1.40e-02  5.20e-02 -4.00e-02 -1.08e-01
## 1317 -9.25e-03  4.35e-03  1.06e-02  1.25e-02  1.49e-02 -6.06e-03  4.21e-02
## 1318 -2.59e-03  3.64e-03  4.24e-03  3.68e-03  9.81e-04  1.94e-03 -1.51e-02
## 1319 -2.87e-03 -6.61e-03 -8.98e-03 -1.40e-02 -1.41e-02  7.65e-03  2.91e-02
```

```
## 1320   2.89e-05 -9.43e-05  4.58e-04  2.98e-04  2.13e-05  6.41e-04 -1.47e-03
## 1321   9.90e-03  2.92e-02 -1.78e-02 -1.74e-02  4.12e-02 -3.60e-02 -1.02e-01
## 1322  -1.06e-02 -1.02e-02  6.52e-03 -6.16e-04 -1.30e-02 -6.72e-04 -4.13e-02
## 1323   5.28e-03 -1.04e-03 -3.65e-03 -5.05e-03  9.03e-04 -2.91e-03  1.99e-02
## 1324   3.16e-03 -3.29e-03  8.77e-03  2.56e-02  6.69e-03 -3.16e-02 -8.99e-02
## 1325   3.79e-03 -8.38e-03  7.15e-03  2.18e-03 -1.75e-03 -1.38e-03  2.88e-02
## 1326   1.87e-04 -1.46e-05 -2.43e-03  3.69e-03 -2.74e-03  7.58e-03 -1.63e-02
## 1327   2.70e-03  3.67e-03 -6.16e-03 -3.15e-03 -3.27e-04  3.08e-04  2.10e-02
## 1328   9.74e-03  8.60e-03 -1.44e-02  1.20e-02 -8.50e-03  2.79e-02  6.55e-02
## 1329   2.56e-04 -4.72e-04 -1.57e-03  2.45e-03 -4.87e-04  4.05e-03 -9.65e-03
## 1330   3.40e-03 -8.28e-04 -4.76e-03  6.93e-03  4.17e-03 -3.67e-03  2.06e-02
## 1331  -1.01e-02 -1.27e-02  1.40e-02  2.59e-03  1.69e-02 -3.34e-02 -8.19e-02
## 1332  -5.44e-03 -8.27e-03  2.00e-02 -1.73e-02  1.42e-02 -1.98e-02 -6.66e-02
## 1333   1.36e-02 -4.48e-04  2.34e-02 -2.49e-02  2.33e-02 -4.38e-03  6.47e-02
## 1334  -5.14e-07  2.19e-04  6.89e-05 -2.37e-04 -2.74e-05  2.24e-05  4.79e-04
## 1335   1.04e-02  1.96e-02 -1.80e-02 -1.38e-02  4.51e-02 -3.84e-02 -9.06e-02
## 1336   8.62e-03  4.44e-02  4.69e-03  2.58e-03  2.66e-02 -3.75e-02 -1.03e-01
## 1337  -1.57e-02 -5.54e-04  1.65e-02  2.09e-02  1.83e-02 -1.21e-02 -8.67e-02
## 1338   2.22e-04  7.88e-03  1.21e-03  2.25e-03 -1.78e-03  3.93e-03  1.22e-02
## 1339  -8.60e-04 -7.32e-04 -7.71e-04 -8.21e-05 -9.07e-04  1.16e-04  3.58e-03
## 1340  -1.62e-03 -7.66e-03  3.26e-03  4.58e-03 -4.08e-03 -4.52e-04  1.58e-02
## 1341  -6.85e-04  2.84e-03 -4.04e-03 -1.42e-03 -2.17e-03  1.61e-02  4.12e-02
## 1342   1.85e-02  4.60e-03  7.95e-03 -4.81e-03 -9.94e-03  1.12e-02 -5.82e-02
## 1343   8.10e-05  8.36e-03 -6.09e-03  3.38e-03 -2.42e-03  2.46e-03  1.40e-02
## 1344  -2.11e-02 -3.24e-03  6.47e-03 -2.31e-03 -1.58e-02  4.30e-03 -5.13e-02
## 1345  -1.36e-02 -1.69e-02 -5.17e-03  7.63e-03 -6.76e-03 -6.86e-03  5.51e-02
## 1346  -2.07e-03 -2.45e-03 -2.04e-03 -4.57e-03 -6.16e-04  1.14e-03 -1.10e-02
## 1347  -2.52e-03 -7.11e-03 -9.03e-03 -1.29e-03 -1.10e-02  6.28e-03  2.28e-02
## 1348   1.09e-03 -8.97e-05 -3.00e-03  2.57e-03 -1.45e-03  9.09e-04 -1.29e-02
## 1349   6.40e-05  3.70e-04  3.57e-04 -2.02e-04 -3.33e-05  4.84e-04 -1.07e-03
## 1350  -2.47e-02  7.40e-03  6.29e-03 -5.35e-03 -1.24e-02  1.05e-02 -6.24e-02
## 1351  -3.06e-03 -6.37e-03 -9.91e-03 -1.68e-03 -1.41e-02  7.90e-03  2.39e-02
## 1352   1.89e-02  8.82e-03 -1.07e-02 -1.54e-02  2.28e-02 -3.50e-03  6.33e-02
## 1353  -6.94e-03 -1.71e-02 -3.67e-03 -1.39e-02 -5.93e-03  2.06e-04  4.70e-02
## 1354   1.72e-02  3.88e-03  2.44e-02  1.76e-02  3.23e-02  3.10e-04  5.58e-02
## 1355   8.79e-03 -1.76e-03  2.48e-03 -2.26e-03 -7.07e-03  1.02e-02 -3.21e-02
## 1356   8.05e-03 -2.23e-03  1.17e-03 -2.55e-03 -2.92e-03  7.28e-03 -3.19e-02
## 1357  -1.11e-02 -6.09e-03 -2.32e-02 -1.22e-03 -2.14e-02  1.26e-02 -5.79e-02
## 1358  -1.33e-02 -8.22e-03  9.21e-03 -7.36e-04 -2.13e-02  8.44e-04 -3.98e-02
## 1359   3.07e-03 -1.41e-03 -5.79e-03  4.06e-03  5.31e-03 -2.01e-03 -1.73e-02
## 1360   2.28e-03 -2.11e-03 -2.92e-03  6.23e-04  8.92e-04  7.09e-04 -1.07e-02
## 1361   4.72e-02  4.47e-02  1.47e-02  2.77e-02  4.18e-03  2.00e-02 -1.38e-01
## 1362  -1.71e-02 -3.20e-03  4.30e-03 -2.77e-03 -1.12e-02  8.20e-03 -4.37e-02
## 1363   1.35e-02 -1.25e-02 -3.29e-03  1.07e-02  4.10e-03  6.18e-03  5.13e-02
## 1364   3.59e-03 -9.46e-04  2.58e-03  1.66e-03  4.03e-03  1.24e-04  1.03e-02
## 1365   9.25e-04 -7.44e-03 -7.63e-03  1.22e-02 -6.81e-03 -3.96e-03  3.57e-02
## 1366  -9.46e-06  4.46e-03 -3.60e-03 -4.01e-03 -1.62e-03  1.06e-03  8.99e-03
## 1367  -1.45e-02 -7.26e-03  3.74e-03 -6.64e-04 -9.40e-03  5.21e-03 -3.96e-02
## 1368  -1.47e-02 -7.56e-03  3.05e-02  2.11e-02  2.11e-02 -1.54e-02  7.23e-02
## 1369  -2.20e-03 -5.04e-03  3.36e-03  2.70e-03 -8.67e-03  8.18e-03  2.13e-02
```

```
## 1370 -2.19e-04  2.80e-04 -2.92e-04  4.10e-04 -1.19e-04 -1.51e-04  1.06e-03
## 1371 -1.68e-06  2.54e-04 -3.16e-04 -3.01e-04 -7.32e-05 -1.24e-05  7.28e-04
## 1372  2.18e-02 -2.92e-02  1.67e-02 -1.91e-02  1.10e-02  9.40e-03 -8.17e-02
## 1373 -1.08e-02 -1.42e-03 -6.75e-03  5.68e-03  2.81e-03 -9.55e-04 -2.56e-02
## 1374  5.63e-03 -1.10e-02 -3.15e-03 -6.69e-03 -8.36e-03  1.44e-03  2.97e-02
## 1375 -2.66e-03 -1.36e-03  2.83e-03  1.87e-03 -2.44e-03  3.59e-03 -1.21e-02
## 1376 -1.43e-03 -1.81e-03 -1.96e-03 -5.00e-03  7.71e-04  5.33e-03  1.97e-02
## 1377  1.83e-02  9.43e-03  2.66e-02  1.76e-02  3.75e-02 -2.94e-03  6.12e-02
## 1378 -4.07e-04 -1.52e-03  1.26e-03  2.65e-03 -6.44e-04 -1.69e-03  6.69e-03
## 1379 -3.51e-03 -7.80e-03  1.55e-02  3.61e-02  2.32e-02 -1.71e-02 -7.64e-02
## 1380 -1.81e-02  1.22e-03  1.07e-02 -6.16e-03 -2.23e-02 -4.66e-03 -5.92e-02
## 1381 -2.18e-04  8.01e-03 -4.47e-03 -1.24e-03  4.68e-03  1.36e-03  2.26e-02
## 1382  6.27e-04 -8.49e-04 -1.33e-03  8.86e-05  9.29e-04 -4.47e-04 -4.17e-03
## 1383  3.24e-04  3.38e-04 -1.95e-03  2.92e-03 -1.50e-03  6.29e-03 -1.25e-02
## 1384  1.21e-02 -6.99e-03 -1.06e-02 -9.81e-03 -1.35e-02  2.06e-03  5.47e-02
## 1385  2.07e-02  9.00e-03  4.78e-03 -1.02e-02  7.67e-04  8.31e-03 -6.78e-02
## 1386  8.02e-03 -2.74e-03 -4.86e-03 -4.16e-04 -2.88e-04  9.68e-04 -2.46e-02
## 1387  1.80e-02 -6.92e-03 -8.40e-03  8.48e-03  1.31e-02 -1.05e-02  6.46e-02
## 1388 -1.93e-04 -3.64e-04  5.22e-04 -6.89e-04 -3.69e-04 -1.27e-04  2.51e-03
## 1389 -2.41e-03 -4.83e-03  4.52e-03  3.61e-03 -1.10e-02  9.50e-03  2.22e-02
## 1390 -1.48e-04 -3.19e-03 -2.60e-03  5.65e-03 -9.90e-04  6.40e-03  2.33e-02
## 1391  2.64e-02 -7.96e-03  1.79e-02 -1.49e-02  3.29e-02  2.70e-03 -1.02e-01
## 1392  2.21e-03 -2.09e-04  8.49e-03  1.59e-03  2.88e-03 -3.06e-02 -9.19e-02
## 1393 -2.80e-02  2.91e-03 -1.22e-02 -1.67e-02  2.11e-02 -1.84e-02  8.09e-02
## 1394  1.31e-02 -1.10e-02 -9.59e-03  6.24e-03  1.61e-02 -1.07e-02  5.82e-02
## 1395 -4.82e-04  1.04e-03  1.53e-03  2.51e-03 -2.52e-03  2.75e-03  9.71e-03
## 1396 -2.14e-03 -5.31e-03  3.31e-03  2.83e-03 -8.10e-03  7.32e-03  2.04e-02
## 1397  8.97e-03 -2.34e-03  2.27e-03  7.32e-03 -6.02e-03  1.94e-02 -4.67e-02
## 1398  3.54e-02  8.05e-03  1.61e-02 -2.63e-03  6.27e-03 -1.30e-02 -9.57e-02
## 1399 -2.55e-02 -9.88e-04 -1.07e-02  5.93e-04 -1.65e-02 -1.21e-03  6.18e-02
## 1400 -1.12e-04  1.78e-03  7.20e-04 -1.95e-03 -7.16e-04 -1.61e-04  4.68e-03
## 1401 -1.21e-02 -7.19e-03 -2.01e-02 -8.87e-04 -2.17e-02  5.02e-03 -4.46e-02
## 1402  4.30e-05 -2.07e-04  8.21e-04  7.14e-05 -3.78e-05  8.98e-04 -2.51e-03
## 1403 -1.20e-02  2.40e-02 -1.16e-02  8.68e-03  5.51e-03  2.56e-03  5.15e-02
## 1404 -6.61e-04 -2.56e-03 -2.83e-03  1.30e-04 -3.17e-03  9.55e-03  2.34e-02
## 1405 -1.40e-02 -1.65e-02 -5.74e-03 -1.74e-02  4.94e-03  6.99e-03  6.17e-02
## 1406  6.75e-03 -3.66e-03  1.08e-03 -1.13e-03 -3.28e-03  8.95e-03 -2.57e-02
## 1407 -1.25e-02 -9.26e-03 -3.01e-03 -2.68e-02  1.27e-03 -1.22e-02  7.86e-02
## 1408 -2.61e-02  2.61e-03  7.66e-03 -4.58e-03 -1.46e-02  8.78e-03 -6.08e-02
## 1409 -3.92e-03 -1.93e-03 -2.41e-03  5.80e-06 -3.14e-03 -1.25e-03 -9.38e-03
## 1410  2.50e-02 -1.72e-02  2.13e-02  6.31e-03  1.09e-02 -4.28e-03  5.76e-02
## 1411 -2.15e-03 -6.84e-05 -2.51e-03 -9.73e-04  3.55e-04  6.92e-03  2.27e-02
## 1412 -1.58e-03  3.82e-03 -3.85e-03 -2.29e-04  1.73e-03 -2.02e-03  1.98e-02
## 1413  1.39e-03 -3.94e-04 -8.84e-03 -8.87e-03 -1.32e-02  3.40e-03  5.07e-02
## 1414 -8.78e-03 -1.28e-02 -2.41e-03 -7.81e-03 -2.74e-03  1.21e-02  3.60e-02
## 1415  7.15e-05 -4.99e-04  2.02e-03 -2.18e-03 -7.14e-04  2.28e-03 -5.29e-03
## 1416 -7.28e-03 -1.69e-02 -1.64e-03  9.81e-03 -5.79e-03  1.13e-02  4.87e-02
## 1417  1.57e-02 -4.76e-03  3.17e-03  7.45e-03 -5.38e-03  6.06e-03 -3.91e-02
## 1418 -1.81e-05 -1.64e-04  1.65e-04 -9.87e-06  5.66e-05 -3.43e-04 -8.31e-04
## 1419  7.16e-03  2.39e-03  3.33e-03 -4.03e-03 -6.92e-03  1.47e-02 -4.20e-02
```

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## 1420 -1.04e-05 -4.48e-05  2.90e-05  6.61e-05  7.24e-06 -4.98e-05  1.86e-04
## 1421 -1.79e-02 -1.32e-02 -1.01e-02  3.07e-03 -1.39e-02 -1.52e-02  6.13e-02
## 1422  2.77e-03 -1.09e-03 -1.34e-03  1.96e-03 -9.34e-05  1.25e-03  8.75e-03
## 1423  1.48e-02 -1.20e-02  1.86e-02  6.85e-03  1.38e-02  6.16e-04  5.53e-02
## 1424 -3.85e-03 -8.58e-03  1.60e-02  8.38e-04  1.85e-02 -1.33e-02 -6.50e-02
## 1425 -9.09e-06  3.24e-04  1.67e-04  4.68e-04  2.51e-05 -2.70e-04  1.20e-03
## 1426 -1.04e-03  9.00e-04  3.05e-03 -3.88e-03 -5.10e-03  1.56e-03  1.43e-02
## 1427  7.88e-03  8.31e-04 -4.75e-03 -7.92e-03 -6.13e-03  1.84e-03  2.97e-02
## 1428 -1.19e-03 -5.50e-03  2.21e-03 -4.69e-03 -2.66e-03 -6.83e-04  1.00e-02
## 1429  6.41e-03 -7.39e-03 -9.23e-03  1.08e-02 -7.26e-03 -1.16e-02  4.94e-02
## 1430  9.83e-03  4.33e-03  3.70e-03 -1.48e-02 -1.16e-02  1.92e-02 -5.00e-02
## 1431 -4.47e-03 -1.61e-02 -1.88e-03 -5.50e-04 -1.28e-02  1.10e-02  3.86e-02
## 1432 -1.60e-02 -3.32e-03  4.08e-03 -1.89e-03 -1.07e-02  1.35e-02 -4.00e-02
## 1433  2.58e-03 -6.62e-03  1.26e-02  1.27e-02 -4.43e-03  2.09e-03  3.98e-02
## 1434  5.21e-03  4.01e-03 -7.28e-03  1.04e-02 -5.23e-05  4.00e-04  2.90e-02
## 1435 -1.40e-02 -6.29e-03  7.07e-03  1.02e-02 -1.33e-02  5.08e-03 -5.30e-02
## 1436 -5.63e-04  1.69e-03  1.57e-03 -3.77e-03 -3.41e-03  4.01e-03  1.08e-02
## 1437 -6.84e-03  6.08e-03 -1.90e-03 -1.27e-02 -5.55e-03  9.40e-03  4.79e-02
## 1438 -1.23e-03 -1.60e-03  9.10e-03  4.46e-03  6.30e-03  3.91e-03  2.82e-02
## 1439  6.49e-03 -4.08e-03 -1.24e-02  1.20e-02 -6.32e-03 -1.39e-03  5.35e-02
## 1440 -5.83e-04  1.01e-02 -5.14e-03  3.88e-03  8.25e-03 -3.09e-03  2.90e-02
## 1441 -1.55e-02 -1.24e-02 -6.31e-03  2.56e-02  1.22e-02 -1.99e-02  7.86e-02
## 1442  2.92e-03  4.29e-03 -1.39e-02 -1.03e-03 -1.36e-02  1.16e-02  6.12e-02
## 1443 -1.65e-02  3.53e-03 -2.48e-02  1.45e-02 -3.06e-02  1.21e-02 -7.99e-02
## 1444 -1.77e-03 -6.84e-03  3.28e-03 -2.47e-04 -4.86e-03  1.03e-03  1.32e-02
## 1445 -3.30e-03 -5.55e-03  5.96e-03 -1.55e-02 -1.51e-02  9.69e-03  3.23e-02
## 1446 -2.76e-03 -6.77e-03 -9.80e-03  4.59e-03 -1.19e-02  7.19e-03  2.50e-02
## 1447  9.67e-03 -9.97e-03  1.30e-02  1.29e-02 -8.46e-03 -9.28e-03  5.32e-02
## 1448 -1.46e-02 -1.76e-02 -5.90e-03 -3.32e-03 -9.92e-03 -5.54e-03  5.90e-02
## 1449 -1.40e-02 -9.01e-03 -4.75e-03  6.55e-03  8.67e-03 -6.23e-03  6.00e-02
## 1450 -1.97e-03 -8.77e-03 -6.83e-03  5.21e-03 -5.83e-03 -1.09e-04  1.81e-02
## 1451 -6.24e-03  1.74e-02 -7.04e-03 -1.76e-03  1.01e-02 -5.90e-03  4.06e-02
## 1452  1.13e-02  7.57e-04  2.33e-03 -4.52e-03 -6.87e-03  1.65e-02 -4.66e-02
## 1453 -4.88e-04  4.31e-03 -5.50e-03  9.31e-03  7.36e-03  1.21e-03  4.88e-02
## 1454  1.06e-02  2.00e-02 -1.88e-02  1.24e-02  4.70e-02 -4.01e-02 -9.05e-02
## 1455  2.99e-04  1.28e-02 -3.97e-03  5.70e-03  4.55e-03  6.62e-03  3.04e-02
## 1456 -1.26e-02 -4.70e-03  7.64e-03 -2.71e-03 -1.50e-02  1.79e-02 -5.60e-02
## 1457  2.18e-02 -1.37e-02  2.19e-02 -8.03e-03  1.58e-02 -1.17e-02  6.85e-02
## 1458 -3.85e-04 -6.26e-04  1.19e-03  2.36e-03 -5.64e-04 -9.90e-04  6.40e-03
## 1459 -1.54e-02 -6.35e-03 -2.29e-02 -5.89e-04 -2.93e-02  1.75e-04 -4.91e-02
## 1460 -1.95e-02 -8.07e-03  9.65e-03  9.17e-03 -1.75e-03 -6.31e-03  3.97e-02
## 1461  1.35e-02  4.60e-03  2.40e-02 -1.58e-02  3.05e-02 -9.33e-03  7.06e-02
## 1462  1.26e-03 -4.03e-03 -1.06e-02  8.85e-04 -5.17e-03  3.38e-03  3.50e-02
## 1463 -1.51e-02  8.87e-03 -8.96e-03  1.60e-02 -1.11e-02 -4.33e-03  5.27e-02
## 1464 -6.96e-03  4.19e-04 -3.43e-03 -6.12e-03  5.68e-04  4.66e-03  2.48e-02
## 1465  1.40e-02  2.84e-02 -3.77e-02  2.86e-02 -1.04e-02  6.23e-03 -8.98e-02
## 1466 -2.31e-03 -5.84e-03  3.92e-03  3.77e-03 -8.89e-03  6.14e-03  1.84e-02
## 1467  2.74e-02 -1.32e-02  2.60e-02 -7.49e-03  1.13e-02 -5.40e-03  6.57e-02
## 1468 -1.36e-02 -1.31e-03  8.88e-03  1.06e-02 -1.71e-02  1.76e-03 -5.22e-02
## 1469  8.76e-03  7.14e-03  4.15e-03 -5.82e-03 -3.48e-03  1.00e-02 -4.49e-02
```

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## 1470 -1.37e-02 -1.50e-02 -4.90e-03 -1.51e-02  4.61e-04  3.74e-03  5.27e-02
## 1471 -1.07e-04  6.59e-03  8.47e-03  1.63e-04  1.40e-03  6.37e-03  2.32e-02
## 1472 -2.45e-03 -4.86e-03  4.25e-03  3.37e-03 -1.04e-02  8.61e-03  2.11e-02
## 1473  1.18e-02  7.31e-04  1.33e-02 -2.16e-02  5.20e-04 -3.16e-02 -1.11e-01
## 1474  1.10e-02  1.86e-02  4.52e-03 -1.07e-02  3.96e-03  3.92e-03 -6.34e-02
## 1475 -8.09e-03  2.86e-03 -7.97e-03  6.33e-03 -3.33e-03 -1.85e-03  4.75e-02
## 1476  6.30e-03  3.05e-04  5.62e-03  8.21e-03  6.12e-03 -3.16e-03  2.69e-02
## 1477  1.05e-03 -4.46e-04  2.05e-03 -1.78e-04 -5.69e-05  1.36e-03 -8.57e-03
## 1478 -1.54e-02  4.16e-04 -5.88e-03  7.04e-03  1.70e-02 -2.74e-02  9.45e-02
## 1479  3.84e-04  1.23e-04  2.13e-04  3.98e-05  9.71e-05  7.59e-05 -8.64e-04
## 1480  6.47e-04  9.62e-03 -2.58e-03  5.53e-03 -5.30e-04  1.01e-02  2.79e-02
## 1481  8.62e-03 -1.01e-04  1.17e-03 -3.84e-03 -3.39e-03  6.17e-03 -3.69e-02
## 1482 -4.72e-03  2.90e-03  2.10e-02  2.18e-02  1.68e-02 -2.11e-04 -9.18e-02
## 1483 -1.88e-03  3.81e-03 -3.64e-03  8.97e-03 -2.41e-05  8.17e-03  3.92e-02
## 1484  1.99e-03  3.63e-04  1.03e-02  8.78e-03 -1.48e-03  4.00e-03  3.76e-02
## 1485  1.16e-03  1.54e-03 -4.39e-03  4.57e-03 -2.78e-05 -2.01e-03  1.44e-02
## 1486  6.52e-03 -8.70e-04 -2.75e-03 -4.45e-03 -8.27e-03  1.19e-03  2.43e-02
## 1487 -2.48e-03 -4.79e-03  4.31e-03  3.46e-03 -1.10e-02  9.39e-03  2.17e-02
## 1488 -1.76e-02 -2.18e-03  3.16e-03 -4.09e-03 -3.06e-03  8.50e-03 -5.31e-02
## 1489  1.53e-02 -2.94e-03 -1.27e-02 -2.67e-02  1.98e-02 -1.24e-02  6.99e-02
## 1490  4.71e-03 -2.14e-02  4.57e-02 -2.18e-02  3.76e-02 -3.46e-02 -1.05e-01
## 1491 -8.49e-03 -1.32e-02  1.03e-02 -7.83e-03  1.48e-03  7.18e-06  3.22e-02
## 1492 -3.21e-03 -4.92e-03 -1.09e-02 -2.87e-03 -1.60e-02  1.08e-02  2.69e-02
## 1493  6.14e-03 -9.78e-03 -4.44e-03 -7.86e-03  5.94e-03  1.38e-03  2.97e-02
## 1494 -1.33e-02 -3.99e-03 -2.37e-02 -3.11e-03 -1.69e-02  1.17e-03 -5.36e-02
## 1495 -1.16e-02 -1.61e-02 -2.88e-03  9.86e-03 -7.14e-03  9.07e-03  4.94e-02
## 1496 -1.89e-02 -1.38e-02 -8.89e-03 -5.49e-03 -4.75e-03 -2.03e-03  5.64e-02
## 1497  1.20e-04  5.86e-03  9.62e-04  1.94e-03 -1.10e-03  2.41e-03  9.21e-03
## 1498  2.32e-03  1.41e-03 -5.49e-03  3.90e-03 -1.32e-03 -1.03e-03  2.15e-02
## 1499 -3.18e-03  1.32e-02 -3.53e-03 -1.91e-02 -2.65e-03  1.30e-02  6.27e-02
## 1500  1.83e-02  2.15e-03 -1.04e-02  4.75e-03  2.60e-02  2.39e-03  5.19e-02
## 1501 -8.23e-03 -9.08e-03  4.69e-03 -8.61e-04 -8.69e-03  3.07e-03 -3.58e-02
## 1502 -1.60e-03  2.45e-03 -2.60e-03 -2.46e-03  4.80e-05 -1.15e-03  1.35e-02
## 1503  9.23e-05 -1.33e-03 -9.88e-04  7.11e-04 -8.38e-04  2.23e-03 -6.14e-03
## 1504 -2.27e-02 -7.96e-03 -7.05e-03 -2.48e-02  5.77e-03 -8.86e-03  8.37e-02
## 1505 -2.03e-02  7.12e-04  1.10e-02 -4.45e-03 -2.34e-02  4.26e-03 -5.86e-02
## 1506  7.42e-03 -2.20e-03 -5.58e-03 -4.93e-04  3.27e-03 -2.73e-04 -2.24e-02
## 1507  1.72e-04 -4.80e-04  3.75e-03  2.53e-03 -8.39e-04  4.07e-03 -1.00e-02
## 1508  3.17e-02 -8.31e-04 -8.71e-03  6.07e-03  1.99e-02 -8.86e-03  7.82e-02
## 1509 -1.04e-02 -1.29e-02  1.38e-02 -1.37e-02  1.42e-02 -3.11e-02 -8.09e-02
## 1510  1.79e-04 -7.15e-04 -1.82e-03  7.66e-04 -2.69e-03  5.52e-03 -1.40e-02
## 1511 -1.05e-02 -8.23e-06 -6.06e-03  4.37e-03 -6.11e-03 -1.33e-03  2.88e-02
## 1512 -1.82e-02 -6.48e-03  3.71e-02  6.35e-03  1.63e-02 -1.57e-02  8.13e-02
## 1513 -4.40e-03  2.58e-03 -5.06e-03  8.19e-03  2.84e-03  8.10e-03  4.26e-02
## 1514 -2.26e-03 -5.31e-03  4.29e-03 -7.59e-03 -9.89e-03  7.73e-03  1.99e-02
## 1515  4.27e-02 -1.02e-03  1.90e-02  1.53e-03  1.76e-02 -4.26e-03 -1.02e-01
## 1516 -3.11e-03 -5.35e-03 -1.15e-02  5.35e-03 -1.66e-02  1.08e-02  3.27e-02
## 1517  5.30e-04 -2.05e-04  9.55e-04  5.79e-04 -3.23e-04 -1.07e-03  4.33e-03
## 1518  5.77e-02  3.28e-02  2.42e-02  3.97e-02  3.33e-02  1.97e-02 -1.28e-01
## 1519  2.76e-03 -1.82e-04  1.19e-02  9.68e-03 -3.86e-03  8.98e-03  3.61e-02
```

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## 1520 -2.19e-03 -1.64e-02 -1.54e-03 -8.75e-04 -7.10e-03  8.44e-03  3.22e-02
## 1521 -1.87e-03 -6.20e-03  3.49e-03  3.64e-03 -7.43e-03  6.11e-03  1.92e-02
## 1522 -2.16e-02  3.43e-03  3.85e-02  2.14e-03  3.33e-02 -3.69e-02  9.46e-02
## 1523  1.08e-04  5.57e-04 -2.55e-03  4.39e-03 -4.26e-03  8.82e-03 -1.77e-02
## 1524 -2.69e-02 -4.31e-03 -1.02e-02  2.85e-03 -1.02e-02  4.80e-03  4.97e-02
## 1525  2.01e-04 -1.20e-03 -1.50e-03  3.04e-03 -1.04e-03  3.75e-03 -9.93e-03
## 1526  2.04e-02  9.97e-03 -2.41e-02  1.38e-02 -3.09e-02  2.57e-02 -8.61e-02
## 1527 -2.72e-03 -1.22e-02 -7.62e-03  1.88e-03 -8.77e-03 -2.70e-03  2.41e-02
## 1528 -2.01e-03 -5.81e-03  3.35e-03 -5.44e-03 -7.08e-03  3.96e-03  1.50e-02
## 1529 -2.14e-02  2.88e-03 -2.52e-02 -3.84e-03 -3.10e-02  6.25e-03 -6.64e-02
## 1530  9.51e-05  1.10e-04 -2.22e-03  3.25e-04 -3.53e-03  7.39e-03 -1.50e-02
## 1531  9.87e-05 -5.18e-03  1.20e-02  1.42e-03 -8.83e-03 -8.59e-03  5.35e-02
## 1532 -1.01e-02 -2.56e-03  7.15e-03  5.80e-03  3.31e-03 -1.44e-03 -2.59e-02
## 1533  6.77e-04 -5.50e-04  6.24e-04 -8.27e-04  8.13e-04 -4.25e-04 -3.55e-03
## 1534  1.18e-02 -7.12e-04 -2.17e-02 -2.11e-03 -1.39e-02  2.07e-02 -5.10e-02
## 1535  1.69e-03 -2.82e-03  8.54e-03 -2.81e-04 -1.76e-03  4.59e-03  3.43e-02
## 1536  8.55e-03 -1.17e-02 -3.78e-03 -5.31e-04  5.61e-03  1.89e-03  3.07e-02
## 1537  2.92e-04 -1.49e-04 -2.37e-03  3.92e-03 -3.12e-03  7.92e-03 -1.64e-02
## 1538  2.42e-05  1.59e-03 -1.94e-03  6.26e-04  2.66e-05 -9.27e-04  4.38e-03
## 1539 -1.58e-02 -5.35e-03 -2.31e-02 -1.51e-03 -2.88e-02  4.81e-04 -5.79e-02
## 1540  4.93e-03 -8.09e-03 -9.35e-03  1.31e-02 -5.18e-03 -1.56e-04  4.19e-02
## 1541  6.99e-05  1.28e-02 -3.29e-03 -7.28e-03 -1.20e-06  9.14e-03  2.92e-02
## 1542  1.27e-04 -1.18e-03 -1.48e-03  2.94e-03 -1.32e-03  3.61e-03 -9.34e-03
## 1543  1.10e-03 -3.51e-03  7.69e-03 -2.22e-02  7.36e-03 -3.46e-02 -9.26e-02
## 1544  2.28e-02 -1.36e-02  2.04e-02  4.18e-03  2.14e-02 -3.82e-03  5.94e-02
## 1545 -5.75e-03 -9.16e-03  1.95e-02 -1.68e-02  1.27e-02 -1.91e-02 -6.52e-02
## 1546  2.45e-02  1.16e-02 -1.15e-02  5.87e-03  1.94e-02 -1.80e-02  1.00e-01
## 1547  1.82e-05  7.28e-03  1.76e-03  3.50e-03 -1.85e-03  1.15e-03  1.38e-02
## 1548 -5.74e-03  1.01e-02  7.00e-03 -7.56e-03 -1.45e-03 -2.22e-03  2.74e-02
## 1549  1.41e-02 -1.47e-02 -6.36e-03 -1.27e-02  1.21e-02  6.68e-05  4.77e-02
## 1550 -1.75e-03 -7.32e-03  3.26e-03  4.19e-03 -4.10e-03 -9.86e-05  1.41e-02
## 1551  7.46e-03 -2.24e-03  1.43e-02  3.09e-02 -1.74e-03 -1.90e-02 -1.12e-01
## 1552 -2.32e-02  1.41e-03 -2.57e-02 -1.56e-03 -3.06e-02  2.77e-02 -7.57e-02
## 1553  1.21e-03 -6.00e-03 -9.35e-03  2.09e-03 -6.69e-03 -8.69e-03  4.21e-02
## 1554  1.89e-02  2.02e-03  5.56e-03  7.95e-03 -9.31e-03  1.75e-02 -5.80e-02
## 1555 -2.38e-03 -5.01e-03  4.47e-03  3.66e-03 -1.06e-02  9.03e-03  2.17e-02
## 1556  4.50e-03 -9.58e-04  3.54e-03 -4.81e-03  2.03e-03 -8.63e-04  1.75e-02
## 1557 -1.02e-02 -8.40e-03  6.75e-03 -8.50e-04 -1.42e-02  4.06e-03 -3.61e-02
## 1558  4.93e-03 -6.37e-03  7.65e-03  7.67e-03  1.93e-03  4.70e-03  4.05e-02
## 1559  1.74e-02  1.13e-02  3.00e-02  2.45e-04  2.86e-02  1.46e-04  7.19e-02
## 1560  7.65e-03 -2.81e-03  1.19e-03 -1.90e-03 -3.90e-03  9.13e-03 -3.00e-02
## 1561  1.23e-02 -1.17e-02 -4.85e-03  7.00e-03  7.95e-03  2.90e-03  4.08e-02
## 1562  7.02e-04 -8.52e-04  8.27e-04  8.85e-04  8.45e-04 -5.71e-04 -4.47e-03
## 1563 -2.18e-02 -7.29e-03 -1.07e-02 -1.18e-02 -2.15e-02 -6.21e-03  6.74e-02
## 1564 -1.82e-02 -8.35e-03 -3.95e-03  8.59e-03  1.27e-02 -5.88e-02  1.16e-01
## 1565  3.44e-03 -4.26e-03  1.10e-02  1.22e-03 -4.99e-04  6.62e-03  3.54e-02
## 1566  8.22e-06  3.48e-04  9.03e-05 -3.71e-04 -6.77e-05  1.41e-04  7.60e-04
## 1567 -2.19e-03 -5.06e-03  3.40e-03  2.73e-03 -8.66e-03  8.22e-03  2.14e-02
## 1568 -5.03e-03 -7.28e-03 -2.57e-02  1.64e-03  1.51e-02 -2.13e-02 -8.31e-02
## 1569 -7.15e-03  1.47e-03 -6.06e-03  5.27e-03  8.50e-03 -1.39e-03  3.30e-02
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## 1570 -5.39e-04   9.77e-04   1.52e-03   2.41e-03  -2.21e-03   2.41e-03   1.01e-02
## 1571  9.50e-03   5.59e-02  -4.99e-02  -2.04e-02   2.86e-03  -3.35e-02  -1.39e-01
## 1572  2.11e-04  -1.92e-04  -2.19e-04  -2.19e-04  -1.54e-04  -1.50e-04   1.37e-03
## 1573  7.13e-03  -1.08e-02  -3.04e-02   3.16e-02  -3.20e-02   2.12e-02  -9.52e-02
## 1574 -1.91e-02   8.32e-03   1.72e-02  -2.14e-02   1.53e-02   1.47e-03  -8.69e-02
## 1575  1.73e-02  -4.26e-03   4.85e-03  -2.87e-03  -1.10e-02   4.33e-03  -4.89e-02
## 1576 -2.14e-02   1.36e-02   1.65e-02  -1.75e-02  -1.09e-02  -5.66e-03   6.42e-02
## 1577  6.25e-03  -6.55e-03  -9.03e-03   1.20e-02  -2.57e-04  -3.14e-05   4.79e-02
## 1578  2.40e-03  -1.02e-03   2.70e-03  -2.50e-03  -8.09e-04   1.62e-05   1.04e-02
## 1579  2.69e-03   5.15e-04  -1.24e-02  -1.21e-02  -1.48e-02   1.09e-02   5.58e-02
## 1580 -4.18e-03   8.95e-03  -4.08e-03  -5.85e-03  -2.44e-03  -3.21e-03   3.34e-02
## 1581 -5.36e-03  -1.42e-03   5.62e-03  -1.56e-03  -3.44e-03  -1.31e-03   1.91e-02
## 1582  2.06e-04   8.68e-04  -8.22e-04  -1.06e-03  -1.12e-04   2.05e-03   4.75e-03
## 1583  4.27e-06  -3.78e-04  -2.65e-04   6.12e-04   9.94e-06   3.14e-04  -1.59e-03
## 1584 -4.48e-03   5.85e-03  -2.34e-03   9.36e-03  -1.51e-04   6.12e-03   5.25e-02
## 1585  1.31e-02   4.65e-04  -1.03e-02   1.68e-03  -2.13e-02  -7.47e-03   7.60e-02
## 1586  6.58e-05  -6.60e-04  -1.64e-03  -2.45e-03  -2.59e-03   5.24e-03  -1.15e-02
## 1587 -1.86e-03  -6.27e-03   3.53e-03  -5.22e-03  -6.33e-03   3.14e-03   1.48e-02
## 1588 -3.58e-02   2.24e-02   9.76e-03   8.57e-03  -1.51e-02  -1.40e-02  -8.82e-02
## 1589 -2.08e-03  -5.42e-03   3.04e-03   2.94e-03  -8.09e-03   6.75e-03   1.87e-02
## 1590  5.08e-05  -6.55e-04  -1.26e-03   2.25e-03  -5.22e-04   2.48e-03  -8.32e-03
## 1591 -9.76e-03  -1.07e-02   6.55e-03  -7.97e-04  -1.41e-02   7.18e-03  -5.08e-02
## 1592  1.97e-02   1.26e-02  -1.30e-02   2.12e-03   3.00e-02  -1.03e-03   6.99e-02
## 1593  1.43e-02   1.43e-02  -5.50e-03  -7.85e-03   4.63e-03  -6.46e-04   3.30e-02
## 1594 -1.59e-06   6.27e-04   1.75e-04  -6.45e-04  -1.43e-04   1.40e-04   1.42e-03
## 1595  1.83e-03  -1.51e-03   2.63e-03   2.71e-03   2.84e-03  -1.74e-03  -1.27e-02
## 1596 -1.30e-02  -4.44e-03   3.09e-03  -1.26e-03  -5.13e-03   1.16e-02  -3.84e-02
## 1597  2.42e-02   8.07e-03  -5.93e-03   8.63e-03   6.32e-03   4.82e-04   4.73e-02
## 1598  1.16e-02   8.06e-03   5.15e-03  -5.99e-03  -1.11e-02   1.36e-04  -5.48e-02
## 1599  4.87e-02   9.85e-03   1.75e-02   3.56e-02   2.80e-02   2.45e-03  -9.75e-02
## 1600  9.47e-03  -1.63e-03   6.81e-03  -2.06e-04   2.36e-03   4.83e-03   1.90e-02
## 1601  9.97e-05  -5.46e-04   1.68e-03   1.71e-04  -4.20e-04   2.04e-03  -4.59e-03
## 1602  1.40e-04   6.43e-04  -5.94e-04   1.26e-05   9.13e-05   1.37e-03   4.21e-03
## 1603  2.44e-02   3.49e-03   5.71e-03   2.55e-02  -1.09e-02   1.75e-02  -8.37e-02
## 1604 -1.10e-03   3.29e-03  -8.26e-03   4.69e-03  -6.04e-03   3.15e-03   1.70e-02
## 1605 -9.63e-04  -1.90e-03  -4.88e-03   6.65e-03   1.34e-03   3.31e-03   3.25e-02
## 1606 -3.30e-03  -5.06e-03  -3.53e-03   1.03e-03  -3.63e-03   1.44e-03  -1.77e-02
## 1607  2.29e-03  -1.49e-03   2.89e-03   2.69e-03   5.17e-03  -1.59e-03  -1.18e-02
## 1608 -5.03e-02   5.29e-03  -4.31e-02  -2.75e-02  -3.61e-02  -2.88e-02  -1.36e-01
## 1609 -1.48e-03  -6.72e-03   2.52e-03   3.66e-03  -2.74e-03  -1.44e-03   1.18e-02
## 1610  8.20e-04  -5.09e-04   6.27e-04   5.38e-04  -3.83e-04   4.98e-04  -3.13e-03
## 1611 -4.68e-04  -1.29e-03  -2.48e-03  -2.45e-03  -1.07e-03  -1.78e-03   7.00e-03
## 1612  1.01e-05  -4.02e-04   8.24e-04  -7.79e-04  -1.23e-04   5.48e-04  -1.91e-03
## 1613  3.98e-03  -1.00e-02   8.81e-03   2.73e-03  -4.19e-03  -2.68e-03   3.29e-02
## 1614  1.27e-02   1.42e-03   2.28e-03  -4.90e-03  -4.39e-03   8.11e-03  -5.51e-02
## 1615  4.36e-03  -2.20e-03   3.48e-03  -2.40e-04   2.64e-03   3.90e-05  -1.32e-02
## 1616  6.54e-03  -3.91e-03   1.09e-02  -1.98e-02  -2.34e-03   1.45e-02   5.16e-02
## 1617 -2.78e-02   7.91e-03   5.00e-03  -8.46e-03  -1.09e-02  -3.40e-03  -5.84e-02
## 1618 -9.36e-04  -1.96e-04   5.43e-04   8.34e-04   1.38e-05  -3.31e-04   2.36e-03
## 1619 -3.35e-03   2.14e-02  -4.21e-03  -1.08e-02   3.43e-03   7.64e-03   4.16e-02
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## 1620   1.06e-02 -1.00e-02   7.16e-03 -1.85e-02   4.16e-04 -1.86e-02 -8.48e-02
## 1621  -1.80e-02 -2.03e-03   9.81e-03   2.58e-02 -1.91e-02   4.70e-03 -6.65e-02
## 1622   1.10e-03 -7.39e-03   7.06e-03 -1.06e-02 -3.98e-03 -1.45e-03   2.81e-02
## 1623   1.61e-02   6.91e-03 -1.10e-02   2.03e-02   2.75e-02 -9.06e-03   6.37e-02
## 1624   2.85e-02 -3.72e-03 -3.39e-03   1.04e-02   4.65e-03 -9.06e-03   7.81e-02
## 1625   5.75e-03 -3.41e-03 -3.86e-03   3.73e-03   1.82e-04   5.10e-04 -1.87e-02
## 1626  -1.24e-02 -1.40e-02 -2.89e-03   1.05e-02 -1.14e-02 -5.75e-03   6.54e-02
## 1627  -1.54e-02   2.45e-03   8.87e-03   2.31e-02 -8.10e-03   1.10e-02 -7.60e-02
## 1628   6.10e-03 -1.21e-02   7.41e-03   5.66e-03 -1.47e-03 -7.38e-03 -7.14e-02
## 1629   2.98e-03   2.52e-03   1.31e-02 -1.57e-03 -6.08e-03   1.29e-02   3.84e-02
## 1630  -3.23e-04   3.74e-04   5.03e-04   4.13e-04   2.58e-04 -4.14e-04   2.30e-03
## 1631  -1.84e-02   2.52e-02 -1.35e-02   1.26e-03 -1.07e-02 -6.47e-03   6.75e-02
## 1632  -4.81e-04 -1.24e-03   1.27e-03 -2.26e-03 -1.06e-03 -1.47e-03   5.94e-03
## 1633   1.93e-03 -1.75e-03   2.57e-03 -7.09e-05   3.29e-03 -2.63e-03   1.14e-02
## 1634   6.69e-03   6.08e-03 -2.96e-03   3.47e-04   4.09e-03   3.78e-03   1.68e-02
## 1635  -4.93e-03 -8.16e-04   1.70e-02 -3.03e-03   1.99e-02 -1.56e-02 -8.13e-02
## 1636  -4.84e-04   2.54e-03   1.99e-03   2.84e-03 -3.64e-03   4.91e-03   1.37e-02
## 1637   3.35e-03 -1.44e-03   3.77e-03   3.41e-03   6.85e-03 -1.10e-03 -1.48e-02
## 1638  -1.61e-03 -7.44e-03   3.05e-03   4.38e-03 -3.93e-03 -6.12e-04   1.51e-02
## 1639  -1.18e-02 -1.64e-02 -6.91e-03   7.16e-03   9.90e-03 -2.21e-03   5.64e-02
## 1640   1.38e-02   1.89e-02   7.24e-03 -2.77e-02 -3.09e-03   2.26e-02 -7.69e-02
## 1641  -2.69e-02   9.27e-03   3.32e-03 -9.97e-03 -2.35e-03 -6.85e-03 -6.66e-02
## 1642  -1.09e-03   1.72e-03 -2.04e-03 -3.72e-03 -3.21e-04   1.27e-03 -8.83e-03
## 1643  -2.28e-02   2.85e-04   7.43e-03   2.65e-02 -1.69e-02   2.79e-03 -6.24e-02
## 1644   1.06e-02 -1.43e-02 -5.26e-03   8.29e-03   4.64e-03   6.78e-03   4.89e-02
## 1645   2.53e-03 -7.42e-03 -6.84e-03   1.05e-02 -2.57e-03 -3.41e-03   3.21e-02
## 1646   1.60e-02 -4.59e-03 -1.78e-02 -1.15e-02 -1.75e-02   1.12e-02 -4.45e-02
## 1647  -1.45e-02 -7.45e-03   4.00e-03 -3.18e-04 -9.53e-03   5.53e-03 -4.02e-02
## 1648   6.43e-03 -6.76e-03   8.97e-03   1.02e-02   5.65e-04   1.50e-03   4.66e-02
## 1649  -4.00e-05 -9.26e-04 -7.84e-04 -2.40e-03 -1.10e-03   2.25e-03 -5.82e-03
## 1650  -6.96e-04   3.31e-03   1.71e-03   2.19e-03 -4.78e-03   6.35e-03   1.47e-02
## 1651  -6.84e-03   5.62e-04 -2.41e-02 -2.01e-02   6.22e-03 -2.28e-02 -8.72e-02
## 1652   8.27e-03 -1.07e-02   9.97e-03   4.96e-03   4.77e-03   1.11e-03   3.09e-02
## 1653  -3.18e-03 -1.19e-02 -8.08e-03   1.64e-03 -1.03e-02 -3.09e-03   2.51e-02
## 1654   1.13e-02   4.60e-02 -4.01e-02   7.53e-03 -2.65e-03 -1.14e-02 -1.08e-01
## 1655   3.80e-03 -1.98e-03 -3.03e-03 -4.00e-05   1.60e-04 -5.96e-04 -1.22e-02
## 1656  -1.78e-03 -9.42e-03   3.43e-03   1.75e-03 -3.49e-03 -4.50e-03   1.64e-02
## 1657  -3.40e-03 -1.78e-02   1.93e-04 -1.17e-02 -1.42e-02   1.78e-02   4.98e-02
## 1658  -1.35e-02 -7.82e-03   9.49e-03 -8.69e-04 -2.10e-02   1.36e-04 -4.04e-02
## 1659   1.16e-02   2.18e-02   3.99e-03 -1.32e-02   1.91e-03 -1.33e-02 -7.28e-02
## 1660   1.21e-02   2.29e-02 -3.86e-02   2.61e-02 -5.80e-03 -1.31e-02 -8.42e-02
## 1661   2.08e-02   1.02e-02 -1.10e-02   4.70e-03   2.78e-02 -5.50e-03   6.45e-02
## 1662   2.56e-04   7.92e-03   1.22e-03   2.25e-03 -1.79e-03   4.05e-03   1.22e-02
## 1663  -1.91e-03   5.05e-03 -9.83e-03 -7.16e-03 -1.19e-02   4.93e-03   2.61e-02
## 1664  -5.72e-03 -1.93e-02 -4.03e-03   7.41e-03 -2.26e-03 -6.14e-03   4.23e-02
## 1665   1.85e-02   9.26e-03 -1.09e-02 -1.57e-02   2.22e-02 -3.71e-03   6.34e-02
## 1666  -7.67e-03 -4.47e-03   1.91e-02 -1.72e-02   1.83e-02 -1.07e-02 -1.00e-01
## 1667  -6.52e-04 -1.30e-03 -1.50e-03 -2.60e-03 -7.47e-04   3.48e-03   1.05e-02
## 1668  -7.00e-03 -1.96e-03 -5.87e-03 -8.93e-04 -1.84e-03   2.73e-03 -2.59e-02
## 1669   1.51e-02   4.21e-02   8.63e-03   2.80e-02   9.36e-03   1.78e-02 -9.89e-02
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## 1670  8.81e-05   4.97e-03   1.27e-03   2.91e-03  -1.18e-03   9.87e-04   1.07e-02
## 1671 -2.86e-02   6.84e-03   7.66e-03  -6.62e-03  -1.56e-02  -4.44e-03  -6.22e-02
## 1672  1.55e-02   7.12e-03  -1.38e-02   3.38e-03   2.57e-02  -1.59e-02   7.61e-02
## 1673  1.58e-04   1.10e-02   1.79e-03   3.32e-03  -3.44e-03   4.94e-03   2.05e-02
## 1674 -3.07e-03  -1.93e-03  -2.15e-03   2.75e-04  -1.72e-03   3.92e-03   1.78e-02
## 1675  3.55e-03   3.67e-03  -1.27e-02   1.31e-02  -1.13e-02   1.34e-02   6.69e-02
## 1676 -6.19e-04  -2.32e-03  -3.17e-03   3.65e-03  -1.21e-03  -3.08e-03   9.28e-03
## 1677  6.56e-05  -2.05e-04  -1.40e-03  -5.05e-05  -7.54e-04   3.83e-03  -8.16e-03
## 1678  4.22e-04  -4.77e-04   4.73e-04  -5.35e-04   7.07e-04  -1.82e-04  -2.20e-03
## 1679  2.43e-06   3.82e-04   8.81e-05  -2.04e-04  -6.01e-05   1.25e-04   7.51e-04
## 1680  2.70e-03  -9.59e-03   1.08e-02   1.22e-02  -1.21e-03   5.56e-04   4.06e-02
## 1681  1.80e-02  -1.86e-04  -8.44e-03   6.97e-03   1.73e-02   5.83e-03   6.51e-02
## 1682 -6.80e-03   2.80e-02   2.16e-02  -1.10e-02   2.06e-02   7.81e-03  -1.12e-01
## 1683 -9.27e-04   2.78e-03   3.23e-03   4.54e-03  -5.58e-03   3.70e-03   2.05e-02
## 1684  4.69e-06   1.91e-04   7.06e-05   1.87e-04   3.74e-05  -7.00e-05   4.80e-04
## 1685 -1.62e-02  -1.00e-02   1.50e-02   1.21e-02  -5.39e-03  -1.15e-02   6.85e-02
## 1686  1.03e-02  -1.17e-02  -2.27e-03  -2.72e-04  -2.53e-04   6.29e-03   2.83e-02
## 1687  1.31e-04  -9.98e-04  -1.62e-03   8.45e-04  -2.22e-03   4.75e-03  -1.08e-02
## 1688  6.93e-03   5.77e-03  -8.69e-03  -3.74e-03   6.22e-03   1.68e-03   3.74e-02
## 1689 -3.34e-04  -1.36e-03  -2.72e-03   2.94e-05   2.25e-04  -3.54e-03  -7.74e-03
## 1690 -2.00e-02  -6.99e-03   1.30e-02   2.64e-03   1.43e-02  -2.32e-02  -7.74e-02
## 1691  4.12e-03  -1.22e-03  -2.68e-03   2.73e-03  -2.40e-03  -7.84e-04   1.52e-02
## 1692  1.53e-02  -5.23e-03   4.54e-03  -1.33e-03  -1.10e-02   8.79e-03  -3.61e-02
## 1693 -9.75e-03  -2.51e-03  -5.61e-03   2.57e-04  -5.94e-04   1.52e-03  -2.41e-02
## 1694  2.36e-03   1.81e-03  -1.07e-03   1.40e-03   1.76e-03   1.62e-03   6.49e-03
## 1695 -5.75e-04  -1.01e-03  -4.38e-03   4.07e-03  -1.65e-03  -1.71e-03   1.03e-02
## 1696  3.22e-05  -1.37e-03  -7.54e-04   1.99e-03  -2.85e-04   9.55e-04  -4.70e-03
## 1697  6.35e-03   7.87e-03   1.07e-02   6.92e-04   1.02e-02  -2.95e-02  -9.66e-02
## 1698  1.19e-02   1.11e-02   6.15e-03   2.18e-02  -3.27e-03   1.86e-02  -6.83e-02
## 1699  6.46e-03  -3.23e-03  -9.89e-03   4.70e-04  -3.42e-03   4.77e-03   5.05e-02
## 1700  7.33e-03  -3.05e-04   3.53e-03  -1.36e-03  -8.98e-03   1.74e-02  -4.11e-02
## 1701  1.12e-02  -1.39e-02   1.38e-02   6.78e-03   3.09e-03   1.72e-03   4.12e-02
## 1702  5.30e-03   2.69e-03  -1.40e-03   1.95e-05   6.64e-04   2.54e-03   9.62e-03
## 1703  2.08e-02   7.06e-03   2.92e-02   1.63e-03   2.70e-02  -9.20e-03   8.31e-02
## 1704  2.63e-02   1.29e-02   1.47e-02  -1.34e-03   1.96e-02   2.03e-02  -8.11e-02
## 1705  1.28e-02   2.01e-02  -7.80e-03  -3.76e-03  -6.99e-03  -1.22e-03   4.70e-02
## 1706  2.07e-02  -3.36e-03  -1.25e-02   4.51e-03   2.09e-02  -2.19e-02   8.25e-02
## 1707  1.25e-05  -4.72e-05   2.22e-04  -9.42e-06   8.46e-07   3.12e-04  -6.85e-04
## 1708  3.77e-03   1.16e-02  -8.46e-03   4.21e-03  -4.61e-03   6.93e-04   3.71e-02
## 1709  1.05e-03  -5.73e-03   4.02e-03  -3.35e-03  -1.67e-03  -1.07e-03   1.40e-02
## 1710  1.55e-03   7.25e-04  -1.12e-03   3.71e-05   8.18e-04  -2.21e-06  -4.22e-03
## 1711 -3.34e-05  -1.26e-03  -6.28e-04  -2.02e-03  -6.15e-04   1.01e-03  -4.73e-03
## 1712 -3.05e-02   2.14e-04  -1.16e-02  -1.32e-02  -1.40e-02   6.89e-03   5.41e-02
## 1713  1.82e-04  -1.03e-04  -2.10e-03   1.21e-04  -3.07e-03   7.62e-03  -1.46e-02
## 1714 -6.05e-04   1.08e-03   1.82e-03  -5.81e-03  -3.06e-03   2.47e-03   9.77e-03
## 1715 -1.57e-02  -6.83e-03  -7.84e-03   4.98e-03   3.23e-02  -6.11e-02   1.08e-01
## 1716  2.83e-02   1.40e-02  -6.38e-03  -4.03e-02   1.55e-02  -2.11e-02   1.05e-01
## 1717 -1.41e-02  -1.99e-03   1.32e-02   1.37e-02  -2.39e-02   6.09e-03  -6.24e-02
## 1718 -6.88e-03   6.16e-04  -5.62e-03  -2.08e-03  -3.21e-03  -4.29e-03   3.95e-02
## 1719  2.34e-04   6.20e-03   8.48e-04   1.83e-03  -1.33e-03   3.58e-03   1.06e-02
```

```
## 1720 -2.24e-02  4.08e-03  4.40e-02  4.29e-03  3.02e-02 -3.50e-02  1.06e-01
## 1721 -2.23e-02  2.58e-03 -3.34e-03  8.07e-03  5.41e-03 -1.70e-02  8.70e-02
## 1722  2.82e-03 -7.63e-03  1.25e-02  3.79e-03 -4.47e-03  1.73e-03  3.95e-02
## 1723  8.47e-03 -1.13e-02 -6.05e-03  4.33e-03 -1.10e-02 -6.40e-03  4.39e-02
## 1724 -1.92e-04  2.89e-04  2.75e-04 -3.29e-04 -3.42e-05 -5.65e-05  1.11e-03
## 1725  3.44e-03 -6.16e-04  3.22e-03 -2.39e-03  1.90e-03  1.34e-03  1.04e-02
## 1726 -1.23e-02 -5.38e-03  1.18e-02  5.86e-04  2.00e-02 -2.95e-03 -6.68e-02
## 1727 -1.06e-02 -1.02e-02  6.41e-03 -6.42e-04 -1.32e-02 -5.20e-04 -4.11e-02
## 1728 -4.23e-03  1.36e-03  1.71e-02  7.31e-03  1.16e-03  9.48e-03  4.37e-02
## 1729 -2.55e-03 -4.60e-03  3.98e-03  3.09e-03 -1.08e-02  8.96e-03  2.09e-02
## 1730  2.00e-02 -4.60e-06  1.02e-02  4.16e-04  1.33e-02 -8.93e-03 -6.95e-02
## 1731 -3.16e-04 -1.24e-03 -3.49e-03  2.41e-03 -2.32e-04 -4.00e-03 -9.92e-03
## 1732  1.05e-02  2.03e-02 -1.82e-02 -1.46e-02  4.68e-02 -3.98e-02 -9.18e-02
## 1733  3.75e-03  2.34e-03 -1.26e-02  1.31e-02 -9.57e-03  1.16e-02  5.01e-02
## 1734  6.12e-03 -1.18e-03 -2.10e-03 -3.20e-03  1.34e-03  3.66e-03  1.59e-02
## 1735 -1.27e-02 -9.35e-03  9.11e-03 -9.83e-05 -2.02e-02  3.71e-04 -3.88e-02
## 1736 -1.56e-03 -7.42e-03 -4.22e-03 -5.16e-03 -3.60e-03 -1.93e-03  1.35e-02
## 1737 -2.85e-02 -5.84e-03 -9.45e-03 -2.26e-02 -1.96e-02 -7.96e-03  6.55e-02
## 1738 -1.76e-02 -6.37e-03  4.43e-03  2.25e-02 -1.60e-02  1.34e-02 -5.47e-02
## 1739  9.14e-05 -4.02e-04 -9.45e-04  1.16e-04 -4.87e-04  2.66e-03 -5.66e-03
## 1740 -4.74e-03  3.85e-03 -5.74e-03 -1.26e-02  4.74e-03 -4.09e-03  4.26e-02
## 1741  2.99e-05 -6.33e-04  1.54e-03  2.57e-04 -2.01e-04  1.16e-03 -3.52e-03
## 1742  1.14e-04  6.70e-04 -4.45e-04 -6.67e-04 -1.34e-04  1.08e-03  2.92e-03
## 1743  1.74e-02 -3.04e-03  5.15e-03  1.96e-02 -1.10e-02  7.52e-03 -4.99e-02
## 1744 -5.38e-06 -1.21e-03 -9.53e-04  5.38e-04 -6.76e-04  1.87e-03 -5.84e-03
## 1745 -5.05e-03 -1.96e-02 -1.59e-03  8.97e-03 -9.88e-03  4.26e-03  5.26e-02
## 1746 -3.23e-03  1.15e-02 -5.12e-03 -7.28e-03  9.45e-03  2.62e-03  3.14e-02
## 1747 -2.25e-02  4.52e-03  5.77e-03 -4.09e-03 -1.51e-02  1.50e-02 -5.88e-02
## 1748  1.67e-03  3.22e-03  3.67e-03 -2.65e-03  2.39e-04  1.71e-03  1.63e-02
## 1749  1.30e-03  8.59e-04 -5.23e-04 -5.36e-04  3.28e-04  7.29e-04  3.38e-03
## 1750 -2.02e-03 -5.86e-04 -1.20e-03 -2.73e-04 -1.78e-03  2.32e-04  6.80e-03
## 1751  2.09e-03 -4.41e-03 -8.53e-03  1.41e-03 -6.10e-03 -1.08e-03  3.55e-02
## 1752 -5.25e-03 -1.38e-03  7.86e-03 -7.11e-03 -5.32e-03 -4.61e-04  2.72e-02
## 1753  4.78e-03  5.25e-03 -2.52e-03 -3.26e-03  5.41e-03  1.90e-03  1.42e-02
## 1754  1.54e-04 -6.29e-04 -2.09e-03  3.53e-03 -2.33e-03  5.94e-03 -1.36e-02
## 1755 -1.94e-03 -6.63e-03  3.18e-03  3.79e-03 -5.53e-03  1.77e-03  1.43e-02
## 1756  2.65e-03 -5.13e-04  4.04e-03 -4.32e-03 -1.80e-04 -3.92e-04  1.63e-02
## 1757 -6.58e-05  6.45e-04 -1.12e-03 -1.97e-04 -2.61e-04 -9.10e-04  3.00e-03
## 1758  2.24e-02 -1.09e-02 -4.73e-03 -2.07e-02  5.41e-03 -3.77e-04  6.07e-02
## 1759  3.83e-03  5.30e-03 -1.29e-02 -8.37e-04 -1.03e-02  1.42e-02  4.36e-02
## 1760  3.63e-03 -1.42e-03 -2.46e-03 -5.43e-03 -2.70e-04  5.53e-04 -1.31e-02
## 1761 -1.98e-03 -1.24e-05 -3.58e-03 -7.97e-04 -3.14e-03  7.11e-03  2.75e-02
## 1762 -6.21e-04  1.54e-04 -5.81e-03  4.16e-03 -3.00e-03  7.71e-04  1.24e-02
## 1763  1.09e-04  6.24e-04 -4.38e-04  5.40e-05 -2.06e-04  1.08e-03  2.55e-03
## 1764 -3.41e-03 -1.24e-03  2.54e-03 -1.75e-04 -1.89e-04 -5.99e-04  1.03e-02
## 1765 -7.16e-03 -1.36e-02 -2.36e-03 -6.56e-03 -4.67e-03  8.26e-03  3.28e-02
## 1766  1.13e-02  1.79e-02  3.86e-03 -1.17e-02  7.17e-03  6.67e-03 -7.54e-02
## 1767  9.36e-03 -2.44e-03  2.45e-03 -2.18e-03 -7.28e-03  7.13e-03 -3.99e-02
## 1768 -2.05e-02 -4.45e-03 -2.21e-02  2.36e-04 -2.26e-02  8.21e-03 -5.12e-02
## 1769  1.90e-04 -3.51e-04  3.56e-03  2.35e-03 -1.03e-03  4.35e-03 -9.83e-03
```

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## 1770  1.28e-03 -3.78e-04 -1.32e-02  9.62e-03 -6.65e-03  5.68e-03  4.39e-02
## 1771  4.77e-04  6.22e-03 -3.02e-03  4.40e-03 -1.07e-03  6.64e-03  2.30e-02
## 1772 -1.43e-04  5.03e-04 -1.40e-03 -9.92e-04 -4.22e-04 -2.08e-03  5.35e-03
## 1773  3.21e-03 -9.44e-03 -7.62e-03 -5.03e-03 -8.03e-03  4.03e-04  3.81e-02
## 1774  1.71e-04  1.95e-04 -1.89e-03  9.68e-05 -1.47e-03  5.67e-03 -1.17e-02
## 1775  2.53e-02  5.27e-03 -1.10e-02  2.64e-03  2.95e-02 -3.47e-02  9.30e-02
## 1776  6.43e-03 -5.45e-03 -1.86e-02  6.44e-02  2.93e-02 -2.88e-02 -1.21e-01
## 1777 -2.68e-03  3.87e-03 -2.90e-03  9.51e-03 -7.35e-03  1.17e-02  4.19e-02
## 1778 -2.78e-02 -1.11e-02 -7.96e-03  5.82e-03 -1.75e-02 -3.71e-03  6.59e-02
## 1779 -1.36e-02 -7.67e-03  9.77e-03  1.76e-05 -2.45e-02  6.08e-04 -5.10e-02
## 1780  1.00e-02  2.30e-02 -1.88e-02 -1.63e-02  4.28e-02 -3.43e-02 -8.89e-02
## 1781  2.17e-03 -1.60e-03  3.17e-03 -6.00e-05  4.47e-03 -2.03e-03 -1.12e-02
## 1782 -3.08e-02  3.10e-02  1.47e-02  8.95e-03 -2.17e-02  7.97e-03 -1.07e-01
## 1783 -5.17e-03  8.72e-03 -5.60e-03 -1.67e-02 -3.93e-03  5.50e-03  5.84e-02
## 1784  2.73e-05 -4.31e-04  8.53e-04  6.72e-04 -1.31e-06  6.91e-04 -2.29e-03
## 1785  3.51e-03 -1.11e-02  9.12e-03  4.91e-03  5.26e-03 -6.97e-03  3.47e-02
## 1786  2.42e-02  1.32e-03 -2.64e-02  2.90e-02 -2.12e-02  2.58e-03 -6.62e-02
## 1787  2.03e-03  7.53e-04 -3.71e-03  5.30e-03 -4.05e-04 -1.78e-03  1.44e-02
## 1788  4.02e-03 -9.33e-03 -4.52e-03 -8.14e-03 -9.10e-03 -9.44e-04  2.89e-02
## 1789  2.51e-04  2.84e-04 -2.03e-03  3.05e-03 -1.42e-03  6.04e-03 -1.27e-02
## 1790  3.03e-03 -8.44e-04 -5.05e-03 -9.12e-03  3.38e-03 -6.39e-04 -1.83e-02
## 1791  1.80e-02  6.40e-03 -2.43e-02 -2.04e-02 -1.70e-02  1.16e-02 -6.81e-02
## 1792 -1.98e-02 -1.46e-02 -7.28e-03 -7.32e-03 -1.99e-02 -6.83e-03  6.03e-02
## 1793 -8.27e-07  6.45e-04  1.91e-04 -3.10e-04 -8.62e-05  7.87e-05  1.25e-03
## 1794 -7.12e-04 -6.68e-04  2.29e-03 -5.00e-03 -2.69e-03 -5.38e-04  1.05e-02
## 1795  1.27e-02  1.52e-03  4.94e-03 -3.16e-03 -8.80e-03  1.84e-02 -4.98e-02
## 1796  2.51e-03  4.68e-03 -1.20e-02 -2.59e-02 -1.35e-02  1.58e-02  4.84e-02
## 1797  1.70e-02 -2.76e-04 -1.07e-02  2.06e-02  2.45e-02  1.46e-03  5.31e-02
## 1798  5.87e-03  1.78e-02  3.61e-03  5.89e-03  4.83e-03  1.67e-03  3.53e-02
## 1799 -5.20e-03  6.87e-03 -5.01e-03  6.19e-03  1.84e-03 -4.07e-03  2.12e-02
## 1800 -1.11e-03 -6.35e-03  2.11e-03  3.35e-03 -1.96e-03 -1.03e-03  1.07e-02
## 1801 -4.33e-03 -3.47e-03 -4.33e-03 -4.71e-04 -4.17e-04  9.03e-04 -2.13e-02
## 1802 -1.53e-05  9.85e-04  3.98e-04 -4.89e-04 -2.25e-04 -1.28e-04  2.62e-03
## 1803 -1.76e-02 -4.41e-03 -2.13e-02 -8.95e-04 -2.89e-02  8.94e-03 -5.78e-02
## 1804 -1.39e-02  8.44e-04  7.92e-03 -6.74e-03 -1.64e-02  9.34e-03 -5.48e-02
## 1805  1.96e-02  3.76e-03  4.08e-03 -7.56e-03 -4.95e-03  6.24e-04 -5.49e-02
## 1806 -4.98e-04  2.71e-04  2.45e-04 -3.02e-05 -1.37e-04 -2.77e-04 -1.32e-03
## 1807  2.23e-02 -9.57e-04 -9.59e-03  2.73e-02  1.25e-02 -5.92e-03  8.15e-02
## 1808 -7.26e-03  2.69e-02 -9.22e-03 -2.91e-02  2.32e-02 -1.56e-02  8.28e-02
## 1809 -2.10e-02 -8.56e-03 -1.17e-02  6.29e-04 -1.41e-02 -1.78e-02  6.59e-02
## 1810  1.05e-04  3.74e-03  5.53e-04  1.33e-03 -6.96e-04  1.88e-03  6.56e-03
## 1811  1.95e-05 -1.45e-04 -2.07e-03  9.42e-06 -2.91e-03  6.85e-03 -1.37e-02
## 1812 -2.54e-03 -4.61e-03  4.02e-03  3.11e-03 -1.08e-02  8.98e-03  2.10e-02
## 1813 -1.10e-03  9.57e-03  1.01e-02 -5.38e-03  2.62e-04  9.30e-03  2.82e-02
## 1814  9.28e-03 -1.34e-02  1.29e-02 -9.02e-03  8.29e-03  6.63e-03  3.69e-02
## 1815 -3.11e-04 -1.21e-04 -1.80e-04  7.57e-06 -1.63e-04  1.10e-04 -7.95e-04
## 1816  4.09e-03  8.43e-04  1.33e-02  1.11e-02 -3.45e-03  1.06e-02  4.57e-02
## 1817  2.15e-02  6.90e-03 -2.87e-02 -7.72e-03 -1.17e-02  9.21e-04 -6.76e-02
## 1818 -2.76e-02  9.02e-03  5.72e-03  8.40e-03 -1.27e-02 -3.36e-03 -6.96e-02
## 1819 -1.55e-02 -6.62e-04  1.06e-02  1.28e-02 -2.09e-02  3.64e-03 -6.10e-02
```

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## 1820   2.38e-04   6.59e-04  -2.53e-03   4.39e-03  -4.29e-03   9.28e-03  -1.80e-02
## 1821   1.53e-03  -6.72e-03  -7.73e-03   4.64e-03  -9.97e-03  -1.04e-03   3.92e-02
## 1822  -1.16e-02  -1.45e-02  -2.94e-03   8.73e-03  -4.04e-04   9.72e-03   4.49e-02
## 1823  -1.18e-02  -1.65e-02  -6.32e-03  -1.24e-02  -5.23e-03  -2.12e-03   4.94e-02
## 1824  -7.67e-04  -1.40e-03   2.07e-03   1.03e-03  -1.54e-03  -2.44e-03   9.33e-03
## 1825   1.88e-02   1.00e-02  -1.18e-02   3.37e-03   2.45e-02  -5.26e-03   6.20e-02
## 1826  -2.74e-06  -9.76e-05  -2.63e-05  -7.24e-05  -1.19e-05  -2.40e-06  -2.39e-04
## 1827   5.08e-04  -8.21e-03  -8.28e-03   1.31e-02  -1.15e-02  -8.24e-03   4.93e-02
## 1828   2.54e-02   3.35e-02   8.47e-03  -1.63e-02   1.49e-02   1.03e-02  -1.14e-01
## 1829   8.25e-04  -4.70e-04   8.97e-03  -1.42e-03  -4.61e-03   5.34e-03   3.31e-02
## 1830  -4.69e-03  -8.94e-03  -2.51e-02   2.94e-03   1.52e-02  -2.16e-02  -8.22e-02
## 1831   3.94e-03   5.41e-03  -1.31e-02  -4.82e-04  -1.14e-02   1.47e-02   5.20e-02
## 1832   1.12e-02   1.28e-02   5.55e-03  -6.03e-03  -1.76e-02   1.50e-02  -6.37e-02
## 1833   1.19e-02   2.18e-02  -2.02e-02   6.67e-02   5.42e-02  -4.55e-02  -1.14e-01
## 1834  -1.83e-02  -1.26e-02  -2.88e-03   1.00e-02  -2.76e-03   8.56e-03   5.99e-02
## 1835  -4.87e-05   1.92e-02  -1.05e-02  -7.61e-03  -9.96e-03   9.32e-03   3.29e-02
## 1836  -3.98e-03  -2.22e-02  -4.49e-02   3.45e-02  -1.64e-02  -4.22e-02  -1.40e-01
## 1837  -4.10e-04  -1.61e-03   1.16e-03   1.02e-03  -4.32e-04  -2.33e-03   5.84e-03
## 1838  -1.00e-02  -1.35e-02  -5.89e-03   4.38e-03  -9.28e-03  -3.91e-03   3.48e-02
## 1839   1.50e-04   4.60e-04  -2.30e-03   1.67e-04  -3.95e-03   8.36e-03  -1.60e-02
## 1840  -1.74e-03   1.07e-03  -1.68e-03   2.70e-04   1.02e-03   7.03e-04  -7.19e-03
## 1841   3.64e-03  -1.78e-03  -3.48e-03  -3.54e-03   2.91e-03  -5.26e-03   2.10e-02
## 1842  -7.37e-04   1.06e-03   1.75e-03   2.77e-03  -2.50e-03   1.42e-03   9.06e-03
## 1843   6.19e-05  -1.32e-03  -1.36e-03   8.70e-04  -1.42e-03   3.09e-03  -8.64e-03
## 1844  -3.40e-04  -6.20e-04   9.81e-04   1.93e-03  -4.76e-04  -7.62e-04   4.78e-03
## 1845  -5.91e-03  -2.31e-03   2.01e-02  -6.91e-04   1.34e-02  -1.66e-02  -6.65e-02
## 1846   2.53e-03  -9.79e-03  -5.29e-03  -1.30e-03  -1.03e-02  -2.86e-03   3.34e-02
## 1847   3.02e-02  -5.88e-03   1.38e-02   1.17e-03   1.34e-02  -2.15e-02  -8.32e-02
## 1848  -6.42e-03  -5.62e-03  -2.55e-02   2.44e-02   9.11e-03  -2.33e-02  -7.51e-02
## 1849  -6.38e-03  -5.31e-03  -2.49e-02   2.74e-03   9.08e-03  -2.31e-02  -7.16e-02
## 1850   3.09e-02  -5.44e-03   1.25e-02   1.31e-03   2.17e-02  -4.44e-03  -8.91e-02
## 1851   1.77e-06   4.10e-04  -6.27e-04   5.45e-04   5.24e-05  -2.93e-04   1.39e-03
## 1852  -3.60e-03   2.46e-02   2.14e-02   1.16e-02   2.42e-02   3.74e-03  -1.20e-01
## 1853  -5.81e-03  -3.00e-03  -4.27e-03  -2.35e-04  -3.34e-03   1.96e-03  -2.38e-02
## 1854  -1.68e-02   4.59e-03   1.50e-02  -6.19e-03  -2.39e-02   2.87e-03  -7.44e-02
## 1855   2.92e-02   2.52e-02   9.12e-03  -1.52e-02  -1.59e-02  -6.12e-03  -9.86e-02
## 1856   1.38e-04   2.81e-04  -1.85e-03  -6.78e-03  -4.26e-03   8.31e-03  -1.60e-02
## 1857  -6.98e-03  -5.93e-03  -2.42e-02  -1.79e-02   5.67e-03  -2.05e-02  -7.22e-02
## 1858   1.18e-02  -1.67e-02  -4.69e-03   6.59e-03  -5.09e-03  -9.68e-03   4.97e-02
## 1859  -1.28e-03   5.80e-03   3.98e-03   4.82e-03  -9.13e-03   6.43e-03   2.77e-02
## 1860  -1.70e-02   1.02e-02   1.26e-02   1.42e-02  -3.67e-03   1.02e-04   5.34e-02
## 1861  -8.55e-03   1.36e-02  -3.21e-03   9.80e-03  -1.38e-03   6.56e-03   5.76e-02
## 1862  -1.26e-03  -3.01e-03  -2.29e-03  -4.55e-03  -6.46e-04   6.50e-03   1.97e-02
## 1863  -2.00e-02  -3.91e-03  -2.43e-02  -8.16e-04  -2.30e-02   1.64e-02  -6.17e-02
## 1864   2.59e-03   4.75e-03  -1.20e-02  -2.60e-02  -1.34e-02   1.58e-02   4.85e-02
## 1865   2.63e-04   2.65e-04  -1.84e-03   7.33e-05  -1.52e-03   6.00e-03  -1.17e-02
## 1866   3.93e-03   6.35e-03  -1.37e-02   1.18e-02  -9.26e-03   1.36e-02   4.59e-02
## 1867  -1.48e-02  -1.53e-02  -5.32e-03   7.79e-03   3.60e-03  -1.44e-03   4.50e-02
## 1868   1.23e-05  -1.61e-03  -7.77e-04   2.40e-03  -1.58e-04   5.02e-04  -5.27e-03
## 1869  -5.33e-03  -2.59e-03   3.89e-03  -3.62e-04   9.59e-04   1.21e-04  -1.60e-02
```

```
## 1870 -2.43e-03  3.27e-03  2.77e-03 -5.76e-04 -8.23e-04 -1.40e-03  1.03e-02
## 1871  2.45e-05  1.86e-04 -1.44e-04  1.21e-05 -7.42e-05  3.27e-04  8.00e-04
## 1872 -5.55e-03  1.06e-02 -4.78e-03 -3.92e-03  4.25e-03  1.23e-02  5.09e-02
## 1873  4.14e-03 -1.44e-03 -6.08e-03 -1.78e-05  6.42e-03 -1.73e-03 -2.01e-02
## 1874 -3.14e-03 -4.89e-03 -1.05e-02 -1.01e-02 -1.61e-02  1.10e-02  2.80e-02
## 1875 -1.27e-02 -9.37e-03  9.06e-03 -1.13e-04 -2.03e-02  4.42e-04 -3.88e-02
## 1876  1.46e-02 -5.45e-03  4.28e-03 -1.23e-03 -1.13e-02  9.17e-03 -3.50e-02
## 1877 -2.11e-02 -8.23e-03 -8.48e-03 -1.68e-02 -6.37e-03 -2.86e-03  5.25e-02
## 1878 -1.84e-02 -9.47e-03 -8.61e-03  1.12e-02 -5.45e-03 -3.89e-04  3.92e-02
## 1879 -3.14e-02  2.21e-02  6.15e-03  2.70e-02  1.66e-03  9.52e-03 -1.04e-01
## 1880  1.06e-03  2.89e-03  3.45e-03 -5.67e-03  3.24e-04 -3.61e-04  1.45e-02
## 1881 -1.35e-02 -8.73e-03 -5.79e-03 -3.69e-03 -4.62e-03 -4.91e-03  2.82e-02
## 1882 -5.17e-03 -2.45e-03  6.76e-03  4.41e-03 -2.03e-03  1.62e-03 -2.18e-02
## 1883 -1.53e-02  2.08e-04 -2.55e-02 -3.85e-03 -2.15e-02 -2.69e-05 -5.35e-02
## 1884  3.70e-03  5.85e-03  6.38e-03 -9.50e-03 -5.15e-04  4.26e-04  2.62e-02
## 1885  6.92e-03  1.29e-03 -1.15e-02  1.34e-02 -3.03e-03  8.14e-03  5.68e-02
## 1886  9.49e-03  1.97e-02  3.79e-02  8.99e-03  5.14e-02 -4.01e-02 -1.02e-01
## 1887 -5.17e-03 -8.94e-03 -2.46e-02 -1.68e-02  1.33e-02 -2.04e-02 -8.29e-02
## 1888 -2.71e-02  6.83e-03 -8.72e-03 -1.95e-02 -2.44e-02  2.81e-03  9.86e-02
## 1889 -2.78e-02 -7.38e-03 -1.03e-02  2.42e-03 -1.24e-02 -9.04e-03  5.74e-02
## 1890 -1.49e-02 -1.77e-02 -6.74e-03  7.78e-03 -6.55e-03 -3.90e-03  6.18e-02
## 1891  2.58e-03 -1.81e-03  2.43e-03  2.71e-03  3.07e-03 -1.54e-03 -1.28e-02
## 1892  1.00e-03 -5.23e-03  2.97e-03  1.46e-03 -1.77e-03 -2.80e-03  1.22e-02
## 1893 -3.64e-03  1.14e-02  1.66e-02  3.60e-02  2.66e-02 -4.40e-03 -1.10e-01
## 1894  1.90e-02 -4.92e-03 -2.11e-02 -1.11e-03 -1.61e-02  6.06e-03 -5.27e-02
## 1895 -2.32e-02 -3.53e-03 -8.81e-03 -1.16e-02  1.71e-02 -1.74e-02  7.37e-02
## 1896  1.92e-04  6.34e-03  7.71e-04  1.63e-03 -1.49e-03  3.83e-03  1.08e-02
## 1897 -6.39e-04  2.36e-03  2.23e-03 -7.39e-04 -3.95e-03  4.02e-03  1.12e-02
## 1898  2.86e-03 -1.20e-03  3.91e-03 -3.23e-04  5.46e-03 -1.65e-03 -1.36e-02
## 1899 -2.10e-02  9.29e-03 -8.21e-03  2.28e-03  3.22e-02 -2.87e-02  8.41e-02
## 1900  2.97e-02  4.05e-02  8.57e-03 -1.90e-02 -5.10e-03 -4.33e-03 -1.11e-01
## 1901 -1.28e-03 -1.33e-03 -6.73e-03  6.78e-03 -4.43e-03 -3.78e-03  1.82e-02
## 1902  3.71e-03  9.80e-04  5.21e-03 -2.00e-03  4.42e-03 -2.37e-03  2.08e-02
## 1903 -2.08e-02 -9.67e-03 -9.26e-03  1.55e-03 -1.19e-02 -1.77e-02  5.44e-02
## 1904  1.76e-04 -5.78e-04 -1.95e-03  4.41e-04 -2.70e-03  6.41e-03 -1.31e-02
## 1905 -5.16e-04  2.47e-03  1.84e-03  2.59e-03 -3.51e-03  4.69e-03  1.31e-02
## 1906  6.95e-03  2.65e-03 -1.21e-02 -5.55e-04 -6.08e-03  1.53e-02  6.19e-02
## 1907 -7.40e-03 -1.84e-03 -3.78e-03 -1.24e-04 -2.01e-03 -4.35e-03 -1.28e-02
## 1908 -3.46e-04 -9.14e-04 -1.98e-03 -2.05e-03 -7.90e-04 -8.80e-04  4.90e-03
## 1909  1.73e-02  9.39e-04 -3.45e-03  7.21e-03  1.66e-03  7.58e-03  3.36e-02
## 1910  1.16e-02 -5.67e-03  1.87e-02  3.70e-04 -9.46e-03 -4.81e-03  6.18e-02
## 1911  3.28e-03 -7.10e-03 -7.43e-03 -5.59e-03 -4.13e-03  2.56e-03  3.07e-02
## 1912 -2.62e-02  2.08e-02  1.01e-02  2.73e-02 -6.29e-03 -5.16e-03 -8.95e-02
## 1913  2.54e-03 -1.43e-03 -4.21e-03 -3.36e-04  5.01e-03 -1.09e-03 -1.41e-02
## 1914  1.26e-03 -5.87e-03  4.56e-03  1.09e-03 -3.68e-04 -8.53e-04  1.71e-02
## 1915 -1.05e-02 -1.15e-03 -2.29e-02 -1.86e-02  6.62e-03 -9.16e-03 -8.31e-02
## 1916 -2.45e-03 -7.88e-03 -7.27e-03 -1.06e-02 -9.80e-03  2.66e-03  2.29e-02
## 1917  6.75e-04 -6.40e-04  8.87e-04 -7.24e-05  1.28e-03 -4.58e-04 -4.14e-03
## 1918  9.82e-03 -1.00e-02  1.58e-02  3.30e-03 -6.90e-03 -1.71e-04  5.04e-02
## 1919  1.90e-05 -1.56e-03 -6.13e-04  2.15e-03 -1.27e-05  1.64e-04 -4.46e-03
```

```
## 1920   2.89e-02 -5.65e-03   3.44e-02 -2.90e-02   1.31e-02   1.00e-03   9.00e-02
## 1921   2.49e-03   1.43e-03 -1.31e-03 -1.34e-03 -5.89e-04   3.76e-04   6.50e-03
## 1922   8.39e-03   2.92e-02   6.48e-03 -1.36e-02   2.28e-03 -9.35e-03 -7.63e-02
## 1923   6.00e-03   4.02e-02   6.18e-03   2.69e-02   3.38e-03 -1.06e-02 -9.35e-02
## 1924   1.24e-02   5.59e-02   4.07e-02 -3.32e-02   3.56e-02   3.38e-03 -1.11e-01
## 1925 -3.13e-02   7.92e-03 -1.26e-02   1.63e-03   3.33e-02 -1.37e-02   8.61e-02
## 1926 -3.16e-03 -4.90e-03 -1.10e-02 -2.89e-03 -1.60e-02   1.09e-02   2.70e-02
## 1927 -9.94e-04 -7.91e-04 -2.89e-03 -9.66e-03 -8.31e-04   3.95e-03   3.23e-02
## 1928 -2.47e-03 -4.67e-03   4.28e-03   3.28e-03 -1.07e-02   9.11e-03   2.15e-02
## 1929 -1.02e-03   2.41e-03 -7.47e-03   4.46e-03 -5.47e-03   2.61e-03   1.53e-02
## 1930 -1.12e-02 -5.42e-03   1.26e-02 -1.91e-03 -2.43e-02   1.77e-02 -6.75e-02
## 1931 -4.09e-04 -1.12e-03 -1.99e-03 -2.00e-03 -7.99e-04 -1.49e-03   5.52e-03
## 1932 -3.56e-04   2.37e-04   7.69e-04   8.08e-04   1.85e-04   2.41e-04 -3.00e-03
## 1933   1.20e-04   3.71e-03   5.95e-04   1.44e-03 -6.80e-04   1.84e-03   6.61e-03
## 1934 -2.36e-03 -4.85e-03   4.67e-03   3.71e-03 -1.09e-02   9.56e-03   2.25e-02
## 1935 -2.89e-03 -5.30e-03 -1.13e-02   4.08e-03 -1.39e-02   1.10e-02   3.04e-02
## 1936 -2.44e-03   3.03e-03 -3.23e-03 -2.81e-03   9.77e-04   1.43e-03 -1.31e-02
## 1937 -2.90e-02   6.77e-04   1.66e-02   1.17e-02 -6.67e-03   5.50e-03   5.36e-02
## 1938   5.72e-05 -1.34e-03 -6.64e-04   7.00e-04 -2.36e-04   8.93e-04 -4.08e-03
## 1939   2.76e-03   6.72e-03 -1.32e-02 -1.53e-02 -1.76e-02   1.25e-02   5.68e-02
## 1940 -1.42e-02   7.17e-04 -2.42e-02 -1.79e-02 -2.91e-03 -3.28e-02 -1.03e-01
## 1941   7.80e-05   4.56e-04 -2.55e-03   4.29e-03 -3.83e-03   8.13e-03 -1.72e-02
## 1942   2.24e-02 -1.74e-02 -4.46e-03 -2.33e-03   5.93e-04   1.04e-02   4.93e-02
## 1943   4.71e-03 -1.25e-03 -1.61e-03 -2.46e-03   1.03e-03   2.95e-03   1.27e-02
## 1944   1.90e-02 -4.49e-03 -2.10e-02 -6.48e-04 -2.36e-02   8.33e-03 -4.98e-02
## 1945 -3.06e-05   6.05e-04   1.04e-03 -7.54e-04   5.23e-04   1.10e-03   3.44e-03
## 1946 -4.36e-02   3.57e-02   4.50e-03   2.53e-02   3.75e-03 -2.70e-02 -1.11e-01
## 1947   4.64e-03 -4.71e-03   1.08e-02 -7.94e-03 -4.31e-03   3.13e-03   4.06e-02
## 1948 -1.92e-02 -1.62e-02 -8.32e-03 -2.43e-02   1.31e-02 -1.54e-02   8.12e-02
## 1949 -1.21e-02 -7.67e-03   1.01e-02 -2.97e-04 -2.44e-02   9.12e-03 -6.11e-02
## 1950 -1.02e-02 -8.43e-03   6.59e-03 -8.82e-04 -1.45e-02   4.22e-03 -3.59e-02
## 1951 -8.91e-03 -1.86e-02 -2.83e-03 -1.75e-02 -7.13e-04   1.13e-02   5.84e-02
## 1952   4.62e-03   2.77e-03 -1.30e-03 -1.73e-03   4.38e-04   3.01e-03   9.23e-03
## 1953   9.16e-04 -8.08e-03   5.74e-03   3.22e-03 -2.58e-03 -1.15e-03   2.20e-02
## 1954   1.66e-02 -4.84e-03 -8.16e-03 -2.40e-02   1.04e-02 -9.37e-03   6.57e-02
## 1955   5.40e-03 -4.48e-03   1.05e-02 -4.50e-04 -1.59e-04   6.01e-03   4.65e-02
## 1956   1.18e-02 -1.43e-02   1.48e-02 -3.84e-03   1.08e-02 -7.13e-03   4.66e-02
## 1957   1.40e-03   2.40e-03 -4.72e-03 -6.06e-03 -2.77e-03 -1.59e-03   2.00e-02
## 1958 -7.68e-03   1.52e-02 -1.02e-02 -8.61e-03   1.68e-02 -1.39e-02   6.39e-02
## 1959   1.63e-02   4.19e-03   2.52e-02 -3.13e-02   2.87e-02   2.11e-03   6.12e-02
## 1960   6.29e-05 -5.61e-05 -1.75e-04   3.01e-04   3.23e-05 -1.29e-04   7.62e-04
## 1961 -3.57e-03   1.82e-02   2.68e-02   4.35e-02   1.95e-02 -8.76e-03 -1.03e-01
## 1962   1.00e-03 -4.10e-03   1.60e-02 -7.51e-03 -1.12e-02 -2.19e-04   5.03e-02
## 1963   6.06e-02   4.23e-02   3.48e-02 -1.42e-03   4.95e-02   1.08e-02 -1.54e-01
## 1964 -2.23e-03   3.61e-03 -4.71e-03   1.76e-02   5.69e-03   3.46e-03   4.30e-02
## 1965 -1.75e-03   3.02e-03   3.10e-03   2.39e-03   1.69e-03 -1.80e-03   1.45e-02
## 1966 -1.97e-02 -4.33e-03   5.59e-03 -2.25e-03 -1.64e-02   5.77e-03 -4.80e-02
## 1967 -9.92e-04   1.94e-03 -6.44e-03 -4.20e-03 -5.85e-03   3.21e-03   1.38e-02
## 1968 -2.38e-02 -9.01e-03   2.90e-02   6.80e-03   2.39e-02 -6.22e-03   7.25e-02
## 1969   2.31e-03 -8.69e-04   4.28e-03 -3.88e-03   2.13e-03 -1.21e-03 -1.60e-02
```

```
## 1970 -1.27e-02 -4.91e-03  7.55e-03 -3.28e-03 -1.50e-02  2.46e-03 -4.64e-02
## 1971  4.34e-05  3.44e-03  6.83e-04  1.55e-03 -4.25e-04  8.74e-04  5.78e-03
## 1972  6.95e-03 -3.91e-03  1.24e-03 -8.23e-04 -3.24e-03  9.21e-03 -2.60e-02
## 1973  2.80e-02 -3.14e-03 -3.48e-03  8.70e-03  4.34e-03 -5.46e-03  7.48e-02
## 1974 -2.28e-03 -1.45e-03 -1.46e-03 -2.43e-03 -3.91e-04  5.99e-04 -6.72e-03
## 1975  3.83e-06 -1.70e-04  2.55e-04  2.27e-04  2.38e-05  8.41e-05 -5.91e-04
## 1976 -3.01e-02  1.41e-03 -9.67e-03  6.00e-03  1.78e-02 -3.33e-02  9.22e-02
## 1977  8.00e-03  5.11e-02  6.79e-03  2.65e-03  1.60e-02 -1.71e-02 -1.01e-01
## 1978 -1.83e-03 -6.24e-03  2.85e-03  3.19e-03 -5.31e-03  3.19e-03  1.61e-02
## 1979 -1.01e-02  1.68e-03  9.65e-03  1.09e-02 -3.41e-03 -6.25e-03  3.77e-02
## 1980  2.18e-02  9.62e-04  5.26e-03  2.20e-02 -1.20e-02  1.25e-02 -6.32e-02
## 1981 -1.19e-02  5.87e-03 -2.67e-02 -2.28e-02 -1.89e-03 -1.68e-02 -1.09e-01
## 1982 -1.55e-03  2.75e-03 -1.45e-03 -1.99e-03  1.45e-03  2.94e-03  1.06e-02
## 1983 -3.20e-02  1.36e-02  8.95e-03  2.85e-02 -1.35e-02  1.08e-02 -8.62e-02
## 1984  9.40e-03 -3.80e-03  1.02e-02 -2.06e-02  1.58e-02 -1.51e-02 -9.64e-02
## 1985  7.94e-03  8.66e-03 -5.47e-03 -2.00e-03  3.69e-03 -2.82e-04  2.48e-02
## 1986 -1.64e-02 -3.07e-03  2.74e-03 -3.40e-03 -5.60e-03  4.28e-03 -4.18e-02
## 1987 -6.32e-03 -7.35e-04  7.50e-03 -1.88e-03 -6.19e-03 -1.06e-03  2.36e-02
## 1988  2.56e-02 -4.12e-04 -7.57e-03  4.91e-03  1.89e-02 -1.41e-02  6.73e-02
## 1989 -6.29e-03 -4.89e-03  2.07e-02  1.06e-03  1.34e-02 -2.27e-02 -7.70e-02
## 1990 -6.06e-04  7.13e-04  1.69e-03  2.73e-03 -2.06e-03  1.07e-03  8.36e-03
## 1991 -1.06e-02 -1.02e-02  6.31e-03 -6.67e-04 -1.35e-02 -3.70e-04 -4.09e-02
## 1992  7.55e-03 -1.37e-03 -4.30e-03 -1.09e-02 -1.77e-03  9.29e-04 -2.67e-02
## 1993  1.28e-03  4.92e-03 -2.65e-03 -4.32e-03  1.83e-03  6.38e-03  1.99e-02
## 1994  2.06e-02 -4.49e-04 -2.47e-02  1.78e-03  1.04e-02 -1.20e-02 -8.43e-02
## 1995 -1.55e-02  2.10e-04  8.43e-03 -5.50e-03 -1.67e-02 -5.72e-04 -4.70e-02
## 1996  2.09e-02  3.27e-03  2.88e-02 -1.46e-02  2.57e-02 -6.77e-03  8.03e-02
## 1997 -2.30e-03 -5.48e-03  4.27e-03  3.79e-03 -9.74e-03  7.66e-03  2.01e-02
## 1998  1.47e-03  1.01e-03  8.98e-04 -2.09e-04  1.07e-03 -5.29e-04  4.55e-03
## 1999 -3.55e-03 -5.01e-02  1.57e-02 -2.02e-02 -2.29e-02 -2.96e-02 -1.16e-01
## 2000 -2.58e-02  5.27e-03  6.51e-03 -1.98e-02 -1.04e-02  8.82e-03 -5.76e-02
## 2001  9.70e-03 -8.80e-03 -3.97e-02 -3.77e-02 -1.91e-02 -1.16e-02 -1.00e-01
## 2002 -3.13e-03 -1.77e-03 -2.50e-02  1.14e-03  1.82e-02 -1.54e-02 -7.80e-02
## 2003  1.76e-02 -6.13e-03  6.44e-03 -6.50e-04 -1.61e-02  6.84e-03 -4.07e-02
## 2004 -1.73e-02  3.03e-03  9.65e-03 -1.70e-02 -2.39e-02  1.94e-02 -7.34e-02
## 2005 -8.22e-03 -2.15e-03  5.69e-03  4.66e-03  5.65e-03 -1.79e-03 -2.11e-02
## 2006 -1.13e-02 -7.21e-03  6.53e-03  2.26e-02 -1.39e-02  2.46e-03 -4.48e-02
## 2007 -2.76e-03 -6.72e-03  3.16e-03  1.67e-03 -3.30e-03 -5.20e-04  1.15e-02
## 2008 -3.88e-02  3.21e-02  1.12e-02 -1.71e-02 -1.12e-04  8.30e-03 -1.01e-01
## 2009 -2.44e-04 -3.61e-04  6.80e-04 -9.34e-04 -5.13e-04  2.93e-05  3.70e-03
## 2010  2.99e-03 -7.02e-03  7.26e-03 -1.12e-02 -1.36e-03 -3.69e-03  3.12e-02
## 2011  3.03e-03 -8.27e-03  1.16e-02  1.26e-02 -2.91e-03  2.89e-03  4.03e-02
## 2012  1.80e-02 -1.62e-03 -2.15e-02 -2.70e-03 -1.87e-02  9.34e-03 -4.89e-02
## 2013 -1.22e-06 -5.88e-04 -2.34e-04  7.01e-04  1.92e-05  1.10e-04 -1.63e-03
## 2014 -5.77e-03 -8.76e-03  1.93e-02 -1.74e-02  1.37e-02 -2.01e-02 -6.61e-02
## 2015  3.55e-03  6.65e-03 -4.80e-02 -2.40e-02  3.74e-03 -3.81e-02 -1.15e-01
## 2016 -5.88e-03 -1.47e-04 -3.72e-03  7.32e-03 -3.64e-03 -1.48e-03  2.08e-02
## 2017 -8.99e-05 -9.69e-04 -1.54e-03 -2.21e-03 -1.15e-03 -1.10e-03 -5.56e-03
## 2018 -2.78e-02  1.18e-03 -8.27e-03  5.49e-03  2.34e-02 -1.51e-02  7.20e-02
## 2019 -8.51e-03 -8.22e-03  4.12e-03 -2.79e-03 -9.75e-03  9.72e-03 -4.64e-02
```

```
## 2020 -7.58e-03  2.67e-02  2.83e-02  3.96e-03  3.30e-02 -1.97e-02  7.67e-02
## 2021 -1.66e-04 -5.33e-04  4.62e-04  6.45e-04  2.38e-04 -1.48e-03 -2.85e-03
## 2022 -1.25e-03 -2.05e-03  9.80e-03 -5.19e-03 -1.71e-03  8.15e-03  2.58e-02
## 2023 -4.99e-04  4.36e-04  1.88e-03  3.26e-03 -1.96e-03  7.06e-04  1.03e-02
## 2024  1.29e-04  5.14e-03  9.16e-04  1.91e-03 -1.03e-03  2.18e-03  8.27e-03
## 2025  3.10e-02  2.17e-03  1.96e-02  1.54e-03 -2.00e-02 -2.88e-02 -1.41e-01
## 2026 -3.69e-04 -2.07e-03  1.12e-02 -1.98e-02 -5.82e-03 -2.72e-03  5.13e-02
## 2027  8.22e-03  4.74e-04  1.36e-02  1.03e-02  2.11e-05  2.02e-02  5.73e-02
## 2028  1.24e-02  4.15e-03 -2.58e-02 -3.39e-03 -1.69e-02  8.19e-03 -5.95e-02
## 2029  1.02e-02  1.38e-02  3.68e-02 -1.41e-02  5.18e-02 -3.67e-02 -9.10e-02
## 2030  9.00e-04  1.62e-04 -2.02e-03 -2.20e-03 -5.64e-04 -5.49e-04  7.26e-03
## 2031 -1.14e-02 -8.18e-03 -4.59e-03  2.77e-03 -4.19e-03 -2.22e-03  2.54e-02
## 2032  1.86e-02  1.53e-02  3.57e-02  1.82e-03  2.61e-02 -7.48e-03  9.21e-02
## 2033  2.07e-02  2.00e-02 -1.22e-02  2.28e-02  2.85e-02 -1.36e-03  8.09e-02
## 2034  1.11e-02  8.95e-03  5.55e-03 -6.17e-03 -1.44e-02  2.73e-03 -5.82e-02
## 2035 -1.40e-02 -1.24e-04  8.30e-03 -5.84e-03 -1.57e-02  7.41e-03 -5.50e-02
## 2036  3.58e-03 -1.58e-03 -5.98e-03  4.63e-03  6.18e-03 -2.22e-03 -1.88e-02
## 2037  1.38e-04  7.33e-03  1.03e-03  1.90e-03 -1.89e-03  3.91e-03  1.13e-02
## 2038  2.90e-03 -9.37e-03  1.07e-02 -1.13e-02 -9.25e-03 -3.93e-03  4.07e-02
## 2039  1.66e-02  3.07e-03  2.75e-02  3.07e-03  2.57e-02  9.95e-04  6.52e-02
## 2040 -7.90e-04  3.54e-03  2.24e-03  2.79e-03 -4.74e-03  5.23e-03  1.37e-02
## 2041  7.05e-04  4.18e-03 -1.61e-03 -3.23e-03 -4.23e-04  5.30e-03  1.41e-02
## 2042  8.10e-03  2.60e-03  1.36e-02  9.06e-03 -1.14e-03  2.35e-02  6.06e-02
## 2043 -2.35e-02 -5.63e-03 -1.32e-02  9.24e-04 -1.31e-02 -1.93e-02  7.01e-02
## 2044  8.14e-03  3.31e-03  2.77e-03  2.02e-02 -4.74e-03  8.31e-03 -5.41e-02
## 2045  9.78e-03 -1.27e-02 -2.87e-03 -6.39e-03  1.89e-04  5.93e-03  3.31e-02
## 2046 -2.72e-03 -1.30e-03  2.50e-03  1.59e-03 -2.34e-03  2.81e-03 -1.09e-02
## 2047  6.64e-05  2.97e-05 -1.74e-03 -6.24e-03 -3.69e-03  7.14e-03 -1.44e-02
## 2048 -4.64e-03 -2.21e-02 -3.74e-03  8.99e-03 -2.76e-03  2.03e-03  5.03e-02
## 2049 -2.68e-02  2.50e-02  1.12e-02  2.76e-02 -3.24e-03 -6.12e-03 -9.59e-02
## 2050 -3.73e-03 -7.51e-03  1.62e-02  1.01e-04  2.04e-02 -1.45e-02 -6.65e-02
## 2051 -5.48e-03 -1.99e-02 -4.75e-03 -3.38e-03 -3.78e-03 -6.33e-04  4.34e-02
## 2052  1.02e-02 -1.09e-02  1.66e-02 -1.21e-02  9.08e-03  3.65e-03  4.13e-02
## 2053  3.55e-02  2.87e-02  1.59e-02 -8.92e-03  3.09e-02  2.10e-02 -1.06e-01
## 2054  5.00e-03 -1.17e-03 -6.64e-03  5.56e-03  7.92e-03 -1.62e-03 -2.29e-02
## 2055  2.39e-02 -1.46e-02 -6.23e-03  8.07e-03  4.07e-03 -6.29e-03  5.80e-02
## 2056  3.67e-03 -8.57e-04 -5.70e-03 -5.14e-03  4.65e-03 -1.30e-03 -1.88e-02
## 2057 -1.05e-02  1.01e-02 -2.43e-02  3.33e-05  9.98e-03 -1.18e-02 -9.85e-02
## 2058 -2.04e-05  1.76e-04 -4.64e-04 -2.49e-05 -2.84e-05 -5.33e-04  1.36e-03
## 2059 -1.91e-03 -1.11e-03 -1.49e-03 -2.05e-03 -1.35e-03  3.09e-04  7.30e-03
## 2060 -1.78e-04 -2.66e-04  4.93e-04 -1.42e-03 -5.36e-04  1.65e-04  2.64e-03
## 2061  2.65e-02 -1.04e-02  2.80e-02  7.22e-03  1.58e-02  1.95e-03  6.22e-02
## 2062 -1.73e-05  1.30e-04 -4.51e-04  5.33e-04  5.85e-05 -5.32e-04  1.28e-03
## 2063 -2.43e-03  1.19e-03 -2.09e-03 -9.34e-03 -9.40e-03  1.32e-02  3.61e-02
## 2064  1.31e-02 -1.36e-02  1.28e-02  1.24e-02  6.18e-03 -2.90e-03  3.95e-02
## 2065  1.18e-02 -1.75e-03  5.57e-03 -1.38e-03 -1.53e-02  1.97e-02 -4.96e-02
## 2066 -2.86e-03  4.32e-02  2.42e-02  7.18e-03  2.92e-02  1.15e-02 -1.22e-01
## 2067  2.90e-03  1.45e-03  1.86e-03 -2.35e-05  1.41e-03  1.54e-03  5.98e-03
## 2068  6.65e-05  1.58e-04 -1.51e-04  4.11e-04  9.83e-05  7.59e-05 -9.04e-04
## 2069 -2.13e-03 -6.40e-03  3.62e-03  3.84e-03 -6.96e-03  3.61e-03  1.62e-02
```

```
## 2070  1.55e-02  3.05e-02  5.24e-03  7.32e-03 -2.29e-03  5.91e-03 -1.07e-01
## 2071 -5.87e-03 -1.92e-02 -1.95e-03  1.14e-02 -9.51e-03  1.25e-02  6.31e-02
## 2072 -1.49e-02  7.31e-03  9.11e-03 -6.38e-03 -3.18e-04  5.21e-04  3.44e-02
## 2073 -1.49e-02 -7.83e-03 -2.19e-02 -8.35e-05 -2.92e-02  1.19e-03 -4.75e-02
## 2074  2.23e-03  8.83e-03 -8.87e-03  8.36e-03  5.10e-04 -1.37e-03  3.05e-02
## 2075 -3.54e-03 -1.27e-02 -2.03e-03  5.22e-03 -4.55e-03  1.02e-02  3.01e-02
## 2076 -7.44e-04  8.62e-04 -6.46e-04  8.24e-05 -1.48e-03  2.93e-04  3.72e-03
## 2077  1.86e-02 -7.52e-03 -1.04e-02 -8.42e-03  1.97e-02 -8.84e-04  6.01e-02
## 2078 -2.70e-03 -9.27e-03  4.22e-03  5.10e-03 -7.48e-03  4.91e-04  2.35e-02
## 2079  9.81e-03  1.40e-02  3.62e-02 -1.49e-02  5.19e-02 -3.72e-02 -9.07e-02
## 2080 -1.53e-02 -4.93e-03 -2.38e-02  3.32e-02 -3.01e-02 -2.23e-03 -7.11e-02
## 2081  1.09e-02  5.44e-03  1.67e-03 -7.07e-03  1.62e-03  1.92e-03 -4.76e-02
## 2082 -2.81e-02  5.61e-03 -2.74e-02 -3.36e-03 -2.89e-02  3.09e-03 -6.98e-02
## 2083 -7.38e-03 -3.11e-03  2.30e-02  1.57e-03  1.40e-02 -1.55e-02 -1.02e-01
## 2084  5.43e-03  4.39e-03  8.09e-03  3.92e-03 -2.49e-04 -1.81e-04  3.04e-02
## 2085  1.43e-03  1.59e-03  1.13e-03 -2.20e-04  1.54e-03 -1.08e-03  5.82e-03
## 2086  4.52e-03 -1.30e-02 -5.79e-03 -1.77e-03  2.90e-03 -3.45e-03  3.44e-02
## 2087  3.04e-05 -1.49e-03 -1.04e-03  9.32e-04 -1.02e-03  1.86e-03 -7.56e-03
## 2088  8.08e-03 -2.07e-03 -5.94e-03 -5.63e-04  4.00e-03 -6.60e-04 -2.41e-02
## 2089 -3.02e-03 -7.75e-03  4.69e-03 -7.53e-03 -1.10e-02  5.01e-03  2.66e-02
## 2090 -1.95e-03 -6.79e-03  3.50e-03  4.07e-03 -6.20e-03  2.64e-03  1.54e-02
## 2091 -1.74e-02 -6.49e-03  5.79e-03 -2.62e-04 -1.56e-02  7.07e-03 -4.00e-02
## 2092  1.11e-02  2.11e-02 -1.89e-02  1.17e-02  5.02e-02 -4.23e-02 -9.27e-02
## 2093 -1.61e-02 -2.12e-03 -9.40e-03  4.23e-03  2.09e-02 -2.99e-02  7.98e-02
## 2094 -3.37e-02  2.97e-03  3.09e-02  2.22e-02  3.56e-02 -3.29e-02  9.95e-02
## 2095  1.42e-02 -1.39e-02 -6.22e-03 -3.60e-03  9.75e-03  1.57e-03  5.17e-02
## 2096 -3.13e-04 -2.31e-03  1.12e-02 -6.60e-03 -4.40e-04  1.08e-02  2.86e-02
## 2097  2.10e-02 -5.42e-03  1.82e-02 -1.64e-02 -1.85e-02  9.54e-03 -1.03e-01
## 2098  2.02e-02 -4.49e-03 -1.11e-02 -1.14e-02  1.95e-02 -6.87e-03  7.63e-02
## 2099  1.92e-02  1.05e-02 -1.06e-02  3.86e-03  2.10e-02  3.60e-03  7.42e-02
## 2100  1.64e-02 -3.33e-03  4.48e-03  7.56e-03 -1.03e-02  7.96e-03 -4.37e-02
## 2101 -1.26e-02 -6.43e-03 -2.09e-02 -1.17e-03 -2.15e-02  4.08e-03 -4.58e-02
## 2102 -1.63e-03 -4.17e-04  8.81e-04 -2.04e-04  1.15e-04 -1.29e-04  3.86e-03
## 2103 -2.05e-02 -1.16e-02 -7.05e-03  9.01e-03  4.18e-03 -9.99e-03  6.50e-02
## 2104  1.76e-03 -7.26e-03  6.64e-03 -6.98e-03 -9.57e-04  1.74e-03  2.24e-02
## 2105 -1.13e-05  2.42e-03  9.29e-04 -2.53e-03 -7.85e-04  1.03e-04  5.89e-03
## 2106 -2.35e-03 -5.07e-03  4.34e-03 -2.36e-03 -1.05e-02  8.61e-03  2.01e-02
## 2107  2.38e-05  4.18e-04  1.08e-04  2.98e-04  3.39e-05  4.74e-05  8.86e-04
## 2108  1.72e-03  6.69e-04  3.43e-03  1.72e-03  1.24e-04 -9.52e-04  1.38e-02
## 2109 -1.01e-02  5.78e-03 -6.38e-03 -2.76e-03  6.03e-03  3.07e-03  4.35e-02
## 2110  9.32e-04 -5.08e-03 -3.20e-03  4.71e-03 -1.31e-03 -1.56e-03  1.38e-02
## 2111  3.20e-04  1.14e-03 -6.65e-04  1.06e-03 -1.69e-04  2.09e-03  4.54e-03
## 2112 -7.59e-03 -8.12e-04 -2.32e-02  9.38e-04  1.57e-02 -4.62e-03 -8.47e-02
## 2113  1.97e-03  6.78e-05 -4.04e-03  3.13e-03 -1.44e-03  3.22e-03 -1.60e-02
## 2114 -2.31e-02 -6.00e-03 -9.38e-03  6.09e-03  2.10e-02 -9.32e-05  6.69e-02
## 2115 -3.29e-04 -9.19e-04 -1.76e-03 -1.77e-03 -6.20e-04 -1.00e-03  4.42e-03
## 2116 -1.19e-04 -1.13e-03 -9.58e-04 -3.10e-03 -1.48e-03  2.32e-03 -6.96e-03
## 2117 -2.45e-03 -4.68e-03  4.34e-03  3.33e-03 -1.07e-02  9.14e-03  2.17e-02
## 2118 -1.86e-02  1.68e-02 -1.09e-02  1.80e-02 -9.23e-03 -1.10e-02  6.66e-02
## 2119  1.46e-02 -4.23e-03 -7.42e-03  7.45e-03  1.50e-02 -4.60e-03  5.33e-02
```

```
## 2120 -1.20e-02 -7.31e-03  1.82e-02  1.62e-03  1.12e-02 -3.18e-02 -8.85e-02
## 2121 -1.34e-03  1.60e-03 -1.35e-03  1.37e-03 -1.22e-03  1.17e-03  6.84e-03
## 2122  3.24e-03  3.06e-03  1.30e-02  9.46e-03 -4.49e-03  1.18e-02  3.99e-02
## 2123 -2.45e-02 -1.22e-02  3.10e-02 -1.70e-02 -1.28e-02  2.01e-02 -1.35e-01
## 2124  5.38e-03 -1.08e-02 -5.21e-03 -2.24e-03 -9.24e-03 -4.49e-03  2.99e-02
## 2125 -1.02e-02 -8.42e-03  6.64e-03 -8.72e-04 -1.45e-02  4.17e-03 -3.59e-02
## 2126 -4.39e-02 -1.32e-02  1.44e-02 -1.75e-02 -1.44e-02 -7.89e-03 -1.04e-01
## 2127  1.59e-03  9.93e-04  7.51e-04 -3.29e-04  8.12e-04 -5.35e-04  4.41e-03
## 2128 -4.11e-04  5.09e-06  1.12e-03  2.08e-03 -1.20e-03  6.91e-04  6.44e-03
## 2129 -1.07e-02 -1.03e-02  6.13e-03 -7.09e-04 -1.39e-02 -1.19e-04 -4.06e-02
## 2130 -2.43e-03 -4.82e-03  4.47e-03  3.57e-03 -1.10e-02  9.47e-03  2.21e-02
## 2131 -7.63e-03 -1.57e-02 -2.61e-03 -2.22e-03 -4.28e-03  6.64e-03  4.42e-02
## 2132  2.82e-02 -2.31e-04 -7.46e-03  4.96e-03  1.93e-02 -1.72e-02  8.61e-02
## 2133 -1.21e-04  1.13e-02 -7.59e-03 -9.31e-03 -6.06e-03  5.05e-03  2.34e-02
## 2134  5.04e-03 -2.56e-03 -3.16e-03  4.24e-03 -6.49e-04 -2.03e-04 -1.65e-02
## 2135 -2.58e-02 -4.29e-04 -1.06e-02  1.07e-03 -1.60e-02 -1.78e-03  6.37e-02
## 2136  2.37e-02  1.55e-02 -3.13e-02  8.40e-03 -2.14e-02 -9.25e-04 -7.75e-02
## 2137 -1.62e-03 -6.13e-03  2.71e-03 -6.61e-04 -5.11e-03  2.80e-03  1.35e-02
## 2138 -1.16e-02  3.53e-03  5.70e-03  8.02e-03  9.00e-04 -2.72e-03  3.18e-02
## 2139 -1.01e-02  2.80e-02  1.45e-02  5.56e-03 -7.29e-03 -2.69e-03  6.00e-02
## 2140  4.17e-03 -1.15e-03 -1.18e-02  1.09e-02 -5.76e-03  4.95e-03  4.29e-02
## 2141  1.76e-02 -1.59e-03  2.16e-02  1.99e-03  2.50e-02 -5.09e-03  5.75e-02
## 2142 -7.04e-04 -2.43e-03 -2.11e-03 -3.65e-04 -2.07e-03  3.95e-03  1.50e-02
## 2143 -1.98e-03 -6.22e-03  3.13e-03 -6.89e-04 -6.05e-03  2.41e-03  1.34e-02
## 2144 -2.06e-03 -5.54e-03  3.08e-03  2.87e-03 -7.30e-03  6.08e-03  1.87e-02
## 2145 -2.46e-03  8.90e-03 -5.61e-03  9.93e-03  4.79e-03  7.61e-03  4.94e-02
## 2146 -2.87e-02 -1.80e-03 -8.64e-03  6.68e-03  1.54e-02 -6.64e-03  6.67e-02
## 2147  1.63e-05 -4.51e-05  1.56e-04  1.13e-04  5.95e-06  2.16e-04 -4.94e-04
## 2148  3.42e-03  7.15e-03 -1.36e-02 -2.30e-04 -1.65e-02  1.21e-02  5.65e-02
## 2149  1.94e-02 -6.18e-03 -1.03e-02  6.98e-03  1.93e-02 -2.91e-03  6.13e-02
## 2150  2.97e-05  1.20e-03  2.60e-04  6.72e-04 -4.85e-05  3.30e-04  2.54e-03
## 2151  2.06e-02  5.99e-03  6.11e-03 -8.02e-03 -9.53e-03 -1.42e-03 -5.78e-02
## 2152  1.92e-02 -4.50e-03 -2.11e-02 -6.01e-04 -2.34e-02  7.84e-03 -5.00e-02
## 2153 -2.57e-03  5.24e-03 -3.61e-03 -1.32e-02 -1.54e-03  7.85e-03  4.11e-02
## 2154 -2.86e-04  2.95e-04 -4.19e-04  3.52e-04 -3.75e-04  4.53e-05  1.56e-03
## 2155 -7.27e-05  8.05e-03  1.99e-03 -6.93e-03 -3.40e-03  3.12e-03  1.59e-02
## 2156  4.53e-03 -9.99e-04  6.31e-03  5.35e-03  6.89e-03 -2.64e-03 -2.29e-02
## 2157 -1.57e-02 -5.85e-03  9.45e-03 -1.55e-03 -2.03e-02  7.04e-03 -4.93e-02
## 2158  2.74e-02 -1.08e-02  2.77e-02 -7.75e-03  1.32e-02 -1.29e-02  7.06e-02
## 2159  8.57e-03  6.69e-03  2.77e-03 -6.58e-03  3.90e-03  4.73e-03 -4.89e-02
## 2160 -5.20e-03 -1.67e-03  1.83e-03 -2.94e-05 -1.90e-03 -2.29e-03 -9.41e-03
## 2161 -6.23e-04  2.40e-03  2.28e-03  3.19e-03 -3.65e-03  3.67e-03  1.20e-02
## 2162  7.55e-03 -8.89e-04 -3.55e-03  4.99e-03  1.67e-03  6.74e-04  2.35e-02
## 2163  7.98e-03 -2.07e-03  1.29e-03 -2.69e-03 -3.15e-03  8.33e-03 -3.35e-02
## 2164 -9.55e-03 -7.58e-03  5.26e-03 -1.27e-02 -9.33e-03  2.93e-03 -4.28e-02
## 2165  1.44e-03 -1.37e-03 -2.44e-03 -4.48e-03  3.33e-04 -4.25e-05 -1.08e-02
## 2166  3.53e-03  2.76e-03 -6.61e-03  1.86e-03 -4.76e-04 -2.11e-03  2.05e-02
## 2167 -2.67e-02 -2.12e-03  1.68e-02 -2.29e-04 -7.19e-03 -1.17e-03  5.75e-02
## 2168  2.82e-03  2.30e-03  1.31e-02 -1.25e-02 -6.83e-03  1.33e-02  3.96e-02
## 2169 -2.50e-02  1.05e-03  3.02e-02  1.92e-03  3.49e-02 -2.29e-02  8.31e-02
```

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## 2170 -5.66e-04  9.73e-04  1.87e-03 -3.08e-03 -2.74e-03  2.09e-03  8.64e-03
## 2171 -3.75e-02  2.22e-02 -3.50e-02 -8.30e-03 -3.09e-02  4.26e-03 -9.36e-02
## 2172  1.68e-04 -4.63e-04  3.32e-03  2.07e-04 -1.07e-03  4.01e-03 -8.54e-03
## 2173 -1.92e-03  6.19e-03 -2.37e-03  3.12e-04 -3.17e-04  6.66e-03  1.81e-02
## 2174  2.03e-05 -1.39e-03 -9.84e-04  6.79e-04 -6.41e-04  1.88e-03 -6.23e-03
## 2175 -7.64e-04  3.81e-03  2.41e-03 -1.40e-03 -5.45e-03  6.26e-03  1.41e-02
## 2176 -1.09e-03  3.48e-03 -1.63e-03  2.29e-04  1.44e-03  3.06e-03  1.34e-02
## 2177 -4.39e-03 -2.52e-03 -3.08e-03 -7.20e-04 -6.30e-03 -1.43e-03  1.68e-02
## 2178  1.02e-03  9.25e-03 -4.46e-03  5.53e-03  3.14e-03  6.85e-03  2.70e-02
## 2179  3.61e-03 -1.16e-03 -1.09e-02 -1.14e-02 -7.94e-03  6.77e-03  4.16e-02
## 2180  1.24e-02 -4.00e-03  3.46e-03 -1.82e-03 -5.04e-03  1.12e-02 -3.81e-02
## 2181 -4.22e-03  2.57e-02 -2.78e-02 -7.40e-03  1.07e-02 -9.04e-04 -1.07e-01
## 2182  2.77e-05 -1.51e-03 -8.37e-04  9.02e-04 -6.56e-04  1.34e-03 -5.40e-03
## 2183  5.98e-05  2.45e-04 -1.64e-04  2.35e-04 -1.03e-04  5.11e-04  1.01e-03
## 2184  7.37e-03 -9.72e-03 -8.67e-03  3.61e-03  1.26e-03  2.38e-03  4.52e-02
## 2185  2.44e-04 -5.64e-05 -1.87e-03  3.04e-03 -1.02e-03  5.12e-03 -1.16e-02
## 2186  1.65e-03 -1.30e-03 -3.26e-03 -1.19e-04  2.68e-03 -9.24e-04 -1.03e-02
## 2187  7.13e-03 -4.71e-03  1.69e-03 -8.87e-04 -7.41e-03  9.01e-03 -3.03e-02
## 2188  2.22e-05 -2.89e-05  2.36e-05  2.79e-05  3.35e-05  1.67e-06 -1.22e-04
## 2189 -2.02e-04 -9.74e-04 -1.39e-03  1.46e-03  3.73e-06 -1.28e-03  4.19e-03
## 2190 -1.74e-02 -6.45e-03  5.92e-03 -2.26e-04 -1.54e-02  6.95e-03 -4.03e-02
## 2191 -9.00e-04  1.86e-04  3.26e-03  5.42e-03 -3.85e-03 -7.39e-04  1.71e-02
## 2192 -1.59e-03 -6.84e-03  2.86e-03  3.74e-03 -4.58e-03  1.91e-03  1.45e-02
## 2193 -5.00e-03 -6.92e-03  3.78e-03  2.39e-03 -2.26e-03 -2.44e-04  1.47e-02
## 2194  7.85e-03  7.89e-03 -1.06e-02  1.27e-02 -1.51e-03 -2.00e-03  4.50e-02
## 2195 -2.13e-06 -1.42e-04 -1.03e-04 -2.93e-04 -5.49e-05  2.08e-04 -7.02e-04
## 2196  8.10e-03  1.04e-02  1.05e-02  1.71e-03 -1.72e-03 -7.44e-04  3.76e-02
## 2197 -2.85e-03 -9.70e-04  3.01e-03 -3.43e-03 -1.53e-03 -2.51e-03  1.03e-02
## 2198 -1.19e-02 -8.44e-03  7.05e-03 -1.40e-02 -1.52e-02  6.31e-04 -4.93e-02
## 2199 -5.77e-05 -8.10e-05 -5.85e-05  3.68e-06 -9.31e-06  1.01e-04  3.51e-04
## 2200  4.88e-03  1.18e-02  1.57e-02 -2.57e-02  1.11e-02 -4.07e-02 -1.15e-01
## 2201 -7.15e-03  1.76e-02 -5.90e-03  8.35e-03  8.20e-03 -8.05e-03  6.65e-02
## 2202  2.43e-02  2.79e-02  4.81e-03  2.33e-02  1.35e-02 -1.38e-02 -9.58e-02
## 2203 -2.22e-02 -1.49e-03  6.34e-03 -2.97e-03 -1.61e-02  1.23e-02 -5.39e-02
## 2204  4.76e-03 -2.26e-03  1.17e-03 -1.62e-03 -3.53e-03  1.18e-02 -2.71e-02
## 2205 -2.99e-03 -6.00e-03 -9.08e-03 -1.44e-02 -1.46e-02  8.35e-03  2.95e-02
## 2206  9.30e-04  3.29e-03  5.06e-03  3.11e-03  1.94e-03  4.79e-03  1.50e-02
## 2207 -2.97e-03  2.42e-03 -6.46e-03  1.94e-02  1.86e-03  4.22e-03  4.58e-02
## 2208 -7.27e-04  2.81e-03  2.10e-03  2.77e-03 -4.14e-03  4.35e-03  1.22e-02
## 2209  4.27e-05  7.61e-03  1.65e-03 -3.53e-03 -2.80e-03  3.28e-03  1.51e-02
## 2210  2.16e-02 -1.88e-03  6.42e-03 -3.89e-03 -1.84e-02  1.24e-02 -5.57e-02
## 2211  2.05e-04 -8.42e-05  2.09e-04  1.43e-04 -1.34e-04  2.07e-04 -9.58e-04
## 2212 -2.70e-03 -1.68e-02 -1.96e-03 -7.82e-03 -9.95e-03  1.01e-02  3.80e-02
## 2213  3.35e-03 -1.34e-03 -5.06e-03  3.49e-05  4.48e-03 -1.28e-03 -1.58e-02
## 2214  2.17e-03 -1.18e-03  4.36e-03 -2.11e-04  3.12e-03 -3.33e-03 -1.67e-02
## 2215 -1.72e-02 -4.02e-03  3.78e-02  5.05e-03  2.05e-02 -1.33e-02  8.49e-02
## 2216  4.26e-03 -2.49e-03  4.17e-03  4.07e-03  4.26e-03 -1.76e-03 -1.97e-02
## 2217 -8.16e-03 -1.48e-03 -6.45e-03 -9.25e-04 -4.77e-03  4.77e-03 -3.31e-02
## 2218 -7.62e-03 -1.80e-02 -5.00e-03 -6.38e-03  7.74e-04  2.72e-03  5.90e-02
## 2219  2.36e-02  4.69e-03  5.72e-03 -7.43e-03 -8.84e-03  5.44e-03 -5.93e-02
```

```
## 2220 -1.35e-02 -5.05e-03  6.84e-03 -4.73e-03 -1.70e-02  6.67e-03 -6.13e-02
## 2221  1.31e-02  1.03e-02 -8.33e-03  3.92e-03  1.28e-04 -7.62e-04  4.83e-02
## 2222  3.57e-03  7.33e-03  2.27e-03  4.25e-03  4.69e-03  9.13e-04  1.75e-02
## 2223 -1.21e-04 -5.25e-04 -6.41e-04  2.93e-04 -3.70e-05 -6.93e-04  1.70e-03
## 2224 -2.17e-04  8.03e-03 -1.58e-03 -4.73e-03 -2.22e-03  9.83e-03  2.52e-02
## 2225  1.79e-02  7.11e-03  2.60e-02  8.76e-04  3.33e-02 -7.72e-04  6.62e-02
## 2226 -3.90e-05 -1.13e-03 -5.18e-04 -1.64e-03 -5.95e-04  8.81e-04 -3.92e-03
## 2227 -1.49e-02 -5.91e-03  9.92e-03 -1.85e-03 -2.17e-02 -1.96e-03 -4.33e-02
## 2228  4.05e-06 -1.41e-03 -4.94e-04  7.95e-04 -1.53e-05  6.75e-05 -3.47e-03
## 2229  1.46e-03 -3.67e-03 -1.38e-03  2.71e-03 -1.56e-03 -8.16e-04  8.36e-03
## 2230  3.04e-03  1.03e-02  3.82e-03  5.67e-03  2.32e-03 -7.92e-04  2.17e-02
## 2231  6.85e-03  7.59e-04 -5.10e-03 -1.57e-03 -4.73e-03 -2.49e-03  2.42e-02
## 2232  2.07e-02  1.71e-02 -1.17e-02  2.26e-02  2.86e-02 -9.49e-04  7.83e-02
## 2233 -1.48e-02  8.22e-03 -9.54e-03 -5.82e-03 -4.32e-04 -1.69e-03  5.01e-02
## 2234 -1.87e-02 -1.45e-03 -8.21e-03  3.28e-03  3.22e-02 -3.87e-02  9.39e-02
## 2235 -2.69e-03 -1.35e-03 -2.07e-03 -1.45e-04 -4.70e-03  2.28e-03 -1.20e-02
## 2236  1.89e-03 -1.12e-03  2.10e-03 -2.96e-04  4.39e-03 -1.27e-03 -1.07e-02
## 2237 -1.89e-05  3.39e-04 -7.05e-04 -1.08e-04 -1.20e-04 -4.92e-04  1.75e-03
## 2238 -4.72e-04 -1.39e-03  1.23e-03  7.59e-04 -7.58e-04 -1.64e-03  6.01e-03
## 2239 -6.97e-03 -1.70e-02 -1.41e-05  1.10e-02 -1.16e-02  1.72e-02  5.45e-02
## 2240 -1.08e-02 -1.02e-02  3.21e-02 -4.48e-02  9.02e-03  2.42e-02 -1.25e-01
## 2241  9.37e-04  2.76e-03  4.45e-03 -2.63e-03  1.00e-03  5.06e-03  1.28e-02
## 2242  1.10e-02  3.35e-03  6.19e-03 -2.68e-03 -9.92e-03  2.68e-02 -5.72e-02
## 2243  2.04e-06 -7.12e-04 -2.91e-04  3.45e-04 -1.60e-05  1.64e-04 -1.74e-03
## 2244  9.19e-04 -8.47e-03 -7.81e-03 -1.19e-02 -7.23e-03  4.24e-04  3.45e-02
## 2245 -1.78e-02 -1.02e-02  1.76e-02  1.32e-02 -6.18e-03 -6.39e-03  5.39e-02
## 2246 -6.23e-04  1.59e-03  2.03e-03 -3.66e-03 -3.42e-03  3.07e-03  1.00e-02
## 2247 -2.18e-02 -6.72e-03 -1.12e-02  1.84e-03 -1.81e-02 -8.44e-03  6.14e-02
## 2248  6.00e-04  3.81e-03 -1.67e-03  2.71e-03 -5.12e-04  3.82e-03 -9.47e-03
## 2249 -9.17e-03 -2.62e-03 -6.49e-03  5.25e-03  3.50e-03  2.65e-04 -2.92e-02
## 2250 -2.95e-04 -1.96e-04  1.38e-04  1.39e-04 -4.28e-05 -1.73e-04 -8.14e-04
## 2251  1.97e-03 -1.47e-03  9.25e-03  8.34e-03 -2.20e-04  4.47e-03  4.01e-02
## 2252  1.48e-03  1.01e-03  2.14e-03 -1.91e-03  6.98e-04 -2.08e-03  1.19e-02
## 2253 -2.07e-03 -2.21e-03  3.63e-03 -3.25e-04 -2.83e-03  6.79e-04  1.10e-02
## 2254 -1.65e-04  1.12e-04 -2.19e-04 -4.38e-04 -7.04e-05  1.13e-04 -1.19e-03
## 2255  3.17e-04  8.40e-03  1.32e-03  2.40e-03 -1.71e-03  4.15e-03  1.29e-02
## 2256 -2.15e-02  5.37e-03 -2.50e-02  1.49e-02 -3.37e-02  1.76e-02 -7.99e-02
## 2257  3.51e-03 -1.10e-02 -6.23e-03 -1.86e-03 -6.41e-03  1.65e-03  3.75e-02
## 2258 -1.77e-02 -6.03e-03  5.50e-03 -8.38e-04 -1.57e-02  6.77e-03 -3.99e-02
## 2259  2.79e-02  1.24e-02  1.24e-02  2.99e-02 -2.07e-02  4.30e-02 -1.01e-01
## 2260  5.98e-05  8.13e-04 -5.57e-04 -8.31e-04 -1.59e-04  1.08e-03  3.39e-03
## 2261  8.30e-03  6.45e-03  3.52e-03 -1.63e-02 -1.25e-02  3.11e-02 -5.89e-02
## 2262 -1.62e-03 -1.58e-03 -3.93e-03 -8.65e-03 -5.86e-04  4.16e-03  3.46e-02
## 2263  2.05e-05  1.43e-04 -1.12e-04  1.41e-05 -6.95e-05  2.73e-04  6.29e-04
## 2264 -1.14e-05  1.65e-03 -1.73e-03 -1.72e-03 -4.04e-04 -2.67e-04  4.21e-03
## 2265 -1.47e-02 -7.88e-03 -2.13e-02 -1.42e-02 -2.96e-02  1.97e-03 -4.88e-02
## 2266 -1.68e-02 -4.68e-03  3.83e-03 -1.65e-03 -1.08e-02  1.10e-02 -4.40e-02
## 2267 -1.15e-02 -1.09e-02 -2.71e-03  9.59e-03  4.82e-03  7.36e-03  7.31e-02
## 2268  5.26e-03  2.33e-04 -1.36e-02 -1.04e-03 -9.05e-03  7.54e-03  5.35e-02
## 2269 -4.04e-04 -2.37e-04  1.17e-03 -1.52e-03 -1.23e-03  2.17e-05  5.84e-03
```

```
## 2270   1.57e-02   2.35e-02   1.10e-02  -7.25e-03  -1.99e-02   2.02e-02  -8.95e-02
## 2271  -1.09e-02  -6.45e-03   8.01e-03  -1.18e-03  -1.61e-02   3.83e-03  -4.55e-02
## 2272  -5.60e-03  -2.25e-02   2.65e-02   9.55e-03  -7.63e-04  -1.97e-03   6.41e-02
## 2273   8.53e-03   5.85e-02   6.40e-03  -2.23e-02   2.04e-02  -2.08e-02  -1.13e-01
## 2274   7.14e-04   1.20e-03  -1.22e-02   4.50e-04  -1.39e-02   6.61e-03   5.20e-02
## 2275  -1.80e-04   6.76e-04  -1.75e-03   1.79e-05  -3.41e-04  -2.65e-03   6.71e-03
## 2276  -2.14e-02  -1.85e-03  -3.44e-03  -1.62e-02   1.11e-02  -3.35e-02   1.09e-01
## 2277   3.78e-02   8.58e-03   1.44e-02   1.30e-02   2.54e-02   3.67e-03  -8.27e-02
## 2278   7.31e-03   4.13e-02   3.97e-03   2.62e-03   2.55e-02  -4.14e-02  -1.12e-01
## 2279  -1.28e-02  -9.56e-03   8.63e-03  -1.27e-02  -2.20e-02   2.01e-03  -3.99e-02
## 2280   3.26e-03  -4.14e-03   7.96e-03   8.22e-03  -6.23e-04  -9.63e-04   4.13e-02
## 2281   2.79e-02   4.46e-02  -3.79e-02  -1.84e-02  -9.09e-03  -8.70e-03  -1.20e-01
## 2282  -2.62e-02  -7.13e-03  -1.07e-02  -1.07e-02  -1.82e-02  -4.57e-03   7.02e-02
## 2283  -2.54e-03  -3.83e-02   1.14e-02   2.62e-02   1.62e-02  -4.07e-02  -1.22e-01
## 2284   2.98e-02   9.03e-03  -9.24e-03   2.31e-02   2.89e-02  -2.41e-02   8.51e-02
## 2285  -1.02e-04  -2.47e-04  -6.93e-04  -1.04e-03  -2.83e-04  -7.54e-04  -2.47e-03
## 2286   1.93e-02   8.45e-03   1.14e-02   3.13e-02   2.09e-02  -3.46e-03  -8.92e-02
## 2287  -1.48e-02  -4.95e-03   3.73e-03  -1.63e-03  -1.09e-02   8.50e-03  -3.56e-02
## 2288   1.37e-03  -1.27e-03  -1.97e-03   2.45e-04   1.28e-03   2.07e-04  -6.41e-03
## 2289   1.64e-03  -1.41e-03  -3.67e-03   2.45e-03   3.00e-03  -1.51e-03  -1.15e-02
## 2290   8.69e-03   1.05e-03   2.79e-03  -3.51e-03  -8.00e-03   2.22e-02  -4.47e-02
## 2291  -1.17e-02  -1.07e-02   1.80e-02   3.80e-03   1.22e-02  -3.59e-02  -8.05e-02
## 2292   3.17e-03   6.00e-03   1.68e-02  -1.96e-03  -1.00e-02   1.44e-02   5.49e-02
## 2293   2.58e-03   7.68e-03  -4.54e-02  -2.14e-02  -8.81e-03  -9.26e-03  -1.02e-01
## 2294   8.69e-03   7.37e-03  -3.97e-03   3.67e-04   6.27e-03   5.09e-03   2.17e-02
## 2295  -4.42e-04  -1.34e-03  -6.29e-04   2.01e-04  -5.19e-04   1.49e-04  -3.12e-03
## 2296   1.56e-02  -6.60e-03   1.24e-02   6.10e-03  -2.52e-03  -9.98e-03  -9.35e-02
## 2297  -2.90e-02  -3.19e-03  -9.42e-03   6.55e-03   2.33e-02  -2.44e-02   9.58e-02
## 2298   2.28e-03  -1.41e-03   3.57e-03  -6.89e-03   4.45e-03  -1.87e-03  -1.39e-02
## 2299  -1.51e-03  -2.03e-03   2.62e-02   2.04e-03   1.97e-02  -1.31e-02  -8.09e-02
## 2300  -1.89e-03  -6.41e-04  -2.34e-03  -4.75e-04   6.07e-04   6.11e-03   2.17e-02
## 2301  -1.46e-02  -1.36e-02  -3.77e-03  -2.26e-02  -1.56e-03  -2.23e-03   6.23e-02
## 2302   1.88e-02   1.20e-02  -1.28e-02   1.34e-03   2.90e-02   2.20e-04   5.61e-02
## 2303   1.06e-02   1.12e-02  -9.53e-03   1.13e-02  -1.36e-03  -4.94e-03   4.75e-02
## 2304  -4.50e-04  -1.40e-03  -1.21e-03  -2.04e-03  -3.27e-04   2.71e-03   9.02e-03
## 2305   1.64e-02   1.32e-02  -4.24e-03  -1.02e-03   7.37e-03   8.09e-03   3.32e-02
## 2306   8.57e-04  -4.75e-04   1.32e-03   1.21e-03   1.27e-04   1.34e-03  -6.34e-03
## 2307  -4.28e-03  -1.97e-02  -4.46e-03   6.84e-03  -1.20e-03   1.32e-03   5.04e-02
## 2308  -5.95e-04   1.38e-03   1.89e-03   2.84e-03  -2.67e-03   2.17e-03   9.61e-03
## 2309  -2.04e-03   4.54e-06  -5.66e-03  -3.10e-03   4.56e-03   9.89e-04   4.10e-02
## 2310   2.38e-03  -1.36e-03   3.52e-03   3.29e-03   5.46e-03  -2.89e-03  -1.35e-02
## 2311  -9.89e-03   7.52e-04  -5.87e-03  -1.12e-02  -9.61e-03   6.58e-04   3.56e-02
## 2312  -2.37e-03  -5.24e-03   4.29e-03   3.58e-03  -9.70e-03   7.68e-03   2.04e-02
## 2313   1.91e-06   1.87e-04   1.22e-04   3.40e-04   4.69e-05  -2.19e-04   8.24e-04
## 2314  -6.62e-04  -2.96e-04  -3.74e-04   2.56e-04  -2.06e-04  -3.77e-04  -1.30e-03
## 2315  -1.59e-02  -5.23e-03   3.30e-02   2.89e-03   3.01e-02  -1.54e-02   7.99e-02
## 2316   1.88e-03  -1.29e-03   2.33e-03   5.42e-05   2.97e-03  -1.45e-04  -8.04e-03
## 2317   1.98e-02  -1.55e-02  -1.38e-03  -1.06e-02  -8.23e-03   1.14e-02   5.02e-02
## 2318  -7.07e-06  -1.57e-03  -1.02e-03   9.61e-04  -9.02e-04   1.53e-03  -7.34e-03
## 2319   9.33e-03   1.05e-02   4.22e-03   7.17e-03  -3.77e-04   5.61e-03  -4.95e-02
```

```
## 2320 -1.73e-02  5.01e-03  7.99e-03 -6.34e-03 -9.60e-03  1.29e-02 -7.32e-02
## 2321 -2.74e-03 -6.17e-03 -1.01e-02 -2.07e-03 -1.37e-02  9.76e-03  2.67e-02
## 2322  3.98e-05 -2.15e-03  4.28e-03  3.46e-05 -8.15e-04  3.75e-03  1.03e-02
## 2323  3.36e-02 -6.57e-03 -6.33e-03 -9.05e-03  1.17e-02 -8.05e-03  8.21e-02
## 2324 -9.37e-03 -1.56e-02  3.67e-02 -2.43e-02  2.43e-03 -4.43e-03  7.90e-02
## 2325 -5.44e-03 -4.50e-04  9.55e-03  4.68e-03  5.18e-03  4.01e-03  2.71e-02
## 2326 -2.15e-02 -9.71e-03  1.32e-02  3.44e-03 -7.71e-03 -3.17e-03  4.52e-02
## 2327 -1.07e-03  2.50e-03 -9.43e-03  7.76e-03 -8.48e-03  1.06e-03  2.61e-02
## 2328  5.73e-03 -1.07e-04 -4.40e-03 -1.04e-03 -2.39e-03 -9.67e-04  1.99e-02
## 2329 -2.94e-04  2.95e-03 -1.37e-03  1.23e-03  6.57e-04  5.91e-04 -5.38e-03
## 2330  3.33e-02  5.73e-03 -5.43e-03 -1.44e-02  8.90e-03 -7.18e-03  8.96e-02
## 2331  3.89e-03 -1.94e-03 -1.34e-02  1.12e-02 -6.55e-03 -1.43e-03  4.66e-02
## 2332 -1.70e-02 -1.63e-03  9.91e-03  2.81e-02 -2.07e-02 -4.95e-03 -6.36e-02
## 2333  7.33e-03 -8.90e-03  4.12e-03  2.28e-02  9.08e-03 -9.36e-03 -8.28e-02
## 2334  3.16e-04  7.15e-04 -2.48e-03  4.31e-03 -4.33e-03  9.58e-03 -1.80e-02
## 2335  9.45e-03  1.95e-04  1.39e-03 -4.00e-03 -1.65e-03  5.77e-03 -3.78e-02
## 2336 -6.03e-03 -1.68e-03  4.31e-03 -1.18e-03  2.49e-03 -2.25e-03  2.07e-02
## 2337 -1.08e-04 -6.14e-04 -1.12e-03  7.33e-04  1.73e-06 -1.18e-03 -3.08e-03
## 2338 -1.01e-02 -1.84e-02  2.38e-02 -1.96e-02  9.51e-03 -9.50e-03  6.40e-02
## 2339  4.65e-03  5.06e-03 -1.34e-02  1.35e-02 -8.84e-03  1.28e-02  5.41e-02
## 2340  7.69e-03  1.73e-02  4.90e-03  7.34e-03  4.20e-03  2.17e-03  3.87e-02
## 2341 -2.78e-03 -5.74e-03 -9.01e-03 -1.45e-02 -1.35e-02  9.99e-03  2.91e-02
## 2342 -1.83e-03  5.92e-03 -2.63e-03  3.61e-04  2.05e-03  6.31e-03  1.84e-02
## 2343 -1.19e-03  3.34e-03  2.96e-03  4.02e-03 -6.81e-03  5.02e-03  2.12e-02
## 2344  1.50e-03 -6.11e-03  2.53e-03 -2.55e-03  1.45e-03 -2.69e-03  1.31e-02
## 2345 -3.24e-03 -1.49e-03 -2.13e-03  1.47e-03 -2.12e-03 -2.04e-03 -7.90e-03
## 2346  3.32e-02  9.94e-03 -9.10e-03  3.71e-03  2.16e-02 -1.69e-02  8.06e-02
## 2347 -3.67e-03 -4.52e-03 -3.15e-03  4.40e-03 -1.99e-03  1.59e-03 -1.58e-02
## 2348 -3.05e-03 -5.79e-03 -9.02e-03 -1.46e-02 -1.42e-02  8.47e-03  2.66e-02
## 2349 -3.19e-02  1.06e-02 -1.17e-02  1.49e-03  2.95e-02 -1.23e-02  7.43e-02
## 2350  1.23e-04  4.52e-03  6.16e-04  1.42e-03 -9.67e-04  2.49e-03  7.83e-03
## 2351 -2.29e-03 -4.29e-03  4.60e-03  3.52e-03 -9.16e-04  1.19e-05 -1.66e-02
## 2352  2.28e-03 -8.76e-03 -6.03e-03 -2.73e-03 -2.76e-03  8.91e-04  2.88e-02
## 2353  4.63e-04  2.18e-04 -3.20e-04 -5.41e-04  2.23e-04  5.93e-05 -1.36e-03
## 2354  3.68e-05  1.80e-04 -1.17e-04 -1.03e-04 -5.43e-06  2.24e-04 -6.12e-04
## 2355  5.96e-03 -1.05e-02 -6.24e-03 -1.10e-02 -1.40e-02 -5.80e-03  3.98e-02
## 2356  8.83e-05 -8.47e-04 -1.75e-03  7.87e-04 -2.51e-03  5.18e-03 -1.16e-02
## 2357 -7.18e-03 -2.31e-03 -2.39e-02 -1.81e-02  3.03e-03 -2.23e-02 -8.72e-02
## 2358 -1.54e-02 -1.47e-02 -7.31e-03  5.25e-03  7.80e-04 -5.99e-03  4.25e-02
## 2359  3.33e-03  5.68e-03 -1.31e-02 -1.56e-03 -1.10e-02  1.44e-02  4.31e-02
## 2360  1.74e-02 -2.12e-04 -1.09e-02  6.10e-03  1.41e-02 -1.81e-02  7.78e-02
## 2361  2.99e-02 -1.22e-02  3.10e-02 -2.77e-02  1.05e-02 -1.67e-02  9.15e-02
## 2362 -1.07e-02 -1.02e-02  6.25e-03 -6.81e-04 -1.36e-02 -2.86e-04 -4.08e-02
## 2363 -1.99e-02 -3.62e-03  5.97e-03  1.01e-02 -1.47e-02  1.24e-02 -4.82e-02
## 2364  9.12e-05  3.30e-04 -2.13e-04  2.39e-05 -1.33e-04  7.01e-04  1.36e-03
## 2365 -1.48e-04  3.31e-04  3.92e-04 -2.88e-05  2.81e-04  4.15e-04  1.51e-03
## 2366  8.02e-06  1.99e-04 -1.48e-04 -2.08e-04 -1.09e-04  3.32e-04  8.37e-04
## 2367 -4.48e-03 -5.33e-03 -1.33e-02 -3.10e-03 -2.39e-02  1.22e-02  4.05e-02
## 2368  3.92e-03 -7.69e-04 -6.04e-03 -1.53e-04  5.21e-03 -1.46e-03 -1.88e-02
## 2369 -9.24e-05  1.12e-04  1.36e-04 -4.83e-06 -4.01e-05  3.38e-05 -6.21e-04
```

```
## 2370 -2.49e-03 -4.77e-03  4.02e-03  3.19e-03 -1.05e-02  8.60e-03  2.06e-02
## 2371  3.53e-05  2.89e-04 -1.68e-04 -2.60e-04 -1.13e-04  5.05e-04  1.35e-03
## 2372  1.17e-02  2.09e-02 -1.04e-02  1.26e-03 -5.27e-03  4.98e-04  5.21e-02
## 2373  4.38e-04 -5.12e-03 -3.21e-03  1.83e-03 -1.26e-03 -1.13e-03  1.48e-02
## 2374 -2.18e-02  9.58e-03  1.11e-02 -1.04e-02 -2.58e-02 -6.13e-03 -7.11e-02
## 2375  1.08e-02  1.22e-02 -3.31e-02  2.31e-02  1.37e-03  8.54e-03 -7.32e-02
## 2376 -5.13e-03 -1.77e-02 -1.70e-03 -9.18e-03 -3.61e-03  4.93e-03  3.74e-02
## 2377 -7.32e-04  2.61e-03  2.08e-03  2.81e-03 -3.93e-03  3.97e-03  1.19e-02
## 2378  2.41e-03  1.20e-03  3.50e-03 -2.08e-03  2.56e-03 -1.75e-03  1.62e-02
## 2379  7.79e-03 -4.60e-03 -1.13e-02  2.12e-03 -3.71e-04  1.15e-02  5.21e-02
## 2380 -1.63e-02 -1.52e-02 -4.45e-03 -3.35e-03 -2.35e-03  7.37e-03  6.49e-02
## 2381  6.06e-03  1.43e-03  1.33e-02  9.19e-03 -7.86e-04  1.38e-02  5.79e-02
## 2382  1.38e-03 -6.90e-03  5.81e-03  7.24e-03  3.49e-04 -1.04e-03  2.16e-02
## 2383 -2.00e-02 -1.97e-03  4.09e-02  4.51e-03  2.66e-02 -5.44e-02  1.09e-01
## 2384 -3.36e-02  4.47e-03 -1.31e-02 -6.62e-04 -1.40e-02  7.63e-03  5.89e-02
## 2385  2.49e-03  4.98e-03 -3.71e-03 -2.86e-03  4.05e-03 -2.17e-03 -1.35e-02
## 2386 -5.39e-04  1.92e-03  1.74e-03 -8.18e-04 -3.57e-03  4.37e-03  1.14e-02
## 2387  1.21e-02  1.11e-03 -1.15e-02  9.99e-04 -1.99e-02  2.11e-03  6.51e-02
## 2388  3.43e-02 -5.03e-03 -7.86e-03 -1.19e-02  1.35e-02 -1.35e-02  7.50e-02
## 2389  8.54e-03 -1.08e-02  1.31e-02 -3.04e-02 -1.33e-02  1.03e-02 -8.26e-02
## 2390  7.96e-03  8.86e-04 -3.26e-03  1.39e-04  4.85e-03  5.15e-03  2.50e-02
## 2391  3.69e-02  2.44e-02 -7.56e-03  1.08e-02  1.12e-02 -1.30e-03  7.81e-02
## 2392 -1.55e-02  1.06e-02  1.90e-02 -3.82e-03  9.65e-03 -2.77e-03  5.65e-02
## 2393  1.00e-02 -3.84e-03  4.05e-03 -4.71e-04 -1.10e-02  1.16e-02 -3.51e-02
## 2394  7.32e-03  4.47e-03 -1.31e-02  1.18e-02 -6.11e-03  1.66e-02  6.65e-02
## 2395 -1.74e-02 -6.83e-03 -1.03e-02 -2.92e-02 -1.84e-02  3.55e-03  8.27e-02
## 2396 -1.78e-02 -1.45e-02  1.72e-02 -2.23e-02  2.04e-02 -2.04e-02  7.34e-02
## 2397  1.72e-03 -4.21e-03 -8.97e-03  1.01e-03 -8.65e-03 -6.47e-04  5.35e-02
## 2398 -2.08e-03 -5.61e-03  3.14e-03  2.92e-03 -7.29e-03  6.02e-03  1.89e-02
## 2399  3.18e-03  4.63e-03  2.78e-03  3.04e-03  5.50e-03 -7.99e-04 -1.38e-02
## 2400  1.72e-02  5.81e-03 -6.18e-03 -2.92e-03  7.84e-03 -3.54e-04  4.18e-02
## 2401  8.70e-03  3.25e-03  5.77e-03 -2.93e-03 -1.29e-02  1.59e-02 -5.01e-02
## 2402  1.07e-02 -3.22e-03  3.14e-03 -1.86e-03 -1.29e-02  1.74e-02 -4.35e-02
## 2403 -1.33e-02 -8.54e-03  8.56e-03 -1.42e-03 -2.02e-02  4.70e-04 -4.67e-02
## 2404 -4.93e-05 -8.20e-04 -3.99e-04 -1.23e-03 -4.81e-04  6.76e-04 -2.89e-03
## 2405 -7.46e-03  1.68e-03 -7.40e-03 -4.94e-03 -2.92e-03 -6.80e-03  4.27e-02
## 2406  1.25e-02 -1.04e-02  1.99e-02  7.72e-03  1.37e-02  2.63e-05  4.85e-02
## 2407  7.26e-05 -6.68e-05  1.04e-04 -8.44e-05  8.35e-05 -2.96e-06 -4.43e-04
## 2408 -2.42e-02 -2.87e-03 -3.27e-02 -4.62e-02 -2.87e-02  1.92e-02 -1.49e-01
## 2409 -7.75e-03  1.51e-02  4.56e-03 -5.45e-03  4.89e-03 -6.44e-04  3.67e-02
## 2410 -8.34e-04  8.95e-04 -5.66e-03 -7.02e-03 -4.92e-03  1.75e-03  1.49e-02
## 2411  1.17e-02  1.30e-02  1.98e-03  5.25e-03  1.67e-03 -3.30e-03 -6.36e-02
## 2412 -7.16e-03  2.10e-02 -7.30e-03 -2.59e-02  1.13e-02 -8.28e-03  6.75e-02
## 2413  5.76e-03 -4.10e-03  1.15e-02 -1.85e-04  5.78e-04  4.13e-03  4.43e-02
## 2414  1.89e-02 -3.11e-03 -6.11e-03 -2.47e-02  5.81e-03 -6.22e-03  7.61e-02
## 2415  4.42e-03  5.41e-03  5.76e-03 -1.07e-02 -6.90e-04  1.89e-03  2.65e-02
## 2416  1.15e-02 -4.17e-03  1.29e-02 -1.25e-02 -4.43e-03  9.07e-03  5.95e-02
## 2417 -1.17e-02 -1.70e-02 -4.92e-03 -7.15e-03 -9.04e-04 -6.69e-03  4.22e-02
## 2418  1.93e-02  1.91e-02 -1.20e-02  5.01e-04  2.51e-02  1.99e-05  7.53e-02
## 2419 -5.61e-04  1.40e-03  2.02e-03  3.06e-03 -2.80e-03  2.37e-03  1.01e-02
```

```
## 2420   1.57e-04 -5.08e-02  1.56e-02  2.92e-02 -4.26e-03 -2.92e-02 -1.16e-01
## 2421 -2.54e-03 -8.65e-03 -7.61e-03  2.32e-04 -8.20e-03  4.99e-04  1.87e-02
## 2422  8.51e-03 -3.77e-03 -1.05e-02 -8.84e-03 -6.52e-03  3.81e-03  5.90e-02
## 2423  3.29e-02 -4.72e-03 -2.38e-02  3.81e-03  6.13e-03 -2.30e-02 -8.50e-02
## 2424  1.03e-02  2.08e-02  5.56e-03  2.51e-02  9.31e-04 -1.48e-03 -7.80e-02
## 2425  7.07e-03  9.92e-04 -4.02e-03 -4.47e-04  3.22e-03  1.51e-03  2.46e-02
## 2426  3.98e-03  1.16e-02 -6.55e-03  6.51e-03  1.94e-03 -3.45e-04  2.24e-02
## 2427 -9.79e-03 -1.24e-02  1.49e-02 -1.37e-02  1.60e-02 -3.16e-02 -8.30e-02
## 2428 -9.82e-04 -2.30e-03  3.27e-03  2.15e-03 -2.99e-03 -3.71e-03  1.54e-02
## 2429 -1.25e-02  7.09e-03  8.10e-03  9.24e-03  4.19e-03 -3.48e-03  4.55e-02
## 2430 -2.05e-03 -5.63e-03  3.45e-03  3.31e-03 -8.60e-03  7.59e-03  2.04e-02
## 2431  1.24e-02 -7.27e-03 -1.03e-02 -9.90e-03 -1.15e-02  1.02e-03  5.71e-02
## 2432  1.20e-02 -6.57e-03 -8.71e-03 -6.99e-03  1.34e-02 -2.19e-03  5.99e-02
## 2433  2.29e-03 -3.80e-03  8.81e-03  6.50e-04 -2.44e-03 -5.55e-03  3.66e-02
## 2434  1.47e-02  8.20e-03  5.70e-03  2.29e-02 -9.88e-03  2.71e-02 -7.02e-02
## 2435 -4.17e-04  3.71e-04  1.11e-03 -4.03e-03 -1.91e-03  1.72e-03  7.08e-03
## 2436 -1.81e-03 -7.59e-03 -5.24e-03 -3.05e-03 -5.23e-03 -2.40e-04  1.43e-02
## 2437  3.46e-02  1.29e-02  3.94e-02  2.28e-02  3.53e-02 -1.51e-02  1.00e-01
## 2438 -1.30e-02 -5.32e-03  2.60e-03 -1.62e-03 -6.19e-03  6.98e-03 -3.61e-02
## 2439  1.07e-05  1.66e-04  2.44e-04 -4.44e-07  2.55e-05  3.08e-04  7.39e-04
## 2440  1.23e-02  4.14e-03  9.00e-04 -6.78e-03  2.26e-03  5.20e-03 -5.12e-02
## 2441  1.10e-02 -9.28e-03  1.44e-02  1.50e-02  2.16e-02 -2.17e-03  4.82e-02
## 2442 -1.97e-02 -3.24e-05  4.07e-03  8.52e-03 -1.02e-02  1.26e-02 -5.29e-02
## 2443  2.12e-02  4.67e-03 -1.34e-02  2.62e-03  2.65e-02 -8.99e-03  6.64e-02
## 2444  8.61e-03  8.38e-05  1.50e-03 -3.74e-03 -1.58e-03  1.72e-02 -4.28e-02
## 2445  1.22e-02 -6.40e-03 -1.05e-02 -2.21e-02 -1.34e-02  2.08e-03  5.80e-02
## 2446  7.84e-05  2.00e-04 -2.04e-04 -2.62e-04 -5.07e-05  6.30e-04  1.27e-03
## 2447  1.49e-02 -1.57e-02 -3.15e-02 -9.42e-03 -2.81e-02  2.26e-02 -9.29e-02
## 2448 -1.13e-02 -5.38e-03  5.56e-03  9.18e-03 -8.13e-03 -6.65e-04 -4.52e-02
## 2449  1.96e-02  1.84e-02 -1.04e-02  3.63e-03  1.90e-02 -5.16e-03  8.16e-02
## 2450  9.85e-05 -2.63e-04 -1.09e-03 -1.49e-03 -8.07e-04  3.30e-03 -6.89e-03
## 2451  2.30e-02  1.47e-03  7.70e-03 -2.93e-03 -2.08e-02  2.32e-02 -6.84e-02
## 2452 -2.75e-06  1.05e-04  5.89e-05  1.67e-04  1.34e-05 -1.02e-04  4.20e-04
## 2453  2.06e-02  4.75e-03 -4.19e-03  7.83e-03  3.90e-03  6.24e-03  4.46e-02
## 2454 -1.28e-03  2.39e-02 -6.40e-03 -1.67e-03  2.27e-03  5.88e-03  5.00e-02
## 2455 -3.04e-03 -5.96e-03 -9.72e-03 -8.77e-03 -1.42e-02  8.31e-03  2.51e-02
## 2456 -1.30e-05 -1.08e-03 -6.11e-04 -1.98e-03 -7.75e-04  1.34e-03 -4.60e-03
## 2457  5.81e-04  3.29e-03 -1.55e-03  2.09e-03 -6.65e-04  4.22e-03 -9.00e-03
## 2458 -2.35e-02 -6.60e-03 -9.77e-03 -1.90e-02 -6.83e-03 -1.03e-02  5.36e-02
## 2459 -3.35e-02  6.81e-03 -8.87e-03 -3.75e-02  1.93e-02 -1.46e-02  9.54e-02
## 2460 -1.04e-02 -8.29e-03  5.81e-03 -1.35e-03 -1.52e-02  4.37e-03 -3.47e-02
## 2461  3.22e-02 -6.74e-03  1.38e-02  3.66e-02  1.64e-02 -2.51e-02 -8.68e-02
## 2462 -3.35e-05 -9.26e-04 -1.20e-03 -4.08e-03 -2.29e-03  4.00e-03 -9.34e-03
## 2463 -3.52e-03  2.72e-04 -4.84e-03  7.13e-03  3.75e-03  7.39e-03  4.06e-02
## 2464  2.32e-02 -1.86e-03  1.04e-02  6.72e-04  1.76e-02 -1.72e-03 -8.35e-02
## 2465 -4.59e-04 -7.76e-05  1.53e-03  2.71e-03 -1.26e-03  6.46e-05  7.15e-03
## 2466 -1.07e-05  1.29e-04 -3.78e-04 -3.85e-06 -2.64e-05 -4.46e-04  1.11e-03
## 2467  1.52e-02  2.62e-02  2.99e-03  4.13e-03  9.02e-03 -1.07e-02 -7.80e-02
## 2468 -5.29e-03 -3.27e-03 -4.81e-03 -4.23e-04 -3.62e-04  2.41e-03 -2.15e-02
## 2469 -1.96e-03 -6.00e-03  3.37e-03  3.47e-03 -7.74e-03  6.34e-03  1.92e-02
```

```
## 2470 -7.43e-03 -1.75e-02 -2.87e-03  1.03e-02 -2.56e-03 -9.78e-04  5.24e-02
## 2471 -5.74e-04  1.34e-03  1.13e-03  1.71e-03  1.57e-03  2.68e-04  4.87e-03
## 2472  2.68e-03 -1.96e-03  4.01e-03 -7.29e-03  3.39e-03 -2.86e-04 -1.61e-02
## 2473 -3.20e-02  5.25e-03 -1.41e-02  2.16e-02  3.27e-02 -2.49e-02  8.89e-02
## 2474  3.25e-03  1.77e-03  1.26e-02  9.60e-03 -4.15e-03  1.12e-02  3.84e-02
## 2475  1.61e-03 -1.09e-03  1.09e-03  9.01e-05  4.23e-04  1.07e-04 -4.25e-03
## 2476  1.27e-02  2.50e-02  1.03e-03  2.23e-02  1.66e-02 -2.51e-02 -8.57e-02
## 2477 -5.77e-05  3.82e-04  4.35e-04 -6.23e-04 -1.35e-04 -7.74e-04  2.50e-03
## 2478  3.92e-03  4.87e-03 -1.29e-02 -2.68e-04 -1.11e-02  1.43e-02  5.13e-02
## 2479 -3.65e-02  2.81e-02  9.09e-03 -1.51e-02  1.81e-03  6.24e-03 -1.05e-01
## 2480 -1.78e-03 -6.38e-03  3.07e-03  3.48e-03 -5.96e-03  3.95e-03  1.65e-02
## 2481 -1.60e-02 -8.04e-04  8.21e-03 -4.56e-03 -1.54e-02  8.30e-03 -5.09e-02
## 2482 -1.48e-02  1.19e-02 -8.95e-03  7.98e-03  2.01e-02 -3.93e-03  6.34e-02
## 2483  5.02e-04 -4.42e-03  3.67e-03 -5.50e-03 -9.50e-04 -1.87e-03  1.43e-02
## 2484 -1.58e-02  3.60e-02  2.63e-02 -1.13e-02  1.42e-02  6.04e-03 -1.13e-01
## 2485  4.04e-03  3.27e-03  2.53e-03 -2.55e-03  3.02e-03  6.36e-04 -1.06e-02
## 2486 -1.20e-03  2.10e-02  1.53e-02  1.57e-02  1.83e-02  1.26e-03  5.42e-02
## 2487 -1.02e-03 -5.65e-03  2.01e-03 -1.44e-03 -1.88e-03 -1.69e-03  9.41e-03
## 2488  2.67e-02  1.92e-02  1.67e-02 -2.89e-03  1.42e-02  9.52e-03 -1.08e-01
## 2489 -3.63e-02  8.90e-03 -8.64e-03  6.43e-03  2.39e-02 -3.23e-02  1.02e-01
## 2490 -2.12e-02  1.19e-02 -3.21e-02  1.01e-02 -2.52e-02 -6.31e-03 -7.12e-02
## 2491 -6.19e-04 -7.38e-04 -4.17e-03 -1.76e-03 -2.48e-03 -8.55e-04  9.93e-03
## 2492  3.34e-05  3.08e-03  6.40e-04 -1.50e-03 -7.30e-04  1.28e-03  5.16e-03
## 2493 -2.29e-03 -5.48e-03  4.22e-03  3.95e-03 -1.04e-02  8.01e-03  2.39e-02
## 2494  1.70e-03 -7.20e-03 -6.30e-03  2.67e-03 -4.13e-03 -2.75e-03  2.98e-02
## 2495  2.29e-03 -2.00e-04  1.95e-03  2.84e-03 -1.12e-04 -1.19e-03  9.72e-03
## 2496 -2.44e-04 -1.70e-04  2.50e-04  1.33e-04 -8.90e-05  4.69e-05  9.44e-04
## 2497  1.23e-04  4.45e-04 -2.01e-03 -3.41e-03 -4.45e-03  8.71e-03 -1.55e-02
## 2498  5.47e-05  3.51e-04 -1.96e-04  1.94e-05  9.05e-06  4.31e-04 -9.84e-04
## 2499  9.16e-05  3.43e-04 -2.66e-04  6.33e-04  9.39e-05  2.43e-04 -1.36e-03
## 2500 -1.29e-02 -6.41e-03  1.24e-02 -7.35e-04 -2.49e-02  8.25e-03 -5.70e-02
## 2501 -5.29e-04 -6.78e-04 -3.35e-03 -3.76e-03 -2.03e-03 -4.23e-05  8.01e-03
## 2502  7.11e-05 -1.53e-04 -5.04e-04  5.54e-04  3.31e-05  1.15e-03 -2.89e-03
## 2503  1.09e-05 -5.43e-05  2.33e-04 -1.58e-04 -6.67e-06  3.14e-04 -7.09e-04
## 2504  8.86e-04  6.51e-03 -2.32e-03 -1.43e-04  6.17e-05  6.34e-03  1.84e-02
## 2505  2.75e-05 -1.25e-04  6.38e-04  4.13e-04  2.77e-05  8.65e-04 -2.05e-03
## 2506 -1.00e-02 -8.38e-03  7.06e-03 -1.19e-02 -1.45e-02  4.54e-03 -3.75e-02
## 2507 -1.28e-02  1.09e-02  1.70e-02 -1.75e-02  1.45e-02 -3.49e-03  6.27e-02
## 2508 -9.44e-03  1.43e-03 -6.21e-03 -8.07e-03 -3.92e-03 -2.30e-03  2.55e-02
## 2509  2.06e-05 -1.38e-03 -9.23e-04 -3.14e-03 -1.26e-03  2.33e-03 -7.24e-03
## 2510  2.11e-02  3.67e-04  3.32e-03 -6.20e-03 -4.73e-03  8.66e-03 -5.46e-02
## 2511  1.34e-04  2.31e-03 -1.29e-03 -2.03e-03 -3.55e-04  2.54e-03  7.92e-03
## 2512  7.82e-03 -1.71e-03  9.99e-04 -3.02e-03 -3.41e-03  6.70e-03 -3.28e-02
## 2513 -1.07e-02 -1.05e-02  6.50e-03  2.40e-02 -1.18e-02 -2.00e-03 -4.96e-02
## 2514 -1.88e-02 -6.13e-03 -3.31e-03 -2.98e-02  3.75e-03 -1.49e-02  7.40e-02
## 2515  4.01e-02  7.93e-03 -1.06e-02  5.06e-03  2.67e-02 -3.57e-02  1.09e-01
## 2516 -1.09e-03  1.53e-03  1.11e-03  1.80e-03  1.58e-04 -1.29e-03  5.29e-03
## 2517  2.08e-02  6.08e-03  4.00e-03  6.07e-03 -2.02e-03 -5.36e-03 -6.02e-02
## 2518 -5.08e-03 -3.71e-03 -4.42e-03  9.54e-03 -5.73e-03 -2.26e-03  2.41e-02
## 2519 -8.24e-06 -1.33e-03 -8.15e-04  7.45e-04 -6.85e-04  1.32e-03 -5.04e-03
```

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## 2520    2.43e-04   4.73e-04  -2.47e-03   4.94e-04  -4.43e-03   8.93e-03  -2.01e-02
## 2521    6.25e-04  -7.35e-04   6.70e-04  -4.95e-05  -4.35e-04  -9.88e-04  -3.61e-03
## 2522    1.11e-02   2.02e-02  -1.78e-02  -1.37e-02   4.71e-02  -3.93e-02  -9.20e-02
## 2523    1.78e-02  -3.28e-03   5.29e-03  -2.56e-03  -9.63e-03   6.38e-03  -3.99e-02
## 2524   -2.06e-02  -3.85e-03   5.67e-03   2.41e-02  -1.43e-02   2.89e-03  -5.13e-02
## 2525    5.50e-02  -3.74e-05  -3.26e-02   1.10e-02   1.92e-02   7.92e-03  -1.50e-01
## 2526   -1.29e-02  -1.02e-02  -8.72e-03   5.31e-03   2.50e-02  -3.92e-02   8.81e-02
## 2527    5.73e-06  -2.04e-05   9.69e-05  -4.43e-06  -1.79e-06   1.40e-04  -3.01e-04
## 2528   -2.30e-03   5.18e-03  -4.54e-03  -1.63e-02   5.97e-03   3.58e-04   5.80e-02
## 2529   -1.50e-03   1.68e-03   2.26e-03  -8.16e-05   2.14e-03  -1.27e-03   1.03e-02
## 2530   -1.34e-03  -1.38e-03  -1.30e-03   9.17e-05  -8.27e-05   2.16e-03   8.56e-03
## 2531    8.12e-04  -8.69e-04   8.76e-04   9.70e-04   2.20e-03  -7.50e-04  -4.86e-03
## 2532    7.75e-03  -4.08e-03  -2.18e-02   5.57e-02   3.57e-02  -9.15e-03  -1.10e-01
## 2533   -1.95e-04  -1.44e-03  -3.05e-03   2.13e-03   2.77e-04  -3.61e-03  -8.95e-03
## 2534    1.25e-02   1.50e-02  -7.55e-03   3.46e-03   6.30e-03   3.85e-04   3.76e-02
## 2535    1.02e-05  -3.86e-04  -1.16e-03   1.94e-04  -7.88e-04   2.88e-03  -6.62e-03
## 2536    9.67e-06   3.26e-04  -2.52e-04   6.51e-06  -1.44e-04   5.21e-04   1.39e-03
## 2537   -9.73e-04   1.01e-03  -1.72e-03   1.87e-04   4.38e-04  -9.01e-04   8.27e-03
## 2538   -8.58e-03   1.52e-03  -6.56e-03   1.11e-02  -2.11e-03  -1.08e-03   3.70e-02
## 2539    1.49e-02   5.49e-03  -2.32e-02  -1.67e-02  -1.60e-02   2.21e-02  -6.54e-02
## 2540   -1.61e-02   1.06e-02   1.42e-02   3.39e-03  -7.86e-03  -1.41e-02   6.14e-02
## 2541   -2.36e-03   1.96e-03   1.69e-03   1.63e-03   9.06e-04   3.13e-04  -7.48e-03
## 2542   -1.37e-02  -1.26e-02  -6.83e-03  -5.65e-03  -9.87e-03  -4.66e-03   3.92e-02
## 2543   -3.18e-04  -4.40e-04  -2.86e-04  -5.85e-04  -5.56e-04   3.99e-04  -1.74e-03
## 2544    1.83e-02   1.26e-02  -1.04e-02  -1.71e-02   2.07e-02   3.21e-03   7.11e-02
## 2545   -2.47e-03  -4.85e-03   4.20e-03   3.34e-03  -1.04e-02   8.57e-03   2.10e-02
## 2546   -3.48e-05  -1.03e-03  -9.84e-04  -3.28e-03  -1.62e-03   2.85e-03  -7.45e-03
## 2547   -2.06e-03  -5.70e-03   3.55e-03  -9.99e-03  -7.85e-03   4.81e-03   1.74e-02
## 2548   -4.61e-04  -1.78e-03   2.11e-03   1.41e-03  -1.14e-03  -2.49e-03   9.45e-03
## 2549   -3.54e-03  -4.60e-03   5.95e-03  -3.24e-03  -1.61e-02   1.13e-02   3.20e-02
## 2550    5.56e-03  -4.57e-03  -1.12e-02   1.34e-02  -7.07e-03   2.69e-03   4.45e-02
## 2551    9.01e-03  -2.71e-03  -1.15e-02   7.09e-04  -1.08e-02  -3.36e-04   5.14e-02
## 2552    1.38e-02  -1.40e-02  -8.35e-03   1.92e-02   8.62e-03  -2.61e-03   5.31e-02
## 2553    3.59e-03   2.44e-03   1.32e-02   9.88e-03  -3.33e-03   1.09e-02   3.96e-02
## 2554   -3.89e-04  -7.34e-04   1.21e-03   2.35e-03  -3.71e-04  -1.17e-03   5.79e-03
## 2555    5.23e-05   2.38e-04  -1.71e-04   2.52e-04  -8.92e-05   4.70e-04   1.02e-03
## 2556    3.37e-02   2.54e-02   1.11e-02  -1.44e-02  -6.63e-03   6.57e-03  -9.43e-02
## 2557    2.96e-03   1.56e-03  -9.87e-04   7.99e-05   4.03e-04   1.78e-03   5.63e-03
## 2558   -8.44e-04   9.70e-04   1.91e-03  -1.51e-03   1.41e-03  -5.14e-04   7.82e-03
## 2559    1.00e-02   6.60e-03  -2.70e-02  -1.90e-02  -6.17e-03   1.78e-02  -6.37e-02
## 2560    2.22e-02  -1.50e-02   1.56e-02   1.26e-02   1.82e-02   1.93e-02  -8.90e-02
## 2561   -1.05e-04   1.09e-02  -7.42e-03  -8.97e-03  -6.04e-03   4.92e-03   2.28e-02
## 2562    3.05e-03  -1.53e-03  -5.01e-03   4.23e-03   4.28e-03  -1.65e-03  -1.56e-02
## 2563   -4.61e-02   3.55e-02   7.35e-03  -1.98e-02   4.15e-03  -1.51e-02  -1.03e-01
## 2564    6.06e-05   2.91e-03   4.64e-04   1.18e-03  -4.69e-04   1.26e-03   5.22e-03
## 2565    7.08e-05  -2.11e-04  -1.45e-03  -4.57e-05  -7.30e-04   3.90e-03  -8.45e-03
## 2566    1.17e-02   7.68e-03   3.43e-03   7.25e-03  -2.36e-03   1.33e-03  -5.08e-02
## 2567    1.31e-03   1.60e-02  -6.43e-03   6.12e-03   1.18e-02   3.03e-03   3.86e-02
## 2568    1.09e-04  -2.36e-04  -1.46e-03   1.91e-03  -6.33e-04   3.86e-03  -8.56e-03
## 2569    3.86e-02  -5.19e-03   1.55e-02  -1.64e-02   1.55e-02  -7.94e-03  -6.96e-02
```

```
## 2570  1.13e-02  8.62e-03  8.97e-04  2.07e-02  4.73e-03 -6.48e-03 -5.89e-02
## 2571 -1.28e-03 -5.57e-03  2.18e-03 -4.54e-03 -2.76e-03 -8.94e-04  1.00e-02
## 2572 -1.81e-03 -1.60e-02 -2.27e-03 -9.31e-03 -9.46e-04  6.25e-03  3.60e-02
## 2573  7.67e-03 -3.32e-03  2.12e-03 -1.20e-03 -7.07e-03  1.14e-02 -2.82e-02
## 2574  9.16e-03  2.28e-02  6.00e-03 -9.63e-03 -7.32e-03  1.40e-02 -8.52e-02
## 2575  2.31e-05 -1.27e-03 -6.90e-04  6.52e-04 -3.72e-04  1.02e-03 -4.13e-03
## 2576 -1.30e-02 -1.70e-02 -3.14e-03  9.46e-03  6.39e-03 -9.43e-03  9.55e-02
## 2577 -2.17e-03 -5.63e-03  3.69e-03 -6.37e-03 -8.17e-03  5.32e-03  1.69e-02
## 2578 -1.82e-02 -6.71e-03 -6.92e-03  7.17e-03  1.63e-02 -4.19e-02  1.03e-01
## 2579 -2.92e-03 -1.75e-03 -1.94e-03  2.01e-03  4.89e-04 -2.02e-05 -9.71e-03
## 2580  2.58e-03 -6.31e-03 -2.36e-03 -5.02e-04 -3.46e-03 -9.20e-04  1.59e-02
## 2581  7.54e-06  3.03e-04  1.00e-04  2.61e-04  2.34e-05 -4.50e-05  6.94e-04
## 2582 -8.67e-04 -5.12e-03  1.46e-03  2.62e-03 -8.05e-04 -2.08e-03  8.11e-03
## 2583 -2.83e-04 -1.95e-04  7.27e-04 -1.19e-03 -7.43e-04  3.61e-04  4.15e-03
## 2584  3.19e-03 -4.47e-03  1.00e-02  1.81e-04 -2.36e-03  4.14e-03  3.20e-02
## 2585 -8.75e-03 -8.73e-03  4.48e-03 -1.21e-03 -9.61e-03  3.11e-03 -3.59e-02
## 2586 -2.09e-02 -8.67e-03  2.69e-02 -2.30e-02  9.78e-03 -1.07e-02  7.77e-02
## 2587 -7.59e-03 -1.81e-02 -2.22e-03  9.53e-03 -2.15e-03  8.57e-03  4.95e-02
## 2588 -2.17e-03 -6.32e-03  3.78e-03  3.95e-03 -7.75e-03  4.61e-03  1.71e-02
## 2589  4.68e-05 -8.13e-04 -1.96e-03  4.02e-03 -2.27e-03  4.92e-03 -1.27e-02
## 2590  4.22e-04  4.61e-03 -1.89e-03 -3.49e-03 -1.10e-03  5.31e-03  1.44e-02
## 2591 -2.82e-04  3.48e-04 -4.01e-04 -4.24e-04 -6.41e-04  3.43e-04  2.24e-03
## 2592  8.64e-03  1.01e-02 -8.07e-03 -5.97e-03 -4.88e-03  7.04e-04  4.03e-02
## 2593 -7.97e-04 -1.73e-03 -2.22e-03  4.12e-03 -3.18e-03  7.00e-03  1.78e-02
## 2594  2.19e-02  4.69e-03 -1.31e-02  3.26e-03  2.65e-02 -7.83e-03  6.71e-02
## 2595  8.07e-03 -2.38e-03  6.70e-03 -5.93e-04  3.13e-03  9.62e-04 -2.45e-02
## 2596  1.79e-02  9.29e-03  2.69e-02 -6.25e-05  3.45e-02 -6.73e-04  5.81e-02
## 2597 -3.15e-04  6.89e-04 -5.09e-04 -6.11e-04  2.15e-04  1.10e-03  3.32e-03
## 2598  2.08e-04 -2.98e-03 -2.27e-03  5.04e-03 -1.64e-03  7.84e-03  2.16e-02
## 2599  7.85e-06  3.81e-05 -2.69e-05  3.90e-05 -1.72e-05  8.12e-05  1.69e-04
## 2600 -9.99e-03 -1.51e-02  3.25e-02 -2.56e-02  8.76e-03 -8.37e-03  7.04e-02
## 2601  2.61e-04  1.12e-02 -7.39e-03  3.81e-03 -3.53e-03  4.56e-03  1.79e-02
## 2602 -1.44e-02 -1.38e-02  2.59e-02  6.67e-03  8.61e-03 -1.39e-02  6.42e-02
## 2603 -1.06e-02 -1.05e-02  6.65e-03 -2.51e-04 -1.36e-02 -1.38e-04 -4.14e-02
## 2604 -1.36e-02  1.50e-02  2.84e-02  2.76e-04  6.21e-03 -1.71e-02 -1.20e-01
## 2605  9.11e-03  3.71e-02  4.60e-03 -1.90e-02  1.37e-02 -1.56e-02 -8.83e-02
## 2606 -2.05e-02  3.87e-02 -3.09e-02  1.28e-02 -1.32e-02  4.72e-03 -1.35e-01
## 2607 -1.52e-02 -5.59e-03  9.78e-03 -2.56e-03 -2.15e-02 -1.45e-03 -5.14e-02
## 2608 -1.90e-02 -1.33e-02  1.82e-02 -8.42e-03 -1.08e-02 -1.33e-02  5.96e-02
## 2609 -9.24e-03 -8.58e-03  6.32e-03 -1.30e-02 -1.55e-02  1.19e-02 -4.56e-02
## 2610  2.70e-02  2.11e-02  2.13e-02 -2.39e-04 -1.33e-02 -3.76e-02 -1.44e-01
## 2611  2.46e-03 -1.85e-03  3.19e-03  3.22e-03  6.04e-03 -2.90e-03 -1.38e-02
## 2612 -5.34e-03 -1.20e-04  2.19e-02  4.32e-02  1.89e-02 -2.51e-02 -9.19e-02
## 2613  1.02e-02  1.44e-02  3.66e-02 -1.49e-02  5.33e-02 -3.79e-02 -9.18e-02
## 2614 -3.39e-04 -1.49e-04  9.49e-04  5.34e-05 -1.02e-03  5.30e-04  4.83e-03
## 2615  9.77e-03  1.73e-02  2.30e-03 -9.84e-03  3.54e-03  1.62e-02 -6.98e-02
## 2616  7.68e-03 -1.03e-02 -8.13e-03  1.86e-03 -7.79e-03 -6.22e-03  3.60e-02
## 2617  1.45e-03 -1.35e-03  1.91e-03 -1.41e-04  2.07e-03 -4.29e-04 -9.17e-03
## 2618  5.49e-03  1.47e-02 -1.03e-02  4.97e-03 -6.21e-03  5.22e-03  5.34e-02
## 2619  1.38e-02  1.15e-03  2.41e-02 -1.55e-02  3.07e-02 -1.30e-02  8.18e-02
```

```
## 2620   4.56e-03 -9.69e-03 -9.51e-03  1.31e-02 -6.43e-03 -9.77e-03  4.98e-02
## 2621   8.65e-03 -1.08e-02 -4.75e-03  6.39e-03  4.56e-03  3.52e-03  3.60e-02
## 2622  -4.13e-03 -1.74e-03  3.10e-03  2.48e-03  1.55e-03 -3.57e-03  1.42e-02
## 2623  -9.72e-06  3.47e-03  1.29e-03 -1.47e-03 -8.79e-04 -1.82e-04  7.69e-03
## 2624   1.15e-02 -1.39e-03 -1.28e-02  1.73e-02  2.66e-02 -2.67e-02  7.52e-02
## 2625  -1.50e-02 -7.35e-03 -2.29e-02  1.53e-02 -2.85e-02  5.39e-05 -5.14e-02
## 2626   4.09e-03  3.68e-03 -2.27e-03  2.12e-05  3.32e-03  2.24e-03  1.15e-02
## 2627   6.36e-03 -1.35e-03  1.77e-03 -2.28e-03 -2.83e-03  1.33e-02 -3.37e-02
## 2628  -4.05e-03  5.02e-03 -3.02e-03  5.08e-03 -3.85e-04 -3.05e-04  1.47e-02
## 2629   5.84e-03 -1.18e-03 -1.51e-03 -2.85e-03 -5.98e-05  3.47e-03  1.30e-02
## 2630  -2.13e-02 -5.87e-04  7.05e-03 -1.56e-03 -1.98e-02  1.55e-02 -6.25e-02
## 2631   1.88e-05 -2.90e-04 -3.52e-04 -9.67e-04 -2.50e-04  9.76e-04 -2.38e-03
## 2632   1.03e-04  2.23e-03 -1.14e-03  1.37e-04 -1.62e-03  3.38e-03  8.53e-03
## 2633   1.16e-03  1.35e-03  6.46e-04 -3.67e-04  1.20e-03 -2.14e-04  4.45e-03
## 2634   4.71e-03  3.25e-03  1.18e-02  3.21e-02 -6.79e-03 -1.02e-02 -1.05e-01
## 2635  -2.39e-03  1.29e-02  2.31e-02 -6.60e-03  2.00e-02  1.65e-03 -8.91e-02
## 2636  -1.74e-02 -1.23e-02 -7.14e-03 -2.15e-02  1.17e-02 -1.56e-02  6.65e-02
## 2637   4.55e-04 -4.03e-03  9.75e-03 -7.64e-03 -5.05e-03 -4.45e-03  4.10e-02
## 2638   2.07e-02  2.54e-02  1.06e-02 -1.49e-02 -1.32e-02 -8.37e-03 -9.36e-02
## 2639   2.27e-02  8.27e-03  6.70e-03 -8.29e-03 -8.91e-03 -1.68e-03 -5.75e-02
## 2640  -1.36e-02  8.29e-03  2.05e-02  1.81e-02  1.37e-02 -5.43e-03 -1.03e-01
## 2641  -2.41e-03 -4.63e-03  4.28e-03 -8.28e-03 -1.12e-02  9.50e-03  2.15e-02
## 2642  -7.54e-04  1.34e-03 -9.63e-04 -1.74e-04 -7.22e-04 -3.28e-05  4.56e-03
## 2643  -3.20e-03 -4.85e-03 -1.16e-02  4.93e-03 -1.66e-02  1.16e-02  2.90e-02
## 2644   2.74e-03 -9.67e-03 -8.08e-03  3.98e-03 -7.81e-03 -2.92e-03  3.45e-02
## 2645   3.63e-05 -4.28e-04 -7.27e-04  1.14e-04 -2.50e-04  1.73e-03 -4.15e-03
## 2646   1.68e-02 -4.40e-03 -1.23e-02 -1.05e-02  1.55e-02 -1.36e-02  7.11e-02
## 2647   1.12e-02  4.54e-03  4.88e-03 -4.52e-03 -1.17e-02  3.14e-03 -4.89e-02
## 2648  -3.00e-02  1.93e-03  1.74e-02  1.19e-02 -5.86e-03  5.06e-03  5.58e-02
## 2649   3.97e-03 -1.50e-03 -5.34e-03  1.28e-04  8.39e-04 -3.46e-03 -2.25e-02
## 2650   8.61e-03 -3.83e-03  3.47e-03 -1.04e-03 -1.19e-02  1.18e-02 -3.81e-02
## 2651  -1.79e-02 -1.78e-03 -2.22e-02 -1.42e-02 -2.07e-02  1.88e-02 -6.62e-02
## 2652  -7.81e-03  2.21e-04  5.22e-03  2.37e-03  6.27e-04 -6.54e-04  1.93e-02
## 2653  -2.46e-02 -9.92e-03 -9.22e-03  4.81e-03 -1.20e-02 -2.58e-03  4.86e-02
## 2654   6.70e-05  3.13e-03  5.05e-04  1.27e-03 -6.11e-04  1.49e-03  5.65e-03
## 2655   7.46e-04 -7.47e-04 -1.29e-03  8.42e-05  7.49e-04 -1.94e-04 -4.53e-03
## 2656   1.81e-03 -3.81e-03 -1.02e-02 -8.21e-03 -3.91e-03  3.77e-03  3.82e-02
## 2657  -1.07e-03 -7.24e-04  1.04e-03 -1.70e-03 -1.09e-03  1.13e-03 -4.48e-03
## 2658   1.73e-02  6.17e-05  1.13e-02  1.35e-03  1.59e-02 -3.29e-03 -7.00e-02
## 2659  -2.13e-03 -4.90e-04 -3.48e-03 -7.04e-04 -3.64e-03  6.75e-03  2.57e-02
## 2660   1.05e-02 -2.05e-04 -3.36e-03 -6.00e-04  2.48e-03  4.46e-03  2.40e-02
## 2661  -1.37e-02  7.48e-03 -7.19e-03  6.15e-03  1.04e-02 -8.12e-03  5.42e-02
## 2662   1.41e-03 -1.30e-03  1.88e-03  1.24e-04  1.46e-03 -3.29e-04 -9.33e-03
## 2663  -3.34e-04 -1.28e-03 -2.51e-03  4.41e-05  1.19e-04 -3.32e-03 -7.31e-03
## 2664   1.12e-02  2.54e-02 -1.69e-02 -1.36e-02  4.39e-02 -4.13e-02 -1.07e-01
## 2665   2.64e-02  4.18e-03  8.15e-03 -6.24e-03 -1.33e-02  2.04e-02 -6.94e-02
## 2666   1.46e-02 -7.84e-04 -5.02e-03  1.24e-02  6.18e-03  4.27e-03  3.39e-02
## 2667  -3.18e-03 -1.43e-02  1.32e-02  5.07e-03 -1.36e-03  7.48e-03  3.37e-02
## 2668  -4.16e-04  8.16e-06  1.17e-03 -3.40e-03 -1.45e-03  5.77e-04  5.79e-03
## 2669   1.38e-02  6.82e-03  5.05e-03  2.32e-02 -6.13e-03  1.06e-02 -6.27e-02
```

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## 2670 -3.33e-03 -5.25e-03  6.38e-03  4.84e-03 -1.55e-02  1.05e-02  3.33e-02
## 2671 -3.15e-05 -8.08e-04 -3.26e-04 -1.01e-03 -3.58e-04  4.83e-04 -2.47e-03
## 2672 -4.40e-04 -5.67e-05  1.58e-03  2.77e-03 -1.25e-03  9.61e-05  7.30e-03
## 2673 -1.35e-02 -7.96e-03  8.84e-03  1.25e-02 -1.98e-02 -1.15e-03 -4.23e-02
## 2674 -4.56e-04 -1.45e-04  1.30e-03  2.33e-03 -1.09e-03 -8.55e-05  6.25e-03
## 2675 -1.10e-02 -7.24e-03  7.08e-03 -1.88e-03 -1.40e-02  3.66e-03 -4.36e-02
## 2676  5.11e-03 -4.80e-04 -7.62e-03  7.02e-03  4.49e-03 -2.25e-03 -2.73e-02
## 2677  5.50e-04  5.62e-04  3.37e-04 -1.09e-04  6.02e-04 -3.19e-04  2.17e-03
## 2678 -5.00e-03 -4.11e-03 -2.41e-02 -1.82e-02  1.08e-02 -1.20e-02 -7.53e-02
## 2679 -1.16e-02 -3.93e-03  1.04e-02 -1.67e-02 -1.85e-02  1.03e-02 -5.65e-02
## 2680 -1.14e-03 -1.74e-03 -1.38e-03 -5.22e-03 -2.52e-03  9.02e-03  2.21e-02
## 2681 -4.45e-05 -2.26e-05 -2.57e-05  1.67e-05 -8.79e-06 -3.00e-05 -8.88e-05
## 2682 -1.49e-02 -1.08e-03  6.63e-03 -4.92e-03 -9.08e-03  5.96e-03 -5.38e-02
## 2683 -1.27e-02 -1.49e-02  1.93e-02  4.97e-03  1.77e-02 -6.79e-03  5.69e-02
## 2684 -1.01e-02 -7.13e-03  7.27e-03 -2.49e-03 -1.38e-02  1.09e-02 -5.37e-02
## 2685  4.24e-04  2.64e-03 -1.19e-03  2.51e-04 -1.42e-03  4.13e-03  9.95e-03
## 2686 -1.82e-02 -3.69e-03  4.76e-03  9.85e-03 -1.23e-02  4.79e-03 -5.48e-02
## 2687 -2.31e-02  1.76e-02 -1.27e-02  1.07e-03 -4.66e-03  4.26e-04  4.90e-02
## 2688  1.53e-03 -5.28e-03 -9.26e-03  2.30e-03 -4.70e-03  1.44e-03  3.12e-02
## 2689  3.66e-04 -1.04e-04 -2.41e-03  4.04e-03 -3.09e-03  8.17e-03 -1.69e-02
## 2690 -1.84e-03 -5.45e-03  2.91e-03 -5.60e-03 -7.03e-03  5.35e-03  1.63e-02
## 2691 -2.17e-03 -7.22e-04 -1.27e-03 -1.76e-04 -1.60e-03 -4.79e-04  5.40e-03
## 2692 -2.67e-03 -1.05e-03 -1.66e-03 -4.24e-03 -3.73e-03  2.99e-03 -1.15e-02
## 2693  4.23e-03 -1.36e-03 -6.42e-03  4.94e-03  7.78e-03 -2.80e-03 -2.08e-02
## 2694 -2.46e-03 -4.80e-03  4.13e-03  3.27e-03 -1.04e-02  8.66e-03  2.08e-02
## 2695  2.67e-02 -1.21e-02 -2.90e-03  9.47e-03  5.63e-03 -9.86e-03  7.53e-02
## 2696  5.63e-03 -9.15e-03  1.21e-02  3.63e-03  4.58e-03  1.54e-03  4.10e-02
## 2697  4.77e-04  2.65e-03 -1.18e-03  4.34e-04 -4.44e-04  2.94e-03 -6.60e-03
## 2698  2.84e-03  2.65e-03  1.28e-02 -1.94e-03 -5.77e-03  1.24e-02  3.76e-02
## 2699 -4.12e-03 -8.46e-03  1.59e-02 -1.68e-02  1.73e-02 -1.25e-02 -6.65e-02
## 2700 -4.30e-03 -9.94e-04  3.22e-03 -6.22e-04 -2.37e-04  6.20e-04  1.30e-02
## 2701  5.18e-05 -2.19e-04 -1.58e-03  2.00e-03 -6.88e-04  3.94e-03 -9.03e-03
## 2702 -1.81e-02 -3.77e-03 -2.14e-02 -1.28e-03 -2.90e-02  9.53e-03 -6.53e-02
## 2703  9.04e-03  4.97e-03  5.90e-03 -2.16e-03 -1.49e-02  2.63e-02 -5.52e-02
## 2704  1.07e-02 -1.40e-04  2.78e-03 -3.35e-03 -5.00e-03  1.44e-02 -4.67e-02
## 2705 -1.54e-02 -1.63e-02 -6.27e-03  7.52e-03 -1.62e-02 -9.89e-03  6.74e-02
## 2706 -4.61e-04  2.90e-04  1.69e-03 -2.35e-03 -2.10e-03  1.03e-03  8.49e-03
## 2707  9.28e-03 -2.01e-02  8.64e-03  2.70e-02 -1.96e-02 -4.95e-03 -7.50e-02
## 2708  5.16e-03 -1.49e-03  1.05e-02  9.01e-03  1.03e-04  9.92e-03  4.65e-02
## 2709 -3.24e-03 -4.42e-03 -1.18e-02  4.57e-03 -1.66e-02  1.18e-02  2.93e-02
## 2710 -3.28e-03  1.22e-02 -4.92e-03 -7.39e-03  6.43e-03  5.37e-03  3.30e-02
## 2711 -2.89e-03 -1.14e-02 -6.40e-03 -8.54e-03 -8.74e-03 -3.76e-03  2.35e-02
## 2712  3.36e-03 -4.12e-03  1.14e-02  1.13e-02 -1.70e-03  5.50e-03  3.86e-02
## 2713  3.52e-03 -9.52e-04 -6.85e-03  5.24e-03  6.42e-03 -4.64e-03 -2.09e-02
## 2714 -1.60e-03 -1.27e-03  1.87e-03  1.42e-03 -1.40e-03  2.17e-03 -7.59e-03
## 2715 -8.97e-04  9.04e-04 -8.41e-04 -1.12e-04 -6.89e-04  1.62e-04  4.48e-03
## 2716 -6.31e-03  3.93e-03 -2.73e-02 -2.66e-03  9.92e-03 -1.01e-02 -7.75e-02
## 2717  1.80e-02 -5.04e-03  5.08e-03 -1.93e-03 -1.04e-02  4.11e-03 -4.57e-02
## 2718 -1.91e-06 -3.62e-04 -9.63e-05 -2.91e-04 -2.10e-05  9.64e-06 -8.31e-04
## 2719 -1.82e-03 -6.45e-03  3.24e-03 -4.45e-03 -5.36e-03  1.65e-03  1.35e-02
```

```
## 2720   5.86e-04   3.33e-03 -1.50e-03   2.64e-03 -4.70e-04   3.51e-03 -8.56e-03
## 2721   8.14e-03   4.14e-03   1.50e-02 -2.56e-03 -3.86e-03   2.39e-02   5.54e-02
## 2722   2.21e-05   7.44e-04   1.71e-04   4.50e-04   2.98e-05   1.30e-04   1.63e-03
## 2723   9.18e-03 -2.58e-03   2.21e-03   1.61e-02 -6.36e-03   1.11e-02 -3.63e-02
## 2724 -8.96e-03   5.24e-03   1.13e-02   2.96e-03   2.17e-04 -7.86e-03   4.53e-02
## 2725   1.44e-02 -5.28e-03   4.12e-03 -1.53e-03 -1.09e-02   8.70e-03 -3.46e-02
## 2726 -3.94e-03   2.86e-03 -2.92e-03 -1.26e-02   2.24e-03   4.33e-03   4.03e-02
## 2727 -3.21e-03 -1.28e-02   1.04e-02 -1.03e-03 -3.64e-03   4.85e-03   2.71e-02
## 2728 -1.98e-03 -5.29e-03   3.41e-03 -6.78e-03 -8.17e-03   7.36e-03   1.99e-02
## 2729   1.37e-02   4.57e-03 -1.28e-02   1.50e-02 -1.39e-02   6.73e-03   6.93e-02
## 2730 -2.22e-03 -6.20e-03   3.87e-03   3.85e-03 -7.71e-03   4.63e-03   1.75e-02
## 2731   1.34e-02 -1.16e-02 -4.63e-03 -1.60e-02   2.55e-03   9.83e-03   5.59e-02
## 2732 -1.42e-02 -1.50e-02   2.11e-02   9.34e-03   1.11e-03   6.84e-03   5.33e-02
## 2733   1.84e-04 -2.77e-03 -2.79e-03 -7.90e-04 -2.53e-03   1.08e-02   2.72e-02
## 2734 -1.53e-03   2.49e-03   1.77e-03 -2.29e-03 -2.84e-04   1.17e-04   8.22e-03
## 2735 -7.58e-04 -1.99e-03   1.18e-02 -7.18e-03   1.55e-03   1.10e-02   3.11e-02
## 2736 -6.20e-03 -5.36e-03 -2.41e-02 -1.80e-02   8.42e-03 -2.21e-02 -7.37e-02
## 2737   8.82e-03 -4.24e-03   2.36e-03 -1.01e-03 -6.83e-03   8.68e-03 -3.52e-02
## 2738 -5.05e-03 -3.41e-03 -5.13e-03   5.40e-03   3.40e-04   2.95e-03 -2.41e-02
## 2739   9.21e-05   5.76e-04 -4.29e-04   5.37e-04   2.50e-04   6.17e-04   2.40e-03
## 2740   7.41e-04   1.79e-02 -6.24e-03 -2.27e-03   1.03e-02   1.76e-03   4.02e-02
## 2741 -1.10e-02 -5.99e-03   2.13e-03 -1.20e-03 -6.14e-03   7.30e-03 -3.34e-02
## 2742   2.81e-05   4.61e-04   1.29e-04   3.57e-04   4.51e-05   3.38e-05   1.01e-03
## 2743 -3.15e-03 -5.81e-03 -1.06e-02   4.81e-03 -1.44e-02   8.61e-03   2.55e-02
## 2744   1.99e-02 -2.55e-03   1.03e-02   1.68e-03   1.46e-02 -1.05e-02 -6.83e-02
## 2745 -8.87e-03   2.56e-03   1.21e-02 -1.27e-02 -7.36e-03   1.19e-03   3.97e-02
## 2746 -1.23e-03   7.31e-03 -1.01e-02   3.91e-03 -1.01e-02   9.47e-03   2.33e-02
## 2747   7.92e-03 -4.10e-03 -1.20e-02   1.42e-02 -5.11e-04   1.18e-02   5.61e-02
## 2748 -1.69e-02   4.98e-02 -3.10e-02   4.59e-02 -1.32e-02   4.06e-03 -1.48e-01
## 2749   8.30e-03 -2.58e-03 -1.62e-02 -9.59e-03 -1.30e-02   1.43e-02 -3.77e-02
## 2750   7.53e-03 -5.95e-03   8.87e-03   8.40e-03   1.60e-03   8.06e-04   4.69e-02
## 2751 -9.95e-04 -5.37e-03   1.72e-03   8.49e-04 -1.25e-03 -2.42e-03   8.77e-03
## 2752   9.31e-03   1.92e-02 -1.85e-02 -1.47e-02   4.31e-02 -3.79e-02 -8.91e-02
## 2753   2.80e-03 -1.10e-03   2.28e-03 -1.66e-03   1.82e-03   1.85e-03   8.31e-03
## 2754 -2.35e-03 -5.33e-03   4.11e-03   3.53e-03 -9.47e-03   7.29e-03   1.97e-02
## 2755 -2.42e-03 -4.36e-03   3.97e-03 -1.32e-02 -1.09e-02   9.08e-03   2.26e-02
## 2756 -8.32e-04   9.97e-04 -5.74e-03 -3.48e-03 -4.33e-03   1.51e-03   1.20e-02
## 2757   3.03e-02 -4.11e-03   1.11e-02 -5.04e-04   1.61e-02 -1.67e-02 -7.89e-02
## 2758 -7.72e-04   2.54e-02   1.57e-02 -1.67e-02   2.00e-02 -6.33e-03   5.40e-02
## 2759   3.36e-03 -6.12e-03   4.32e-03   2.46e-03   4.35e-03   1.15e-03   1.53e-02
## 2760   8.12e-04 -5.69e-03   2.96e-03   1.34e-03 -1.90e-03 -3.41e-03   1.39e-02
## 2761   1.78e-02   5.12e-03 -1.14e-02   2.92e-03   2.55e-02   2.38e-03   5.11e-02
## 2762 -4.51e-04 -2.52e-03 -2.06e-03   3.67e-03 -2.05e-03   4.11e-03   1.44e-02
## 2763   1.32e-02 -1.59e-02 -5.46e-03 -1.16e-02   5.79e-03   3.16e-03   4.91e-02
## 2764 -6.60e-04   2.49e-03   2.21e-03   3.06e-03 -3.89e-03   3.97e-03   1.20e-02
## 2765   1.28e-02   3.91e-02 -2.27e-02   6.13e-02   4.66e-02 -2.55e-02 -1.08e-01
## 2766   1.17e-02   3.90e-03   4.37e-03 -3.86e-03 -7.47e-03   1.01e-02 -4.56e-02
## 2767 -2.22e-02 -9.02e-03 -1.19e-02   1.25e-02 -8.92e-03 -5.45e-03   5.12e-02
## 2768 -6.42e-03 -2.41e-03 -5.04e-03 -1.00e-04   8.72e-04   5.54e-04 -2.01e-02
## 2769   8.04e-03 -7.83e-03   1.17e-02   2.43e-03   6.42e-04   3.48e-03   4.78e-02
```

```
## 2770  3.49e-03 -3.74e-03  1.04e-02  8.76e-03 -1.15e-03  3.33e-03  3.51e-02
## 2771 -1.58e-02  3.98e-03  2.94e-02 -2.53e-02  2.01e-02  6.40e-03 -1.44e-01
## 2772 -1.29e-02 -4.87e-03  7.32e-03  1.07e-02 -1.35e-02  4.50e-03 -6.41e-02
## 2773 -2.23e-03 -5.86e-03  3.79e-03 -1.57e-03 -8.11e-03  5.15e-03  1.65e-02
## 2774  1.79e-02  3.32e-02 -1.22e-02  1.95e-02  3.03e-02 -5.37e-03  6.53e-02
## 2775 -1.67e-02 -3.80e-03  4.35e-03 -2.07e-03 -1.12e-02  7.76e-03 -3.89e-02
## 2776 -3.55e-02 -3.33e-03 -3.03e-02 -4.04e-02  2.36e-03  3.60e-02 -1.37e-01
## 2777 -2.88e-02 -1.85e-03 -1.03e-02  3.10e-04 -1.37e-02  2.96e-04  8.06e-02
## 2778 -3.21e-03  5.10e-03 -3.98e-03 -4.78e-03 -3.09e-03 -1.21e-03  1.65e-02
## 2779 -1.80e-02 -1.29e-02 -5.95e-03  8.27e-03  2.55e-03 -1.45e-03  5.24e-02
## 2780  1.05e-02  9.31e-03  6.66e-03  2.46e-02 -1.50e-02  2.56e-02 -7.30e-02
## 2781 -2.32e-03  2.96e-02  1.89e-02  6.44e-03  1.87e-02 -1.52e-02  6.04e-02
## 2782  1.30e-03  2.56e-03  3.09e-03  4.39e-03  1.73e-03 -6.03e-04  1.55e-02
## 2783 -9.26e-06  6.11e-06 -1.29e-03 -4.02e-03 -1.65e-03  4.43e-03 -9.23e-03
## 2784  3.73e-03 -6.12e-04 -2.12e-03 -2.33e-05  2.46e-03  2.74e-03  1.41e-02
## 2785  3.22e-02 -8.10e-03 -7.42e-03 -9.89e-03  9.58e-03 -9.93e-03  7.03e-02
## 2786  6.92e-03 -4.86e-02  1.73e-02 -2.09e-02 -1.57e-02 -1.06e-02 -1.16e-01
## 2787 -1.05e-03  1.59e-03 -1.26e-03 -1.39e-03 -9.91e-04  4.21e-04  5.71e-03
## 2788  1.45e-03 -2.64e-03  1.08e-02  9.50e-04 -3.76e-03  2.37e-03  3.25e-02
## 2789  1.51e-02  7.25e-03 -1.41e-02  2.64e-03  2.53e-02 -1.58e-02  7.59e-02
## 2790  7.49e-04 -5.41e-03  6.31e-03  1.85e-03 -7.33e-04 -2.18e-03  2.16e-02
## 2791 -9.84e-03 -7.05e-03  4.93e-03 -2.54e-03 -9.26e-03  2.23e-03 -3.92e-02
## 2792  1.72e-02 -1.50e-02 -4.11e-03 -1.16e-02  6.62e-05  8.05e-03  4.78e-02
## 2793  6.38e-03 -1.42e-03  2.69e-03 -1.65e-03 -7.55e-03  1.57e-02 -3.28e-02
## 2794  8.38e-03  1.18e-03  5.09e-03 -2.39e-03 -1.11e-02  1.41e-02 -4.35e-02
## 2795  5.04e-04  2.06e-03 -1.07e-03  2.23e-03 -9.42e-05  2.13e-03 -6.76e-03
## 2796 -1.52e-03 -6.77e-03  2.79e-03  3.69e-03 -4.39e-03  1.83e-03  1.41e-02
## 2797 -1.41e-03 -1.95e-03 -2.14e-03 -6.02e-04 -6.52e-04  9.15e-03  2.63e-02
## 2798  7.92e-03  1.63e-02  3.23e-03 -9.03e-03  1.84e-03  1.11e-02 -6.56e-02
## 2799 -4.23e-05  1.05e-03 -1.23e-03 -1.18e-03 -2.30e-04 -4.13e-04  3.01e-03
## 2800 -1.96e-02 -4.24e-02 -2.50e-02  4.66e-02 -1.46e-03 -4.27e-02 -1.26e-01
## 2801 -3.75e-03 -4.77e-03 -4.57e-03  5.11e-03 -3.36e-03  2.58e-03 -2.20e-02
## 2802 -2.30e-03  3.62e-03 -2.42e-03  2.30e-03 -2.88e-03 -3.22e-04  1.12e-02
## 2803 -6.50e-04  2.25e-03  1.62e-03  2.18e-03 -3.41e-03  4.44e-03  1.25e-02
## 2804 -1.96e-02 -4.28e-03  3.12e-02  1.77e-03  3.88e-02 -3.57e-02  9.97e-02
## 2805  6.96e-03 -9.84e-03  1.38e-02  4.55e-03  6.13e-04 -5.52e-03  5.19e-02
## 2806 -2.93e-04 -3.86e-03 -2.40e-03 -7.35e-03 -4.88e-03  1.15e-02  3.53e-02
## 2807 -1.96e-05 -6.57e-04 -2.43e-04 -7.42e-04 -1.82e-04  2.42e-04 -1.85e-03
## 2808  7.27e-03  7.87e-03  9.24e-03 -2.47e-02  6.99e-03 -3.49e-02 -1.14e-01
## 2809  7.12e-05 -3.67e-04 -7.53e-04 -2.15e-03 -6.22e-04  2.38e-03 -5.30e-03
## 2810 -3.71e-03 -1.45e-03 -2.50e-03  2.44e-03 -2.54e-03  2.31e-03 -1.22e-02
## 2811 -2.45e-02  3.48e-03  8.78e-03 -1.57e-02 -1.98e-02  2.27e-02 -6.60e-02
## 2812  2.29e-04  3.36e-03 -1.58e-03  2.45e-03 -1.08e-03  5.14e-03  1.09e-02
## 2813 -1.60e-05 -4.72e-04 -2.06e-04  2.10e-04 -3.46e-05  1.42e-04 -1.28e-03
## 2814  1.76e-02  2.33e-02 -3.26e-02  1.22e-02 -2.38e-02  1.09e-02 -9.30e-02
## 2815  4.15e-04 -1.17e-03  9.52e-03 -2.37e-04 -2.87e-03 -1.11e-03  3.44e-02
## 2816 -2.61e-04 -7.75e-04  6.37e-04 -1.11e-03 -4.77e-04 -9.05e-04  3.10e-03
## 2817 -8.34e-03 -8.80e-03  4.75e-03 -1.30e-03 -8.20e-03  3.16e-03 -3.91e-02
## 2818  6.17e-02  7.46e-02 -3.79e-02  1.03e-02  3.37e-02  2.73e-02 -1.51e-01
## 2819 -1.44e-05  1.68e-03 -1.77e-03 -1.74e-03 -4.62e-04 -2.78e-04  4.51e-03
```

```
## 2820   5.76e-05 -8.96e-04 -1.17e-03 -3.82e-03 -1.76e-03  4.05e-03 -9.27e-03
## 2821  -3.95e-03 -9.12e-03 -1.12e-02 -7.97e-04 -1.73e-02  4.03e-03  3.22e-02
## 2822   4.49e-03  1.33e-02  8.62e-03  1.10e-03  1.92e-04  8.27e-03  3.49e-02
## 2823   1.92e-03  5.79e-03 -1.25e-02  1.15e-02 -9.36e-03  5.03e-03  4.84e-02
## 2824   2.98e-04  1.05e-02  1.32e-03  2.11e-03 -2.69e-03  6.06e-03  1.58e-02
## 2825  -1.21e-02 -8.41e-03  7.17e-03 -1.48e-03 -1.45e-02 -1.28e-03 -4.53e-02
## 2826  -2.62e-03 -3.83e-03 -2.42e-03 -2.50e-03 -2.04e-03  1.44e-03 -1.34e-02
## 2827  -1.65e-02 -2.16e-03  2.25e-03 -4.20e-03 -7.34e-03  1.76e-02 -4.89e-02
## 2828   5.31e-03  5.06e-04  6.24e-03 -1.75e-03 -2.51e-03 -1.00e-03  2.11e-02
## 2829  -2.38e-03 -3.31e-03  3.30e-03  2.49e-03 -2.83e-04  7.33e-04 -1.27e-02
## 2830  -1.03e-04 -3.80e-04  3.06e-04  6.86e-04 -1.39e-05 -3.80e-04  1.68e-03
## 2831   5.66e-05 -8.31e-05 -1.21e-04  7.55e-06 -1.27e-04 -6.48e-05  6.60e-04
## 2832  -9.05e-03 -1.52e-02  2.33e-02  7.06e-03  9.01e-04  5.19e-03  5.07e-02
## 2833   9.68e-03  1.95e-02 -1.84e-02 -1.47e-02  4.42e-02 -3.84e-02 -8.99e-02
## 2834   1.01e-06  5.10e-05  1.95e-05  5.24e-05  1.13e-05 -2.21e-05  1.33e-04
## 2835   3.61e-05 -1.64e-03 -7.91e-04  2.47e-03 -1.44e-04  5.62e-04 -5.42e-03
## 2836   8.41e-03 -1.05e-02  1.17e-02  1.21e-02  1.76e-02 -9.59e-03  4.41e-02
## 2837   8.09e-03  3.91e-03  1.48e-02 -2.71e-03 -2.89e-03  2.26e-02  5.42e-02
## 2838  -1.80e-02 -9.27e-03  1.09e-02  1.00e-02 -2.36e-03 -3.56e-03  5.49e-02
## 2839  -4.52e-05 -1.21e-03 -8.53e-04 -2.80e-03 -1.16e-03  1.98e-03 -6.37e-03
## 2840   9.54e-03 -2.01e-03  2.52e-03 -2.33e-03 -5.13e-03  1.62e-02 -4.23e-02
## 2841  -2.25e-02 -9.03e-03 -9.59e-03  5.39e-03  2.10e-02 -3.13e-02  8.10e-02
## 2842  -3.17e-02  2.76e-04 -1.41e-02  1.47e-02 -8.65e-03 -3.20e-03  6.69e-02
## 2843   1.29e-02 -5.42e-03  2.41e-02 -2.14e-02  1.58e-02 -3.99e-03  6.08e-02
## 2844   3.59e-03  4.10e-03 -7.25e-03 -3.42e-03 -9.21e-04  9.44e-04  2.36e-02
## 2845  -2.13e-03 -6.48e-03  4.00e-03  4.15e-03 -7.68e-03  4.62e-03  1.76e-02
## 2846  -5.90e-03 -2.04e-02 -1.42e-03  9.74e-03 -8.65e-03  1.33e-02  5.72e-02
## 2847   1.28e-03 -1.05e-03  1.82e-03 -3.45e-03  2.00e-03 -2.17e-04 -7.03e-03
## 2848   2.65e-03 -2.10e-03  3.54e-03  3.42e-03  3.62e-03 -3.77e-04 -1.39e-02
## 2849   1.32e-02  2.26e-03 -5.24e-03 -8.54e-03  6.34e-03  7.49e-03  3.58e-02
## 2850   1.09e-02  8.50e-03 -1.03e-02 -1.60e-02 -8.30e-03 -4.00e-03  5.04e-02
## 2851  -1.18e-05 -1.22e-03 -4.80e-04 -1.53e-03 -4.00e-04  6.27e-04 -3.78e-03
## 2852   3.17e-03  7.26e-03 -1.38e-02 -7.51e-04 -1.62e-02  1.15e-02  5.58e-02
## 2853   1.33e-03 -1.11e-03 -8.75e-04  1.02e-03 -2.32e-04  3.09e-05 -4.02e-03
## 2854  -2.75e-03 -6.87e-03 -1.05e-02  5.97e-03 -1.38e-02  7.52e-03  2.93e-02
## 2855   1.36e-03 -1.14e-03  1.40e-03 -1.25e-04  3.29e-03 -7.60e-04 -7.02e-03
## 2856  -3.45e-03 -1.95e-02 -1.08e-03 -1.30e-03 -1.26e-02  2.00e-02  5.66e-02
## 2857   1.58e-02 -6.35e-03  5.55e-03 -1.01e-03 -1.67e-02  7.35e-03 -3.87e-02
## 2858  -1.40e-02 -6.54e-03  9.77e-03 -1.93e-03 -2.07e-02  1.31e-04 -4.97e-02
## 2859   3.29e-03  3.11e-03  1.31e-02  9.51e-03 -4.36e-03  1.17e-02  4.00e-02
## 2860   8.14e-03 -4.22e-03 -8.70e-03 -2.22e-02 -1.23e-02 -5.65e-03  5.53e-02
## 2861  -5.10e-05  1.76e-03  2.27e-03 -1.59e-03  4.83e-04  2.04e-03  6.71e-03
## 2862  -2.97e-02  3.08e-03 -9.03e-03  4.45e-03  2.22e-02 -1.62e-02  7.33e-02
## 2863  -4.67e-04  3.50e-04  1.61e-03 -2.37e-03 -1.99e-03  1.17e-03  7.03e-03
## 2864   2.53e-02 -4.23e-03 -6.47e-03  5.84e-03  1.77e-02 -8.76e-03  6.23e-02
## 2865   8.96e-03 -2.63e-03  3.39e-03 -1.68e-03 -1.29e-02  1.16e-02 -3.53e-02
## 2866   2.08e-03  9.77e-03  1.05e-02  5.74e-03  7.25e-03  5.59e-03  2.95e-02
## 2867  -1.90e-02 -2.08e-03  4.46e-03 -3.48e-03 -1.12e-02  6.14e-03 -4.59e-02
## 2868  -7.45e-06  1.24e-04  6.12e-05  5.17e-05 -2.47e-05 -6.17e-05  4.05e-04
## 2869   1.16e-02  4.79e-03  2.88e-03  2.11e-02 -3.72e-03  4.01e-03 -4.81e-02
```

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## 2870   9.50e-05 -8.34e-04 -1.55e-03  3.69e-04 -1.74e-03  4.59e-03 -1.01e-02
## 2871   1.94e-02  1.69e-03  5.87e-03 -5.52e-03 -1.09e-02  4.03e-03 -5.16e-02
## 2872  -1.05e-03  2.21e-03 -6.65e-03 -4.50e-03 -5.87e-03  3.19e-03  1.42e-02
## 2873   1.46e-02  3.79e-02  4.55e-03 -1.88e-02  8.87e-03 -2.22e-02 -9.77e-02
## 2874   3.23e-02 -6.70e-03 -7.76e-03 -2.71e-02  1.69e-02 -7.53e-03  7.71e-02
## 2875   1.07e-02  4.21e-02  2.59e-03 -2.20e-02  3.08e-02 -2.77e-02 -1.02e-01
## 2876  -2.78e-02  2.94e-03 -9.34e-03 -3.36e-02  1.93e-02 -1.79e-03  7.26e-02
## 2877  -1.00e-02  1.25e-03 -5.88e-03  2.73e-03 -1.67e-03 -2.21e-03  2.34e-02
## 2878  -2.46e-02 -3.18e-03 -1.02e-02  1.63e-03 -1.74e-02 -2.67e-04  6.00e-02
## 2879   1.60e-05 -2.31e-04 -1.00e-03 -3.10e-03 -1.18e-03  3.33e-03 -7.14e-03
## 2880   2.23e-03 -1.45e-03  2.53e-03  2.59e-03  6.06e-03 -2.81e-03 -1.36e-02
## 2881   2.91e-04  3.96e-03 -1.65e-03 -1.08e-04 -1.64e-03  4.84e-03  1.36e-02
## 2882  -1.86e-03 -1.36e-02 -2.55e-03 -6.38e-03 -1.65e-03  4.41e-03  2.78e-02
## 2883  -5.38e-03 -8.93e-03  1.99e-02 -1.69e-02  1.41e-02 -1.99e-02 -6.62e-02
## 2884  -1.15e-02 -8.84e-03  7.09e-03 -5.31e-04 -1.67e-02 -4.93e-04 -5.47e-02
## 2885   3.14e-03 -1.46e-03  2.29e-03  3.70e-03  1.43e-03 -2.44e-03  1.12e-02
## 2886  -2.61e-02  2.50e-02 -3.81e-02  2.95e-02 -2.88e-02 -1.62e-02 -1.15e-01
## 2887   1.73e-02 -6.14e-03  6.20e-03 -8.75e-04 -1.55e-02  6.81e-03 -3.98e-02
## 2888  -2.45e-03 -4.68e-03  4.34e-03  3.33e-03 -1.07e-02  9.14e-03  2.17e-02
## 2889   5.64e-05  1.92e-02 -2.97e-02 -6.55e-03  1.57e-02  1.37e-02 -1.06e-01
## 2890  -2.55e-02  1.39e-02  3.99e-02  7.41e-03  4.84e-03  1.24e-02 -1.35e-01
## 2891  -6.78e-04 -6.89e-04 -3.94e-03 -4.40e-03 -2.64e-03 -7.16e-04  1.03e-02
## 2892  -1.12e-03  4.01e-03 -8.19e-03 -8.56e-04 -7.28e-03  5.11e-03  1.70e-02
## 2893  -1.49e-05  1.09e-03  5.60e-04 -1.30e-03 -1.92e-04 -4.48e-04  3.27e-03
## 2894  -8.51e-03  2.78e-02 -1.20e-02  1.18e-02  1.51e-03 -1.28e-02  6.13e-02
## 2895  -6.93e-03 -1.18e-03 -4.07e-03  3.63e-03 -2.92e-03  4.33e-03 -1.98e-02
## 2896  -1.14e-02 -8.36e-03  7.63e-03 -9.69e-04 -1.51e-02 -1.05e-03 -5.24e-02
## 2897   5.00e-03  3.31e-03 -1.66e-03  2.32e-03  1.62e-03  3.31e-03  1.10e-02
## 2898   1.46e-02  8.01e-03 -1.29e-02  2.61e-03  2.13e-02 -7.37e-03  7.78e-02
## 2899   5.48e-03 -6.10e-03  1.00e-02  8.82e-03  2.48e-03  2.56e-03  4.43e-02
## 2900  -2.10e-02  5.07e-03 -2.83e-02 -2.37e-02 -3.64e-02 -2.66e-03 -6.87e-02
## 2901   1.69e-02  9.52e-03  1.36e-02  4.40e-03  2.25e-02 -3.75e-03  4.99e-02
## 2902   3.55e-03 -4.57e-03 -1.09e-02  1.04e-02 -5.22e-03  5.03e-03  4.24e-02
## 2903   1.11e-02  3.02e-03  5.21e-03 -1.75e-02 -1.18e-02  6.70e-03 -5.29e-02
## 2904   1.34e-02  5.13e-03  5.60e-03 -4.96e-03 -8.25e-03  1.69e-02 -5.85e-02
## 2905   9.22e-04  1.03e-04  1.72e-03  9.03e-04  5.35e-04 -3.29e-04  6.22e-03
## 2906  -2.54e-05  4.10e-03 -4.15e-03 -1.59e-03 -1.90e-03 -4.79e-05  1.02e-02
## 2907  -1.74e-02 -3.26e-03 -2.31e-02  3.06e-02 -2.47e-02  5.79e-03 -6.81e-02
## 2908  -2.40e-02 -9.06e-03 -5.85e-03  1.03e-02 -4.27e-04 -1.22e-02  7.59e-02
## 2909  -2.21e-04  3.07e-04  3.71e-04 -8.56e-05  1.09e-04 -3.25e-04  1.56e-03
## 2910  -1.33e-02  8.43e-03 -7.41e-03 -1.56e-02 -8.37e-03  2.36e-03  4.41e-02
## 2911   1.32e-03 -3.80e-04  2.34e-03  1.98e-03  2.98e-04  1.47e-03 -1.02e-02
## 2912  -1.10e-02 -1.31e-02 -5.11e-03 -1.64e-03 -2.58e-04 -5.66e-03  3.22e-02
## 2913   1.85e-04 -4.03e-04  3.59e-03  2.42e-03 -1.14e-03  4.43e-03 -9.83e-03
## 2914  -2.99e-02  1.15e-03 -1.25e-02  1.71e-02 -1.94e-02  6.47e-04  9.15e-02
## 2915  -5.08e-03  1.18e-02  8.22e-03 -1.84e-03  3.64e-03 -2.43e-03  3.31e-02
## 2916   3.80e-03 -1.46e-03 -6.21e-03 -1.15e-02  3.28e-03 -1.08e-03 -2.53e-02
## 2917   8.67e-03 -1.90e-03  2.50e-03 -2.01e-03 -7.93e-03  1.13e-02 -3.21e-02
## 2918   1.60e-02  1.37e-02  9.14e-03 -2.47e-02 -1.13e-02  9.86e-03 -7.83e-02
## 2919   1.43e-02 -1.37e-02  1.11e-02  1.22e-02  7.85e-03  2.62e-04  3.95e-02
```

```
## 2920 -1.37e-02 -5.45e-03  9.88e-03 -2.60e-03 -2.21e-02  7.17e-03 -5.40e-02
## 2921  7.11e-04 -2.49e-03  1.18e-02  1.27e-02  1.02e-02  3.83e-03  3.53e-02
## 2922  2.36e-04  1.13e-03 -7.19e-04  1.09e-03 -3.15e-04  1.95e-03  4.36e-03
## 2923  1.86e-02  1.37e-02 -1.34e-02  1.44e-04  2.96e-02 -5.45e-04  5.69e-02
## 2924  2.33e-03 -2.98e-03 -4.19e-03  3.57e-03 -4.50e-03 -4.91e-03 -1.74e-02
## 2925  1.35e-03 -3.29e-04  1.70e-03  2.72e-03  2.28e-03 -1.68e-03  9.57e-03
## 2926  4.30e-05  3.14e-03  9.84e-04  2.42e-03 -3.18e-04 -3.15e-04  7.59e-03
## 2927 -1.30e-02 -1.43e-02 -2.30e-03 -2.49e-02 -5.74e-03 -9.44e-03  8.88e-02
## 2928  1.69e-03  1.78e-02 -3.60e-03  8.08e-03  1.16e-03  7.87e-03  3.99e-02
## 2929  1.38e-04 -2.65e-04  1.74e-03  1.20e-03  7.99e-05  2.01e-03 -4.94e-03
## 2930 -1.71e-03 -5.63e-03  2.80e-03 -8.37e-03 -6.20e-03  4.04e-03  1.58e-02
## 2931  3.23e-03 -1.98e-03  4.51e-03  4.13e-03  4.98e-03 -1.34e-03 -1.79e-02
## 2932 -1.04e-02 -1.60e-02 -4.64e-03  2.40e-02 -2.84e-03 -7.01e-03  5.89e-02
## 2933 -5.70e-03 -7.97e-04 -4.01e-03  6.43e-03  1.36e-03  6.28e-03  2.90e-02
## 2934 -6.33e-03  3.96e-04  1.18e-02 -7.99e-03  7.27e-03  2.93e-03  3.31e-02
## 2935 -1.79e-02  3.57e-03  1.02e-02 -2.09e-02 -1.84e-02  2.22e-02 -8.60e-02
## 2936  2.53e-02  3.62e-02  9.74e-03 -1.56e-02  2.43e-02  1.96e-02 -1.18e-01
## 2937  3.51e-03  2.07e-03 -1.16e-03  8.74e-05  1.85e-04  2.08e-03  6.84e-03
## 2938  9.75e-06 -8.89e-04 -4.19e-04 -3.42e-04 -2.73e-04  6.55e-04 -2.61e-03
## 2939 -1.68e-04  5.13e-03 -5.11e-03  4.48e-03 -1.69e-03 -1.85e-03  1.32e-02
## 2940  1.04e-02 -7.67e-03 -8.48e-03 -1.91e-02 -6.04e-03 -4.38e-03  5.61e-02
## 2941  1.33e-02 -9.82e-05  2.00e-02  1.42e-03  2.97e-02 -7.58e-03  5.71e-02
## 2942  1.28e-02 -1.58e-02 -5.29e-03  7.76e-03  9.62e-03  4.56e-03  4.58e-02
## 2943  1.87e-02 -1.40e-02 -4.47e-03 -3.01e-03  4.38e-03  3.20e-03  4.40e-02
## 2944  8.01e-03  1.33e-02  2.74e-03 -9.82e-03  8.02e-03 -4.66e-03 -5.85e-02
## 2945 -4.95e-04  4.48e-04  7.49e-04  6.53e-05  5.31e-05  3.23e-04 -2.68e-03
## 2946 -3.23e-03 -5.21e-03 -1.08e-02 -2.70e-03 -1.55e-02  1.00e-02  2.64e-02
## 2947 -1.39e-02  4.69e-03 -8.43e-03  9.28e-03 -1.72e-03 -3.36e-03  3.38e-02
## 2948 -2.09e-03 -8.43e-03 -6.54e-03 -4.13e-03 -6.89e-03  9.09e-04  1.76e-02
## 2949  1.06e-02  8.37e-03  3.67e-03  2.11e-02 -4.15e-03  1.67e-02 -6.10e-02
## 2950 -1.33e-02 -4.96e-03 -2.13e-02 -1.53e-02 -2.36e-02  5.37e-03 -4.89e-02
## 2951  9.20e-03 -2.17e-03  2.74e-03 -1.69e-03 -7.08e-03  1.16e-02 -3.23e-02
## 2952 -5.95e-03 -1.61e-02 -3.70e-03  7.38e-03 -6.90e-04  2.78e-03  4.61e-02
## 2953  1.71e-02  1.34e-02 -1.13e-02  2.42e-02  2.74e-02 -1.99e-02  8.08e-02
## 2954 -2.43e-03 -4.61e-03  4.21e-03 -8.20e-03 -1.12e-02  9.45e-03  2.13e-02
## 2955  1.71e-02 -1.48e-02  1.76e-02  4.83e-03  1.34e-02 -1.29e-02  5.62e-02
## 2956  1.33e-02  6.43e-03  5.45e-03 -5.30e-03 -9.58e-03  1.60e-02 -5.64e-02
## 2957  1.93e-03 -4.27e-03 -8.96e-03  9.96e-03 -5.59e-03 -1.86e-03  3.69e-02
## 2958 -1.60e-02  3.61e-03  2.15e-02 -1.93e-02  4.10e-03 -2.63e-02 -1.06e-01
## 2959 -9.95e-04 -9.02e-04 -5.99e-03 -2.74e-03 -4.98e-03 -4.90e-04  1.50e-02
## 2960  2.62e-03  4.12e-03 -7.59e-03  2.71e-03 -2.69e-03 -2.07e-03  2.80e-02
## 2961 -3.25e-02  3.19e-02 -3.77e-02  7.03e-03 -1.96e-02 -1.56e-02 -1.04e-01
## 2962 -2.32e-02  3.96e-04 -8.92e-03  1.97e-03 -1.99e-02  9.56e-03  8.93e-02
## 2963  3.80e-06  2.24e-03  2.91e-03  1.80e-03  1.13e-03  9.35e-04  8.19e-03
## 2964 -2.70e-02  1.29e-03  2.98e-02  2.05e-03  3.24e-02 -3.30e-02  9.05e-02
## 2965  1.09e-04  3.58e-04  6.39e-04  4.29e-04  2.24e-04  8.06e-04  2.11e-03
## 2966 -1.13e-02 -9.38e-03  6.88e-03 -1.28e-02 -1.54e-02  6.61e-04 -4.41e-02
## 2967  2.15e-03 -1.39e-03 -3.01e-03  1.86e-04  2.03e-03  5.02e-04 -9.61e-03
## 2968  8.23e-04 -2.96e-04  1.51e-03 -1.74e-04 -3.17e-04  1.58e-03 -6.48e-03
## 2969  8.91e-03  4.86e-02  8.37e-03 -2.05e-02  5.69e-03 -2.60e-02 -1.17e-01
```

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## 2970   3.02e-02   1.05e-02   9.32e-03   9.53e-03  -9.42e-03   1.45e-02  -7.83e-02
## 2971  -2.44e-02  -4.93e-03   1.45e-02   1.09e-02  -3.00e-03  -1.80e-03   5.05e-02
## 2972  -3.65e-03  -9.78e-03  -9.09e-03  -6.95e-03  -1.36e-02   2.77e-03   2.97e-02
## 2973  -3.35e-03  -4.45e-03  -1.16e-02   4.39e-03  -1.67e-02   1.17e-02   2.88e-02
## 2974   1.57e-02  -9.73e-03  -8.29e-03   5.20e-03   1.67e-02  -1.14e-02   5.59e-02
## 2975   2.31e-03  -9.74e-04  -2.88e-03   2.48e-03  -1.09e-03  -1.10e-03   1.51e-02
## 2976   7.11e-05  -2.69e-04  -1.39e-03   3.60e-05  -8.47e-04   3.73e-03  -8.15e-03
## 2977   1.36e-04  -8.46e-04  -2.06e-03   3.76e-03  -2.28e-03   5.68e-03  -1.35e-02
## 2978  -2.14e-04  -8.60e-04  -1.31e-03  -3.60e-04  -2.53e-04  -1.01e-03   3.20e-03
## 2979   4.15e-03  -8.75e-04  -6.43e-03  -5.08e-05   6.39e-03  -2.99e-03  -2.04e-02
## 2980  -8.36e-04   6.41e-04   3.40e-03   5.48e-03  -4.26e-03   3.69e-05   1.79e-02
## 2981  -2.47e-03   1.99e-02  -7.51e-03   1.63e-02   9.44e-03  -1.11e-02   4.57e-02
## 2982   1.04e-02   1.41e-02  -5.70e-03  -8.50e-04   1.33e-02   6.44e-03   3.00e-02
## 2983   7.91e-07   1.96e-05   5.79e-06   1.68e-05   2.38e-06  -8.35e-07   4.58e-05
## 2984   1.32e-04   3.84e-03  -1.87e-03   2.82e-03  -7.09e-04   4.77e-03   1.21e-02
## 2985  -3.06e-03  -5.24e-03  -1.08e-02   3.74e-03  -1.41e-02   1.08e-02   2.90e-02
## 2986   3.31e-02  -1.26e-03   1.52e-02  -1.70e-02   1.07e-02  -1.59e-02  -8.05e-02
## 2987   2.47e-02  -1.65e-02   2.14e-02   7.02e-03   1.01e-02  -2.24e-03   6.43e-02
## 2988   5.20e-03  -4.80e-03   1.07e-02   8.83e-03   5.01e-04   3.05e-03   4.32e-02
## 2989  -5.80e-04   3.78e-03   1.98e-03   2.46e-03  -4.72e-03   6.75e-03   1.60e-02
## 2990  -5.07e-04  -5.98e-04   6.89e-04  -1.63e-05  -6.81e-04   7.87e-04  -2.89e-03
## 2991   7.93e-03   4.29e-03   1.54e-02  -2.70e-02  -5.59e-03   2.56e-02   6.10e-02
## 2992   3.95e-03  -6.61e-03  -1.17e-02   1.41e-02  -1.01e-02  -3.41e-03   4.93e-02
## 2993  -4.01e-02   3.30e-02   2.99e-03  -2.16e-02   1.01e-02  -2.36e-02  -1.09e-01
## 2994   1.54e-02   1.23e-02  -1.20e-02   9.50e-04   2.78e-02  -1.19e-02   6.62e-02
## 2995  -1.56e-03  -6.61e-03   2.74e-03   3.52e-03  -4.40e-03   1.88e-03   1.41e-02
## 2996  -1.81e-02  -2.76e-03   4.80e-03  -2.52e-03  -1.04e-02   6.07e-03  -4.13e-02
## 2997  -2.25e-03  -5.94e-03   3.98e-03   3.77e-03  -8.27e-03   5.52e-03   1.82e-02
## 2998  -5.89e-03  -1.82e-04   6.22e-03   2.06e-03  -1.21e-03  -5.13e-03   2.24e-02
## 2999  -2.12e-02   1.56e-02   1.20e-02  -7.97e-03  -2.31e-02   2.52e-03  -8.70e-02
## 3000   1.12e-02  -4.40e-04  -2.00e-02  -1.21e-02  -2.09e-02   1.51e-02  -5.32e-02
## 3001  -3.68e-03  -9.97e-03  -9.85e-03   8.09e-03  -1.39e-02   1.40e-03   3.33e-02
## 3002  -1.11e-02  -5.89e-03   5.42e-03  -3.11e-03  -9.80e-03   1.16e-03  -4.23e-02
## 3003  -1.65e-02   3.64e-03   7.87e-03  -8.78e-03  -1.66e-02   2.83e-03  -7.13e-02
## 3004  -6.71e-04   2.80e-03   2.34e-03   3.17e-03  -4.04e-03   4.21e-03   1.27e-02
## 3005  -4.67e-03  -5.17e-03  -1.38e-02   6.26e-03  -2.34e-02   1.14e-02   4.11e-02
## 3006   1.34e-02  -9.82e-03  -8.57e-03   2.10e-02   1.06e-02   2.73e-03   7.35e-02
## 3007   1.76e-04   4.85e-03   7.04e-04   1.60e-03  -1.05e-03   2.76e-03   8.47e-03
## 3008  -1.19e-03  -2.13e-03   2.06e-03   1.70e-04  -4.63e-05   4.54e-04  -6.93e-03
## 3009  -1.66e-02   1.32e-02  -8.27e-03  -6.82e-03  -1.38e-02   2.12e-03   5.35e-02
## 3010   2.99e-02  -1.38e-02  -4.61e-03   1.07e-02  -2.99e-03   6.07e-03   6.80e-02
## 3011   1.81e-03  -1.79e-03   2.76e-03  -2.14e-03   1.66e-03  -2.41e-05  -9.41e-03
## 3012   3.94e-02  -3.96e-03   1.53e-02   3.21e-04   1.69e-02  -9.52e-03  -6.92e-02
## 3013   2.18e-03   3.55e-03  -6.22e-03   6.42e-03   1.08e-03  -2.87e-03   2.13e-02
## 3014  -1.54e-05   7.23e-05   1.12e-04  -1.70e-05   5.46e-07  -2.45e-04   6.60e-04
## 3015  -8.74e-03   3.35e-02  -3.28e-02  -7.93e-03   1.92e-03   6.64e-03  -1.19e-01
## 3016   2.17e-03   4.16e-05   2.49e-03  -1.70e-03   2.74e-03  -3.66e-04   1.37e-02
## 3017  -2.37e-03  -5.31e-03   4.03e-03   3.48e-03  -9.49e-03   7.25e-03   1.95e-02
## 3018  -2.42e-03  -5.00e-03   4.38e-03   3.60e-03  -1.07e-02   8.94e-03   2.15e-02
## 3019   4.22e-03  -5.39e-04  -6.34e-03  -2.21e-04   5.73e-03  -1.60e-03  -1.99e-02
```

```
## 3020 -1.95e-03 -5.98e-03  3.16e-03  3.14e-03 -6.48e-03  5.00e-03  1.82e-02
## 3021 -1.42e-05 -2.82e-04 -8.95e-04 -2.72e-03 -1.05e-03  2.85e-03 -6.26e-03
## 3022 -1.97e-02 -9.12e-04  4.58e-03 -4.28e-03 -1.03e-02  5.19e-03 -4.73e-02
## 3023 -3.01e-03 -6.38e-03 -1.09e-02  5.63e-03 -1.41e-02  8.00e-03  2.64e-02
## 3024 -1.38e-02  1.43e-02  2.83e-02 -2.35e-02  1.11e-02  9.85e-03 -1.26e-01
## 3025 -1.02e-02 -2.91e-02  2.52e-02  1.51e-02  1.22e-02 -1.40e-02 -9.80e-02
## 3026 -1.74e-02 -6.45e-03  5.90e-03 -2.30e-04 -1.54e-02  6.96e-03 -4.02e-02
## 3027 -2.35e-02  1.61e-02  8.37e-03 -1.52e-02 -2.01e-02 -9.42e-03 -8.79e-02
## 3028  1.20e-05  2.98e-03  5.97e-04 -1.46e-03 -8.01e-04  1.33e-03  5.01e-03
## 3029  1.51e-04  5.17e-03 -2.08e-03 -3.30e-03 -1.04e-03  5.98e-03  1.49e-02
## 3030 -1.65e-02 -4.64e-03 -1.95e-02 -4.44e-04 -1.63e-02  1.08e-02 -4.58e-02
## 3031  1.77e-02  4.08e-04 -8.59e-03  7.00e-03  1.57e-02  6.96e-03  6.52e-02
## 3032  1.85e-03 -1.36e-03 -1.10e-03 -1.11e-03  1.79e-04 -1.19e-03  6.12e-03
## 3033 -3.39e-04 -2.58e-04  1.03e-03 -1.33e-03 -9.46e-04  3.43e-05  4.40e-03
## 3034 -3.51e-03  1.05e-03 -2.47e-03  7.61e-03 -5.23e-03  1.20e-02  3.62e-02
## 3035 -3.07e-04  2.90e-04 -4.42e-04  6.74e-05 -2.16e-04 -4.22e-04  2.52e-03
## 3036 -5.83e-03 -3.45e-02  1.64e-02 -1.41e-03  8.51e-03 -5.08e-02 -1.21e-01
## 3037  1.49e-03  2.93e-03 -1.19e-02 -1.28e-03 -8.30e-03  6.08e-03  4.93e-02
## 3038 -1.27e-02  3.63e-02 -3.67e-02  3.68e-02 -1.24e-02  1.43e-02 -1.31e-01
## 3039 -1.34e-02 -8.31e-03  1.51e-02  1.40e-03  1.75e-02 -2.45e-02 -8.74e-02
## 3040 -5.81e-03 -8.79e-03  1.92e-02 -1.74e-02  1.36e-02 -2.00e-02 -6.60e-02
## 3041 -9.32e-03  1.08e-03 -5.01e-03  4.26e-03 -3.23e-03 -1.93e-03  2.57e-02
## 3042 -1.58e-04 -2.88e-03 -2.84e-03 -7.35e-03 -3.50e-03  1.05e-02  2.86e-02
## 3043  2.97e-02  1.55e-02 -3.53e-02  3.00e-02 -2.26e-02  5.74e-03 -9.55e-02
## 3044  3.20e-03  2.25e-03  1.32e-02 -1.34e-03 -5.33e-03  1.23e-02  3.83e-02
## 3045  1.09e-02  2.31e-02 -1.93e-02  1.07e-02  4.79e-02 -3.89e-02 -9.05e-02
## 3046  2.00e-02  1.27e-03  7.46e-03  1.13e-02 -2.02e-02  1.35e-02 -6.02e-02
## 3047  4.17e-03 -6.44e-04 -6.59e-03  5.21e-03  6.45e-03 -2.62e-03 -2.07e-02
## 3048  1.70e-03 -9.11e-03 -8.26e-03  1.28e-02 -6.23e-03 -1.75e-03  3.78e-02
## 3049  9.49e-04  4.79e-03 -2.64e-03 -4.34e-03  8.85e-04  6.63e-03  1.84e-02
## 3050 -9.50e-04 -2.20e-03 -1.49e-03 -5.28e-03 -1.32e-03  9.09e-03  2.50e-02
## 3051 -2.65e-02  2.91e-02 -3.71e-02  8.25e-03 -2.99e-02 -1.44e-02 -1.08e-01
## 3052  1.66e-03  1.55e-03 -1.33e-03 -2.26e-04 -2.68e-04 -1.10e-05  5.39e-03
## 3053 -3.92e-04 -1.84e-04  9.92e-04  6.90e-05 -1.01e-03  3.43e-04  5.06e-03
## 3054 -1.56e-02 -2.93e-02  2.49e-02 -2.81e-02  6.80e-03 -4.47e-03 -1.10e-01
## 3055 -9.36e-06  6.79e-05 -2.45e-04  2.95e-04  1.68e-05 -2.72e-04  6.97e-04
## 3056  1.74e-02  1.15e-02 -1.05e-02 -7.29e-03 -3.55e-03  3.58e-03  5.62e-02
## 3057  8.99e-03  2.87e-03  1.59e-03 -5.20e-03 -5.29e-04  1.51e-02 -4.74e-02
## 3058  8.56e-03 -1.04e-02  1.23e-02  1.26e-02 -9.57e-04 -4.19e-04  5.59e-02
## 3059 -8.68e-03 -1.56e-02 -4.74e-03  9.81e-03 -1.36e-04  4.25e-04  5.90e-02
## 3060  1.63e-02 -3.88e-04 -1.02e-02  4.70e-03  2.05e-02  5.02e-03  4.78e-02
## 3061  4.04e-03  6.45e-03 -1.37e-02  1.19e-02 -9.03e-03  1.35e-02  4.60e-02
## 3062  2.04e-02  9.39e-03 -1.16e-02  2.48e-02  2.68e-02 -4.55e-03  6.72e-02
## 3063  2.17e-02 -4.96e-03  6.83e-03 -1.66e-03 -1.63e-02  1.34e-02 -5.31e-02
## 3064 -1.04e-02  4.69e-03 -5.36e-03 -1.68e-03  5.17e-03  3.54e-03  3.81e-02
## 3065 -2.96e-03 -6.79e-03 -1.06e-02  5.71e-03 -1.34e-02  7.05e-03  2.55e-02
## 3066 -1.94e-02 -7.03e-03  1.21e-02 -9.54e-03 -1.42e-03 -4.16e-03  5.25e-02
## 3067 -1.40e-03  1.88e-03 -1.76e-03  2.81e-03 -1.40e-03 -8.50e-04  6.87e-03
## 3068  1.53e-03  9.94e-04  9.54e-04 -8.85e-04  1.02e-03  3.75e-04 -3.89e-03
## 3069 -3.28e-03  6.37e-03 -4.07e-03 -4.90e-03 -6.33e-04 -2.92e-03  2.15e-02
```

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## 3070   4.16e-04 -7.89e-03 -6.06e-03 -2.77e-03 -6.39e-03 -1.81e-03  2.73e-02
## 3071  -6.16e-04 -1.23e-03 -1.98e-03 -6.35e-03 -4.46e-03  1.15e-02  2.61e-02
## 3072  -2.15e-03  4.29e-03 -2.66e-02 -1.16e-04  6.50e-03  2.47e-03 -9.37e-02
## 3073  -1.11e-04 -2.24e-04 -9.63e-05  3.84e-05 -7.85e-05  3.67e-05 -6.01e-04
## 3074  -1.14e-02 -6.00e-03  2.10e-03 -1.21e-03 -6.02e-03  6.62e-03 -3.21e-02
## 3075   3.25e-02  5.86e-04  1.08e-02  3.45e-02  2.52e-02  8.84e-03 -8.47e-02
## 3076   8.08e-03  4.47e-03  1.46e-02  9.45e-03 -2.79e-03  2.28e-02  5.60e-02
## 3077  -2.12e-02 -3.37e-03 -2.30e-02  1.45e-05 -2.21e-02  7.36e-03 -5.28e-02
## 3078   1.73e-04 -1.40e-04  3.31e-04 -8.07e-05  4.12e-06 -8.60e-05  1.31e-03
## 3079   1.39e-04  6.50e-04 -3.39e-04  1.27e-04  1.23e-04  6.78e-04 -1.75e-03
## 3080  -1.13e-03  5.60e-03 -9.44e-03  4.40e-03 -8.20e-03  6.59e-03  2.05e-02
## 3081   9.00e-03 -1.10e-03  2.37e-03  1.61e-02 -6.57e-03  2.27e-02 -4.65e-02
## 3082  -2.15e-02 -1.19e-02 -8.36e-03 -2.78e-02  1.37e-02 -2.00e-02  8.31e-02
## 3083  -1.65e-02 -4.29e-03  3.70e-03 -2.23e-03 -1.15e-02  6.78e-03 -3.71e-02
## 3084   3.11e-04 -4.24e-04 -4.09e-04 -7.18e-04 -3.92e-05  7.90e-05 -1.91e-03
## 3085   3.56e-03 -2.04e-03  4.47e-03 -3.06e-07  4.88e-03 -4.81e-04 -1.68e-02
## 3086  -1.44e-02 -5.23e-03  1.56e-02 -1.57e-02  1.81e-02 -8.82e-03 -7.14e-02
## 3087  -6.63e-04  3.68e-03  2.56e-03 -9.37e-03 -5.94e-03  6.67e-03  1.85e-02
## 3088  -1.20e-02 -1.06e-02  1.77e-02 -1.48e-02  1.05e-02 -3.44e-02 -8.07e-02
## 3089   1.98e-03  2.38e-03 -4.59e-03 -2.53e-03 -2.91e-04 -2.87e-04  1.84e-02
## 3090   6.84e-03  4.71e-03 -5.55e-03 -2.98e-03 -4.10e-03 -4.81e-04  2.97e-02
## 3091  -2.27e-02 -3.63e-03  2.75e-02  3.08e-03  2.85e-02 -1.64e-02  7.36e-02
## 3092  -7.36e-04  1.28e-03 -1.48e-03  2.87e-04  2.57e-04 -1.35e-03  8.82e-03
## 3093  -2.14e-03 -5.23e-03  3.44e-03  2.84e-03 -8.35e-03  7.84e-03  2.12e-02
## 3094  -2.03e-02  6.09e-03  9.69e-03 -2.66e-02 -1.50e-02  9.36e-03 -8.33e-02
## 3095  -5.91e-04  1.60e-03  2.11e-03  3.15e-03 -2.94e-03  2.51e-03  1.05e-02
## 3096   2.11e-02 -1.60e-02 -3.35e-03 -1.44e-03 -1.71e-03  3.35e-03  4.68e-02
## 3097   9.22e-03 -1.30e-02 -4.91e-03 -9.66e-03  4.98e-03  4.92e-03  3.93e-02
## 3098  -5.86e-03  1.73e-02 -2.57e-02  1.23e-04  6.26e-03 -9.56e-04 -9.72e-02
## 3099   1.12e-02  9.55e-03  3.14e-02  8.80e-03  6.10e-02 -3.85e-02 -1.06e-01
## 3100   1.86e-02  1.38e-02 -1.02e-02  3.98e-03  1.65e-02 -2.87e-03  7.57e-02
## 3101   1.94e-03 -6.74e-03  6.79e-03 -9.43e-03 -1.55e-03  1.22e-03  2.36e-02
## 3102   3.90e-05 -1.36e-03 -8.40e-04  6.77e-04 -4.20e-04  1.30e-03 -4.98e-03
## 3103  -2.26e-05 -1.63e-04  1.25e-04  1.73e-04  1.05e-04 -3.45e-04 -7.55e-04
## 3104  -3.71e-03 -1.06e-04 -4.35e-03 -2.55e-03  6.59e-03 -1.05e-03  3.40e-02
## 3105  -6.61e-05  1.04e-03 -1.59e-03 -1.39e-03 -3.83e-04 -1.23e-03  4.53e-03
## 3106  -2.51e-03 -4.76e-03  4.20e-03  3.38e-03 -1.11e-02  9.33e-03  2.14e-02
## 3107  -2.36e-03 -4.00e-02  1.68e-02 -2.89e-02  3.53e-05 -4.79e-02 -1.23e-01
## 3108   8.89e-05 -1.53e-04  9.59e-05  1.17e-04 -4.48e-05 -2.11e-04 -6.29e-04
## 3109  -1.27e-02 -1.21e-02 -4.13e-03  9.77e-03  3.84e-03  2.09e-03  6.40e-02
## 3110  -1.67e-02 -1.12e-02  1.72e-02 -2.32e-02 -9.69e-03 -1.15e-02  5.86e-02
## 3111  -1.47e-02 -9.93e-04  8.27e-03 -4.90e-03 -1.45e-02  1.64e-02 -5.96e-02
## 3112  -9.82e-03  6.99e-03  1.64e-02 -3.38e-03  8.91e-03  2.22e-03  4.87e-02
## 3113  -5.66e-04 -3.63e-03 -1.85e-03  5.62e-03 -4.57e-03  7.67e-03  2.54e-02
## 3114  -1.28e-04 -3.15e-04  3.23e-04 -2.95e-04 -1.32e-04 -3.72e-04  1.47e-03
## 3115  -2.27e-02  3.73e-03  2.54e-03  5.69e-03 -4.38e-03 -2.52e-04 -5.49e-02
## 3116  -6.07e-06  4.14e-05 -1.49e-04  2.61e-06 -3.71e-06 -1.94e-04  4.49e-04
## 3117  -2.07e-02  1.63e-02 -3.27e-02 -3.41e-03  1.87e-02 -1.87e-03 -1.12e-01
## 3118   2.95e-04  1.33e-03 -6.80e-04  8.99e-04 -9.18e-05  1.77e-03 -4.24e-03
## 3119   1.69e-02  2.86e-03 -1.04e-02 -1.30e-02  2.15e-02  5.60e-03  5.05e-02
```

```
## 3120   4.89e-03 -2.61e-03 -6.68e-03  6.11e-03  2.04e-03 -3.81e-03 -2.53e-02
## 3121  -2.47e-03 -5.08e-03  3.85e-03  3.26e-03 -9.85e-03  7.56e-03  1.94e-02
## 3122   1.97e-03 -6.71e-03  4.64e-03 -2.85e-03  1.04e-03 -1.73e-03  2.15e-02
## 3123  -1.14e-02  1.14e-02  1.79e-02 -7.67e-03  1.23e-03 -1.72e-03 -9.49e-02
## 3124  -1.96e-03 -5.16e-03  3.17e-03 -6.53e-03 -7.64e-03  6.65e-03  1.88e-02
## 3125   1.34e-02 -6.02e-04 -2.51e-03 -5.65e-03 -6.66e-04  7.67e-03  2.60e-02
## 3126  -7.72e-03  9.70e-04  6.76e-03 -9.10e-03 -2.11e-03 -3.56e-03  2.73e-02
## 3127   6.43e-03 -2.12e-03 -5.08e-03  3.63e-03  4.95e-03 -4.74e-04 -2.10e-02
## 3128   1.82e-02  3.79e-03 -1.32e-02  1.85e-02  3.08e-02 -1.10e-02  6.99e-02
## 3129  -2.78e-03 -2.22e-03 -1.72e-03 -1.84e-03  2.21e-04 -2.22e-03  1.13e-02
## 3130  -7.79e-04 -3.90e-03  1.29e-03 -2.81e-03 -1.61e-03 -4.64e-04  6.59e-03
## 3131   1.10e-02  1.66e-02  2.04e-03 -9.75e-03  1.49e-03  1.96e-03 -7.00e-02
## 3132  -1.65e-02 -2.15e-03  9.99e-03 -4.14e-03 -2.33e-02 -1.96e-03 -4.74e-02
## 3133  -3.21e-03  4.37e-04 -4.53e-03 -1.29e-02  2.15e-03 -2.74e-03  3.99e-02
## 3134  -5.58e-03 -8.52e-03  1.91e-02  1.58e-03  1.57e-02 -2.17e-02 -6.46e-02
## 3135  -1.57e-02  4.19e-03 -2.74e-02  4.92e-02  6.83e-03 -3.41e-02 -1.17e-01
## 3136   1.98e-02 -1.96e-03  2.28e-02  2.92e-03  2.87e-02 -4.75e-03  6.02e-02
## 3137   1.87e-02  5.37e-04  5.80e-03  9.95e-03 -1.36e-02  2.81e-02 -7.22e-02
## 3138   1.07e-02  1.99e-02 -1.79e-02 -1.38e-02  4.60e-02 -3.88e-02 -9.13e-02
## 3139   9.97e-03 -1.17e-02 -9.17e-03  2.94e-03 -1.40e-02 -1.36e-02  5.75e-02
## 3140  -2.42e-03 -5.38e-03  3.76e-03  3.37e-03 -9.24e-03  6.63e-03  1.86e-02
## 3141  -1.27e-02 -8.46e-03  7.92e-03  2.68e-02 -2.05e-02  6.48e-03 -5.79e-02
## 3142   1.30e-02  5.69e-03  5.69e-03 -1.64e-02 -1.93e-02  2.96e-02 -6.91e-02
## 3143  -1.16e-02 -1.17e-02  2.76e-02  5.36e-03  2.28e-02 -2.40e-02  8.23e-02
## 3144   8.44e-03 -1.02e-02  1.12e-02 -2.85e-03  1.20e-02  2.74e-03  3.44e-02
## 3145  -2.01e-02 -9.22e-03  1.25e-02  1.14e-02 -4.49e-03 -6.31e-03  4.81e-02
## 3146   8.50e-03 -2.93e-04 -1.23e-02  1.40e-02 -2.06e-03  1.39e-02  5.51e-02
## 3147   1.24e-02 -5.26e-03  1.67e-02  1.54e-02  2.72e-02 -4.81e-03  5.64e-02
## 3148  -1.05e-02  5.93e-03 -8.89e-03 -1.55e-02  1.54e-02 -8.80e-03  5.16e-02
## 3149   1.26e-03 -6.65e-03  9.72e-03  2.41e-03 -4.57e-03  9.14e-05  3.34e-02
## 3150   1.38e-02  9.88e-03  2.92e-02  1.11e-03  2.38e-02 -8.26e-03  7.63e-02
## 3151  -3.52e-04 -3.40e-04  8.89e-04  1.70e-03 -5.58e-04 -6.20e-05  5.49e-03
## 3152  -1.83e-03 -7.07e-03  3.08e-03  4.05e-03 -4.59e-03  3.27e-04  1.38e-02
## 3153  -6.87e-03  4.61e-04 -2.56e-02 -2.10e-02  6.11e-03 -1.89e-02 -7.66e-02
## 3154  -1.09e-02  9.72e-03  2.31e-02 -2.71e-02  1.53e-02 -4.30e-03 -9.68e-02
## 3155  -2.77e-02  1.56e-02 -4.64e-03  4.15e-03  1.45e-02 -3.57e-02  1.07e-01
## 3156  -5.41e-03 -1.25e-03 -3.85e-03  3.68e-03 -6.95e-03  6.30e-03 -2.16e-02
## 3157  -6.75e-04  1.95e-03  1.90e-03  2.71e-03 -3.40e-03  3.19e-03  1.05e-02
## 3158  -2.26e-02 -8.45e-03  2.19e-02  1.65e-02 -1.49e-02 -2.96e-03  6.38e-02
## 3159  -2.24e-02 -9.79e-03  2.94e-02  8.48e-03  9.26e-03 -3.68e-03  6.99e-02
## 3160  -9.99e-03 -1.20e-02 -5.30e-03  7.43e-03  8.82e-03 -1.23e-02  6.13e-02
## 3161  -3.99e-04 -5.91e-05  1.19e-03  2.23e-03 -1.06e-03  4.89e-04  6.66e-03
## 3162   2.40e-03 -5.76e-03  8.50e-03 -1.32e-02 -3.21e-03  3.15e-03  3.27e-02
## 3163   4.67e-03 -2.50e-03  4.17e-03 -6.70e-03  9.97e-04  1.35e-03 -1.58e-02
## 3164  -5.22e-04 -1.43e-03 -3.05e-03  3.15e-03 -8.13e-04 -2.29e-03  7.97e-03
## 3165   1.86e-03 -8.42e-04 -1.32e-03  1.05e-03 -7.43e-04 -7.93e-04  6.13e-03
## 3166  -1.07e-02  1.95e-02  2.84e-02  6.89e-03  1.98e-02 -1.26e-02  6.67e-02
## 3167   1.15e-04  7.13e-03 -5.18e-03 -2.91e-03 -2.39e-03  2.35e-03  1.22e-02
## 3168   1.41e-02  8.24e-03  5.48e-03 -5.27e-03 -1.42e-02  9.93e-03 -7.02e-02
## 3169  -6.16e-04  1.41e-03  2.03e-03  3.26e-03 -3.11e-03  2.28e-03  1.22e-02
```

```
## 3170 -8.42e-03 -3.25e-04 -5.84e-03 -1.46e-03 -2.71e-04 -2.31e-03  4.39e-02
## 3171  2.08e-02  5.00e-05 -2.62e-02  2.47e-02 -1.73e-02  2.87e-03 -7.00e-02
## 3172  1.62e-05  8.11e-04  5.23e-04  1.36e-03  1.17e-04 -9.55e-04  3.41e-03
## 3173 -5.13e-03 -2.43e-04 -2.39e-03 -5.43e-03 -3.73e-03  3.34e-03 -1.46e-02
## 3174 -4.34e-02  4.09e-02 -3.98e-02 -1.64e-02 -2.66e-02 -9.47e-03 -1.28e-01
## 3175  5.79e-05  5.73e-03 -4.74e-03  3.18e-03 -1.47e-03  8.92e-04  1.06e-02
## 3176 -2.38e-03 -5.16e-03  4.34e-03  3.66e-03 -1.04e-02  8.50e-03  2.10e-02
## 3177  2.04e-03 -1.29e-03  1.71e-03 -3.08e-03  9.53e-04  4.49e-04 -6.91e-03
## 3178 -5.09e-04  1.94e-02 -5.50e-03 -2.28e-03  1.18e-02  5.81e-03  4.33e-02
## 3179 -1.78e-02 -8.42e-03  9.82e-03 -1.32e-02  1.39e-02 -1.68e-02 -7.88e-02
## 3180  5.48e-04 -5.26e-04  6.26e-04 -1.00e-04  1.17e-03 -2.95e-04 -3.18e-03
## 3181 -1.15e-02 -1.08e-02 -2.36e-02 -1.42e-02  9.87e-03 -3.46e-02 -9.19e-02
## 3182  3.83e-06 -1.10e-03 -1.46e-03  7.36e-04 -1.84e-03  3.67e-03 -9.17e-03
## 3183  2.36e-02 -1.25e-02 -6.73e-03  6.55e-03  1.04e-02 -5.03e-03  5.69e-02
## 3184 -3.36e-03  2.21e-03  2.49e-02 -1.18e-03  1.49e-02 -9.17e-03 -7.95e-02
## 3185 -1.75e-03 -6.70e-03  2.99e-03  3.70e-03 -5.46e-03  2.96e-03  1.57e-02
## 3186 -2.48e-04  2.74e-04  7.80e-04 -6.43e-04  4.29e-04 -3.05e-04  3.16e-03
## 3187  5.79e-03  4.14e-03 -1.05e-02 -1.32e-02 -1.32e-02  1.36e-02  6.76e-02
## 3188  8.23e-05 -5.55e-04  1.15e-03  9.37e-04 -7.70e-05  1.08e-03 -3.07e-03
## 3189  1.81e-04  6.45e-03  7.89e-04  1.68e-03 -1.75e-03  4.15e-03  1.11e-02
## 3190  2.43e-02  3.29e-02 -3.78e-02  8.15e-03  1.83e-02  1.64e-02 -1.19e-01
## 3191  1.75e-02 -2.19e-05  2.40e-02  3.07e-03  2.95e-02 -1.75e-02  6.91e-02
## 3192 -6.89e-04  4.88e-03  2.65e-03  3.04e-03 -5.78e-03  7.28e-03  1.66e-02
## 3193  3.35e-02 -2.25e-02  1.75e-02  3.72e-02  1.95e-02  4.28e-03 -1.10e-01
## 3194 -5.14e-03  1.08e-02 -4.81e-03 -1.78e-02  2.81e-03 -2.25e-03  5.24e-02
## 3195  7.22e-05 -5.30e-04 -1.37e-03  2.00e-03 -4.21e-04  2.98e-03 -7.80e-03
## 3196  1.10e-02  3.07e-02  4.69e-03 -1.64e-02  7.29e-03  7.94e-04 -7.70e-02
## 3197 -4.46e-03  7.65e-03 -3.67e-03  7.96e-03 -3.64e-03 -2.68e-04  2.20e-02
## 3198 -3.35e-02  4.50e-03 -1.32e-02 -1.20e-03 -1.40e-02  7.23e-03  5.81e-02
## 3199  4.36e-03 -1.30e-03 -6.79e-03  5.18e-03  8.50e-03 -3.67e-03 -2.20e-02
## 3200 -3.96e-04 -7.42e-04 -2.24e-03 -2.48e-03 -1.08e-03 -4.62e-04  6.03e-03
## 3201 -5.25e-05 -1.69e-04  1.43e-04  1.99e-04  3.84e-05 -4.11e-04 -8.76e-04
## 3202 -2.33e-03 -5.68e-03  4.23e-03  3.86e-03 -9.42e-03  7.01e-03  1.97e-02
## 3203 -3.15e-03 -5.50e-03 -1.00e-02 -9.23e-03 -1.57e-02  1.01e-02  2.66e-02
## 3204 -1.13e-02  1.65e-03 -5.38e-03 -1.35e-03 -7.46e-03 -1.21e-03  2.95e-02
## 3205  8.01e-03 -3.28e-03  2.26e-03 -1.18e-03 -6.78e-03  1.15e-02 -2.88e-02
## 3206 -2.79e-03  2.55e-03 -2.31e-03 -3.97e-03 -7.15e-04  7.30e-04 -1.07e-02
## 3207 -6.03e-04  1.25e-03  1.93e-03 -3.34e-03 -3.07e-03  2.54e-03  9.24e-03
## 3208  1.43e-02 -1.02e-02 -7.10e-03  7.16e-03  1.16e-02 -2.77e-03  4.96e-02
## 3209  3.86e-03 -1.53e-04  3.70e-03 -1.54e-03  3.93e-03 -1.73e-03  1.92e-02
## 3210  1.34e-02  1.13e-02 -5.01e-03 -1.33e-02  7.26e-03  5.37e-03  4.83e-02
## 3211  1.38e-02 -8.13e-03 -6.17e-03  8.29e-03  8.96e-03  3.12e-03  5.00e-02
## 3212 -1.12e-02  3.63e-03 -2.27e-02 -2.05e-02  5.53e-03 -1.10e-02 -9.57e-02
## 3213 -3.14e-03 -4.84e-03 -1.17e-02  5.02e-03 -1.65e-02  1.16e-02  2.92e-02
## 3214  4.13e-03 -4.56e-04  3.67e-03 -2.10e-04  3.59e-03  1.93e-03  1.23e-02
## 3215  3.46e-05  4.67e-03  1.22e-03  2.87e-03 -1.06e-03  6.35e-04  1.03e-02
## 3216  4.73e-03 -1.85e-03 -3.95e-03 -2.97e-04  1.30e-03 -1.48e-03 -1.73e-02
## 3217  8.46e-03 -7.30e-05 -1.21e-02 -1.52e-03 -5.96e-03  1.63e-02  5.62e-02
## 3218  2.75e-03  1.97e-03  1.29e-02 -2.29e-02 -6.73e-03  1.31e-02  4.26e-02
## 3219  5.98e-03  2.97e-03  1.45e-02 -1.31e-02 -4.57e-03  1.46e-02  5.95e-02
```

```
## 3220   2.71e-02   8.86e-03   1.03e-02  -2.69e-03   2.16e-02   1.38e-02  -7.53e-02
## 3221  -2.27e-02  -6.73e-03  -1.06e-02   2.29e-03  -1.25e-02  -7.40e-03   5.83e-02
## 3222  -2.28e-03  -5.71e-03   4.16e-03   3.75e-03  -8.81e-03   6.38e-03   1.92e-02
## 3223   1.22e-02  -3.39e-03  -1.14e-02   1.44e-02  -8.00e-03   3.63e-03   5.70e-02
## 3224  -2.54e-03   2.26e-03  -4.51e-03   8.06e-03   8.19e-04   6.19e-03   3.71e-02
## 3225   9.41e-03  -6.75e-04   2.64e-03  -2.80e-03  -7.25e-03   1.10e-02  -3.38e-02
## 3226   5.90e-05  -7.03e-04  -1.42e-03  -5.04e-03  -2.78e-03   5.27e-03  -1.16e-02
## 3227  -1.29e-02  -1.25e-02   1.07e-02   1.02e-02  -5.66e-03  -1.60e-02   4.15e-02
## 3228   5.86e-04   5.73e-04   1.54e-03   2.52e-03   6.74e-04  -6.09e-04   7.29e-03
## 3229   1.20e-02   5.97e-03  -1.41e-02  -5.81e-04  -1.61e-02   2.02e-02   8.28e-02
## 3230   4.36e-05   1.39e-03   3.07e-04   8.36e-04  -6.00e-05   3.27e-04   2.76e-03
## 3231  -1.29e-03   1.51e-03  -1.43e-03   8.77e-05  -1.22e-03   2.09e-03  -7.01e-03
## 3232   1.55e-03  -2.70e-03   1.42e-02   1.69e-03  -6.56e-03  -4.25e-04   4.28e-02
## 3233   1.15e-04  -5.72e-04   2.92e-03   2.47e-04  -8.84e-04   3.28e-03  -7.33e-03
## 3234   1.85e-06   1.23e-04   3.26e-05  -6.39e-05  -1.55e-05   3.33e-05   2.52e-04
## 3235   3.41e-03  -5.60e-03  -9.48e-03   1.07e-02  -4.56e-03   2.51e-03   3.60e-02
## 3236   1.26e-02  -3.73e-03  -4.50e-02   3.05e-02  -8.02e-03  -2.02e-02  -1.15e-01
## 3237   1.05e-02   1.97e-02  -1.79e-02  -1.38e-02   4.53e-02  -3.84e-02  -9.07e-02
## 3238   1.82e-04   6.26e-03   7.90e-04   1.55e-03  -1.25e-03   3.68e-03   1.08e-02
## 3239  -2.67e-02  -3.85e-03  -1.00e-02   2.61e-03  -7.51e-03   1.90e-03   6.33e-02
## 3240   8.30e-04  -1.64e-03  -1.19e-02  -1.02e-02  -1.26e-02   2.81e-03   4.68e-02
## 3241  -2.80e-02   2.72e-02  -3.24e-02  -9.42e-03  -3.95e-02   2.30e-02  -1.12e-01
## 3242  -1.70e-02  -1.35e-03  -2.57e-02  -1.69e-02   9.20e-03  -7.32e-03  -7.93e-02
## 3243   7.51e-04   3.02e-03  -1.17e-03  -2.39e-03  -6.92e-04   5.20e-03   1.12e-02
## 3244   1.38e-02  -4.57e-03   2.87e-03  -2.66e-03  -6.93e-03   6.49e-03  -3.82e-02
## 3245   4.28e-03  -3.43e-03  -1.13e-02   1.25e-02  -6.54e-03  -1.88e-03   4.98e-02
## 3246  -9.88e-04   5.04e-03  -9.39e-03   4.92e-03  -7.81e-03   5.57e-03   2.30e-02
## 3247   1.61e-02   1.26e-02   2.41e-03   2.36e-02   7.15e-03   3.16e-03  -7.73e-02
## 3248   3.96e-03   6.30e-03  -9.36e-03   9.78e-03  -1.40e-04  -1.84e-03   3.44e-02
## 3249  -9.65e-03  -2.00e-02  -6.77e-03  -5.27e-03   1.47e-03  -7.35e-03   6.04e-02
## 3250  -1.62e-02  -2.07e-03  -4.77e-03   7.02e-03   1.19e-02  -3.12e-02   9.25e-02
## 3251  -1.84e-03  -2.52e-03  -1.85e-03  -1.34e-04  -2.72e-03   6.47e-03   2.36e-02
## 3252   4.03e-03   5.61e-03  -4.74e-03   4.55e-03   4.12e-03   5.05e-06  -1.62e-02
## 3253  -1.72e-02  -4.95e-03  -6.30e-03   2.29e-02   1.24e-02  -1.40e-02   6.98e-02
## 3254   8.65e-03   7.92e-03  -1.39e-02  -2.98e-03  -1.02e-02   2.78e-02   6.17e-02
## 3255   1.73e-02   5.67e-03   2.60e-02  -1.57e-02   3.11e-02   1.63e-03   5.71e-02
## 3256  -2.24e-02   1.85e-02   1.36e-02  -9.83e-03  -2.70e-02   9.27e-03  -8.99e-02
## 3257   3.25e-03  -1.41e-03   4.58e-03  -2.04e-04   3.50e-03   3.27e-05  -1.58e-02
## 3258  -3.50e-02   2.25e-02  -3.18e-02  -1.02e-02  -1.66e-02   5.78e-03  -8.49e-02
## 3259   6.11e-03  -9.02e-03   6.50e-03  -5.06e-03   5.26e-03   4.31e-04   2.22e-02
## 3260   3.23e-02  -1.06e-02  -1.01e-02   4.19e-03   2.58e-02  -2.06e-02   8.57e-02
## 3261  -2.07e-02   8.57e-03   1.24e-02  -7.78e-03  -2.96e-02  -4.19e-03  -6.81e-02
## 3262   1.64e-04   6.95e-04  -2.60e-03   4.29e-03  -4.05e-03   8.83e-03  -1.79e-02
## 3263  -5.81e-06  -2.55e-05   1.65e-05   3.86e-05   2.56e-06  -2.78e-05   9.36e-05
## 3264  -1.34e-02   5.59e-03   1.12e-02   1.22e-02  -4.10e-03  -4.26e-03   4.53e-02
## 3265  -1.64e-05  -7.53e-05   4.43e-05  -1.10e-05  -9.03e-06  -9.83e-05   2.25e-04
## 3266  -2.04e-02  -2.49e-03  -7.11e-03   2.89e-02   2.87e-02  -4.70e-02   1.07e-01
## 3267   9.07e-03  -2.59e-03   8.18e-04  -2.96e-03  -3.68e-03   1.39e-02  -3.87e-02
## 3268  -1.03e-02  -6.49e-03   9.12e-03  -1.45e-03  -1.90e-02   1.25e-02  -5.19e-02
## 3269  -2.19e-02   1.32e-02  -3.14e-02  -8.04e-03  -3.52e-02  -4.00e-03  -7.41e-02
```

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## 3270 -6.81e-03 -1.77e-02 -4.60e-03  7.18e-03  5.38e-03 -1.06e-02  5.35e-02
## 3271  2.51e-04  6.10e-03  1.09e-03  2.33e-03 -1.15e-03  2.50e-03  1.08e-02
## 3272  1.83e-02 -5.17e-03  6.61e-03 -1.33e-03 -1.55e-02  6.09e-03 -4.17e-02
## 3273 -5.36e-04  1.27e-03  1.57e-03  2.51e-03 -2.49e-03  2.70e-03  1.02e-02
## 3274 -3.23e-04  3.11e-04 -2.63e-04 -3.27e-04 -3.61e-04  1.23e-04  1.54e-03
## 3275  1.48e-03  9.17e-04  2.17e-03 -1.71e-03  1.21e-03  3.48e-04  9.77e-03
## 3276 -1.82e-03 -3.18e-03 -1.80e-03 -1.93e-03 -1.40e-03  1.77e-03 -1.06e-02
## 3277 -2.24e-03  2.37e-02 -5.43e-03  6.82e-03  1.02e-02  6.48e-03  4.54e-02
## 3278 -1.94e-03 -7.67e-04  1.22e-02 -7.86e-03 -1.12e-03  6.72e-03  2.80e-02
## 3279  1.77e-04  1.13e-03  9.60e-04  4.58e-05 -7.14e-05  1.37e-03 -3.04e-03
## 3280  2.68e-02 -1.09e-02 -5.39e-03  8.66e-03  8.60e-03  4.54e-03  5.87e-02
## 3281  6.40e-03 -3.20e-03  4.50e-03 -1.17e-04  1.04e-03  5.00e-04 -1.79e-02
## 3282  1.04e-02  5.63e-03  1.56e-03 -6.69e-03  1.83e-03 -3.42e-03 -5.02e-02
## 3283  8.07e-03 -1.59e-02  7.45e-03 -6.60e-03 -2.10e-02  1.59e-02 -6.74e-02
## 3284  2.15e-04  4.45e-03  7.42e-04  1.73e-03 -6.05e-04  2.10e-03  7.81e-03
## 3285  2.03e-02 -1.26e-02 -4.10e-03 -1.81e-02  3.05e-03  2.91e-03  6.10e-02
## 3286  7.75e-03 -2.40e-03  1.06e-02  9.69e-03 -1.00e-03  7.15e-03  5.29e-02
## 3287  1.24e-03 -6.02e-03  3.90e-03  1.22e-03  1.86e-04 -7.27e-04  1.62e-02
## 3288 -2.37e-02  2.08e-03 -9.62e-03 -1.71e-02 -1.61e-02  1.51e-03  8.24e-02
## 3289 -3.73e-02  2.39e-03 -1.14e-02  1.48e-03 -2.10e-02 -4.95e-03  7.03e-02
## 3290 -1.35e-02 -6.83e-03  1.05e-02 -1.45e-02 -2.27e-02  2.13e-04 -5.08e-02
## 3291 -1.08e-02 -1.06e-03 -6.92e-03  5.68e-03  3.64e-03 -7.70e-04 -2.66e-02
## 3292  4.49e-03 -6.42e-03 -9.14e-03 -6.29e-03 -8.08e-03  3.52e-03  3.76e-02
## 3293 -1.86e-03  2.76e-03  2.46e-03 -6.01e-04 -1.35e-03 -8.23e-04  9.73e-03
## 3294 -2.36e-03 -5.34e-03  4.31e-03  3.73e-03 -1.00e-02  8.03e-03  2.06e-02
## 3295 -1.07e-04 -1.84e-03 -1.31e-03 -2.01e-04 -1.74e-03  4.20e-03  1.04e-02
## 3296 -2.94e-04 -6.30e-04  9.17e-04  1.90e-03 -3.60e-04 -5.02e-04  4.85e-03
## 3297 -1.06e-02 -1.02e-02  6.41e-03 -6.42e-04 -1.32e-02 -5.20e-04 -4.11e-02
## 3298  9.00e-03 -1.77e-02  7.35e-03 -9.24e-03 -9.38e-03  1.62e-02 -6.28e-02
## 3299 -1.11e-02 -5.40e-03 -2.48e-02  2.79e-02 -1.89e-02  1.07e-02 -6.57e-02
## 3300  9.99e-04  7.34e-03 -2.17e-03  5.15e-03 -2.36e-03  8.47e-03  2.27e-02
## 3301 -1.31e-02 -1.24e-02  3.49e-02  8.38e-03  3.41e-03  4.18e-03  7.38e-02
## 3302  1.52e-02 -1.29e-03 -1.12e-02  2.80e-03  2.83e-02 -1.76e-02  7.55e-02
## 3303 -2.20e-03  3.06e-03  2.92e-03  1.65e-03 -8.64e-04 -8.09e-05  1.05e-02
## 3304  1.85e-04  1.02e-02  2.20e-03  4.21e-03 -3.19e-03  2.97e-03  1.97e-02
## 3305 -4.74e-04  2.02e-04  1.48e-03 -2.15e-03 -1.85e-03  9.37e-04  6.47e-03
## 3306 -1.72e-02 -6.30e-03 -2.06e-02 -1.71e-04 -1.50e-02  6.22e-03 -5.10e-02
## 3307  7.86e-03 -1.25e-02 -5.90e-03  5.05e-03 -1.63e-03 -7.37e-03  4.15e-02
## 3308 -2.46e-03 -4.67e-03  4.30e-03  3.30e-03 -1.07e-02  9.13e-03  2.16e-02
## 3309 -2.52e-03 -4.52e-03  3.98e-03 -2.75e-03 -1.09e-02  9.01e-03  2.00e-02
## 3310  1.33e-02  7.89e-03  1.24e-02  4.93e-03  1.66e-02 -4.21e-04  3.85e-02
## 3311 -1.25e-03 -2.55e-03 -1.74e-03 -6.47e-03 -6.90e-03  7.97e-03  2.66e-02
## 3312  8.65e-03  3.36e-03  7.29e-03 -1.03e-02 -3.97e-04 -3.70e-03  3.59e-02
## 3313 -3.82e-03  3.14e-03 -3.83e-03  3.76e-04  8.15e-04  9.44e-04 -1.46e-02
## 3314 -1.72e-02  4.12e-03 -2.37e-02 -2.00e-02  1.37e-03 -1.85e-02 -9.74e-02
## 3315  3.08e-02  2.42e-03  1.44e-02 -2.29e-04  1.69e-02  1.13e-02 -7.72e-02
## 3316 -2.84e-02 -5.42e-03 -1.03e-02 -8.78e-03 -1.57e-02 -9.67e-04  6.06e-02
## 3317 -1.39e-05 -2.89e-04 -4.04e-04 -1.13e-03 -2.34e-04  1.01e-03 -2.64e-03
## 3318  1.49e-02 -4.71e-03  3.09e-03 -2.37e-03 -5.83e-03  5.87e-03 -3.69e-02
## 3319 -1.39e-03 -6.62e-03  2.40e-03  3.41e-03 -2.72e-03 -2.36e-04  1.31e-02
```

```
## 3320   2.13e-02   5.13e-03   2.60e-02   9.94e-04   3.43e-02  -1.05e-02   7.05e-02
## 3321   1.53e-02  -5.01e-03   4.51e-03  -1.50e-03  -1.13e-02   8.83e-03  -3.63e-02
## 3322  -3.42e-02  -7.13e-03   2.11e-02   1.05e-02   2.41e-02   1.97e-02  -1.36e-01
## 3323  -4.26e-03  -6.71e-04   9.17e-03   5.29e-03   3.15e-03   5.56e-03   2.60e-02
## 3324   1.93e-02   1.38e-02  -1.30e-02   8.86e-04   3.03e-02  -2.57e-04   5.79e-02
## 3325   4.04e-03  -6.49e-03  -9.26e-03   1.19e-02  -4.21e-03   2.14e-03   4.09e-02
## 3326   9.73e-03   2.17e-02   3.24e-03  -1.26e-02   1.19e-02  -7.97e-03  -7.24e-02
## 3327  -6.87e-03  -6.29e-03  -2.39e-02  -1.73e-02   4.94e-03  -1.97e-02  -7.13e-02
## 3328  -7.84e-06   1.81e-03   3.22e-04  -1.78e-03  -5.39e-04   1.07e-03   3.76e-03
## 3329   9.51e-03   1.76e-02   3.73e-03  -1.11e-02   2.82e-03   2.06e-03  -6.20e-02
## 3330  -3.26e-03  -7.93e-03   5.61e-03  -1.41e-03  -1.25e-02   4.53e-03   2.54e-02
## 3331  -4.99e-05  -1.05e-03  -9.18e-04  -3.03e-03  -1.49e-03   2.54e-03  -6.87e-03
## 3332   1.97e-02   1.11e-02  -1.15e-02   3.82e-03   2.48e-02  -3.63e-03   6.35e-02
## 3333   1.89e-02   8.77e-03   9.65e-03  -4.76e-03  -1.98e-02   1.88e-02  -6.95e-02
## 3334   4.24e-03  -1.08e-03  -5.98e-03   9.48e-06   6.52e-03  -2.52e-03  -1.94e-02
## 3335  -1.29e-02  -5.57e-03   2.57e-03   7.52e-03  -4.07e-03   5.41e-03  -3.78e-02
## 3336   2.10e-03  -9.63e-03   9.76e-03   1.15e-02  -1.41e-03  -9.15e-04   3.69e-02
## 3337  -5.98e-03   4.07e-04   8.36e-03  -3.06e-03  -1.03e-05  -5.09e-03   3.12e-02
## 3338  -6.03e-04   1.25e-03   1.89e-03  -6.09e-03  -3.25e-03   2.78e-03   1.03e-02
## 3339  -1.23e-02  -5.74e-03   7.96e-03  -1.52e-02  -1.52e-02   1.86e-03  -4.21e-02
## 3340  -1.21e-03  -1.92e-03  -2.42e-03   6.36e-03  -4.59e-03   9.54e-03   2.51e-02
## 3341  -4.05e-02   1.80e-02  -8.62e-03   4.08e-03   1.68e-02  -2.02e-02   1.01e-01
## 3342   7.72e-05   1.86e-03   3.88e-04   1.02e-03  -1.25e-05   4.33e-04   3.54e-03
## 3343  -9.08e-04   5.51e-04  -1.82e-03   8.52e-03  -7.36e-03   1.54e-02   3.92e-02
## 3344   7.34e-03   1.44e-03   3.21e-03  -3.62e-03  -6.34e-03   1.56e-02  -4.05e-02
## 3345  -4.95e-03  -8.67e-03   2.04e-02  -1.69e-02   1.57e-02  -2.08e-02  -6.72e-02
## 3346  -5.82e-03   1.52e-02   2.33e-02  -2.91e-02   1.39e-02   6.48e-03  -9.96e-02
## 3347   1.38e-02  -5.48e-03   4.19e-03  -1.01e-02  -1.12e-02   9.17e-03  -3.48e-02
## 3348  -2.94e-02   2.58e-03  -8.77e-03  -1.35e-02   2.08e-02  -1.64e-02   8.16e-02
## 3349  -3.37e-03  -1.51e-03   2.41e-03  -2.49e-03   1.40e-03  -1.55e-03   1.09e-02
## 3350   3.81e-04   2.34e-04   2.57e-04   1.33e-05   2.38e-04   2.17e-04   9.12e-04
## 3351  -6.09e-03  -2.33e-04  -2.41e-02  -2.00e-02   8.89e-03  -1.40e-02  -8.62e-02
## 3352   4.18e-02   6.84e-03  -2.40e-02   1.36e-03   1.12e-02  -6.95e-04  -9.88e-02
## 3353   1.02e-03  -5.74e-03   3.93e-03   4.99e-03  -2.67e-04  -1.21e-03   1.63e-02
## 3354  -2.74e-03  -8.31e-03  -8.71e-03   5.72e-03  -9.57e-03   2.01e-03   2.12e-02
## 3355  -2.47e-02   1.59e-03   8.13e-03  -3.04e-03  -1.48e-02   1.07e-02  -5.52e-02
## 3356  -4.75e-03  -6.64e-03   4.13e-03  -1.61e-04  -4.47e-03  -3.34e-04   1.49e-02
## 3357  -2.44e-04  -3.37e-03   2.39e-02   5.79e-04   1.65e-02   1.31e-03  -8.71e-02
## 3358  -1.86e-03   3.30e-03  -2.70e-03  -3.29e-03  -4.66e-04  -2.43e-03   1.51e-02
## 3359   1.13e-02   1.04e-02   6.76e-03  -6.80e-03  -4.72e-03   1.89e-02  -6.34e-02
## 3360   5.77e-05   3.96e-03   7.48e-04   1.65e-03  -5.71e-04   1.19e-03   6.51e-03
## 3361  -5.06e-03   1.50e-02  -8.50e-03   7.70e-03   1.37e-02  -3.10e-03   5.84e-02
## 3362  -1.07e-03   1.39e-03  -1.24e-03   2.11e-03  -1.29e-03  -5.58e-04   5.11e-03
## 3363  -1.09e-02   7.98e-03  -6.36e-03   8.45e-03   5.62e-03   2.51e-03   4.59e-02
## 3364   1.15e-03   6.01e-04  -1.23e-02   2.50e-03  -1.70e-02   1.72e-03   6.27e-02
## 3365  -9.81e-03  -1.19e-02  -4.65e-03  -6.07e-03  -2.30e-03  -6.12e-03   2.97e-02
## 3366   1.13e-02   3.16e-02   3.98e-02  -2.14e-02   4.69e-02  -2.48e-02  -1.02e-01
## 3367  -7.25e-03  -1.81e-02  -3.09e-04  -1.31e-02  -9.76e-03   8.27e-03   5.29e-02
## 3368  -8.45e-03  -8.65e-03   4.42e-03  -1.06e-02  -9.59e-03   3.33e-03  -3.59e-02
## 3369   3.01e-05  -3.19e-03  -2.56e-02  -2.07e-02   1.35e-02   3.09e-03  -1.05e-01
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## 3370   2.02e-04   5.48e-04 -2.50e-03   4.22e-03 -3.88e-03   8.59e-03 -1.73e-02
## 3371 -2.89e-03 -5.63e-03 -1.10e-02   4.46e-03 -1.47e-02   1.12e-02   2.94e-02
## 3372   8.66e-05 -3.79e-04 -1.01e-03   9.80e-05 -5.56e-04   2.87e-03 -6.04e-03
## 3373   4.14e-03 -1.39e-03 -6.15e-03 -1.15e-02   3.14e-03 -9.53e-05 -2.56e-02
## 3374 -2.46e-03 -4.94e-03   4.20e-03   3.47e-03 -1.07e-02   8.90e-03   2.11e-02
## 3375   6.12e-03 -3.68e-03   1.02e-03 -1.11e-03 -3.58e-03   9.02e-03 -2.58e-02
## 3376 -3.89e-03 -1.47e-03 -3.42e-03 -4.86e-03 -3.96e-03 -1.18e-03   1.51e-02
## 3377   9.68e-05   1.35e-04 -1.80e-03   7.67e-05 -1.54e-03   5.37e-03 -1.10e-02
## 3378 -1.15e-02 -6.69e-03   6.95e-03 -2.30e-03 -1.49e-02   3.86e-03 -4.38e-02
## 3379 -1.72e-02 -1.91e-03   1.18e-02 -2.25e-03 -2.15e-02   5.47e-03 -6.13e-02
## 3380   8.80e-03 -1.22e-03   2.53e-03 -2.45e-03 -8.04e-03   1.04e-02 -3.33e-02
## 3381 -3.73e-03 -1.31e-03 -2.00e-03   1.87e-03 -1.76e-03 -3.59e-04   9.42e-03
## 3382 -2.22e-03 -5.85e-03   4.32e-03   4.00e-03 -9.08e-03   6.78e-03   1.96e-02
## 3383   1.10e-03 -4.76e-03 -2.11e-03   3.93e-03 -9.27e-04 -9.84e-04   1.12e-02
## 3384   1.96e-02   1.47e-02 -1.39e-02   1.99e-02   3.32e-02 -2.48e-03   6.20e-02
## 3385   1.32e-04   6.01e-04 -3.80e-04   1.89e-04 -9.83e-06   7.52e-04 -1.97e-03
## 3386 -2.48e-03 -5.09e-03   3.86e-03   3.27e-03 -9.85e-03   7.53e-03   1.94e-02
## 3387   2.33e-03 -3.29e-04 -4.30e-03   7.50e-03   2.04e-03 -1.31e-03   1.91e-02
## 3388   2.06e-03   8.68e-03 -3.01e-03 -6.01e-03   5.92e-04   1.10e-02   2.59e-02
## 3389   1.98e-03   6.00e-03   6.45e-03   2.19e-03 -1.82e-05 -2.38e-03   2.54e-02
## 3390   5.38e-03 -8.42e-03   6.66e-03 -4.84e-03   2.04e-03   1.89e-03   2.12e-02
## 3391 -1.94e-03 -1.00e-03   6.19e-03 -9.54e-04   2.82e-03   3.77e-03   1.83e-02
## 3392   1.45e-03 -1.49e-03   2.08e-03 -2.30e-03   3.31e-03 -1.33e-03 -8.32e-03
## 3393 -4.93e-03 -1.18e-03 -3.78e-03 -1.83e-04   1.64e-03   3.53e-03   2.30e-02
## 3394 -4.52e-03   9.57e-03 -5.18e-03 -1.62e-03 -5.80e-03   1.81e-05   2.53e-02
## 3395   2.74e-02 -3.40e-03   3.18e-02 -3.06e-02   1.77e-02 -4.26e-03   7.43e-02
## 3396   3.39e-05 -3.99e-04   7.34e-04   6.07e-04 -1.01e-05   5.78e-04 -1.93e-03
## 3397   1.85e-02 -4.92e-03   4.52e-03 -2.21e-03 -1.05e-02   1.53e-02 -4.54e-02
## 3398 -2.29e-03 -5.14e-03   4.30e-03 -7.78e-03 -1.02e-02   8.21e-03   2.03e-02
## 3399   6.40e-04   6.76e-04   1.65e-03 -9.31e-04   5.06e-04 -7.12e-05   7.42e-03
## 3400   6.26e-03 -1.14e-02 -2.99e-03 -4.82e-03   3.62e-03   2.82e-03   2.55e-02
## 3401 -3.86e-04 -2.13e-04   1.57e-03   2.78e-03 -1.00e-03 -1.55e-04   7.14e-03
## 3402 -4.63e-05   2.53e-04 -6.04e-04 -4.39e-04   4.33e-06 -8.30e-04   2.19e-03
## 3403 -3.88e-03 -2.66e-03 -2.80e-02   2.29e-02   9.63e-03 -8.84e-03 -8.58e-02
## 3404   1.42e-04   3.23e-03 -1.66e-03   3.13e-03 -1.42e-03   3.50e-03   1.23e-02
## 3405 -1.64e-02   1.42e-05 -2.74e-02   2.30e-02   1.67e-02 -1.28e-02 -8.52e-02
## 3406   1.20e-02   1.76e-02   4.87e-04 -1.35e-02   1.21e-02 -1.62e-02 -7.44e-02
## 3407   2.13e-03   1.08e-02   2.34e-03   3.80e-03   3.29e-03 -1.50e-03   1.98e-02
## 3408 -1.30e-02 -1.24e-02 -6.16e-03 -9.11e-03   9.12e-03   1.75e-03   6.18e-02
## 3409   1.73e-03   1.73e-03   1.01e-03   2.21e-03   2.24e-03 -1.20e-03   6.73e-03
## 3410 -5.30e-02   1.33e-03   1.29e-02 -2.45e-02 -1.48e-02 -3.47e-02 -1.18e-01
## 3411 -2.20e-02 -8.29e-03 -1.15e-02   1.35e-02 -1.07e-02 -6.97e-03   6.23e-02
## 3412   2.03e-03 -5.30e-03   8.88e-03 -1.37e-02 -1.46e-03 -4.79e-04   3.46e-02
## 3413 -4.35e-03 -1.49e-02   1.39e-02   5.62e-03 -3.09e-03   4.13e-03   3.57e-02
## 3414   4.12e-03   2.25e-03 -1.17e-03   3.15e-03   2.33e-03   2.32e-03   9.02e-03
## 3415   5.84e-03 -8.40e-03 -7.11e-03 -1.54e-02 -1.46e-02 -5.34e-03   4.75e-02
## 3416 -2.68e-03 -1.48e-03   1.19e-03   1.11e-03 -9.14e-04 -1.88e-03 -6.29e-03
## 3417   8.35e-05 -6.45e-05   1.62e-04   1.46e-04   6.36e-06   7.98e-05 -7.80e-04
## 3418 -4.09e-03   3.68e-03 -2.21e-02 -1.95e-02   1.51e-03 -1.08e-02 -9.78e-02
## 3419   1.05e-02 -1.29e-03   4.29e-03 -1.85e-03 -1.22e-02   1.03e-02 -3.90e-02
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## 3420   1.65e-02   1.69e-02  -9.54e-03  -1.87e-02   2.21e-02   8.03e-03   5.15e-02
## 3421  -1.26e-02  -9.34e-03   9.15e-03  -8.86e-05  -2.01e-02   3.24e-04  -3.88e-02
## 3422  -1.81e-02  -5.03e-03  -5.33e-03   8.93e-03   1.05e-02  -1.37e-02   7.60e-02
## 3423  -3.82e-02   3.00e-02   8.37e-03   2.54e-02   1.02e-02  -7.81e-03  -1.05e-01
## 3424   3.12e-04   1.46e-03  -8.15e-04   1.61e-03   2.61e-05   1.39e-03  -4.33e-03
## 3425  -3.79e-03  -5.79e-04   5.34e-03   2.80e-03   5.68e-03   7.57e-04   2.09e-02
## 3426   7.62e-03   6.47e-03   3.80e-03  -5.97e-03  -5.56e-03   1.16e-02  -4.68e-02
## 3427   1.38e-03  -1.74e-03   2.25e-03  -2.25e-04   3.92e-03  -2.52e-03  -9.19e-03
## 3428  -2.50e-03  -8.85e-04  -3.66e-03   5.49e-03  -2.71e-03   4.82e-03   2.56e-02
## 3429   3.33e-03   7.93e-03  -9.06e-03   7.98e-03  -3.30e-05   2.10e-04   2.81e-02
## 3430   1.91e-02   1.32e-02  -1.24e-02  -1.86e-02   2.96e-02   5.30e-04   6.05e-02
## 3431  -9.32e-04   8.78e-04  -5.20e-03  -6.64e-03  -4.53e-03   1.68e-03   1.24e-02
## 3432   3.39e-03   6.13e-03  -6.20e-03  -2.45e-03  -3.65e-03   8.39e-04   2.90e-02
## 3433   9.92e-03   1.37e-03   3.04e-03  -4.01e-03  -6.56e-03   9.00e-03  -4.12e-02
## 3434  -1.98e-03  -4.82e-02   9.93e-03   2.56e-02   2.17e-02  -6.00e-02  -1.27e-01
## 3435   2.50e-03  -1.07e-03   3.33e-03  -3.96e-04   4.46e-03  -8.65e-04  -1.17e-02
## 3436   2.27e-03   1.54e-03  -4.95e-03   5.97e-03  -7.26e-05  -2.29e-03   1.75e-02
## 3437  -7.89e-03  -1.84e-02  -6.08e-03  -7.79e-03   8.24e-03  -1.18e-02   5.90e-02
## 3438   1.53e-02   2.12e-03  -5.16e-03  -2.51e-03   3.14e-03  -2.55e-03   3.83e-02
## 3439   5.51e-03   2.15e-03   5.04e-03   8.29e-03   5.01e-03  -1.97e-03   2.84e-02
## 3440  -5.38e-03   3.13e-03  -4.05e-03   8.58e-03   3.65e-03  -1.26e-03   4.33e-02
## 3441  -2.71e-03  -2.73e-04  -3.92e-03   5.95e-03  -3.01e-03   5.42e-03   2.77e-02
## 3442   1.35e-02   1.18e-02   1.65e-02  -4.44e-03   1.71e-02   2.58e-03   4.24e-02
## 3443   4.67e-02   1.54e-02  -2.79e-02   2.21e-02   5.61e-03   1.25e-03  -1.06e-01
## 3444   2.06e-02   3.12e-03  -4.76e-03  -1.51e-03   4.55e-03   5.25e-03   3.84e-02
## 3445  -1.36e-03   4.09e-04  -2.14e-03   8.63e-03  -7.54e-03   1.36e-02   3.61e-02
## 3446   1.23e-02   3.94e-03  -4.44e-03  -8.49e-03   1.00e-02   8.36e-03   4.12e-02
## 3447   3.66e-03   6.11e-03  -1.37e-02   1.16e-02  -9.81e-03   1.37e-02   4.55e-02
## 3448  -5.00e-04  -1.75e-03  -3.26e-03   7.79e-03  -3.79e-03   1.42e-02   3.38e-02
## 3449   8.30e-03  -8.63e-03  -9.90e-03   1.67e-02  -4.15e-03  -2.75e-03   6.62e-02
## 3450   8.93e-03  -4.06e-03   3.53e-03  -5.98e-04  -1.21e-02   1.17e-02  -3.38e-02
## 3451   3.15e-04  -3.23e-04   4.92e-04  -9.54e-04   5.20e-04  -1.65e-04  -2.19e-03
## 3452  -3.28e-03  -4.60e-03  -1.17e-02   4.74e-03  -1.70e-02   1.21e-02   2.93e-02
## 3453   1.28e-02   7.25e-03   4.50e-03   2.44e-02  -8.51e-03   1.71e-03  -5.76e-02
## 3454   3.14e-05   6.46e-03  -5.95e-03   4.59e-03  -2.41e-03   1.97e-04   1.51e-02
## 3455  -3.15e-03  -1.97e-02  -3.75e-03  -2.74e-03   9.44e-04   3.73e-03   4.72e-02
## 3456   1.05e-04  -9.68e-04   5.16e-04   3.35e-04  -5.23e-06  -1.90e-04   2.10e-03
## 3457   1.58e-02  -4.33e-03   4.96e-03  -1.21e-02  -1.19e-02   8.67e-03  -3.91e-02
## 3458   2.33e-02  -1.16e-02  -6.95e-03   7.58e-03   9.08e-03  -9.59e-04   6.06e-02
## 3459  -2.11e-02  -7.65e-03  -5.92e-03  -2.09e-02   8.71e-03  -5.06e-04   6.25e-02
## 3460   3.80e-03   4.50e-03  -1.27e-02  -8.48e-04  -9.38e-03   1.32e-02   4.20e-02
## 3461   8.12e-05  -1.24e-04   1.60e-03  -2.51e-05  -2.01e-04   2.15e-03  -4.55e-03
## 3462   7.90e-03  -4.30e-03   1.99e-03  -1.09e-03  -7.88e-03   9.10e-03  -3.35e-02
## 3463  -2.13e-03  -5.20e-03   3.35e-03   2.96e-03  -8.92e-03   8.14e-03   2.09e-02
## 3464  -1.91e-02   4.14e-03  -4.52e-03   6.17e-03   1.65e-02  -1.34e-02   8.70e-02
## 3465   1.76e-03  -2.67e-03  -1.11e-02  -9.07e-03  -5.38e-03   4.75e-03   3.91e-02
## 3466  -3.51e-04  -5.30e-04   1.42e-03   2.63e-03  -5.95e-04  -7.13e-04   6.51e-03
## 3467  -5.91e-03  -1.79e-02   2.44e-02   8.96e-03  -6.40e-03   7.17e-03   5.50e-02
## 3468   7.15e-03   3.09e-02   5.03e-03   2.52e-02   3.90e-03  -1.62e-03  -8.18e-02
## 3469   7.64e-03  -1.18e-02  -3.65e-03   6.60e-03   9.33e-04   5.82e-03   3.69e-02
```

```
## 3470 -5.40e-04  3.59e-03  2.08e-03  2.70e-03 -4.68e-03  6.63e-03  1.60e-02
## 3471 -3.44e-03  1.81e-03 -3.46e-03  8.35e-03 -4.00e-03  1.56e-02  4.46e-02
## 3472  1.80e-02  2.43e-03 -1.01e-02  5.91e-03  1.92e-02  2.72e-04  5.53e-02
## 3473 -1.48e-02  8.18e-03 -1.04e-02  4.56e-03 -1.36e-02 -8.10e-03  5.07e-02
## 3474 -6.03e-03 -6.79e-03  1.96e-02 -1.87e-02  1.36e-02 -1.96e-02 -6.75e-02
## 3475  1.31e-04 -3.84e-04 -2.00e-03  2.49e-04 -2.71e-03  6.75e-03 -1.36e-02
## 3476  3.56e-03  2.53e-03  1.70e-02 -1.77e-04 -8.43e-03  9.47e-03  5.01e-02
## 3477  2.72e-03 -2.72e-03 -9.33e-03 -1.85e-02 -8.28e-03  8.62e-03  3.86e-02
## 3478  1.45e-02 -4.94e-03  2.02e-02  3.86e-03  2.08e-02 -1.06e-02  5.66e-02
## 3479 -2.07e-02 -1.14e-02 -7.32e-03  8.37e-03  7.00e-03 -2.08e-05  6.65e-02
## 3480 -1.02e-02 -7.92e-03  7.25e-03  1.11e-02 -1.25e-02  2.80e-03 -3.94e-02
## 3481  1.30e-02  3.36e-03  1.16e-02 -9.82e-03  6.08e-03  2.63e-03  3.40e-02
## 3482  1.67e-05 -1.58e-03 -1.37e-03  3.44e-03 -9.97e-04  2.25e-03 -8.75e-03
## 3483 -3.19e-02 -1.75e-03  1.95e-02  1.49e-02 -1.05e-02  7.29e-04  6.29e-02
## 3484 -1.02e-02  1.12e-03 -6.84e-03 -3.31e-03 -9.79e-03 -1.20e-02  3.64e-02
## 3485 -1.07e-02  5.04e-03  2.32e-02 -1.63e-03  1.35e-02 -9.96e-03 -8.95e-02
## 3486  5.09e-03 -3.20e-04 -3.20e-03  2.38e-03 -2.37e-03 -1.26e-03  1.59e-02
## 3487  6.31e-03  3.55e-03  1.46e-02  9.92e-03 -2.93e-03  1.44e-02  5.60e-02
## 3488  3.62e-03  5.14e-03 -1.20e-02 -2.66e-02 -1.11e-02  1.48e-02  4.96e-02
## 3489 -1.85e-02 -1.17e-03  4.72e-03  2.08e-02 -1.14e-02  6.24e-03 -5.23e-02
## 3490 -8.27e-03 -9.06e-03  4.52e-03 -8.93e-04 -9.06e-03  3.24e-03 -3.54e-02
## 3491  1.02e-02 -6.65e-03  1.54e-02 -1.85e-02  1.67e-02  1.18e-03  4.61e-02
## 3492  1.95e-02  1.72e-02 -1.17e-02  2.35e-03  2.26e-02  1.43e-03  8.17e-02
## 3493 -2.37e-02  2.26e-02  1.68e-02 -1.31e-02 -2.98e-02 -3.56e-03 -9.46e-02
## 3494  9.35e-03  1.93e-02 -1.85e-02 -1.47e-02  4.32e-02 -3.79e-02 -8.92e-02
## 3495 -7.32e-03  2.64e-03 -4.72e-03  8.01e-03  1.64e-03  7.36e-03  3.68e-02
## 3496 -6.36e-04 -3.11e-04  4.32e-04 -7.06e-04  1.16e-04  9.96e-06 -1.73e-03
## 3497 -7.40e-03  3.07e-04 -7.63e-03  4.75e-03 -2.68e-03 -4.26e-03  3.87e-02
## 3498 -1.78e-03 -1.67e-03 -2.12e-03  5.46e-03 -1.23e-03  7.92e-03  2.66e-02
## 3499  2.15e-04 -6.04e-06 -2.35e-03  4.53e-03 -3.41e-03  7.59e-03 -1.63e-02
## 3500  8.35e-03  3.44e-03 -1.29e-02 -8.19e-04 -6.28e-03  2.02e-02  5.61e-02
## 3501  1.68e-02 -5.76e-03 -1.22e-02  5.78e-03  1.60e-02 -1.26e-02  6.75e-02
## 3502 -2.43e-03 -5.15e-03  4.04e-03  3.40e-03 -9.80e-03  7.63e-03  1.99e-02
## 3503  2.16e-05  2.60e-04 -1.82e-04 -2.69e-04 -1.23e-04  4.59e-04  1.12e-03
## 3504  3.64e-03  6.09e-03 -1.37e-02  1.16e-02 -9.86e-03  1.37e-02  4.55e-02
## 3505  1.95e-02  1.01e-02 -1.14e-02  4.18e-03  2.52e-02 -4.94e-03  6.30e-02
## 3506 -1.51e-05  2.89e-04  1.93e-04  5.07e-04  5.87e-05 -4.14e-04  1.29e-03
## 3507 -9.97e-04 -1.99e-03  2.68e-03 -4.06e-03 -2.65e-03 -2.98e-03  1.31e-02
## 3508 -1.63e-03 -5.54e-03  2.93e-03 -8.98e-03 -6.30e-03  4.62e-03  1.66e-02
## 3509  6.19e-04  4.31e-03 -3.10e-03  3.51e-03  1.87e-03  4.06e-03  1.61e-02
## 3510  3.61e-04 -3.48e-03 -8.53e-03 -6.62e-03 -5.85e-03 -1.50e-03  3.22e-02
## 3511 -4.42e-03 -6.71e-03  2.08e-02  1.99e-03  1.89e-02 -2.24e-02 -6.73e-02
## 3512  3.99e-03  3.13e-02  1.91e-02  3.27e-02  1.09e-02 -3.94e-02 -1.40e-01
## 3513 -2.53e-03 -4.63e-03  4.08e-03  3.16e-03 -1.08e-02  9.02e-03  2.11e-02
## 3514  2.81e-02 -9.98e-03 -3.69e-03  1.00e-02  2.40e-03  7.56e-03  6.96e-02
## 3515 -2.00e-03 -6.94e-03  3.68e-03  4.39e-03 -6.90e-03  3.03e-03  1.88e-02
## 3516 -5.78e-04  6.96e-04 -1.45e-03 -1.21e-03 -5.91e-04  7.27e-04 -6.30e-03
## 3517 -1.14e-04 -2.78e-04  2.89e-04 -3.42e-04 -1.55e-04 -1.87e-04  1.39e-03
## 3518 -1.30e-04 -1.02e-03 -2.34e-03 -6.79e-05  9.41e-05 -2.34e-03 -6.32e-03
## 3519  1.56e-02 -4.18e-03  2.95e-03  6.98e-03 -5.42e-03  5.33e-03 -3.94e-02
```

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## 3520 -3.66e-02  2.02e-02  4.11e-03 -1.52e-02  8.53e-03 -8.02e-03 -8.49e-02
## 3521 -8.76e-03 -1.45e-03 -2.50e-02  6.01e-04  1.54e-02 -9.74e-03 -9.26e-02
## 3522 -1.04e-02 -8.00e-03  6.63e-03  2.20e-02 -1.21e-02  2.65e-03 -4.95e-02
## 3523  1.17e-02  3.06e-02  3.80e-02 -2.21e-02  4.57e-02 -1.74e-02 -9.09e-02
## 3524  2.25e-02  1.21e-02 -1.31e-02  2.77e-03  2.16e-02 -1.06e-02  9.26e-02
## 3525  1.36e-02 -1.21e-02 -9.97e-03  1.63e-02 -1.42e-02 -1.02e-02  6.08e-02
## 3526 -6.56e-04  1.30e-03  1.87e-03 -3.36e-03 -3.24e-03  2.66e-03  9.23e-03
## 3527  4.04e-02  9.45e-03  1.81e-02 -4.16e-03  2.06e-02  5.85e-04 -8.48e-02
## 3528 -1.07e-03  5.21e-03 -9.23e-03  4.63e-03 -8.21e-03  6.53e-03  2.01e-02
## 3529  1.41e-02  3.91e-03  1.58e-02  3.52e-02 -1.86e-02 -2.75e-03 -1.31e-01
## 3530  4.60e-04  4.63e-03 -2.35e-03 -7.11e-05  9.05e-04  3.87e-03  1.49e-02
## 3531  1.63e-02  1.53e-02 -1.19e-02  2.36e-02  2.66e-02 -2.11e-02  8.29e-02
## 3532  3.08e-03  3.76e-03  4.70e-03  6.53e-03  8.96e-04 -9.48e-04  2.26e-02
## 3533 -1.12e-02 -2.62e-03 -5.31e-03  1.74e-04 -5.00e-03 -5.83e-03 -2.07e-02
## 3534 -6.15e-03 -4.27e-03  2.06e-02 -1.99e-02  1.41e-02 -1.98e-02 -6.99e-02
## 3535 -2.51e-04 -1.29e-03  1.72e-03  2.06e-03 -2.98e-04 -3.37e-03 -9.29e-03
## 3536  7.56e-03 -1.21e-02  9.14e-03 -8.58e-03  7.01e-04 -2.49e-03  3.68e-02
## 3537 -8.19e-03  1.14e-04 -6.11e-03 -2.76e-03  8.59e-05 -4.74e-03  2.72e-02
## 3538  1.10e-03 -1.88e-03 -3.17e-03  2.19e-03 -1.26e-03 -3.40e-03 -1.10e-02
## 3539 -3.31e-02  1.57e-02 -3.30e-02 -9.11e-03 -1.19e-02  1.13e-02 -8.50e-02
## 3540 -9.13e-03 -1.68e-02 -2.77e-03  1.05e-02  2.40e-04  1.06e-02  5.84e-02
## 3541  2.62e-03 -1.14e-03 -4.29e-03 -3.91e-03  4.22e-03 -2.52e-03 -1.67e-02
## 3542  2.30e-03 -1.65e-03 -3.85e-03 -1.14e-04  4.57e-03 -1.24e-03 -1.30e-02
## 3543 -1.67e-03 -1.56e-03  3.20e-03 -5.85e-05  1.97e-03  2.49e-03  1.08e-02
## 3544 -5.09e-03 -3.95e-03  6.43e-03  4.82e-03 -1.22e-03  1.30e-03 -2.04e-02
## 3545  1.08e-02  1.86e-02  6.13e-03 -7.91e-03 -1.38e-02  2.97e-03 -7.30e-02
## 3546  1.86e-02 -4.40e-03  7.34e-03 -6.67e-04 -1.81e-02  6.69e-03 -5.10e-02
## 3547 -1.36e-03  3.95e-03 -1.84e-03 -2.40e-03  5.89e-04  4.10e-03  1.19e-02
## 3548  2.06e-04 -6.95e-04 -1.02e-03  1.82e-03 -1.14e-04  2.39e-03 -6.23e-03
## 3549  1.85e-02  5.96e-03 -1.26e-02  2.02e-03  3.12e-02  9.21e-04  6.75e-02
## 3550 -2.12e-02  2.32e-04  5.01e-03 -4.16e-03 -1.10e-02  3.80e-03 -4.58e-02
## 3551 -6.11e-04  2.41e-03  1.68e-03  2.37e-03 -3.75e-03  4.75e-03  1.27e-02
## 3552 -1.60e-02 -1.47e-02 -6.92e-03 -1.77e-02 -1.63e-02 -1.11e-02  6.68e-02
## 3553 -9.64e-03  1.36e-02  2.48e-02 -2.27e-02  1.49e-02 -6.97e-04  6.32e-02
## 3554 -5.02e-06  1.30e-03  3.45e-04 -6.39e-04 -1.66e-04  1.90e-04  2.39e-03
## 3555  2.89e-03  2.78e-04  1.22e-02  9.77e-03 -3.68e-03  9.11e-03  3.68e-02
## 3556 -2.02e-02  1.05e-02  1.00e-02 -7.77e-03 -2.10e-02  4.61e-03 -7.01e-02
## 3557  1.63e-02 -6.09e-03  2.86e-03 -1.84e-03 -6.13e-03  1.24e-02 -4.25e-02
## 3558 -2.73e-02 -7.69e-03 -7.28e-03 -8.48e-03  6.72e-03 -7.51e-03  7.82e-02
## 3559 -6.46e-03  1.35e-03  1.10e-02 -1.07e-03  4.61e-03  7.98e-03  3.00e-02
## 3560 -3.09e-03 -8.99e-03  1.91e-02  1.64e-03  1.56e-02 -8.91e-03 -7.37e-02
## 3561 -3.92e-03 -2.49e-03 -2.87e-03  3.07e-03 -5.44e-03 -1.04e-03  1.77e-02
## 3562  2.61e-02  1.07e-02  9.33e-03  1.13e-02 -2.32e-02  2.12e-02 -8.52e-02
## 3563 -1.46e-02 -1.28e-02 -4.46e-03 -2.54e-02  1.20e-02 -2.12e-02  7.29e-02
## 3564 -6.66e-04  1.56e-03  1.97e-03  2.95e-03 -2.79e-03  2.16e-03  1.01e-02
## 3565  1.15e-04  3.33e-03  5.66e-04  1.40e-03 -3.43e-04  1.28e-03  5.93e-03
## 3566 -1.89e-02 -1.15e-02 -8.26e-03  5.22e-03 -7.91e-03 -1.66e-03  4.55e-02
## 3567 -2.35e-02 -5.15e-03 -6.36e-03  7.87e-03  9.98e-03  6.59e-03  7.11e-02
## 3568 -1.95e-03 -7.76e-03 -5.60e-03 -7.47e-03 -6.38e-03  7.72e-04  1.68e-02
## 3569 -3.18e-03 -4.58e-03 -1.19e-02  4.91e-03 -1.69e-02  1.22e-02  2.97e-02
```

```
## 3570 -8.78e-03 -1.94e-02 -4.46e-03  6.69e-03 -1.92e-03 -5.91e-03  4.68e-02
## 3571 -2.20e-05 -1.05e-04 -7.74e-05 -5.58e-05 -2.39e-05 -1.29e-04  2.81e-04
## 3572  5.10e-02 -1.17e-02  2.61e-02 -4.08e-02  1.02e-02  6.48e-03 -1.26e-01
## 3573  3.82e-03 -7.49e-03  6.48e-03  7.24e-03 -2.32e-03 -2.86e-03  2.44e-02
## 3574  1.82e-02 -1.31e-02 -8.21e-03  8.48e-03  1.22e-02  3.06e-03  5.57e-02
## 3575  2.84e-02  2.17e-02  1.74e-02 -2.29e-02  2.00e-02  1.96e-02 -1.01e-01
## 3576 -1.00e-02 -2.56e-03 -5.72e-03  5.16e-04 -2.75e-04  1.82e-03 -2.54e-02
## 3577  3.33e-02  1.07e-02 -1.01e-02  1.86e-03  2.95e-02 -1.21e-02  7.44e-02
## 3578 -4.31e-03 -2.18e-03  7.61e-03  8.93e-03  1.46e-03 -5.30e-03  2.90e-02
## 3579  1.50e-02  3.34e-03 -1.41e-02  1.92e-02  2.66e-02 -7.84e-03  7.17e-02
## 3580  1.91e-02  5.61e-03  1.45e-02  1.47e-02  1.55e-02 -2.66e-03  5.41e-02
## 3581 -1.90e-02  1.80e-02 -2.29e-02 -2.25e-02 -1.66e-03 -3.12e-03 -1.23e-01
## 3582  1.01e-02 -3.17e-03  9.18e-04  6.45e-03 -2.46e-03  1.40e-02 -3.89e-02
## 3583 -3.19e-02 -3.69e-03 -1.12e-02 -1.11e-02 -2.19e-02 -1.12e-02  7.44e-02
## 3584 -2.05e-02 -1.10e-02  1.33e-02 -1.48e-02 -8.08e-03  1.92e-03  4.58e-02
## 3585 -4.43e-04 -1.26e-03 -2.28e-03 -2.23e-03 -9.68e-04 -1.72e-03  6.50e-03
## 3586 -1.42e-02  1.42e-03  1.33e-02 -2.94e-03 -3.20e-02  2.99e-02 -8.34e-02
## 3587 -5.74e-03 -8.62e-03  1.89e-02  1.52e-03  1.51e-02 -2.14e-02 -6.42e-02
## 3588 -1.42e-02 -6.84e-03  9.78e-03 -1.55e-02 -2.27e-02  4.95e-04 -4.39e-02
## 3589 -2.56e-02 -8.41e-04  1.86e-02 -1.94e-04 -3.41e-03  5.81e-03  6.47e-02
## 3590 -1.10e-02 -9.94e-03  6.03e-03  2.30e-02 -1.23e-02 -1.74e-03 -4.88e-02
## 3591 -1.15e-03  2.22e-03 -2.58e-02  9.67e-04  7.59e-03  2.94e-03 -9.35e-02
## 3592 -1.12e-02 -1.44e-02 -5.47e-03 -9.17e-03  1.42e-02 -1.10e-02  7.06e-02
## 3593  3.65e-03  6.43e-03  1.74e-02 -1.89e-03 -9.05e-03  1.42e-02  5.59e-02
## 3594  2.89e-03 -6.52e-03  3.34e-03  4.37e-03 -2.11e-03 -2.89e-03  1.35e-02
## 3595 -2.52e-02  2.55e-02  9.69e-03 -1.70e-02 -6.13e-03  9.94e-04 -1.00e-01
## 3596 -1.74e-04 -1.15e-03  3.10e-04 -1.47e-04 -1.20e-04 -5.39e-04  1.67e-03
## 3597  1.85e-03 -8.46e-03 -5.69e-03 -8.46e-03 -7.71e-03 -3.50e-03  2.91e-02
## 3598 -6.69e-03 -5.36e-03 -2.41e-02 -1.77e-02  5.40e-03 -1.95e-02 -7.20e-02
## 3599 -9.15e-04 -4.79e-03  1.47e-03  4.67e-04 -1.38e-03 -1.22e-03  7.33e-03
## 3600  1.59e-03 -6.09e-03 -6.83e-03  3.23e-03 -4.77e-03  9.71e-06  3.00e-02
## 3601  5.20e-04 -1.14e-03 -3.11e-03  8.84e-03 -1.79e-03  1.55e-02  3.77e-02
## 3602  2.65e-03  4.58e-03  4.32e-03  5.77e-03  2.16e-03 -8.48e-05  1.99e-02
## 3603 -2.28e-02  1.46e-02 -3.29e-02 -1.02e-02 -2.60e-02 -8.96e-03 -7.58e-02
## 3604 -1.87e-03  1.22e-03 -3.32e-03  7.70e-03 -3.22e-03  1.02e-02  3.40e-02
## 3605  8.01e-03  1.86e-03  2.84e-03  1.72e-02 -5.41e-03  1.45e-02 -4.27e-02
## 3606 -1.94e-03  1.96e-02 -5.08e-03 -3.23e-03  9.91e-03  2.27e-03  3.95e-02
## 3607  1.70e-02  5.07e-04 -1.00e-02  5.68e-03  1.76e-02  7.73e-04  5.29e-02
## 3608 -8.42e-03  5.57e-04 -5.96e-03 -1.21e-02 -6.37e-03 -3.46e-03  5.33e-02
## 3609  5.11e-04 -2.99e-04 -1.26e-03  1.03e-03 -5.94e-04  8.59e-04 -5.36e-03
## 3610  1.09e-02  1.10e-02 -2.88e-02 -6.76e-03 -6.75e-03  1.80e-02 -7.17e-02
## 3611 -3.57e-03 -6.79e-04  4.79e-03 -1.04e-04  1.62e-03  2.96e-03  1.60e-02
## 3612  1.81e-02  7.21e-03  9.07e-03 -4.02e-03  2.08e-02  1.14e-03 -8.05e-02
## 3613  1.11e-03 -8.27e-03  6.88e-03  3.30e-03 -2.19e-03 -1.59e-03  2.35e-02
## 3614  5.06e-03 -1.71e-04 -7.89e-03  6.83e-03  4.88e-03 -2.91e-03 -2.79e-02
## 3615  1.46e-02 -1.39e-02 -6.75e-03  5.19e-03 -9.61e-03 -7.37e-03  6.04e-02
## 3616 -1.25e-02 -6.23e-03  1.99e-02 -1.64e-02  9.59e-03 -3.59e-02 -9.28e-02
## 3617  3.78e-03 -8.17e-04 -6.62e-03 -2.98e-04  6.43e-03 -3.98e-03 -2.04e-02
## 3618  1.70e-02 -5.53e-03 -6.21e-03 -2.11e-02  1.48e-02  6.78e-03  6.46e-02
## 3619 -1.08e-02 -1.67e-02 -2.76e-03 -5.79e-04 -5.49e-03  1.05e-02  5.14e-02
```

```
## 3620   1.09e-04 -1.90e-04 -1.97e-03   4.89e-05 -2.77e-03   6.81e-03 -1.33e-02
## 3621   1.53e-03 -6.60e-03 -5.77e-03 -1.05e-02 -3.71e-03 -3.71e-04   2.96e-02
## 3622 -6.31e-04   1.79e-03   2.18e-03   3.22e-03 -3.08e-03   2.64e-03   1.10e-02
## 3623   9.80e-03 -9.60e-03 -1.06e-02   1.11e-02 -7.55e-03 -1.04e-02   4.76e-02
## 3624 -3.77e-06   1.12e-02 -8.28e-03   4.91e-03 -4.53e-03   2.96e-03   2.21e-02
## 3625   1.09e-02   2.47e-02 -2.13e-02   6.39e-02   5.01e-02 -4.07e-02 -1.10e-01
## 3626 -2.04e-03 -6.45e-03   2.02e-02 -3.76e-05   2.26e-02 -1.18e-02 -9.34e-02
## 3627   2.16e-02 -5.11e-03 -1.07e-02   2.56e-02   1.69e-02 -5.74e-03   7.27e-02
## 3628   2.07e-02   1.98e-02 -1.14e-02   1.46e-03   2.76e-02 -3.22e-04   7.76e-02
## 3629   4.64e-06   1.98e-04   3.66e-04 -2.24e-04 -5.53e-05   3.02e-04   1.09e-03
## 3630   7.30e-05 -1.70e-04 -1.13e-03 -1.64e-03 -8.20e-04   3.51e-03 -7.13e-03
## 3631 -1.80e-03 -5.68e-03   2.93e-03 -5.21e-03 -6.30e-03   4.55e-03   1.62e-02
## 3632   1.10e-02   2.87e-02 -1.91e-02 -1.82e-02   4.02e-02 -2.67e-02 -8.78e-02
## 3633 -2.77e-03 -7.36e-03 -2.80e-02   2.07e-02   1.87e-02 -1.14e-02 -1.01e-01
## 3634 -1.48e-03   4.02e-03 -3.04e-03 -7.52e-04 -5.76e-03   1.63e-02   4.83e-02
## 3635   1.90e-02   5.29e-03   4.41e-03 -8.19e-03 -2.81e-03   1.22e-02 -6.31e-02
## 3636 -1.94e-03   3.81e-03 -2.59e-03 -3.36e-03 -1.95e-03   7.10e-04   1.25e-02
## 3637 -1.49e-02 -1.03e-02 -2.71e-03   1.05e-02 -5.38e-03 -1.74e-02   7.65e-02
## 3638   5.74e-05   2.30e-04 -1.56e-04   8.20e-05   2.01e-05   2.82e-04 -7.92e-04
## 3639 -1.55e-05   1.13e-03   4.45e-04   1.14e-03 -2.94e-05 -3.91e-04   3.63e-03
## 3640 -2.32e-03 -5.99e-03   3.86e-03   3.82e-03 -8.59e-03   5.61e-03   1.80e-02
## 3641   1.32e-02   2.91e-03   1.01e-02   4.32e-03   1.63e-02   4.01e-04   3.43e-02
## 3642   1.86e-02   1.30e-02 -1.10e-02   2.25e-03   2.21e-02   2.29e-03   6.96e-02
## 3643 -8.65e-03   3.69e-03 -6.94e-03   9.12e-03   8.71e-03   6.81e-03   4.67e-02
## 3644   1.06e-04   3.73e-05 -1.76e-03   1.29e-04 -1.40e-03   5.12e-03 -1.07e-02
## 3645 -2.21e-04   1.05e-03 -2.51e-03   3.56e-03 -2.54e-04 -3.79e-03   9.86e-03
## 3646 -6.11e-06   3.14e-05 -9.15e-05   1.02e-06   3.38e-06 -1.26e-04   3.22e-04
## 3647 -1.15e-02 -1.07e-02 -2.43e-02   3.71e-03   1.14e-02 -3.61e-02 -9.19e-02
## 3648 -4.48e-03   8.82e-03 -4.83e-03 -6.73e-03   6.05e-04 -3.88e-03   2.72e-02
## 3649 -1.71e-02 -1.11e-02   2.25e-02 -6.83e-03   1.58e-02 -1.06e-02   6.34e-02
## 3650 -1.29e-03 -5.75e-03   2.34e-03 -4.97e-03 -3.41e-03 -2.41e-04   1.15e-02
## 3651   2.33e-03   7.75e-03   3.68e-03   5.74e-03   1.96e-03 -5.96e-04   1.86e-02
## 3652 -1.61e-04   2.98e-03 -3.28e-03 -3.22e-03 -1.64e-03 -3.97e-04   8.61e-03
## 3653   4.47e-03 -6.65e-03   8.86e-03   7.96e-04 -2.88e-03   1.80e-04   3.31e-02
## 3654 -7.84e-04 -1.72e-03   5.85e-03 -3.31e-04 -8.82e-04   4.55e-03   1.48e-02
## 3655   1.13e-02   1.45e-02 -1.18e-02 -9.58e-03 -3.56e-04   8.54e-03   5.14e-02
## 3656 -4.05e-03   3.20e-03   1.60e-02 -3.22e-03   9.16e-03   8.32e-03   4.08e-02
## 3657 -7.02e-03   1.02e-03 -2.66e-02   8.10e-05   7.74e-03 -2.05e-02 -7.47e-02
## 3658 -2.01e-02   2.90e-03 -8.59e-03   2.52e-02   2.32e-02 -2.00e-02   7.75e-02
## 3659   4.27e-03 -1.49e-03 -1.16e-02   1.10e-02 -5.39e-03   4.68e-03   4.26e-02
## 3660   5.42e-03   3.32e-03 -1.78e-03   2.35e-03   7.61e-04   2.75e-03   1.07e-02
## 3661 -3.57e-02   2.63e-02   6.63e-03   2.50e-02 -7.03e-03 -1.40e-02 -8.93e-02
## 3662 -1.95e-03   5.26e-02 -1.03e-02   8.79e-03   2.58e-02 -6.95e-03   9.20e-02
## 3663   7.85e-03   8.37e-03 -8.23e-03 -1.32e-02 -5.13e-03   1.94e-03   3.90e-02
## 3664 -8.09e-03 -1.68e-02 -4.72e-03   8.10e-03 -2.76e-03 -4.03e-03   5.04e-02
## 3665 -1.80e-03 -7.91e-03   3.09e-03 -6.17e-03 -5.15e-03 -6.38e-04   1.53e-02
## 3666 -1.02e-02 -8.21e-03   6.42e-03 -1.24e-03 -1.41e-02   3.75e-03 -3.55e-02
## 3667   2.99e-02 -3.16e-03   1.51e-02   3.81e-03   3.05e-02 -7.85e-03 -1.10e-01
## 3668   1.28e-02   1.38e-02   2.75e-03 -1.00e-02 -1.24e-03 -8.74e-04 -6.18e-02
## 3669 -6.71e-03 -5.56e-03 -2.49e-02   2.62e-03   7.91e-03 -2.24e-02 -7.10e-02
```

```
## 3670 -2.40e-03 -4.84e-03  4.56e-03  3.63e-03 -1.09e-02  9.52e-03  2.23e-02
## 3671  2.95e-03  5.04e-04  3.21e-03  1.11e-03  1.46e-04 -2.46e-03  1.25e-02
## 3672  8.67e-03 -9.85e-04  1.32e-02  9.32e-03  1.14e-04  1.49e-02  5.42e-02
## 3673 -1.63e-02 -1.34e-02  1.28e-02  2.37e-03 -8.04e-03 -1.48e-02  4.82e-02
## 3674  1.03e-02  1.39e-02  3.69e-02 -1.41e-02  5.21e-02 -3.68e-02 -9.12e-02
## 3675 -2.77e-02  1.12e-02 -2.78e-02 -2.03e-02  4.70e-04 -8.04e-03 -1.11e-01
## 3676  7.33e-03  1.62e-02  2.43e-03 -1.14e-02  7.93e-03 -6.68e-03 -6.21e-02
## 3677 -1.25e-02 -9.27e-03  9.40e-03 -2.00e-05 -1.96e-02 -1.34e-05 -3.89e-02
## 3678 -4.85e-03 -3.07e-03 -5.03e-03  5.14e-03 -5.21e-03  2.44e-03 -2.67e-02
## 3679  1.53e-02 -9.83e-03 -6.62e-03 -4.99e-03  1.24e-02  5.55e-03  4.86e-02
## 3680  5.98e-03 -1.68e-03 -4.05e-03 -5.19e-03  9.61e-04 -2.84e-03  2.26e-02
## 3681 -1.31e-02 -4.51e-03  7.56e-03 -1.64e-02 -1.62e-02  1.88e-03 -4.31e-02
## 3682  1.29e-02 -1.53e-02 -3.37e-02  3.32e-02 -3.54e-02  2.38e-02 -1.04e-01
## 3683 -7.84e-03 -1.84e-02  2.62e-02 -1.92e-02  1.10e-03  1.67e-03  5.79e-02
## 3684 -1.07e-02 -1.03e-02  5.95e-03 -7.49e-04 -1.42e-02  1.26e-04 -4.03e-02
## 3685  2.32e-02  1.63e-02  1.15e-02  1.30e-02  1.96e-02  1.14e-02 -9.14e-02
## 3686  6.40e-03  3.18e-03  8.91e-03 -8.52e-03 -4.94e-03  5.49e-04  3.04e-02
## 3687  1.18e-02 -3.50e-03 -1.09e-02 -2.67e-02 -2.14e-02 -9.98e-03  7.98e-02
## 3688  5.85e-03  2.29e-03  7.26e-03 -8.43e-03 -3.10e-03  2.60e-05  2.75e-02
## 3689 -4.77e-03 -2.52e-02  2.40e-02 -8.70e-04 -4.63e-03 -4.37e-02 -1.26e-01
## 3690 -1.54e-02 -1.33e-02 -4.30e-03  9.19e-03  4.96e-03 -9.80e-03  6.51e-02
## 3691 -7.83e-03  6.53e-03  2.24e-02 -1.92e-03  1.56e-02 -1.06e-02 -9.32e-02
## 3692  2.04e-02 -1.37e-02  2.05e-02  6.07e-03  1.39e-02 -2.64e-03  5.89e-02
## 3693  1.15e-02 -1.34e-02 -4.54e-03  7.87e-03  2.26e-03  3.48e-03  3.99e-02
## 3694 -6.60e-03  5.22e-04  4.72e-03 -5.74e-03 -1.53e-03 -1.87e-03  1.91e-02
## 3695  1.33e-02  4.24e-02  4.07e-02  2.63e-03  4.38e-02 -1.37e-02 -1.08e-01
## 3696  1.11e-05  2.99e-03  8.86e-04  3.16e-04 -9.18e-04  5.89e-04  6.63e-03
## 3697 -1.22e-02  8.12e-05  8.72e-03 -5.83e-03 -1.16e-02  6.70e-03 -6.30e-02
## 3698 -5.86e-04  2.01e-03  1.65e-03  2.28e-03 -3.03e-03  3.97e-03  1.21e-02
## 3699 -8.68e-04  6.28e-04  6.69e-04 -1.69e-05  1.03e-03 -1.04e-04 -3.18e-03
## 3700 -3.69e-03 -2.25e-03 -3.74e-03 -4.58e-04 -3.08e-03  1.08e-03 -1.77e-02
## 3701  1.91e-02 -1.18e-02 -9.61e-03  2.10e-02  1.46e-02 -8.00e-03  6.52e-02
## 3702  2.49e-04  1.77e-04 -2.38e-03  4.48e-03 -3.64e-03  8.11e-03 -1.67e-02
## 3703  1.82e-04  6.70e-03  1.06e-03  2.04e-03 -1.30e-03  3.01e-03  1.04e-02
## 3704  3.59e-03  4.55e-03  1.71e-02  1.24e-02 -7.59e-03  8.88e-03  5.38e-02
## 3705 -4.85e-04  1.82e-03  1.67e-03  2.50e-03 -3.01e-03  3.82e-03  1.14e-02
## 3706 -6.60e-04 -2.34e-04 -3.28e-04 -3.80e-04 -3.63e-04 -1.77e-05  1.54e-03
## 3707  1.74e-03 -4.72e-04  1.61e-03  8.22e-04  2.20e-04 -5.92e-04  6.40e-03
## 3708  2.34e-02  1.43e-02  6.31e-03 -1.21e-02 -1.08e-02 -7.56e-03 -8.22e-02
## 3709 -3.50e-03 -3.72e-03  5.46e-03  3.71e-03 -7.82e-04  1.67e-03 -1.91e-02
## 3710 -3.26e-02  8.00e-03 -9.29e-03  3.59e-03  1.71e-02 -6.22e-03  8.15e-02
## 3711  9.57e-03 -1.41e-03  1.84e-03 -3.47e-03 -8.09e-03  1.62e-02 -4.24e-02
## 3712  3.08e-03 -7.40e-03  8.19e-03 -1.13e-02 -3.03e-03  6.90e-04  2.99e-02
## 3713 -7.80e-03 -1.87e-02 -3.85e-03  9.43e-03 -2.37e-03  7.09e-03  5.13e-02
## 3714 -4.37e-04 -9.24e-05  9.64e-04 -1.45e-03 -1.29e-03  3.14e-04  4.44e-03
## 3715  1.33e-03 -5.20e-03  3.19e-03 -1.31e-03 -1.23e-03 -2.05e-04  1.33e-02
## 3716  9.63e-03  2.05e-02 -1.86e-02 -1.52e-02  4.32e-02 -3.68e-02 -8.91e-02
## 3717  2.20e-03  1.32e-03  3.01e-03 -5.47e-03  2.29e-03 -4.19e-04  1.68e-02
## 3718 -1.62e-03 -6.92e-03  2.97e-03  3.82e-03 -4.77e-03  2.16e-03  1.50e-02
## 3719  1.73e-04  8.53e-04 -4.43e-04  6.76e-04  1.10e-04  9.35e-04 -2.33e-03
```

```
## 3720 -1.28e-02 -9.28e-03  8.57e-03 -1.31e-02 -2.13e-02  1.32e-03 -3.98e-02
## 3721  2.16e-02  6.39e-03  6.87e-03  9.87e-03 -1.28e-02  1.18e-02 -6.29e-02
## 3722  7.08e-03 -3.13e-03  1.87e-03 -1.46e-03 -7.90e-03  1.11e-02 -2.77e-02
## 3723  1.37e-03  1.53e-03  1.01e-03  1.28e-03  2.59e-03 -1.04e-04 -5.10e-03
## 3724  5.24e-05 -4.88e-04  1.19e-03  1.63e-04 -2.45e-04  1.28e-03 -3.12e-03
## 3725  1.01e-02  3.46e-02  4.12e-03  2.96e-03  1.58e-02 -1.48e-02 -8.26e-02
## 3726  1.84e-02  1.29e-02 -1.32e-02  3.72e-04  2.89e-02 -5.53e-05  5.60e-02
## 3727  8.83e-03  1.17e-02 -6.84e-03 -8.33e-03 -1.18e-03 -3.46e-03  3.05e-02
## 3728  2.49e-03  5.11e-03  1.85e-03 -3.95e-03  3.07e-03  8.77e-04  1.34e-02
## 3729  4.64e-04  4.81e-03 -1.45e-03 -3.47e-03 -2.80e-03  7.02e-03  1.77e-02
## 3730  3.42e-02  1.20e-02 -9.51e-03  4.19e-03  2.32e-02 -2.14e-02  9.59e-02
## 3731 -1.14e-03  4.96e-03 -8.16e-03 -1.17e-02 -9.06e-03  7.55e-03  2.18e-02
## 3732 -4.63e-03 -6.25e-03  1.60e-02 -1.84e-02  1.64e-02 -1.14e-02 -6.73e-02
## 3733 -1.19e-02 -1.60e-02  1.71e-02  4.26e-03 -4.30e-03 -4.43e-03  5.51e-02
## 3734 -1.12e-03  8.28e-04  2.93e-03  1.80e-04 -4.59e-03  7.06e-04  1.39e-02
## 3735  1.98e-02  9.44e-03 -1.33e-02  1.81e-03  3.37e-02 -6.28e-04  6.90e-02
## 3736  7.88e-04 -1.37e-03  1.50e-03 -1.02e-04 -3.63e-04 -2.79e-03 -7.48e-03
## 3737  1.91e-02 -1.67e-02 -5.11e-03  7.08e-03  3.57e-03 -8.56e-03  4.73e-02
## 3738 -3.31e-03  7.58e-03 -2.33e-02  2.98e-03  6.02e-03 -1.37e-02 -9.98e-02
## 3739  1.31e-02  1.59e-02  1.58e-02 -1.76e-02  2.14e-02  1.44e-03  4.71e-02
## 3740  1.24e-02 -2.37e-03  3.94e-03 -1.74e-03 -1.21e-02  1.79e-02 -4.68e-02
## 3741 -1.28e-02 -8.68e-03  9.10e-03 -1.10e-03 -1.88e-02 -1.93e-04 -4.70e-02
## 3742  1.84e-03 -4.16e-03 -1.11e-02  1.28e-02 -9.81e-03 -4.41e-03  5.63e-02
## 3743 -3.70e-04  5.65e-04  5.41e-04 -1.42e-04 -1.57e-04 -1.48e-04  1.96e-03
## 3744  7.02e-03 -3.84e-03  1.23e-03 -9.22e-04 -3.31e-03  9.14e-03 -2.64e-02
## 3745 -1.45e-02  8.58e-03 -1.06e-02  3.70e-03 -1.11e-02 -1.43e-02  6.09e-02
## 3746 -2.45e-03 -1.63e-02 -2.73e-03 -7.49e-03 -5.62e-03  6.07e-03  3.15e-02
## 3747 -1.91e-03 -2.19e-03  2.73e-03 -1.65e-03 -7.99e-04  9.87e-04 -8.62e-03
## 3748  7.72e-03 -1.16e-03  1.23e-02  8.44e-03 -1.04e-03  1.45e-02  5.16e-02
## 3749 -2.48e-03 -4.66e-03  4.24e-03  3.26e-03 -1.07e-02  9.09e-03  2.14e-02
## 3750 -1.10e-02 -7.72e-03  6.68e-03 -1.39e-03 -1.52e-02  3.68e-03 -3.68e-02
## 3751 -1.15e-02 -1.07e-02  1.85e-02 -1.43e-02  1.15e-02 -3.48e-02 -8.15e-02
## 3752 -2.53e-03  3.18e-03  2.06e-03 -6.59e-04  8.31e-04 -1.03e-04  9.33e-03
## 3753  1.13e-03 -5.92e-04  9.76e-03 -1.91e-02 -5.16e-03  6.37e-03  3.81e-02
## 3754 -1.87e-02 -1.56e-03  5.11e-03  8.78e-03 -9.16e-03  1.29e-02 -4.69e-02
## 3755  2.01e-02  6.46e-03 -1.36e-02 -1.67e-02  2.31e-02 -7.14e-03  6.86e-02
## 3756  9.23e-04 -8.49e-04  9.32e-04 -1.19e-04  1.60e-03 -3.30e-04 -4.27e-03
## 3757  2.69e-03 -7.46e-04 -1.15e-02  2.01e-03 -1.36e-02  7.50e-03  4.64e-02
## 3758 -1.85e-02 -5.32e-03  5.86e-03 -1.31e-03 -1.59e-02  7.02e-03 -4.72e-02
## 3759 -1.30e-03  4.11e-03  3.96e-03 -8.59e-04 -7.79e-03  4.64e-03  2.09e-02
## 3760 -3.45e-03 -6.95e-03  6.45e-03  5.60e-03 -1.50e-02  7.61e-03  3.13e-02
## 3761 -5.86e-03 -2.68e-03  2.09e-02 -3.87e-04  2.08e-02 -8.16e-04 -9.51e-02
## 3762  3.13e-04  9.39e-04 -7.05e-04  2.38e-05 -2.93e-04  2.32e-03  4.52e-03
## 3763  1.05e-02 -1.22e-02 -4.43e-03 -1.38e-03  4.18e-03  3.93e-03  4.06e-02
## 3764 -2.40e-03 -1.21e-02 -6.87e-03  2.18e-03 -7.43e-03 -3.40e-03  2.25e-02
## 3765  5.13e-05 -1.26e-03 -1.30e-03  2.65e-03 -8.95e-04  2.76e-03 -8.22e-03
## 3766 -1.74e-02 -6.40e-03  6.05e-03 -1.89e-04 -1.51e-02  6.82e-03 -4.05e-02
## 3767  1.22e-02 -1.48e-03  6.00e-03 -1.49e-03 -1.48e-02  2.04e-02 -5.54e-02
## 3768 -1.35e-02 -7.96e-03 -2.34e-02 -1.52e-02  3.67e-03 -3.68e-02 -8.89e-02
## 3769 -9.42e-03  4.65e-04 -4.97e-03  6.61e-03 -1.36e-02 -1.78e-03  4.00e-02
```

```
## 3770   9.18e-03   1.38e-02   3.08e-03  -9.21e-03   8.78e-03  -4.32e-03  -6.06e-02
## 3771   9.98e-03   5.07e-03  -7.01e-03   1.27e-02  -1.29e-03   1.27e-03   3.79e-02
## 3772   6.75e-05  -1.69e-03  -1.10e-03   3.08e-03  -5.35e-04   1.48e-03  -7.27e-03
## 3773   2.70e-03   2.43e-03   1.66e-02  -2.60e-02  -1.05e-02   1.04e-02   5.45e-02
## 3774  -5.68e-02  -2.06e-02  -4.13e-02  -4.27e-04   2.77e-02   6.58e-03  -1.82e-01
## 3775  -8.96e-04  -9.35e-04   1.01e-03   8.71e-05  -3.50e-04  -2.58e-05  -3.60e-03
## 3776  -5.26e-04  -1.06e-04   1.32e-03   2.37e-03  -1.19e-03  -1.44e-04   6.45e-03
## 3777   3.09e-02   5.56e-04  -9.10e-03   4.74e-03   2.10e-02  -1.13e-02   8.51e-02
## 3778  -3.32e-03  -1.77e-02  -1.83e-03   8.93e-03  -8.40e-03   1.18e-02   4.10e-02
## 3779   7.58e-03   8.53e-03   2.15e-03  -7.48e-03   1.53e-03   3.81e-03  -5.05e-02
## 3780   1.36e-02  -2.25e-03   3.94e-03  -3.23e-03  -5.22e-03   1.08e-02  -4.46e-02
## 3781   1.64e-02  -6.06e-03  -8.59e-03  -2.42e-02   1.74e-02   2.20e-03   6.10e-02
## 3782  -3.43e-03  -1.67e-02  -2.61e-03   6.48e-03   3.38e-04   1.18e-02   4.47e-02
## 3783  -7.61e-04  -3.88e-02  -4.44e-02   3.87e-02  -2.58e-02  -2.24e-02  -1.44e-01
## 3784  -2.28e-03  -5.87e-03   3.84e-03   3.67e-03  -8.32e-03   5.49e-03   1.79e-02
## 3785   6.09e-03  -2.86e-02  -1.60e-02   4.04e-02   4.18e-02  -4.82e-02  -1.06e-01
## 3786   1.76e-02   9.48e-03  -1.26e-02   1.23e-03   2.61e-02   1.52e-03   5.26e-02
## 3787   9.89e-03   2.34e-03   2.34e-03  -5.08e-03  -6.87e-03   2.58e-03  -4.96e-02
## 3788  -2.21e-03  -6.10e-03   4.13e-03   4.02e-03  -8.52e-03   5.83e-03   1.86e-02
## 3789   4.11e-03  -8.42e-04  -1.18e-02   1.28e-02  -9.34e-03  -2.25e-03   5.42e-02
## 3790   3.20e-02   4.39e-03  -9.12e-03   3.45e-03   2.76e-02  -9.03e-03   6.87e-02
## 3791  -4.31e-03   1.42e-03   1.72e-02  -3.92e-03   1.99e-02  -1.00e-02  -7.11e-02
## 3792  -8.44e-03   7.09e-04  -6.58e-03   4.92e-03  -1.05e-02  -9.59e-04   3.24e-02
## 3793  -8.48e-03  -1.90e-02  -3.56e-03   8.55e-03   2.38e-03   1.78e-03   5.77e-02
## 3794  -1.32e-02   5.05e-02  -3.17e-02   1.41e-02   1.68e-02   1.91e-02  -1.29e-01
## 3795   1.48e-03   8.16e-04  -7.67e-04   3.50e-05   1.03e-03   7.17e-04   3.98e-03
## 3796  -1.42e-02   2.09e-03   6.04e-03  -6.29e-03  -1.32e-02   1.46e-02  -7.08e-02
## 3797  -2.49e-03  -4.66e-03   4.22e-03   3.25e-03  -1.07e-02   9.09e-03   2.14e-02
## 3798  -6.41e-02  -4.89e-02   1.70e-02  -2.61e-02  -2.56e-02  -2.06e-02  -1.33e-01
## 3799   1.46e-02   4.25e-03   2.84e-02   2.96e-03   2.66e-02  -1.37e-02   6.82e-02
## 3800  -1.07e-02  -1.05e-02   6.08e-03  -3.99e-04  -1.48e-02   6.39e-04  -4.04e-02
## 3801   1.46e-02   4.65e-03  -8.41e-03   5.10e-03   1.55e-02  -3.59e-03   6.68e-02
## 3802   1.04e-02   7.41e-03   3.85e-03  -6.63e-03  -3.06e-03   1.78e-02  -5.51e-02
## 3803  -2.07e-03  -5.59e-03   3.37e-03   3.25e-03  -8.61e-03   7.51e-03   2.02e-02
## 3804  -9.87e-06  -3.39e-05   2.72e-05  -1.97e-05  -3.32e-06  -4.23e-05   1.28e-04
## 3805   3.01e-03   4.82e-04   1.16e-02  -1.52e-03  -3.89e-03   1.18e-02   4.06e-02
## 3806   1.89e-03  -3.37e-03  -1.14e-02   9.12e-03  -4.68e-03  -8.78e-04   3.80e-02
## 3807  -1.07e-03   2.42e-03  -6.44e-03  -8.71e-03  -6.37e-03   3.94e-03   1.59e-02
## 3808   6.46e-04   7.75e-03  -2.88e-03   4.85e-03   2.87e-04   8.85e-03   2.18e-02
## 3809   2.67e-03  -1.44e-03   3.25e-03  -3.48e-04   5.33e-03  -8.45e-04  -1.23e-02
## 3810  -1.06e-02  -7.58e-03   6.83e-03  -1.54e-03  -1.39e-02   3.36e-03  -3.65e-02
## 3811  -5.07e-03   5.31e-03  -3.18e-03  -3.44e-03  -3.32e-03  -2.05e-04   1.66e-02
## 3812  -1.44e-05  -8.20e-04  -5.28e-04  -1.52e-03  -6.16e-04   1.23e-03  -3.66e-03
## 3813  -8.24e-04   6.33e-03  -2.60e-03  -3.25e-04   8.54e-04   3.98e-03   1.77e-02
## 3814   4.22e-03   2.24e-03  -6.38e-03  -7.82e-03   3.65e-03  -1.08e-03   2.80e-02
## 3815  -1.92e-03  -1.16e-02  -1.21e-03  -8.78e-06  -7.53e-03   5.91e-03   2.16e-02
## 3816  -8.25e-03  -8.88e-03   4.57e-03  -1.17e-03  -8.22e-03   2.62e-03  -3.57e-02
## 3817   3.30e-02  -4.80e-04  -1.04e-02   2.69e-02   2.29e-02  -4.05e-02   1.07e-01
## 3818   8.80e-03  -1.97e-03  -6.37e-03   5.48e-03   4.96e-03  -8.91e-04  -2.62e-02
## 3819  -3.27e-02   3.14e-03  -1.33e-02   1.41e-02  -1.24e-02   6.03e-03   5.88e-02
```

```
## 3820 -1.27e-05 -1.22e-03 -8.69e-04 -2.89e-03 -1.17e-03  2.11e-03 -6.59e-03
## 3821 -6.88e-04  5.26e-03  2.75e-03  3.06e-03 -5.98e-03  7.67e-03  1.74e-02
## 3822  1.39e-04 -8.39e-04 -1.92e-03  3.39e-03 -1.72e-03  5.12e-03 -1.25e-02
## 3823  1.25e-02  1.08e-02  8.32e-04 -1.03e-02  6.27e-03 -2.67e-03 -6.15e-02
## 3824  9.68e-03 -2.95e-03  2.13e-03 -2.07e-03 -7.63e-03  1.78e-02 -4.10e-02
## 3825  2.22e-02 -2.43e-02  1.01e-02 -8.12e-03 -1.38e-02  7.91e-03 -7.75e-02
## 3826 -6.73e-03 -1.37e-03 -3.31e-03 -8.94e-04 -7.77e-03 -1.16e-03  2.31e-02
## 3827 -2.19e-02 -9.56e-03  2.26e-02 -2.65e-02 -1.85e-02 -1.06e-02  7.15e-02
## 3828  3.88e-02  1.43e-02  2.62e-02  3.47e-02  2.53e-02 -6.76e-03 -1.43e-01
## 3829 -3.41e-04 -7.14e-05  1.15e-03  2.16e-03 -1.20e-03  8.22e-04  6.42e-03
## 3830 -3.90e-04  4.32e-04 -5.29e-04  4.22e-04  1.42e-04  9.90e-05 -2.16e-03
## 3831  7.67e-03 -1.99e-02  7.59e-03 -4.15e-03 -2.47e-02  3.60e-02 -7.21e-02
## 3832 -1.22e-02 -1.17e-02 -4.71e-03 -2.87e-02  3.54e-03 -1.14e-02  7.14e-02
## 3833 -1.73e-03 -6.74e-03  3.04e-03  3.73e-03 -5.45e-03  3.02e-03  1.58e-02
## 3834 -2.23e-05  2.44e-04  3.05e-04 -5.30e-05 -5.40e-05 -5.56e-04  1.71e-03
## 3835  1.50e-02  8.66e-03  1.86e-03 -8.54e-03  6.46e-03  5.80e-03 -5.85e-02
## 3836 -1.44e-02 -1.13e-02  3.52e-02 -9.64e-03  1.38e-02 -7.89e-03  7.36e-02
## 3837 -1.26e-02 -9.31e-03 -2.02e-02 -1.30e-02 -2.17e-02  1.90e-03 -5.55e-02
## 3838  2.86e-02  2.65e-03  2.31e-02  1.02e-02  3.35e-02  1.45e-02 -1.06e-01
## 3839 -1.59e-02 -4.82e-03  1.07e-02 -1.36e-03 -1.96e-02  6.95e-03 -5.14e-02
## 3840  3.75e-03 -2.11e-04 -1.18e-02  5.96e-04 -7.47e-03  1.22e-02  4.38e-02
## 3841 -3.02e-03 -6.31e-03 -9.32e-03 -8.19e-03 -1.35e-02  7.29e-03  2.38e-02
## 3842  1.76e-03  2.22e-03  1.29e-02  9.77e-03 -4.61e-03  4.53e-03  4.21e-02
## 3843  3.43e-03 -4.69e-02  1.69e-02  2.76e-02 -2.47e-03 -1.83e-02 -1.12e-01
## 3844  4.57e-04 -5.02e-04  5.31e-04  8.27e-05  3.85e-04  3.24e-04 -1.99e-03
## 3845 -4.86e-06  4.45e-04 -7.00e-04  6.26e-04  4.63e-05 -3.45e-04  1.57e-03
## 3846 -3.29e-03 -4.40e-03 -1.01e-02 -1.69e-02 -1.70e-02  1.21e-02  3.08e-02
## 3847  1.14e-02 -1.18e-02  1.82e-02 -1.49e-02  1.15e-02  4.44e-03  4.49e-02
## 3848 -6.77e-03 -1.71e-02 -2.64e-03 -1.07e-02 -4.03e-03  5.30e-04  4.06e-02
## 3849  1.44e-03 -3.54e-03  2.08e-03 -4.38e-04 -6.63e-04 -6.40e-04  7.53e-03
## 3850 -1.19e-03 -1.73e-02 -1.67e-03  7.30e-03 -6.02e-03  1.03e-02  3.71e-02
## 3851 -2.26e-03 -5.02e-03  4.04e-03 -1.25e-02 -9.67e-03  7.44e-03  2.12e-02
## 3852 -1.81e-03 -8.86e-04 -1.47e-03 -2.15e-03 -2.02e-03 -7.38e-04  6.68e-03
## 3853  1.99e-02  3.97e-03 -4.07e-03 -1.07e-02  1.84e-03  6.22e-03  3.91e-02
## 3854  7.06e-03 -3.60e-03 -1.09e-02 -1.03e-02 -2.64e-03  1.44e-02  5.41e-02
## 3855 -1.49e-03  2.75e-02 -8.38e-03  6.11e-03  2.05e-02 -1.28e-02  6.03e-02
## 3856  3.10e-05 -1.19e-04 -1.22e-03 -3.83e-03 -1.42e-03  4.10e-03 -8.80e-03
## 3857 -1.80e-02 -7.50e-03 -6.49e-03  8.20e-03  5.77e-03 -3.51e-02  8.74e-02
## 3858  1.29e-02  6.94e-03  2.64e-03 -7.18e-03 -4.14e-03  9.14e-03 -5.12e-02
## 3859 -3.44e-03 -6.71e-03  5.22e-03  4.34e-03 -1.42e-02  9.04e-03  3.29e-02
## 3860  1.52e-04  6.55e-03  1.52e-03  3.32e-03 -1.55e-03  1.67e-03  1.34e-02
## 3861 -8.70e-03  2.21e-02 -8.04e-03 -4.22e-03 -5.54e-03 -3.75e-03  4.42e-02
## 3862 -1.71e-02  4.88e-03  1.14e-02  3.06e-02 -2.26e-02  1.16e-03 -7.77e-02
## 3863 -6.70e-03  7.87e-03 -4.25e-03  9.03e-03  2.00e-03  5.14e-03  4.54e-02
## 3864 -3.92e-03 -4.17e-03 -4.18e-03  5.01e-03 -9.68e-04 -3.88e-03  2.52e-02
## 3865  6.75e-03 -1.25e-03  2.36e-03  1.46e-02 -6.92e-03  1.57e-02 -3.73e-02
## 3866 -9.29e-03 -1.57e-02  3.02e-02  4.30e-03  3.34e-02 -3.36e-02  8.91e-02
## 3867 -8.48e-04 -8.96e-04 -6.72e-04  9.54e-04 -1.31e-03  4.31e-04 -4.05e-03
## 3868  3.05e-03  1.27e-03 -1.17e-02  4.07e-04 -1.00e-02  1.18e-02  3.92e-02
## 3869  5.10e-03 -6.96e-03  6.77e-03 -1.44e-02 -4.61e-03  7.85e-03 -8.73e-02
```

```
## 3870 -1.84e-02 -3.61e-03 -4.16e-03  7.07e-03  7.39e-03 -1.54e-02  7.06e-02
## 3871  1.94e-02 -1.50e-02  2.17e-02 -6.98e-03  3.69e-03  7.91e-03 -1.08e-01
## 3872 -1.20e-04 -5.17e-04  4.59e-04  6.40e-04  2.14e-04 -1.30e-03 -2.66e-03
## 3873 -6.39e-03 -5.77e-03 -2.47e-02  3.38e-03  7.90e-03 -2.20e-02 -7.06e-02
## 3874 -1.05e-02  2.72e-03 -8.23e-03 -5.08e-03 -9.09e-03 -7.03e-03  4.43e-02
## 3875 -4.52e-03 -3.82e-03 -5.76e-03  5.07e-03 -6.61e-04  9.41e-04 -2.50e-02
## 3876  3.08e-03  3.80e-03 -1.21e-02 -1.31e-02 -1.11e-02  1.37e-02  4.27e-02
## 3877  1.49e-02  1.68e-03 -1.25e-02  4.70e-03  2.09e-02 -9.58e-03  6.66e-02
## 3878  2.98e-02 -9.12e-03 -7.34e-03  7.34e-03  1.54e-02 -1.43e-02  8.04e-02
## 3879  1.96e-02  1.41e-02 -1.22e-02  2.91e-03  2.64e-02 -6.59e-03  6.68e-02
## 3880 -2.49e-03 -1.96e-04 -1.58e-03 -6.19e-03 -5.84e-03  1.27e-02  3.07e-02
## 3881 -1.55e-02 -2.93e-03 -2.67e-02 -2.10e-03 -3.16e-02  8.87e-03 -6.44e-02
## 3882  1.98e-02 -4.60e-03 -2.15e-02  1.25e-02 -2.23e-02  7.56e-03 -5.20e-02
## 3883 -7.05e-04  1.74e-03  1.83e-03 -3.74e-03 -3.62e-03  3.29e-03  9.87e-03
## 3884 -1.55e-03  1.95e-02  1.12e-02 -2.96e-02  2.43e-02 -5.75e-02 -1.24e-01
## 3885  1.99e-03  1.48e-03  4.40e-03 -1.51e-03 -1.08e-04  2.53e-04  1.72e-02
## 3886 -1.93e-03 -6.27e-03  3.42e-03 -4.94e-03 -6.54e-03  3.12e-03  1.45e-02
## 3887  2.42e-03  6.23e-03 -1.13e-02  1.45e-02 -1.37e-02  5.74e-03  6.14e-02
## 3888  2.12e-04  6.75e-04  1.04e-03  1.37e-03  3.30e-04  1.00e-03  3.17e-03
## 3889  1.36e-04 -8.72e-04 -1.02e-03  2.17e-03 -3.29e-05  1.86e-03 -6.28e-03
## 3890 -1.91e-04 -6.22e-04  6.35e-04  1.37e-03 -1.29e-04 -5.47e-04  3.36e-03
## 3891 -9.36e-05 -3.26e-04  3.07e-04 -4.34e-04  1.01e-04 -8.30e-04 -1.73e-03
## 3892 -5.22e-04 -1.46e-03  1.55e-03 -9.07e-04 -1.07e-03 -1.90e-03  6.80e-03
## 3893 -8.03e-03 -1.81e-02 -3.16e-03  9.85e-03 -1.15e-02  1.79e-03  5.19e-02
## 3894 -2.17e-04 -5.44e-04  6.58e-04  1.40e-03 -3.04e-04 -3.32e-04  3.52e-03
## 3895  8.71e-04  4.57e-03 -1.69e-03 -3.39e-03 -7.95e-04  6.22e-03  1.44e-02
## 3896  6.05e-03  1.46e-03  1.16e-02  8.91e-03 -1.26e-03  1.47e-02  5.24e-02
## 3897  9.25e-03 -1.12e-02 -4.26e-03  1.27e-02  8.60e-03  1.51e-03  3.68e-02
## 3898 -1.19e-03 -6.44e-03  2.10e-03  3.33e-03 -1.79e-03 -1.47e-03  1.08e-02
## 3899 -2.29e-02 -2.85e-03 -2.63e-02  2.16e-02  9.12e-03 -2.51e-02 -9.13e-02
## 3900 -2.03e-02 -4.32e-03 -2.18e-02 -6.45e-04 -2.15e-02  7.89e-03 -5.66e-02
## 3901  2.77e-02 -1.33e-02  2.27e-02  1.83e-02  2.39e-02 -1.59e-02  6.89e-02
## 3902  1.49e-04  7.14e-03 -2.52e-03 -4.81e-03 -1.81e-03  4.98e-03  2.09e-02
## 3903  3.39e-05  4.80e-03  8.35e-04 -2.33e-03 -1.43e-03  2.52e-03  7.82e-03
## 3904  9.11e-03  2.25e-02  3.87e-03 -1.31e-02  6.67e-03 -6.01e-03 -6.93e-02
## 3905 -4.22e-03  1.66e-02 -2.67e-02 -3.07e-03  6.02e-03 -5.76e-03 -9.17e-02
## 3906  6.96e-05  9.98e-04  1.58e-03 -8.71e-05  6.90e-04  8.14e-04  4.25e-03
## 3907  1.12e-04 -2.45e-04 -1.51e-03  2.73e-05 -7.86e-04  4.23e-03 -9.06e-03
## 3908 -3.16e-04 -6.04e-04  9.08e-04  1.79e-03 -3.41e-04 -8.36e-04  4.46e-03
## 3909  8.92e-03  2.19e-04 -4.80e-03 -2.61e-04  7.76e-03  2.37e-03  2.56e-02
## 3910  1.73e-02  5.22e-03  2.41e-02  1.70e-02  3.61e-02 -1.48e-03  6.64e-02
## 3911 -1.22e-02 -9.44e-03 -2.13e-02  4.14e-04 -2.02e-02 -7.54e-05 -5.16e-02
## 3912  1.15e-02  5.66e-03  5.69e-03 -4.29e-03 -1.47e-02  6.86e-03 -5.35e-02
## 3913  9.69e-03 -2.03e-03  2.29e-03  1.64e-02 -5.50e-03  1.07e-02 -3.70e-02
## 3914  5.51e-03  3.56e-03 -2.13e-03  2.28e-04  3.19e-03  3.49e-03  1.32e-02
## 3915  2.47e-03 -8.00e-03  9.02e-03  1.11e-02 -4.21e-03 -7.64e-03  3.91e-02
## 3916 -7.64e-03 -2.00e-02 -5.83e-04 -7.22e-04 -9.15e-03  1.57e-02  5.85e-02
## 3917  1.64e-02 -6.49e-03  6.23e-03 -1.13e-02 -1.70e-02  8.09e-03 -4.05e-02
## 3918  2.32e-02 -1.28e-02  1.36e-02 -3.67e-02 -1.89e-02 -1.55e-02 -9.36e-02
## 3919 -1.10e-02  1.56e-03  8.12e-03  9.79e-03 -1.25e-03 -3.16e-03  3.04e-02
```

```
## 3920   7.69e-03 -2.51e-03  1.28e-02  1.08e-02 -1.10e-03  3.58e-03  5.30e-02
## 3921   1.05e-02  1.76e-02  3.62e-02  3.35e-02  5.61e-02 -3.70e-02 -1.09e-01
## 3922  -1.19e-02 -7.74e-03 -7.07e-03 -1.18e-02  1.51e-02 -1.70e-02  7.76e-02
## 3923   2.23e-03  8.11e-04 -4.20e-03 -5.04e-03  4.10e-04  1.05e-03  1.73e-02
## 3924  -1.18e-04 -3.45e-03 -2.24e-03  3.44e-03 -8.82e-04  4.81e-03  1.52e-02
## 3925  -1.60e-02 -9.34e-03 -6.80e-03  1.02e-02 -5.26e-03 -6.70e-03  3.59e-02
## 3926  -1.04e-02 -6.38e-03  5.48e-03 -1.88e-03 -7.59e-03  7.79e-03 -4.40e-02
## 3927  -2.20e-03 -5.48e-03  3.66e-03 -6.49e-03 -8.45e-03  5.68e-03  1.71e-02
## 3928   4.08e-03  5.27e-03  4.85e-03  5.76e-03  4.38e-03  3.36e-04  2.97e-02
## 3929   1.10e-04 -2.88e-04 -1.87e-03  9.13e-05 -2.63e-03  6.45e-03 -1.26e-02
## 3930  -1.95e-02 -9.62e-03 -9.71e-03 -1.65e-02 -9.55e-03 -8.20e-03  4.52e-02
## 3931  -3.14e-03 -5.30e-03 -1.03e-02 -9.62e-03 -1.60e-02  1.07e-02  2.75e-02
## 3932   2.10e-03 -1.50e-04  1.03e-02  9.14e-03 -1.84e-03  4.49e-03  3.73e-02
## 3933   2.16e-02 -2.24e-03 -2.16e-02 -8.38e-06 -2.53e-02  7.66e-03 -6.18e-02
## 3934   7.11e-03 -2.03e-03 -1.06e-02 -2.24e-02 -4.92e-03  1.40e-02  5.38e-02
## 3935  -2.59e-03 -6.17e-03 -8.56e-03 -1.33e-02 -1.24e-02  8.34e-03  2.62e-02
## 3936  -4.12e-03 -8.02e-03  2.09e-02  2.70e-03  2.00e-02 -2.37e-02 -6.75e-02
## 3937   2.68e-03  5.55e-03  1.62e-02 -2.03e-03 -1.11e-02  1.46e-02  5.40e-02
## 3938  -5.01e-04  2.04e-03  1.85e-03  2.76e-03 -3.31e-03  4.19e-03  1.24e-02
## 3939  -1.43e-02  1.08e-02 -2.40e-02 -2.08e-02 -3.60e-04 -1.85e-02 -1.16e-01
## 3940   2.45e-02  2.59e-02 -2.68e-02 -2.26e-02  8.00e-03  1.96e-02 -1.12e-01
## 3941   3.26e-03 -3.61e-03  9.05e-03 -8.72e-03 -3.68e-03  4.22e-04  3.73e-02
## 3942  -2.68e-03 -7.03e-05  1.29e-02 -9.40e-03  7.49e-03  9.05e-03  3.61e-02
## 3943   2.23e-03 -6.59e-03  1.05e-02  1.13e-02 -8.59e-04 -6.13e-04  4.32e-02
## 3944   1.05e-02  1.39e-02  1.29e-03 -1.07e-02  5.06e-03 -1.23e-02 -6.65e-02
## 3945  -8.06e-03 -2.20e-03 -5.00e-03 -9.89e-03  2.29e-03  9.96e-04 -2.28e-02
## 3946   4.23e-04  2.53e-03 -1.20e-03  8.91e-05 -7.71e-04  4.14e-03  9.51e-03
## 3947  -1.62e-02 -4.06e-03 -2.23e-02 -1.83e-03 -2.06e-02  6.21e-03 -6.29e-02
## 3948  -2.21e-02  2.44e-03 -3.59e-03  8.62e-03  6.77e-03 -2.02e-02  9.20e-02
## 3949  -1.76e-02 -1.11e-02 -8.62e-03  4.97e-03 -9.02e-03  1.33e-03  6.95e-02
## 3950   8.18e-03 -1.59e-04  2.51e-03 -3.23e-03 -7.54e-03  2.30e-02 -4.47e-02
## 3951   1.87e-03  1.30e-02  1.21e-02  6.75e-03  6.93e-03  1.00e-02  3.47e-02
## 3952  -1.42e-02 -2.28e-03  8.07e-03  2.50e-02 -1.17e-02 -3.08e-03 -5.72e-02
## 3953  -6.36e-03 -7.45e-04 -3.59e-03 -4.53e-03 -2.34e-03  8.65e-04  1.96e-02
## 3954   1.22e-02 -3.13e-03  1.57e-02 -5.92e-04 -1.02e-02  4.97e-04  5.44e-02
## 3955   6.63e-03  3.74e-03 -1.21e-02  1.27e-02 -6.72e-03  1.29e-02  5.94e-02
## 3956   1.41e-02 -4.97e-03  2.99e-03 -2.44e-03 -5.36e-03  5.75e-03 -3.78e-02
## 3957   1.27e-04 -6.65e-04 -1.96e-03  4.13e-04 -2.35e-03  5.77e-03 -1.28e-02
## 3958   1.05e-04  2.44e-04  5.06e-04 -4.23e-06  2.11e-04  5.96e-04  1.57e-03
## 3959  -3.02e-03  8.59e-03 -3.05e-03  1.10e-02 -4.89e-03  9.44e-03  4.97e-02
## 3960   5.98e-05 -4.37e-04  3.41e-04  6.60e-06  9.07e-05 -9.52e-04 -2.15e-03
## 3961  -4.40e-04 -4.29e-04  1.37e-03  2.64e-03 -1.04e-03 -5.07e-04  7.35e-03
## 3962   1.42e-04 -3.43e-05 -2.28e-03  3.36e-03 -2.87e-03  7.42e-03 -1.52e-02
## 3963   1.77e-02  8.97e-03 -1.33e-02 -1.77e-02  2.85e-02  1.27e-03  6.79e-02
## 3964  -4.16e-04 -1.12e-04  2.16e-04 -9.32e-05 -4.05e-06 -2.40e-05  9.55e-04
## 3965   4.77e-04 -5.98e-02 -1.76e-02  2.62e-02  2.23e-02 -1.35e-02 -1.19e-01
## 3966   1.10e-03 -7.00e-03 -4.73e-03 -6.67e-03 -2.48e-03  7.09e-05  2.13e-02
## 3967  -4.15e-03 -3.26e-03 -5.30e-03 -1.72e-03 -1.14e-03 -3.47e-03  2.54e-02
## 3968  -8.64e-03  6.91e-04  8.77e-03  1.11e-02 -6.05e-03 -4.42e-03  3.46e-02
## 3969   1.71e-02 -1.72e-03  3.09e-03  6.88e-03 -5.33e-03  2.35e-03 -4.49e-02
```

```
## 3970 -1.18e-02 -8.14e-03  1.80e-02  2.27e-03  1.21e-02 -3.43e-02 -8.08e-02
## 3971  8.76e-05  1.47e-03 -1.02e-03 -6.31e-05  6.87e-04  9.37e-04  5.47e-03
## 3972 -1.97e-02  4.41e-03  3.84e-02  2.24e-02  3.84e-02 -2.87e-02  8.93e-02
## 3973  2.97e-05 -1.73e-04  7.31e-04  4.10e-05 -2.04e-05  8.10e-04 -1.95e-03
## 3974  1.03e-02  8.95e-03  3.75e-03 -6.98e-03 -3.13e-03  1.52e-02 -5.30e-02
## 3975 -3.43e-02  8.21e-03  4.07e-02  4.38e-03  2.38e-02 -1.53e-02  9.66e-02
## 3976  1.77e-04 -1.59e-05 -1.30e-03 -4.08e-03 -1.67e-03  4.86e-03 -1.10e-02
## 3977 -1.14e-02 -1.04e-02  1.85e-02  3.97e-03  1.37e-02 -3.69e-02 -8.17e-02
## 3978  1.38e-04  2.59e-04 -2.05e-03  2.90e-03 -1.29e-03  5.50e-03 -1.23e-02
## 3979 -3.19e-04 -2.52e-03 -8.85e-03 -1.69e-02 -1.18e-02 -1.23e-03  4.91e-02
## 3980 -1.90e-03 -1.12e-03 -1.13e-03 -1.92e-03 -1.46e-03 -6.92e-04 -4.85e-03
## 3981 -1.28e-02 -5.35e-03  6.77e-03 -3.15e-03 -1.63e-02  2.30e-03 -3.92e-02
## 3982  2.06e-03 -8.07e-04 -1.47e-03 -3.20e-04 -1.82e-03 -8.73e-04  6.60e-03
## 3983 -2.53e-02 -4.05e-03 -1.31e-02 -3.53e-04 -7.59e-03  8.91e-03  6.67e-02
## 3984 -1.66e-02  1.34e-03 -6.78e-03  4.68e-03  2.54e-02 -1.51e-02  7.27e-02
## 3985  2.10e-02  6.29e-04  5.71e-03 -3.19e-03 -1.41e-02  2.46e-02 -6.21e-02
## 3986  1.41e-03 -1.47e-03 -2.01e-03 -3.32e-03  1.67e-03 -6.36e-04 -8.32e-03
## 3987 -5.21e-03 -3.74e-03 -5.61e-03 -6.13e-03 -2.08e-03 -7.94e-04 -2.91e-02
## 3988  8.97e-03 -1.50e-02  2.76e-03  2.64e-03  3.57e-03 -1.58e-02 -7.67e-02
## 3989 -1.97e-02  1.50e-02  1.68e-02  3.43e-02 -2.91e-02 -1.43e-03 -9.95e-02
## 3990  9.23e-05  3.19e-03  7.04e-04  1.60e-03 -1.74e-04  5.88e-04  5.49e-03
## 3991 -1.96e-03  1.84e-03 -1.14e-03  1.23e-04  7.39e-05  4.23e-06  6.40e-03
## 3992  3.54e-04 -4.09e-03  2.57e-03  3.64e-03  4.54e-06 -1.26e-03  1.10e-02
## 3993 -1.08e-02 -9.96e-03  6.47e-03 -8.17e-04 -1.34e-02 -5.37e-04 -4.16e-02
## 3994 -9.85e-03 -1.43e-02 -2.94e-03  1.10e-02 -7.98e-03  3.85e-03  6.96e-02
## 3995 -2.74e-04  1.42e-02 -4.77e-03 -9.63e-03  4.84e-03  7.54e-04  3.35e-02
## 3996 -7.92e-03 -1.78e-03  5.22e-03  4.14e-03  4.30e-03 -5.53e-04 -1.97e-02
## 3997  1.49e-05  5.66e-04  1.96e-04  5.11e-04  9.40e-05 -1.65e-04  1.34e-03
## 3998 -4.53e-03 -2.70e-03  6.28e-03  4.01e-03  2.75e-03  2.51e-03 -2.19e-02
## 3999  1.16e-02  1.26e-02  3.27e-02 -1.45e-02  5.67e-02 -2.76e-02 -9.76e-02
##      cov.r  cook.d    hat inf
## 1    1.003 2.41e-04 0.00382
## 2    1.005 1.41e-05 0.00278
## 3    0.996 4.16e-04 0.00255
## 4    1.007 5.18e-06 0.00377
## 5    1.001 7.54e-05 0.00132
## 6    1.004 6.40e-05 0.00226
## 7    1.000 2.91e-04 0.00300
## 8    1.004 1.08e-04 0.00314
## 9    1.001 2.12e-04 0.00255
## 10   1.006 7.80e-06 0.00368
## 11   1.004 7.10e-05 0.00251
## 12   1.005 1.29e-06 0.00220
## 13   1.004 7.12e-05 0.00249
## 14   0.997 3.03e-04 0.00226
## 15   1.002 1.96e-04 0.00305
## 16   1.005 2.60e-06 0.00240
## 17   1.005 2.88e-07 0.00217
## 18   1.007 4.66e-06 0.00452
## 19   0.994 6.71e-04 0.00315
```

```
## 20    1.000 2.47e-04 0.00269
## 21    1.003 3.19e-04 0.00417
## 22    1.005 8.57e-06 0.00258
## 23    0.992 4.10e-04 0.00178
## 24    1.006 6.10e-07 0.00332
## 25    1.006 2.12e-06 0.00320
## 26    1.005 3.57e-05 0.00272
## 27    0.998 2.94e-04 0.00235
## 28    0.998 5.74e-04 0.00377
## 29    1.005 6.21e-06 0.00203
## 30    0.999 3.96e-04 0.00331
## 31    1.007 1.29e-06 0.00366
## 32    0.995 6.74e-04 0.00340
## 33    1.006 1.20e-06 0.00287
## 34    1.005 2.66e-05 0.00264
## 35    1.003 1.76e-04 0.00333
## 36    1.007 7.77e-06 0.00374
## 37    1.000 8.13e-05 0.00127
## 38    1.003 1.07e-04 0.00278
## 39    1.000 1.57e-04 0.00195
## 40    1.003 9.84e-05 0.00252
## 41    1.005 5.75e-05 0.00299
## 42    1.006 1.80e-06 0.00339
## 43    1.004 4.22e-06 0.00154
## 44    1.006 3.47e-06 0.00280
## 45    1.005 1.64e-04 0.00409
## 46    1.002 1.68e-04 0.00251
## 47    1.003 8.57e-05 0.00224
## 48    1.002 7.87e-05 0.00188
## 49    1.006 5.27e-06 0.00309
## 50    1.006 1.13e-05 0.00294
## 51    1.001 2.26e-04 0.00272
## 52    1.002 2.45e-04 0.00319
## 53    1.005 1.64e-04 0.00442
## 54    1.003 1.25e-04 0.00285
## 55    1.007 6.30e-07 0.00399
## 56    1.003 6.26e-05 0.00209
## 57    1.005 5.03e-05 0.00297
## 58    1.005 4.10e-05 0.00305
## 59    1.005 6.57e-07 0.00202
## 60    1.006 1.72e-05 0.00346
## 61    1.001 1.62e-04 0.00218
## 62    1.004 1.00e-04 0.00314
## 63    1.007 3.50e-06 0.00449
## 64    1.005 3.85e-05 0.00298
## 65    1.003 9.34e-05 0.00236
## 66    1.002 2.10e-04 0.00314
## 67    1.003 8.67e-05 0.00232
## 68    1.006 2.14e-05 0.00358
## 69    1.005 2.78e-06 0.00188
```

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## 70    1.001 2.45e-04 0.00292
## 71    1.003 6.76e-05 0.00220
## 72    1.005 8.50e-07 0.00204
## 73    1.006 2.12e-05 0.00374
## 74    1.006 1.10e-07 0.00266
## 75    1.005 1.33e-04 0.00418
## 76    1.005 7.18e-05 0.00318
## 77    1.006 2.64e-05 0.00315
## 78    1.005 5.25e-05 0.00281
## 79    1.005 1.62e-04 0.00404
## 80    1.005 6.40e-06 0.00199
## 81    1.003 1.27e-04 0.00258
## 82    1.004 2.22e-04 0.00415
## 83    1.002 2.16e-04 0.00301
## 84    1.004 1.05e-04 0.00285
## 85    1.005 7.20e-08 0.00248
## 86    0.996 4.25e-04 0.00258
## 87    1.006 4.76e-05 0.00346
## 88    1.005 2.63e-06 0.00181
## 89    1.005 1.65e-07 0.00221
## 90    1.004 1.69e-04 0.00402
## 91    1.004 1.26e-04 0.00344
## 92    1.000 3.37e-04 0.00329
## 93    1.006 2.49e-06 0.00301
## 94    1.005 5.41e-05 0.00297
## 95    1.006 1.45e-05 0.00311
## 96    1.001 1.66e-04 0.00217
## 97    1.005 7.53e-06 0.00275
## 98    0.991 3.83e-04 0.00164    *
## 99    1.005 2.00e-06 0.00205
## 100   1.002 1.91e-04 0.00285
## 101   1.004 2.32e-05 0.00177
## 102   1.005 2.05e-05 0.00224
## 103   1.004 1.04e-04 0.00327
## 104   1.007 4.43e-05 0.00508
## 105   0.989 7.79e-04 0.00266    *
## 106   1.003 1.46e-04 0.00289
## 107   1.006 2.03e-05 0.00302
## 108   1.005 4.79e-05 0.00330
## 109   1.002 1.63e-04 0.00272
## 110   1.005 1.46e-05 0.00260
## 111   0.996 5.62e-04 0.00320
## 112   1.005 4.24e-06 0.00265
## 113   1.003 1.43e-04 0.00288
## 114   1.000 1.87e-04 0.00226
## 115   1.007 1.14e-05 0.00403
## 116   1.002 3.67e-04 0.00422
## 117   1.007 2.39e-05 0.00425
## 118   1.003 1.55e-04 0.00326
## 119   1.005 1.45e-08 0.00181
```

```
## 120   1.003 1.74e-04 0.00304
## 121   1.003 7.89e-05 0.00215
## 122   1.004 2.02e-05 0.00164
## 123   1.002 6.85e-05 0.00149
## 124   1.004 6.12e-05 0.00247
## 125   1.004 2.18e-05 0.00209
## 126   1.006 8.17e-05 0.00389
## 127   1.001 1.89e-04 0.00251
## 128   1.006 6.82e-07 0.00322
## 129   1.004 2.26e-05 0.00179
## 130   1.007 5.43e-05 0.00500
## 131   0.996 2.75e-04 0.00187
## 132   0.998 6.89e-04 0.00420
## 133   1.006 8.52e-06 0.00373
## 134   1.001 2.89e-04 0.00321
## 135   0.996 2.61e-04 0.00170
## 136   1.005 4.83e-06 0.00224
## 137   1.002 1.43e-04 0.00248
## 138   1.005 6.18e-06 0.00257
## 139   1.006 6.88e-07 0.00315
## 140   1.003 1.02e-04 0.00254
## 141   1.006 7.55e-06 0.00315
## 142   0.997 5.47e-04 0.00346
## 143   1.005 7.39e-05 0.00311
## 144   1.005 2.16e-05 0.00267
## 145   1.007 6.04e-07 0.00364
## 146   1.006 1.03e-06 0.00316
## 147   1.004 1.23e-05 0.00179
## 148   0.997 2.06e-04 0.00164
## 149   1.006 3.41e-05 0.00378
## 150   1.005 1.14e-04 0.00395
## 151   1.003 1.72e-04 0.00314
## 152   1.004 9.12e-05 0.00265
## 153   1.005 7.63e-06 0.00273
## 154   1.005 1.46e-05 0.00222
## 155   1.004 1.82e-05 0.00208
## 156   1.000 3.02e-04 0.00283
## 157   0.999 2.51e-04 0.00219
## 158   1.004 2.51e-06 0.00141
## 159   1.007 4.40e-05 0.00445
## 160   1.006 1.86e-05 0.00364
## 161   1.004 6.70e-05 0.00285
## 162   1.000 2.92e-04 0.00286
## 163   0.997 1.59e-04 0.00129
## 164   1.006 2.04e-06 0.00348
## 165   1.004 6.86e-06 0.00171
## 166   1.006 6.83e-06 0.00321
## 167   1.001 1.19e-04 0.00186
## 168   1.005 8.32e-06 0.00218
## 169   0.998 8.81e-04 0.00496
```

```
## 170   1.004 1.02e-05 0.00179
## 171   1.006 3.49e-05 0.00344
## 172   1.005 1.25e-04 0.00395
## 173   1.006 1.01e-04 0.00474
## 174   0.996 4.51e-04 0.00267
## 175   1.004 1.30e-06 0.00161
## 176   1.005 2.09e-05 0.00257
## 177   1.002 1.00e-04 0.00211
## 178   1.002 3.07e-04 0.00357
## 179   0.999 4.47e-04 0.00331
## 180   1.006 5.53e-07 0.00268
## 181   0.998 5.89e-04 0.00398
## 182   1.002 8.63e-05 0.00185
## 183   1.003 1.60e-04 0.00285
## 184   1.005 2.49e-05 0.00297
## 185   1.000 2.16e-04 0.00241
## 186   1.000 3.99e-04 0.00357
## 187   1.003 7.89e-05 0.00218
## 188   1.004 1.24e-04 0.00328
## 189   1.004 5.60e-06 0.00132
## 190   1.005 4.86e-05 0.00298
## 191   1.006 1.48e-05 0.00300
## 192   1.003 1.99e-04 0.00364
## 193   1.005 1.35e-05 0.00254
## 194   1.006 4.60e-08 0.00321
## 195   1.004 5.87e-06 0.00181
## 196   1.003 2.43e-04 0.00396
## 197   1.006 1.03e-05 0.00319
## 198   1.004 7.09e-05 0.00271
## 199   1.006 2.95e-06 0.00280
## 200   1.005 2.42e-05 0.00229
## 201   1.003 1.77e-04 0.00324
## 202   1.002 1.82e-04 0.00263
## 203   1.006 4.68e-06 0.00350
## 204   1.000 2.67e-04 0.00260
## 205   1.003 8.16e-05 0.00245
## 206   1.004 8.07e-05 0.00295
## 207   1.006 9.14e-06 0.00360
## 208   1.002 1.25e-04 0.00224
## 209   1.001 3.08e-04 0.00330
## 210   1.005 1.29e-05 0.00260
## 211   0.997 2.32e-04 0.00180
## 212   1.003 1.62e-04 0.00299
## 213   1.006 6.71e-06 0.00308
## 214   1.004 9.95e-07 0.00122
## 215   0.999 3.68e-04 0.00295
## 216   1.007 5.49e-05 0.00454
## 217   1.006 2.68e-05 0.00379
## 218   1.007 1.35e-06 0.00397
## 219   1.005 1.49e-07 0.00258
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## 220   0.998 2.95e-04 0.00231
## 221   1.001 7.87e-05 0.00129
## 222   1.006 4.35e-06 0.00282
## 223   1.005 2.61e-05 0.00255
## 224   0.996 5.09e-04 0.00287
## 225   1.005 1.76e-05 0.00236
## 226   1.004 1.80e-04 0.00385
## 227   1.005 3.26e-05 0.00292
## 228   0.999 3.81e-04 0.00320
## 229   1.001 2.03e-04 0.00266
## 230   1.006 2.59e-06 0.00281
## 231   1.005 2.26e-05 0.00277
## 232   1.006 4.30e-05 0.00362
## 233   1.003 1.70e-04 0.00305
## 234   1.005 1.06e-05 0.00278
## 235   1.004 2.05e-05 0.00211
## 236   0.999 2.96e-04 0.00266
## 237   1.006 1.34e-04 0.00501
## 238   0.999 1.91e-04 0.00178
## 239   1.004 1.05e-04 0.00281
## 240   1.005 3.09e-06 0.00210
## 241   1.006 7.63e-06 0.00306
## 242   1.006 1.65e-07 0.00321
## 243   1.005 1.10e-05 0.00278
## 244   1.007 4.15e-05 0.00473
## 245   1.003 1.68e-04 0.00339
## 246   1.000 3.03e-04 0.00306
## 247   1.005 6.67e-05 0.00348
## 248   1.001 1.69e-04 0.00232
## 249   0.996 3.28e-04 0.00214
## 250   1.004 8.81e-05 0.00278
## 251   1.005 4.83e-05 0.00315
## 252   1.000 1.73e-04 0.00216
## 253   1.002 4.91e-04 0.00503
## 254   1.006 4.00e-05 0.00361
## 255   1.004 3.03e-05 0.00184
## 256   1.006 2.37e-06 0.00345
## 257   1.005 2.61e-07 0.00230
## 258   1.005 1.94e-05 0.00228
## 259   0.998 3.24e-04 0.00246
## 260   1.005 2.42e-04 0.00466
## 261   1.003 3.08e-04 0.00407
## 262   1.004 8.30e-05 0.00310
## 263   1.003 1.70e-04 0.00299
## 264   1.007 3.35e-05 0.00478
## 265   1.005 4.70e-05 0.00285
## 266   1.005 9.49e-06 0.00259
## 267   1.005 3.55e-09 0.00233
## 268   1.002 4.18e-04 0.00443
## 269   0.983 9.84e-04 0.00251    *
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## 270   1.006 4.09e-08 0.00300
## 271   1.003 1.70e-04 0.00309
## 272   1.006 7.62e-06 0.00305
## 273   0.998 5.24e-04 0.00369
## 274   1.000 4.83e-04 0.00413
## 275   1.001 1.20e-04 0.00172
## 276   1.003 2.50e-04 0.00367
## 277   0.997 3.03e-04 0.00224
## 278   1.005 1.65e-04 0.00450
## 279   1.002 2.19e-04 0.00333
## 280   1.004 9.01e-05 0.00271
## 281   1.004 6.19e-05 0.00245
## 282   1.003 6.82e-05 0.00207
## 283   1.005 5.81e-05 0.00300
## 284   1.007 6.36e-06 0.00466
## 285   1.001 2.41e-04 0.00302
## 286   1.000 1.75e-04 0.00204
## 287   1.003 6.38e-05 0.00175
## 288   1.001 1.59e-04 0.00219
## 289   1.002 1.46e-04 0.00238
## 290   0.996 2.56e-04 0.00174
## 291   1.001 1.14e-04 0.00192
## 292   1.006 7.98e-06 0.00296
## 293   1.005 1.18e-04 0.00396
## 294   0.995 4.41e-04 0.00236
## 295   1.004 1.51e-05 0.00159
## 296   1.004 2.33e-05 0.00177
## 297   1.007 3.85e-06 0.00446
## 298   0.998 2.70e-04 0.00217
## 299   1.004 1.21e-04 0.00320
## 300   1.001 2.41e-04 0.00294
## 301   1.004 1.27e-04 0.00304
## 302   1.005 3.28e-05 0.00248
## 303   0.999 3.84e-04 0.00325
## 304   1.006 1.35e-07 0.00344
## 305   1.003 1.90e-04 0.00313
## 306   1.005 3.57e-08 0.00227
## 307   1.001 1.59e-04 0.00211
## 308   1.006 3.17e-05 0.00355
## 309   1.001 2.87e-04 0.00341
## 310   1.006 3.50e-05 0.00359
## 311   1.005 4.78e-05 0.00289
## 312   1.003 1.92e-04 0.00319
## 313   1.005 3.16e-05 0.00277
## 314   0.997 3.13e-04 0.00226
## 315   1.002 8.77e-05 0.00183
## 316   1.005 2.09e-05 0.00277
## 317   1.006 2.51e-06 0.00315
## 318   0.988 8.94e-04 0.00281    *
## 319   1.002 1.51e-04 0.00258
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## 320   1.002 2.07e-04 0.00299
## 321   0.989 1.29e-03 0.00412    *
## 322   1.006 1.19e-06 0.00356
## 323   1.001 9.29e-05 0.00166
## 324   1.005 3.75e-05 0.00268
## 325   1.007 5.45e-08 0.00395
## 326   1.003 1.04e-04 0.00270
## 327   1.000 4.32e-04 0.00363
## 328   1.002 8.50e-05 0.00192
## 329   1.003 2.97e-04 0.00437
## 330   0.998 3.52e-04 0.00260
## 331   1.005 1.33e-06 0.00214
## 332   1.004 2.16e-05 0.00194
## 333   1.003 9.74e-05 0.00242
## 334   1.001 7.31e-05 0.00141
## 335   1.003 1.52e-04 0.00283
## 336   0.985 1.22e-03 0.00331    *
## 337   0.997 4.17e-04 0.00279
## 338   1.005 5.51e-06 0.00240
## 339   1.001 1.57e-04 0.00221
## 340   0.996 4.65e-04 0.00264
## 341   1.006 4.02e-05 0.00405
## 342   1.005 2.12e-05 0.00223
## 343   1.007 1.00e-06 0.00387
## 344   1.006 4.12e-07 0.00292
## 345   1.005 2.24e-06 0.00219
## 346   0.995 3.34e-04 0.00200
## 347   1.003 5.69e-05 0.00193
## 348   1.006 1.03e-05 0.00296
## 349   1.001 2.33e-04 0.00301
## 350   1.007 1.65e-05 0.00430
## 351   1.006 1.66e-06 0.00329
## 352   1.005 5.08e-05 0.00276
## 353   0.995 4.39e-04 0.00237
## 354   1.003 2.53e-04 0.00390
## 355   1.001 4.93e-04 0.00429
## 356   1.002 1.38e-04 0.00230
## 357   1.003 1.65e-04 0.00316
## 358   1.006 2.87e-05 0.00315
## 359   0.997 7.15e-04 0.00406
## 360   1.004 9.38e-05 0.00281
## 361   1.005 1.95e-05 0.00220
## 362   1.005 8.44e-05 0.00344
## 363   1.006 3.59e-06 0.00325
## 364   1.005 1.22e-06 0.00232
## 365   1.002 1.78e-04 0.00264
## 366   1.003 1.64e-04 0.00326
## 367   1.005 1.02e-04 0.00358
## 368   1.004 2.31e-05 0.00184
## 369   1.004 5.00e-05 0.00260
```

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## 370   1.005 7.43e-07 0.00221
## 371   1.004 8.72e-07 0.00140
## 372   1.003 6.22e-05 0.00209
## 373   1.007 1.65e-05 0.00468
## 374   1.005 3.39e-05 0.00277
## 375   1.001 1.59e-04 0.00225
## 376   1.005 1.96e-05 0.00269
## 377   1.003 1.67e-04 0.00302
## 378   1.001 2.30e-04 0.00296
## 379   1.005 3.51e-06 0.00239
## 380   1.003 2.11e-04 0.00338
## 381   1.005 6.78e-05 0.00340
## 382   0.996 3.42e-04 0.00224
## 383   1.007 5.02e-07 0.00412
## 384   1.004 1.02e-04 0.00304
## 385   1.004 1.13e-04 0.00288
## 386   0.993 6.56e-04 0.00301
## 387   0.997 4.60e-04 0.00309
## 388   1.006 2.26e-05 0.00366
## 389   1.002 1.98e-04 0.00287
## 390   1.003 8.40e-05 0.00235
## 391   0.998 2.42e-04 0.00197
## 392   1.004 2.12e-04 0.00434
## 393   1.001 1.79e-04 0.00256
## 394   1.004 1.20e-05 0.00160
## 395   0.999 2.50e-04 0.00227
## 396   1.005 2.87e-06 0.00216
## 397   1.002 2.65e-04 0.00366
## 398   0.997 2.66e-04 0.00198
## 399   1.004 2.32e-04 0.00422
## 400   1.004 2.66e-06 0.00142
## 401   1.004 1.08e-06 0.00162
## 402   1.004 6.69e-06 0.00160
## 403   0.995 6.83e-04 0.00351
## 404   1.006 1.60e-05 0.00339
## 405   1.005 8.63e-06 0.00240
## 406   1.006 3.45e-06 0.00314
## 407   1.006 3.78e-05 0.00328
## 408   1.001 3.39e-04 0.00347
## 409   0.993 4.16e-04 0.00206
## 410   0.993 4.25e-04 0.00207
## 411   1.004 9.39e-05 0.00268
## 412   1.005 1.02e-05 0.00254
## 413   1.000 1.69e-04 0.00187
## 414   1.005 6.85e-05 0.00321
## 415   1.003 1.64e-04 0.00317
## 416   1.003 1.61e-04 0.00290
## 417   1.006 4.03e-06 0.00324
## 418   1.005 5.45e-06 0.00251
## 419   0.999 3.56e-04 0.00306
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## 420   1.003 1.55e-04 0.00322
## 421   1.004 7.43e-05 0.00298
## 422   0.999 1.92e-04 0.00180
## 423   1.005 1.54e-04 0.00409
## 424   1.005 2.81e-06 0.00204
## 425   1.006 1.07e-04 0.00430
## 426   1.006 7.36e-05 0.00404
## 427   1.002 1.15e-04 0.00223
## 428   0.999 3.63e-04 0.00288
## 429   0.999 1.94e-04 0.00183
## 430   1.006 7.83e-06 0.00330
## 431   0.989 1.35e-03 0.00428    *
## 432   1.006 3.29e-06 0.00290
## 433   1.004 6.75e-05 0.00254
## 434   0.996 3.28e-04 0.00215
## 435   1.005 9.41e-07 0.00217
## 436   1.005 1.43e-04 0.00385
## 437   1.005 9.77e-07 0.00194
## 438   1.005 1.24e-06 0.00247
## 439   1.002 2.10e-04 0.00326
## 440   1.004 8.50e-05 0.00271
## 441   1.001 3.97e-04 0.00380
## 442   1.004 1.99e-04 0.00378
## 443   1.004 3.70e-05 0.00240
## 444   1.005 1.27e-04 0.00382
## 445   1.003 1.74e-04 0.00299
## 446   0.996 4.07e-04 0.00258
## 447   1.001 1.20e-04 0.00170
## 448   1.005 4.93e-07 0.00244
## 449   0.997 3.82e-04 0.00267
## 450   1.007 1.27e-05 0.00390
## 451   1.006 4.43e-07 0.00314
## 452   1.006 1.34e-04 0.00442
## 453   1.007 5.04e-05 0.00450
## 454   1.000 2.36e-04 0.00252
## 455   1.006 4.62e-08 0.00291
## 456   0.998 2.57e-04 0.00214
## 457   1.005 7.83e-05 0.00374
## 458   1.006 1.42e-05 0.00365
## 459   1.005 3.08e-05 0.00241
## 460   0.996 2.35e-04 0.00155
## 461   1.005 1.79e-05 0.00220
## 462   1.004 1.66e-04 0.00355
## 463   1.004 1.27e-04 0.00353
## 464   1.004 7.91e-05 0.00265
## 465   1.006 2.40e-06 0.00308
## 466   1.008 1.99e-05 0.00540
## 467   1.006 3.47e-05 0.00359
## 468   1.006 3.44e-05 0.00334
## 469   1.005 8.08e-07 0.00230
```

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## 470   0.997 4.44e-04 0.00288
## 471   1.005 2.33e-05 0.00244
## 472   0.999 2.36e-04 0.00226
## 473   1.001 2.68e-04 0.00327
## 474   1.006 1.94e-05 0.00302
## 475   1.001 1.73e-04 0.00248
## 476   1.000 1.55e-04 0.00181
## 477   1.006 1.22e-04 0.00433
## 478   1.005 1.09e-04 0.00403
## 479   1.003 1.26e-04 0.00272
## 480   0.999 3.27e-04 0.00284
## 481   1.005 2.47e-06 0.00249
## 482   0.996 9.71e-04 0.00471
## 483   0.998 3.15e-04 0.00244
## 484   1.005 9.25e-06 0.00266
## 485   1.002 1.90e-04 0.00279
## 486   1.006 3.61e-05 0.00389
## 487   0.996 3.55e-04 0.00227
## 488   1.006 2.12e-07 0.00271
## 489   1.002 1.14e-04 0.00230
## 490   1.005 3.18e-05 0.00273
## 491   1.002 1.78e-04 0.00272
## 492   1.001 2.04e-04 0.00268
## 493   1.007 2.75e-05 0.00422
## 494   1.004 2.34e-05 0.00177
## 495   0.998 6.86e-04 0.00421
## 496   1.006 1.20e-05 0.00322
## 497   1.006 1.05e-05 0.00289
## 498   0.999 5.09e-04 0.00394
## 499   1.003 3.07e-04 0.00416
## 500   1.004 8.57e-05 0.00280
## 501   1.006 3.73e-05 0.00404
## 502   1.007 1.35e-07 0.00383
## 503   1.007 2.69e-05 0.00417
## 504   1.006 2.13e-05 0.00338
## 505   1.003 1.62e-04 0.00312
## 506   1.000 3.49e-04 0.00311
## 507   1.004 1.51e-04 0.00337
## 508   1.002 2.12e-04 0.00302
## 509   1.004 2.40e-05 0.00181
## 510   1.006 2.05e-04 0.00500
## 511   1.004 1.02e-04 0.00318
## 512   1.003 8.08e-05 0.00231
## 513   1.004 9.29e-05 0.00303
## 514   1.004 1.25e-04 0.00339
## 515   0.998 4.35e-04 0.00307
## 516   1.005 5.42e-06 0.00234
## 517   0.999 3.16e-04 0.00263
## 518   1.000 3.60e-04 0.00327
## 519   1.004 1.28e-05 0.00173
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## 520   1.004 3.98e-05 0.00238
## 521   1.002 1.68e-04 0.00290
## 522   1.005 1.17e-04 0.00371
## 523   0.999 2.18e-04 0.00222
## 524   1.001 1.50e-04 0.00197
## 525   1.006 4.21e-05 0.00354
## 526   1.006 9.79e-07 0.00332
## 527   1.005 3.70e-05 0.00287
## 528   1.005 7.89e-08 0.00169
## 529   1.006 5.91e-05 0.00406
## 530   1.005 3.60e-06 0.00226
## 531   1.005 1.19e-05 0.00244
## 532   0.996 2.72e-04 0.00185
## 533   1.006 5.98e-05 0.00368
## 534   1.003 5.98e-05 0.00211
## 535   0.997 3.48e-04 0.00242
## 536   1.004 8.11e-05 0.00297
## 537   1.006 1.25e-05 0.00318
## 538   1.006 4.50e-05 0.00340
## 539   1.006 9.20e-07 0.00283
## 540   1.005 1.19e-06 0.00243
## 541   1.001 2.25e-04 0.00279
## 542   1.004 2.36e-05 0.00182
## 543   1.003 1.04e-04 0.00239
## 544   0.998 6.36e-04 0.00399
## 545   1.003 1.47e-04 0.00292
## 546   0.999 3.95e-04 0.00310
## 547   1.005 3.60e-05 0.00280
## 548   1.004 1.01e-04 0.00333
## 549   1.004 1.25e-05 0.00157
## 550   1.006 2.13e-06 0.00295
## 551   1.005 2.45e-07 0.00238
## 552   1.005 6.04e-06 0.00191
## 553   1.005 1.51e-05 0.00278
## 554   0.999 2.36e-04 0.00213
## 555   1.006 9.09e-06 0.00342
## 556   1.005 2.72e-05 0.00264
## 557   1.006 2.64e-06 0.00314
## 558   1.000 1.35e-04 0.00157
## 559   1.003 8.37e-05 0.00206
## 560   1.004 6.59e-05 0.00251
## 561   1.004 9.45e-05 0.00327
## 562   1.004 1.50e-04 0.00357
## 563   1.004 6.04e-05 0.00272
## 564   1.005 1.13e-04 0.00366
## 565   1.006 2.09e-05 0.00312
## 566   1.004 2.12e-04 0.00383
## 567   1.006 2.74e-05 0.00316
## 568   1.000 1.38e-04 0.00181
## 569   1.005 1.09e-04 0.00403
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## 570   1.005 1.23e-06 0.00229
## 571   1.007 6.69e-06 0.00456
## 572   1.005 6.86e-05 0.00309
## 573   0.995 5.02e-04 0.00271
## 574   1.000 3.23e-04 0.00304
## 575   1.006 7.36e-07 0.00350
## 576   1.004 1.51e-04 0.00368
## 577   0.998 1.43e-04 0.00130
## 578   1.002 2.48e-04 0.00327
## 579   1.004 4.00e-05 0.00203
## 580   0.990 5.23e-04 0.00198    *
## 581   1.000 2.14e-04 0.00247
## 582   1.005 7.75e-05 0.00315
## 583   1.005 4.24e-05 0.00258
## 584   1.004 4.04e-05 0.00199
## 585   1.004 4.87e-05 0.00262
## 586   1.007 6.31e-07 0.00371
## 587   1.005 9.40e-06 0.00196
## 588   1.006 2.83e-06 0.00362
## 589   1.004 2.26e-05 0.00215
## 590   1.006 2.29e-06 0.00298
## 591   1.005 1.12e-06 0.00181
## 592   1.006 3.77e-06 0.00280
## 593   1.004 1.18e-04 0.00298
## 594   1.002 8.31e-05 0.00180
## 595   0.996 6.56e-04 0.00356
## 596   1.008 4.73e-05 0.00519
## 597   1.003 2.03e-04 0.00342
## 598   1.003 9.84e-05 0.00255
## 599   1.006 1.15e-06 0.00266
## 600   1.001 1.57e-04 0.00223
## 601   1.004 1.35e-05 0.00183
## 602   1.005 4.86e-05 0.00294
## 603   1.005 4.85e-05 0.00280
## 604   1.003 1.25e-04 0.00266
## 605   1.005 9.10e-06 0.00255
## 606   1.006 5.47e-07 0.00270
## 607   1.006 3.39e-12 0.00335
## 608   1.005 6.72e-06 0.00271
## 609   0.996 8.34e-04 0.00416
## 610   0.998 4.81e-04 0.00341
## 611   0.992 8.85e-04 0.00355
## 612   1.006 1.02e-05 0.00335
## 613   1.003 1.33e-04 0.00265
## 614   1.006 2.75e-06 0.00363
## 615   1.003 1.05e-04 0.00231
## 616   1.002 1.67e-04 0.00281
## 617   1.005 6.32e-05 0.00331
## 618   1.006 2.90e-05 0.00342
## 619   0.999 2.92e-04 0.00245
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## 620   1.003 3.96e-04 0.00504
## 621   1.005 2.66e-05 0.00300
## 622   1.003 1.21e-04 0.00282
## 623   1.005 2.12e-06 0.00198
## 624   0.991 6.02e-04 0.00238     *
## 625   1.001 2.48e-04 0.00278
## 626   1.002 2.12e-04 0.00305
## 627   1.005 5.90e-05 0.00285
## 628   1.007 1.33e-05 0.00401
## 629   0.998 4.56e-04 0.00331
## 630   0.999 4.35e-04 0.00342
## 631   1.006 2.47e-05 0.00335
## 632   1.004 2.27e-05 0.00197
## 633   1.004 8.39e-06 0.00146
## 634   1.006 5.61e-05 0.00379
## 635   0.995 5.80e-04 0.00305
## 636   1.005 1.06e-04 0.00359
## 637   1.005 2.57e-05 0.00256
## 638   0.996 5.88e-04 0.00329
## 639   1.003 9.75e-05 0.00240
## 640   1.005 4.78e-06 0.00255
## 641   0.994 8.11e-04 0.00356
## 642   1.003 5.91e-05 0.00194
## 643   1.004 1.34e-04 0.00353
## 644   1.004 4.95e-05 0.00255
## 645   1.003 7.45e-05 0.00223
## 646   0.998 2.14e-04 0.00175
## 647   1.006 1.98e-05 0.00323
## 648   1.005 1.30e-04 0.00378
## 649   1.001 1.87e-04 0.00246
## 650   1.001 1.20e-04 0.00183
## 651   1.002 1.27e-04 0.00224
## 652   1.005 2.24e-08 0.00169
## 653   1.004 3.16e-05 0.00217
## 654   0.993 5.80e-04 0.00266
## 655   0.998 3.31e-04 0.00266
## 656   1.005 8.13e-06 0.00195
## 657   1.006 4.99e-06 0.00334
## 658   0.990 5.83e-04 0.00214     *
## 659   1.005 5.56e-06 0.00270
## 660   0.999 3.34e-04 0.00293
## 661   1.003 7.07e-05 0.00186
## 662   1.004 2.30e-05 0.00178
## 663   1.007 6.21e-08 0.00401
## 664   1.005 6.15e-06 0.00199
## 665   0.998 2.72e-04 0.00222
## 666   1.000 1.16e-04 0.00155
## 667   1.006 9.87e-05 0.00404
## 668   0.996 2.72e-04 0.00184
## 669   1.007 2.22e-07 0.00377
```

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## 670   1.005 2.01e-07 0.00234
## 671   1.005 3.80e-07 0.00188
## 672   1.002 6.75e-05 0.00172
## 673   1.004 4.14e-05 0.00232
## 674   0.999 6.61e-04 0.00454
## 675   1.006 2.80e-05 0.00372
## 676   1.005 1.59e-06 0.00222
## 677   1.001 2.95e-04 0.00322
## 678   0.997 7.60e-04 0.00422
## 679   1.004 1.05e-04 0.00294
## 680   1.002 1.76e-04 0.00282
## 681   1.006 1.12e-07 0.00315
## 682   1.004 1.17e-04 0.00315
## 683   1.002 1.66e-04 0.00258
## 684   0.998 2.01e-04 0.00178
## 685   1.002 8.79e-05 0.00206
## 686   1.005 6.14e-06 0.00249
## 687   0.998 3.95e-04 0.00295
## 688   1.006 3.70e-05 0.00387
## 689   1.004 1.32e-04 0.00321
## 690   1.004 4.28e-05 0.00202
## 691   1.006 2.54e-05 0.00353
## 692   1.005 1.87e-07 0.00208
## 693   1.002 7.44e-05 0.00161
## 694   1.005 3.60e-05 0.00262
## 695   1.004 6.01e-05 0.00268
## 696   1.006 1.94e-06 0.00272
## 697   0.997 3.95e-04 0.00276
## 698   1.005 1.41e-04 0.00382
## 699   1.005 1.61e-05 0.00293
## 700   1.007 3.79e-06 0.00385
## 701   1.001 1.73e-04 0.00244
## 702   0.999 1.96e-04 0.00190
## 703   1.004 4.29e-05 0.00199
## 704   1.003 8.05e-05 0.00223
## 705   0.998 3.86e-04 0.00274
## 706   1.006 1.35e-05 0.00355
## 707   1.001 2.98e-04 0.00346
## 708   1.002 1.62e-04 0.00252
## 709   1.004 1.26e-04 0.00361
## 710   0.991 4.21e-04 0.00180     *
## 711   1.002 2.41e-04 0.00349
## 712   1.005 6.92e-07 0.00243
## 713   1.003 3.04e-04 0.00399
## 714   1.006 1.66e-06 0.00346
## 715   1.003 1.29e-04 0.00292
## 716   1.007 3.73e-07 0.00376
## 717   1.000 2.14e-04 0.00227
## 718   1.002 2.17e-04 0.00318
## 719   1.005 1.17e-04 0.00367
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## 720   1.005 1.18e-05 0.00213
## 721   1.005 6.04e-06 0.00187
## 722   1.003 9.48e-05 0.00264
## 723   0.997 2.11e-04 0.00163
## 724   1.002 1.16e-04 0.00213
## 725   1.004 8.77e-05 0.00317
## 726   1.005 1.13e-05 0.00250
## 727   0.998 3.25e-04 0.00239
## 728   0.999 4.77e-04 0.00372
## 729   1.006 2.02e-07 0.00324
## 730   0.997 4.94e-04 0.00321
## 731   1.004 1.96e-05 0.00165
## 732   1.001 1.43e-04 0.00225
## 733   1.007 1.99e-07 0.00376
## 734   1.001 2.68e-04 0.00321
## 735   1.004 1.51e-04 0.00380
## 736   1.003 1.39e-04 0.00269
## 737   1.006 1.07e-05 0.00359
## 738   1.002 1.70e-04 0.00261
## 739   1.006 4.70e-06 0.00298
## 740   1.006 2.95e-06 0.00360
## 741   1.000 3.01e-04 0.00292
## 742   1.003 1.94e-04 0.00329
## 743   1.006 1.13e-07 0.00284
## 744   1.002 8.95e-05 0.00181
## 745   1.005 1.99e-05 0.00296
## 746   1.006 7.64e-07 0.00331
## 747   0.999 3.93e-04 0.00315
## 748   1.005 3.39e-07 0.00222
## 749   1.006 2.74e-05 0.00368
## 750   1.004 4.53e-05 0.00253
## 751   1.006 6.59e-06 0.00297
## 752   1.005 1.14e-04 0.00381
## 753   1.002 4.40e-04 0.00440
## 754   1.003 8.46e-05 0.00236
## 755   1.005 8.35e-06 0.00270
## 756   1.004 2.19e-05 0.00174
## 757   1.002 2.93e-04 0.00359
## 758   1.006 2.37e-06 0.00338
## 759   1.004 2.39e-05 0.00175
## 760   1.001 1.76e-04 0.00224
## 761   1.001 1.14e-04 0.00191
## 762   1.005 3.10e-05 0.00291
## 763   1.005 7.60e-06 0.00259
## 764   1.002 2.60e-04 0.00324
## 765   0.999 1.99e-04 0.00206
## 766   1.005 5.97e-06 0.00197
## 767   1.004 9.58e-05 0.00279
## 768   1.006 6.40e-05 0.00388
## 769   1.004 2.78e-05 0.00195
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## 770   1.002 6.72e-05 0.00168
## 771   0.992 4.15e-04 0.00180
## 772   1.003 2.60e-04 0.00403
## 773   0.999 2.37e-04 0.00234
## 774   1.006 6.27e-06 0.00289
## 775   1.004 2.62e-04 0.00438
## 776   1.003 1.00e-04 0.00224
## 777   1.005 1.81e-05 0.00263
## 778   0.996 2.54e-04 0.00169
## 779   1.006 5.42e-06 0.00331
## 780   1.003 8.58e-05 0.00234
## 781   1.005 2.89e-05 0.00264
## 782   0.997 2.90e-04 0.00203
## 783   1.008 7.74e-08 0.00469
## 784   0.998 3.68e-04 0.00271
## 785   1.006 9.30e-06 0.00332
## 786   1.006 4.34e-05 0.00339
## 787   1.005 8.07e-05 0.00367
## 788   1.005 3.90e-05 0.00282
## 789   1.006 9.84e-08 0.00327
## 790   1.006 1.37e-06 0.00320
## 791   1.006 1.56e-05 0.00316
## 792   1.007 1.92e-07 0.00365
## 793   1.002 2.79e-04 0.00349
## 794   1.004 2.04e-04 0.00395
## 795   1.003 1.11e-04 0.00282
## 796   1.005 4.57e-05 0.00302
## 797   1.005 2.13e-05 0.00221
## 798   0.995 4.39e-04 0.00241
## 799   1.006 7.52e-05 0.00399
## 800   1.003 1.17e-04 0.00257
## 801   1.005 5.03e-06 0.00254
## 802   1.007 4.85e-06 0.00371
## 803   1.002 1.34e-04 0.00244
## 804   1.006 5.26e-06 0.00350
## 805   1.005 3.90e-05 0.00269
## 806   1.006 2.07e-06 0.00268
## 807   1.000 1.96e-04 0.00213
## 808   1.001 7.54e-05 0.00128
## 809   0.994 4.01e-04 0.00215
## 810   0.989 1.06e-03 0.00348     *
## 811   1.005 1.21e-06 0.00216
## 812   1.006 2.83e-05 0.00351
## 813   1.006 5.37e-05 0.00352
## 814   0.998 2.49e-04 0.00212
## 815   1.003 1.09e-04 0.00271
## 816   1.005 2.54e-05 0.00257
## 817   1.002 2.26e-04 0.00320
## 818   1.006 1.24e-09 0.00312
## 819   1.005 9.31e-05 0.00334
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## 820    1.006 6.91e-07 0.00266
## 821    1.002 8.66e-05 0.00184
## 822    1.003 1.45e-04 0.00313
## 823    1.005 6.95e-07 0.00259
## 824    1.001 2.77e-04 0.00318
## 825    1.005 5.76e-05 0.00312
## 826    1.005 3.40e-05 0.00249
## 827    0.992 9.17e-04 0.00352
## 828    1.006 1.20e-04 0.00427
## 829    0.992 6.87e-04 0.00285
## 830    1.005 1.92e-07 0.00193
## 831    1.005 3.61e-05 0.00302
## 832    1.001 1.67e-04 0.00247
## 833    1.003 8.70e-05 0.00242
## 834    1.006 1.01e-04 0.00413
## 835    1.006 1.11e-05 0.00309
## 836    0.996 2.68e-04 0.00181
## 837    1.005 3.76e-05 0.00314
## 838    1.004 3.66e-07 0.00161
## 839    0.998 3.28e-04 0.00262
## 840    1.006 1.56e-05 0.00324
## 841    0.988 6.90e-04 0.00228    *
## 842    1.004 1.41e-04 0.00351
## 843    1.003 5.84e-05 0.00195
## 844    1.004 5.14e-06 0.00157
## 845    1.005 9.40e-06 0.00252
## 846    1.006 3.15e-05 0.00379
## 847    1.005 7.46e-06 0.00205
## 848    1.004 2.11e-05 0.00197
## 849    1.005 7.64e-07 0.00260
## 850    1.007 1.51e-06 0.00388
## 851    1.004 5.15e-05 0.00241
## 852    1.004 1.10e-04 0.00294
## 853    1.005 6.98e-06 0.00255
## 854    0.996 6.64e-04 0.00355
## 855    1.006 1.84e-05 0.00300
## 856    0.996 3.31e-04 0.00213
## 857    1.006 5.56e-07 0.00326
## 858    1.006 3.74e-06 0.00292
## 859    1.004 1.90e-06 0.00122
## 860    1.006 5.57e-06 0.00359
## 861    1.001 2.13e-04 0.00255
## 862    1.003 9.35e-05 0.00261
## 863    1.002 8.52e-05 0.00167
## 864    1.002 2.88e-04 0.00370
## 865    1.007 1.99e-05 0.00477
## 866    1.004 3.83e-05 0.00191
## 867    0.995 6.21e-04 0.00328
## 868    1.006 5.77e-05 0.00433
## 869    1.006 1.51e-07 0.00351
```

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## 870   1.004 4.04e-05 0.00242
## 871   1.006 1.23e-05 0.00294
## 872   0.997 7.96e-04 0.00442
## 873   1.005 1.11e-04 0.00402
## 874   1.002 2.80e-04 0.00343
## 875   1.000 3.97e-04 0.00370
## 876   1.007 7.09e-06 0.00432
## 877   1.006 2.81e-06 0.00304
## 878   1.004 7.90e-05 0.00274
## 879   1.002 3.65e-04 0.00435
## 880   1.005 1.01e-05 0.00234
## 881   1.002 1.80e-04 0.00267
## 882   1.005 1.79e-05 0.00284
## 883   1.006 1.07e-05 0.00357
## 884   1.004 4.22e-05 0.00204
## 885   0.997 4.56e-04 0.00296
## 886   1.001 3.35e-04 0.00369
## 887   1.003 1.37e-04 0.00279
## 888   0.994 8.11e-04 0.00356
## 889   1.005 9.74e-05 0.00374
## 890   0.997 3.51e-04 0.00245
## 891   1.000 2.43e-04 0.00256
## 892   0.998 4.01e-04 0.00300
## 893   1.005 4.79e-05 0.00316
## 894   1.002 2.03e-04 0.00289
## 895   1.005 1.19e-08 0.00254
## 896   1.005 6.45e-05 0.00309
## 897   1.002 3.18e-04 0.00372
## 898   1.004 9.57e-05 0.00304
## 899   1.004 2.25e-05 0.00178
## 900   1.003 1.25e-04 0.00275
## 901   1.001 2.72e-04 0.00296
## 902   1.005 3.41e-05 0.00264
## 903   1.006 1.15e-05 0.00293
## 904   1.004 5.35e-05 0.00269
## 905   1.001 1.60e-04 0.00221
## 906   1.005 6.87e-05 0.00344
## 907   1.005 1.78e-05 0.00221
## 908   1.006 9.24e-06 0.00298
## 909   1.001 1.57e-04 0.00233
## 910   0.999 4.28e-04 0.00340
## 911   1.006 1.72e-05 0.00347
## 912   1.004 5.72e-06 0.00157
## 913   1.006 1.65e-06 0.00292
## 914   1.003 7.92e-05 0.00242
## 915   1.002 2.38e-04 0.00312
## 916   1.006 2.33e-06 0.00328
## 917   1.000 1.91e-04 0.00209
## 918   1.002 2.22e-04 0.00305
## 919   1.006 1.51e-08 0.00274
```

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## 920   1.004 1.47e-05 0.00156
## 921   0.998 2.19e-04 0.00186
## 922   1.006 1.22e-05 0.00304
## 923   1.003 2.04e-04 0.00337
## 924   1.007 8.32e-06 0.00390
## 925   1.003 9.73e-05 0.00262
## 926   1.001 2.07e-04 0.00253
## 927   1.006 1.12e-05 0.00297
## 928   1.003 1.55e-04 0.00315
## 929   1.002 1.68e-04 0.00255
## 930   1.006 5.21e-05 0.00417
## 931   1.006 1.04e-05 0.00297
## 932   1.004 5.71e-05 0.00248
## 933   1.005 7.80e-05 0.00366
## 934   0.995 5.47e-04 0.00283
## 935   1.001 1.49e-04 0.00229
## 936   1.004 1.94e-05 0.00211
## 937   1.004 1.35e-05 0.00159
## 938   1.005 1.74e-06 0.00219
## 939   1.005 1.24e-04 0.00366
## 940   1.000 1.80e-04 0.00199
## 941   1.006 1.04e-05 0.00321
## 942   1.004 8.60e-05 0.00308
## 943   1.002 1.49e-04 0.00235
## 944   1.004 3.88e-05 0.00238
## 945   1.000 3.99e-04 0.00359
## 946   1.002 1.37e-04 0.00219
## 947   1.005 6.89e-07 0.00191
## 948   0.998 3.47e-04 0.00275
## 949   1.000 1.91e-04 0.00216
## 950   1.005 2.00e-05 0.00248
## 951   1.005 2.43e-05 0.00265
## 952   0.997 2.26e-04 0.00162
## 953   0.997 3.92e-04 0.00255
## 954   1.005 6.39e-06 0.00259
## 955   1.004 7.34e-05 0.00249
## 956   1.006 5.23e-05 0.00407
## 957   1.002 1.80e-04 0.00268
## 958   1.005 2.10e-04 0.00494
## 959   1.004 1.43e-05 0.00163
## 960   1.005 2.14e-04 0.00469
## 961   1.007 5.48e-08 0.00429
## 962   0.998 2.14e-04 0.00175
## 963   1.003 3.52e-04 0.00478
## 964   0.990 3.98e-04 0.00161    *
## 965   1.005 2.23e-05 0.00223
## 966   1.005 4.17e-05 0.00295
## 967   1.004 3.81e-05 0.00213
## 968   1.003 9.49e-05 0.00243
## 969   1.004 1.00e-04 0.00323
```

```
## 970  1.006 7.07e-06 0.00355
## 971  0.998 6.26e-04 0.00393
## 972  1.006 5.97e-08 0.00317
## 973  0.988 9.39e-04 0.00296    *
## 974  1.001 7.52e-05 0.00129
## 975  0.998 1.90e-04 0.00176
## 976  0.996 3.76e-04 0.00229
## 977  1.005 3.35e-06 0.00267
## 978  1.005 2.27e-05 0.00233
## 979  1.005 4.10e-07 0.00169
## 980  1.005 1.43e-05 0.00233
## 981  1.004 5.83e-05 0.00218
## 982  1.005 8.06e-06 0.00275
## 983  1.000 2.34e-04 0.00257
## 984  1.004 6.61e-05 0.00231
## 985  1.005 2.58e-05 0.00266
## 986  1.005 6.69e-06 0.00232
## 987  1.004 1.46e-07 0.00131
## 988  1.007 7.15e-06 0.00401
## 989  1.005 3.05e-07 0.00222
## 990  1.005 4.35e-06 0.00249
## 991  1.006 1.49e-05 0.00323
## 992  1.005 2.67e-06 0.00235
## 993  0.997 4.85e-04 0.00300
## 994  0.998 2.21e-04 0.00182
## 995  1.004 3.59e-05 0.00245
## 996  1.006 1.20e-05 0.00298
## 997  1.002 1.70e-04 0.00291
## 998  1.003 8.37e-05 0.00221
## 999  1.001 1.35e-04 0.00209
## 1000 0.999 2.25e-04 0.00202
## 1001 1.005 4.09e-08 0.00176
## 1002 1.004 1.06e-05 0.00160
## 1003 1.001 1.69e-04 0.00247
## 1004 1.002 1.87e-04 0.00266
## 1005 1.000 1.15e-04 0.00152
## 1006 1.000 2.71e-04 0.00271
## 1007 1.005 3.31e-05 0.00267
## 1008 1.003 8.88e-05 0.00210
## 1009 1.007 6.18e-06 0.00430
## 1010 0.999 3.84e-04 0.00306
## 1011 1.003 8.35e-05 0.00215
## 1012 0.996 5.86e-04 0.00323
## 1013 0.995 6.04e-04 0.00322
## 1014 1.006 1.03e-05 0.00332
## 1015 1.006 2.36e-06 0.00305
## 1016 1.003 2.29e-04 0.00354
## 1017 1.004 2.19e-05 0.00189
## 1018 1.005 1.14e-05 0.00272
## 1019 1.005 7.12e-06 0.00277
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## 1020 0.997 4.71e-04 0.00302
## 1021 1.002 2.32e-04 0.00333
## 1022 1.002 1.35e-04 0.00219
## 1023 1.006 1.06e-05 0.00344
## 1024 1.005 5.11e-05 0.00274
## 1025 1.005 6.57e-05 0.00312
## 1026 1.001 1.69e-04 0.00221
## 1027 1.004 3.65e-04 0.00521
## 1028 1.004 9.50e-05 0.00304
## 1029 1.006 1.00e-04 0.00405
## 1030 1.004 8.98e-05 0.00269
## 1031 1.005 1.31e-06 0.00265
## 1032 1.005 2.44e-05 0.00298
## 1033 1.006 9.50e-07 0.00298
## 1034 1.005 2.85e-09 0.00236
## 1035 1.002 2.31e-04 0.00334
## 1036 1.004 1.00e-04 0.00325
## 1037 0.996 4.83e-04 0.00283
## 1038 1.003 1.48e-04 0.00293
## 1039 1.005 1.12e-05 0.00276
## 1040 1.001 1.56e-04 0.00212
## 1041 0.998 3.26e-04 0.00244
## 1042 1.005 2.15e-05 0.00279
## 1043 1.001 1.69e-04 0.00244
## 1044 1.006 2.35e-07 0.00308
## 1045 1.003 9.13e-05 0.00216
## 1046 1.004 8.20e-06 0.00158
## 1047 0.992 4.19e-04 0.00181
## 1048 1.001 5.17e-04 0.00447
## 1049 1.003 2.27e-04 0.00364
## 1050 1.004 6.99e-05 0.00290
## 1051 1.000 4.20e-04 0.00355
## 1052 1.000 1.86e-04 0.00227
## 1053 1.004 1.76e-06 0.00144
## 1054 1.002 8.77e-05 0.00184
## 1055 1.002 2.02e-04 0.00287
## 1056 1.004 1.22e-04 0.00301
## 1057 1.001 2.10e-04 0.00266
## 1058 1.005 5.45e-06 0.00208
## 1059 1.006 2.72e-05 0.00339
## 1060 1.006 2.28e-05 0.00334
## 1061 1.006 6.00e-05 0.00360
## 1062 1.005 1.97e-05 0.00235
## 1063 1.001 2.59e-04 0.00294
## 1064 1.005 3.74e-07 0.00215
## 1065 1.003 1.95e-04 0.00359
## 1066 0.998 3.08e-04 0.00244
## 1067 1.006 3.36e-05 0.00354
## 1068 1.000 1.71e-04 0.00215
## 1069 0.997 3.16e-04 0.00222
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## 1070 1.006 1.01e-04 0.00451
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## 1073 1.006 7.56e-05 0.00382
## 1074 1.005 2.01e-06 0.00240
## 1075 0.997 4.61e-04 0.00286
## 1076 1.005 8.99e-05 0.00374
## 1077 0.998 2.10e-04 0.00187
## 1078 1.005 2.09e-06 0.00239
## 1079 1.000 2.04e-04 0.00230
## 1080 1.002 8.13e-05 0.00192
## 1081 1.005 4.19e-07 0.00178
## 1082 1.002 1.64e-04 0.00256
## 1083 1.003 1.62e-04 0.00332
## 1084 1.004 1.19e-04 0.00352
## 1085 1.004 7.94e-05 0.00260
## 1086 0.998 1.67e-04 0.00146
## 1087 1.005 3.66e-05 0.00269
## 1088 1.004 5.64e-05 0.00278
## 1089 1.005 4.74e-05 0.00270
## 1090 1.007 1.66e-06 0.00377
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## 1092 0.996 2.88e-04 0.00189
## 1093 1.005 1.52e-04 0.00437
## 1094 1.000 2.14e-04 0.00241
## 1095 1.006 1.34e-07 0.00327
## 1096 1.003 1.62e-04 0.00320
## 1097 1.005 5.27e-05 0.00284
## 1098 1.004 7.97e-06 0.00179
## 1099 0.998 4.76e-04 0.00329
## 1100 1.004 5.70e-05 0.00244
## 1101 1.005 4.69e-06 0.00189
## 1102 0.998 3.05e-04 0.00233
## 1103 1.006 3.44e-05 0.00370
## 1104 1.006 3.20e-06 0.00285
## 1105 1.006 2.35e-06 0.00271
## 1106 1.005 5.39e-05 0.00307
## 1107 1.007 5.66e-07 0.00428
## 1108 1.002 3.92e-04 0.00446
## 1109 1.007 7.39e-06 0.00393
## 1110 0.999 2.70e-04 0.00241
## 1111 0.999 2.11e-04 0.00215
## 1112 1.006 1.90e-05 0.00332
## 1113 1.004 1.32e-05 0.00190
## 1114 1.004 9.92e-05 0.00326
## 1115 1.003 1.12e-04 0.00272
## 1116 1.006 5.86e-06 0.00346
## 1117 1.001 1.20e-04 0.00179
## 1118 1.005 9.08e-06 0.00256
## 1119 1.000 3.91e-04 0.00337
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## 1120 1.006 2.07e-05 0.00331
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## 1124 1.006 1.34e-05 0.00315
## 1125 1.004 1.60e-05 0.00180
## 1126 1.001 2.33e-04 0.00275
## 1127 1.005 1.51e-06 0.00222
## 1128 0.999 5.34e-04 0.00394
## 1129 1.005 1.55e-04 0.00407
## 1130 1.005 2.06e-05 0.00233
## 1131 1.004 1.12e-04 0.00303
## 1132 1.006 2.07e-06 0.00302
## 1133 1.005 6.48e-06 0.00206
## 1134 1.006 1.24e-05 0.00304
## 1135 1.004 1.96e-04 0.00393
## 1136 1.005 2.74e-05 0.00285
## 1137 1.007 6.82e-05 0.00510
## 1138 1.004 3.72e-05 0.00247
## 1139 0.998 3.72e-04 0.00270
## 1140 1.004 1.05e-04 0.00296
## 1141 1.001 2.88e-04 0.00321
## 1142 1.003 1.38e-04 0.00289
## 1143 1.006 2.50e-05 0.00339
## 1144 1.000 2.46e-04 0.00264
## 1145 1.004 4.00e-05 0.00210
## 1146 1.003 1.39e-04 0.00284
## 1147 1.004 1.43e-04 0.00371
## 1148 1.004 2.06e-05 0.00183
## 1149 1.002 1.34e-04 0.00253
## 1150 1.007 1.49e-05 0.00387
## 1151 1.005 1.35e-06 0.00245
## 1152 1.006 7.66e-06 0.00329
## 1153 1.005 1.17e-06 0.00219
## 1154 1.004 9.89e-05 0.00289
## 1155 1.005 7.31e-05 0.00320
## 1156 1.004 9.07e-05 0.00285
## 1157 1.000 3.64e-04 0.00327
## 1158 1.000 4.81e-04 0.00390
## 1159 1.006 4.38e-06 0.00352
## 1160 1.003 1.50e-04 0.00280
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## 1162 1.004 1.90e-06 0.00124
## 1163 1.002 1.26e-04 0.00245
## 1164 1.003 8.14e-05 0.00233
## 1165 1.005 1.19e-05 0.00221
## 1166 1.007 6.67e-05 0.00509
## 1167 1.005 9.60e-08 0.00234
## 1168 0.995 5.60e-04 0.00289
## 1169 0.999 3.24e-04 0.00279
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## 1170 0.993 4.24e-04 0.00203
## 1171 1.004 1.28e-04 0.00304
## 1172 0.999 2.21e-04 0.00224
## 1173 1.004 1.72e-04 0.00393
## 1174 1.006 2.19e-05 0.00379
## 1175 1.002 1.79e-04 0.00262
## 1176 1.003 2.10e-04 0.00346
## 1177 1.006 7.33e-06 0.00337
## 1178 0.999 5.23e-04 0.00398
## 1179 1.006 8.12e-05 0.00450
## 1180 1.004 7.70e-05 0.00295
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## 1182 1.001 2.16e-04 0.00267
## 1183 1.006 1.10e-06 0.00302
## 1184 1.007 6.87e-05 0.00474
## 1185 1.002 1.08e-04 0.00222
## 1186 0.999 3.52e-04 0.00291
## 1187 1.002 1.40e-04 0.00253
## 1188 1.006 5.67e-07 0.00333
## 1189 1.003 9.71e-05 0.00258
## 1190 1.006 6.09e-06 0.00341
## 1191 1.003 5.75e-05 0.00209
## 1192 1.003 2.10e-04 0.00368
## 1193 1.006 6.39e-06 0.00297
## 1194 1.005 2.91e-05 0.00245
## 1195 1.005 7.29e-07 0.00225
## 1196 1.001 2.03e-04 0.00277
## 1197 1.002 1.22e-04 0.00226
## 1198 1.003 7.77e-05 0.00198
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## 1200 1.006 4.41e-08 0.00273
## 1201 1.004 1.07e-04 0.00318
## 1202 1.002 6.52e-05 0.00154
## 1203 0.997 1.60e-04 0.00130
## 1204 1.003 1.84e-04 0.00345
## 1205 1.002 7.76e-05 0.00187
## 1206 1.005 4.12e-05 0.00290
## 1207 0.999 1.70e-04 0.00180
## 1208 0.999 4.41e-04 0.00347
## 1209 0.998 1.39e-04 0.00126
## 1210 1.005 1.31e-05 0.00252
## 1211 1.002 1.28e-04 0.00226
## 1212 1.003 1.24e-04 0.00249
## 1213 1.004 3.20e-06 0.00166
## 1214 1.006 3.51e-06 0.00286
## 1215 1.001 1.65e-04 0.00217
## 1216 1.006 7.41e-05 0.00394
## 1217 1.004 1.32e-04 0.00358
## 1218 1.002 1.70e-04 0.00274
## 1219 1.006 2.62e-05 0.00345
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## 1220 1.002 6.31e-05 0.00155
## 1221 0.998 3.03e-04 0.00231
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## 1223 1.006 4.75e-06 0.00289
## 1224 1.005 9.65e-05 0.00343
## 1225 1.003 1.91e-04 0.00322
## 1226 1.006 6.44e-06 0.00297
## 1227 1.004 1.10e-04 0.00305
## 1228 1.005 6.20e-05 0.00316
## 1229 0.998 3.81e-04 0.00282
## 1230 1.005 6.06e-06 0.00262
## 1231 1.006 2.40e-05 0.00363
## 1232 1.006 6.80e-05 0.00370
## 1233 1.002 6.48e-05 0.00157
## 1234 1.004 6.11e-06 0.00141
## 1235 1.004 5.38e-05 0.00213
## 1236 1.003 1.82e-04 0.00332
## 1237 1.004 2.05e-05 0.00189
## 1238 1.004 1.25e-04 0.00336
## 1239 1.005 8.21e-05 0.00341
## 1240 0.996 2.53e-04 0.00170
## 1241 0.990 5.91e-04 0.00220    *
## 1242 0.997 3.37e-04 0.00245
## 1243 1.003 1.31e-04 0.00275
## 1244 1.004 1.52e-04 0.00347
## 1245 1.002 2.32e-04 0.00319
## 1246 0.996 2.63e-04 0.00180
## 1247 1.005 2.92e-05 0.00300
## 1248 1.001 1.72e-04 0.00226
## 1249 1.004 2.04e-05 0.00180
## 1250 1.002 9.33e-05 0.00182
## 1251 1.007 4.17e-05 0.00457
## 1252 0.999 4.35e-04 0.00326
## 1253 1.005 4.99e-06 0.00242
## 1254 1.006 1.35e-04 0.00439
## 1255 1.005 2.71e-07 0.00192
## 1256 0.998 5.30e-04 0.00350
## 1257 1.002 1.15e-04 0.00216
## 1258 1.002 2.93e-04 0.00351
## 1259 1.003 1.07e-04 0.00249
## 1260 0.997 6.14e-04 0.00359
## 1261 1.007 1.05e-05 0.00400
## 1262 1.007 9.07e-05 0.00527
## 1263 0.998 4.30e-04 0.00296
## 1264 1.006 3.38e-08 0.00332
## 1265 0.993 4.69e-04 0.00221
## 1266 1.005 7.26e-13 0.00252
## 1267 1.005 2.67e-06 0.00211
## 1268 1.007 7.94e-06 0.00385
## 1269 1.004 1.76e-05 0.00209
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## 1270 1.004 1.25e-04 0.00334
## 1271 1.006 3.71e-05 0.00389
## 1272 1.006 1.79e-05 0.00329
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## 1274 1.006 4.39e-06 0.00300
## 1275 1.006 2.61e-05 0.00343
## 1276 1.005 1.16e-05 0.00232
## 1277 1.006 2.28e-06 0.00300
## 1278 1.005 4.36e-06 0.00191
## 1279 1.000 2.30e-04 0.00254
## 1280 1.006 2.03e-05 0.00337
## 1281 1.005 4.55e-06 0.00223
## 1282 1.004 7.54e-05 0.00267
## 1283 1.004 1.46e-04 0.00335
## 1284 1.002 1.95e-04 0.00280
## 1285 1.006 4.46e-06 0.00280
## 1286 1.006 1.16e-05 0.00298
## 1287 1.006 4.91e-07 0.00358
## 1288 1.000 2.96e-04 0.00278
## 1289 1.006 5.50e-07 0.00296
## 1290 1.005 6.28e-06 0.00266
## 1291 0.995 2.67e-04 0.00167
## 1292 1.006 2.19e-06 0.00308
## 1293 1.000 3.42e-04 0.00338
## 1294 0.998 2.25e-04 0.00183
## 1295 1.006 8.07e-05 0.00405
## 1296 0.997 3.22e-04 0.00221
## 1297 1.005 5.55e-06 0.00257
## 1298 1.005 2.38e-05 0.00272
## 1299 1.006 3.76e-06 0.00306
## 1300 1.005 1.37e-05 0.00252
## 1301 1.004 1.16e-04 0.00291
## 1302 1.004 1.12e-04 0.00329
## 1303 0.986 9.71e-04 0.00281    *
## 1304 1.006 1.20e-05 0.00313
## 1305 1.003 8.15e-05 0.00235
## 1306 1.002 9.69e-05 0.00183
## 1307 1.001 1.24e-04 0.00198
## 1308 1.006 6.81e-05 0.00378
## 1309 1.006 9.86e-06 0.00320
## 1310 0.997 3.64e-04 0.00245
## 1311 0.995 5.67e-04 0.00302
## 1312 1.005 2.45e-06 0.00257
## 1313 1.004 3.35e-05 0.00189
## 1314 1.004 5.09e-05 0.00240
## 1315 1.003 1.51e-04 0.00305
## 1316 0.993 5.81e-04 0.00265
## 1317 1.005 8.87e-05 0.00376
## 1318 1.005 1.14e-05 0.00282
## 1319 1.005 4.25e-05 0.00302
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## 1320 1.006 1.08e-07 0.00315
## 1321 0.991 5.20e-04 0.00212     *
## 1322 1.002 8.54e-05 0.00190
## 1323 1.007 1.99e-05 0.00407
## 1324 0.995 4.04e-04 0.00235
## 1325 1.005 4.15e-05 0.00318
## 1326 1.006 1.33e-05 0.00295
## 1327 1.005 2.20e-05 0.00272
## 1328 1.002 2.14e-04 0.00301
## 1329 1.006 4.65e-06 0.00285
## 1330 1.007 2.12e-05 0.00397
## 1331 1.001 3.35e-04 0.00364
## 1332 0.997 2.22e-04 0.00176
## 1333 1.002 2.10e-04 0.00303
## 1334 1.005 1.15e-08 0.00205
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## 1336 0.995 5.29e-04 0.00278
## 1337 0.999 3.75e-04 0.00307
## 1338 1.005 7.41e-06 0.00252
## 1339 1.006 6.41e-07 0.00327
## 1340 1.005 1.25e-05 0.00219
## 1341 1.003 8.50e-05 0.00225
## 1342 1.002 1.70e-04 0.00280
## 1343 1.005 9.77e-06 0.00242
## 1344 1.002 1.32e-04 0.00230
## 1345 1.005 1.52e-04 0.00414
## 1346 1.007 6.00e-06 0.00376
## 1347 1.004 2.59e-05 0.00212
## 1348 1.006 8.31e-06 0.00344
## 1349 1.006 5.70e-08 0.00293
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## 1351 1.004 2.86e-05 0.00180
## 1352 0.997 2.00e-04 0.00152
## 1353 1.003 1.11e-04 0.00269
## 1354 0.999 1.56e-04 0.00173
## 1355 1.003 5.16e-05 0.00182
## 1356 1.004 5.10e-05 0.00217
## 1357 1.001 1.68e-04 0.00241
## 1358 1.001 7.92e-05 0.00129
## 1359 1.005 1.50e-05 0.00218
## 1360 1.005 5.72e-06 0.00222
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## 1362 1.003 9.54e-05 0.00240
## 1363 1.003 1.32e-04 0.00297
## 1364 1.006 5.27e-06 0.00336
## 1365 1.005 6.36e-05 0.00289
## 1366 1.005 4.04e-06 0.00251
## 1367 1.004 7.86e-05 0.00247
## 1368 1.001 2.61e-04 0.00288
## 1369 1.005 2.27e-05 0.00233
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## 1370 1.006 5.57e-08 0.00288
## 1371 1.005 2.65e-08 0.00221
## 1372 1.000 3.34e-04 0.00315
## 1373 1.005 3.26e-05 0.00256
## 1374 1.006 4.41e-05 0.00386
## 1375 1.007 7.27e-06 0.00419
## 1376 1.006 1.94e-05 0.00322
## 1377 0.998 1.87e-04 0.00173
## 1378 1.005 2.24e-06 0.00213
## 1379 0.999 2.92e-04 0.00270
## 1380 0.999 1.75e-04 0.00185
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## 1385 1.001 2.30e-04 0.00285
## 1386 1.006 3.02e-05 0.00334
## 1387 1.001 2.09e-04 0.00266
## 1388 1.004 3.16e-07 0.00130
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## 1391 0.996 5.15e-04 0.00292
## 1392 0.995 4.22e-04 0.00239
## 1393 0.998 3.27e-04 0.00247
## 1394 1.002 1.69e-04 0.00284
## 1395 1.004 4.71e-06 0.00163
## 1396 1.005 2.08e-05 0.00226
## 1397 1.005 1.09e-04 0.00362
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## 1400 1.005 1.10e-06 0.00243
## 1401 1.002 9.96e-05 0.00191
## 1402 1.006 3.15e-07 0.00328
## 1403 1.007 1.32e-04 0.00588
## 1404 1.005 2.74e-05 0.00289
## 1405 1.002 1.90e-04 0.00306
## 1406 1.005 3.29e-05 0.00256
## 1407 1.000 3.09e-04 0.00301
## 1408 1.002 1.85e-04 0.00270
## 1409 1.006 4.40e-06 0.00297
## 1410 1.003 1.66e-04 0.00331
## 1411 1.006 2.57e-05 0.00337
## 1412 1.006 1.96e-05 0.00353
## 1413 1.003 1.29e-04 0.00287
## 1414 1.006 6.50e-05 0.00388
## 1415 1.006 1.40e-06 0.00290
## 1416 1.003 1.18e-04 0.00270
## 1417 1.004 7.65e-05 0.00246
## 1418 1.005 3.46e-08 0.00212
## 1419 1.003 8.81e-05 0.00241
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## 1420 1.005 1.72e-09 0.00246
## 1421 1.003 1.88e-04 0.00336
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## 1425 1.005 7.22e-08 0.00215
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## 1428 1.005 5.05e-06 0.00230
## 1429 1.005 1.22e-04 0.00410
## 1430 1.003 1.25e-04 0.00288
## 1431 1.005 7.46e-05 0.00312
## 1432 1.004 7.99e-05 0.00276
## 1433 1.003 7.92e-05 0.00246
## 1434 1.005 4.22e-05 0.00303
## 1435 1.003 1.40e-04 0.00274
## 1436 1.005 5.80e-06 0.00199
## 1437 1.003 1.15e-04 0.00251
## 1438 1.005 3.99e-05 0.00311
## 1439 1.004 1.43e-04 0.00337
## 1440 1.006 4.19e-05 0.00359
## 1441 0.999 3.08e-04 0.00259
## 1442 1.002 1.87e-04 0.00278
## 1443 1.002 3.19e-04 0.00367
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## 1446 1.004 3.12e-05 0.00231
## 1447 1.005 1.42e-04 0.00380
## 1448 1.006 1.74e-04 0.00496
## 1449 1.000 1.80e-04 0.00213
## 1450 1.005 1.64e-05 0.00224
## 1451 1.005 8.25e-05 0.00377
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## 1453 1.002 1.19e-04 0.00218
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## 1455 1.005 4.61e-05 0.00322
## 1456 1.003 1.57e-04 0.00290
## 1457 1.004 2.35e-04 0.00400
## 1458 1.005 2.05e-06 0.00175
## 1459 1.000 1.20e-04 0.00158
## 1460 1.005 7.87e-05 0.00312
## 1461 1.001 2.49e-04 0.00288
## 1462 1.004 6.13e-05 0.00234
## 1463 1.003 1.39e-04 0.00312
## 1464 1.005 3.07e-05 0.00309
## 1465 0.999 4.03e-04 0.00320
## 1466 1.004 1.70e-05 0.00166
## 1467 1.002 2.16e-04 0.00293
## 1468 1.001 1.36e-04 0.00197
## 1469 1.001 1.01e-04 0.00180
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## 1470 1.003 1.39e-04 0.00303
## 1471 1.006 2.69e-05 0.00387
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## 1476 1.006 3.62e-05 0.00379
## 1477 1.006 3.67e-06 0.00291
## 1478 0.996 4.46e-04 0.00261
## 1479 1.006 3.74e-08 0.00290
## 1480 1.006 3.89e-05 0.00401
## 1481 1.003 6.82e-05 0.00206
## 1482 0.996 4.22e-04 0.00256
## 1483 1.003 7.70e-05 0.00202
## 1484 1.003 7.08e-05 0.00205
## 1485 1.006 1.04e-05 0.00286
## 1486 1.006 2.95e-05 0.00391
## 1487 1.004 2.36e-05 0.00182
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## 1489 1.002 2.45e-04 0.00321
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## 1493 1.005 4.41e-05 0.00329
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## 1495 1.004 1.22e-04 0.00335
## 1496 1.004 1.59e-04 0.00363
## 1497 1.005 4.24e-06 0.00224
## 1498 1.005 2.31e-05 0.00280
## 1499 1.001 1.96e-04 0.00259
## 1500 0.999 1.34e-04 0.00142
## 1501 1.003 6.42e-05 0.00205
## 1502 1.007 9.06e-06 0.00410
## 1503 1.005 1.88e-06 0.00189
## 1504 1.002 3.50e-04 0.00407
## 1505 1.000 1.72e-04 0.00204
## 1506 1.005 2.50e-05 0.00260
## 1507 1.005 5.05e-06 0.00271
## 1508 0.998 3.06e-04 0.00230
## 1509 1.002 3.27e-04 0.00373
## 1510 1.005 9.81e-06 0.00277
## 1511 1.005 4.16e-05 0.00307
## 1512 0.998 3.30e-04 0.00256
## 1513 1.004 9.07e-05 0.00273
## 1514 1.004 1.98e-05 0.00188
## 1515 1.000 5.16e-04 0.00408
## 1516 1.004 5.35e-05 0.00265
## 1517 1.006 9.38e-07 0.00281
## 1518 0.994 8.15e-04 0.00372
## 1519 1.003 6.50e-05 0.00180
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## 1520 1.005 5.18e-05 0.00289
## 1521 1.004 1.85e-05 0.00203
## 1522 0.998 4.47e-04 0.00313
## 1523 1.005 1.57e-05 0.00268
## 1524 1.002 1.24e-04 0.00233
## 1525 1.005 4.93e-06 0.00244
## 1526 1.002 3.71e-04 0.00427
## 1527 1.005 2.90e-05 0.00256
## 1528 1.004 1.12e-05 0.00172
## 1529 1.000 2.20e-04 0.00226
## 1530 1.005 1.13e-05 0.00231
## 1531 1.006 1.43e-04 0.00462
## 1532 1.005 3.35e-05 0.00280
## 1533 1.006 6.29e-07 0.00327
## 1534 1.004 1.30e-04 0.00314
## 1535 1.004 5.89e-05 0.00236
## 1536 1.006 4.71e-05 0.00365
## 1537 1.006 1.35e-05 0.00305
## 1538 1.005 9.61e-07 0.00199
## 1539 1.001 1.67e-04 0.00214
## 1540 1.004 8.77e-05 0.00311
## 1541 1.005 4.26e-05 0.00282
## 1542 1.005 4.36e-06 0.00239
## 1543 0.995 4.28e-04 0.00229
## 1544 1.003 1.77e-04 0.00343
## 1545 0.998 2.13e-04 0.00175
## 1546 0.997 5.01e-04 0.00305
## 1547 1.005 9.47e-06 0.00250
## 1548 1.006 3.76e-05 0.00412
## 1549 1.005 1.14e-04 0.00375
## 1550 1.004 9.99e-06 0.00168
## 1551 0.993 6.24e-04 0.00280
## 1552 1.003 2.87e-04 0.00388
## 1553 1.004 8.84e-05 0.00297
## 1554 1.002 1.68e-04 0.00281
## 1555 1.004 2.35e-05 0.00176
## 1556 1.007 1.53e-05 0.00466
## 1557 1.002 6.51e-05 0.00154
## 1558 1.006 8.21e-05 0.00397
## 1559 0.998 2.59e-04 0.00221
## 1560 1.004 4.49e-05 0.00231
## 1561 1.005 8.34e-05 0.00328
## 1562 1.006 9.97e-07 0.00351
## 1563 1.002 2.27e-04 0.00322
## 1564 0.998 6.78e-04 0.00413
## 1565 1.003 6.28e-05 0.00216
## 1566 1.005 2.89e-08 0.00233
## 1567 1.005 2.30e-05 0.00232
## 1568 0.998 3.45e-04 0.00267
## 1569 1.005 5.45e-05 0.00319
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## 1570 1.005 5.15e-06 0.00184
## 1571 0.993 9.65e-04 0.00405
## 1572 1.007 9.36e-08 0.00426
## 1573 0.999 4.53e-04 0.00357
## 1574 0.998 3.77e-04 0.00277
## 1575 1.003 1.19e-04 0.00268
## 1576 1.005 2.06e-04 0.00482
## 1577 1.004 1.15e-04 0.00349
## 1578 1.006 5.39e-06 0.00352
## 1579 1.002 1.56e-04 0.00268
## 1580 1.007 5.59e-05 0.00476
## 1581 1.006 1.83e-05 0.00310
## 1582 1.006 1.13e-06 0.00288
## 1583 1.005 1.26e-07 0.00211
## 1584 1.003 1.38e-04 0.00289
## 1585 1.003 2.89e-04 0.00394
## 1586 1.005 6.58e-06 0.00210
## 1587 1.004 1.10e-05 0.00164
## 1588 0.998 3.88e-04 0.00277
## 1589 1.005 1.75e-05 0.00215
## 1590 1.006 3.46e-06 0.00302
## 1591 1.002 1.29e-04 0.00250
## 1592 0.998 2.44e-04 0.00192
## 1593 1.006 5.46e-05 0.00362
## 1594 1.005 1.01e-07 0.00253
## 1595 1.006 8.03e-06 0.00289
## 1596 1.005 7.38e-05 0.00328
## 1597 1.003 1.12e-04 0.00256
## 1598 1.000 1.50e-04 0.00188
## 1599 0.998 4.75e-04 0.00345
## 1600 1.006 1.80e-05 0.00327
## 1601 1.006 1.05e-06 0.00276
## 1602 1.007 8.88e-07 0.00428
## 1603 1.003 3.50e-04 0.00450
## 1604 1.004 1.44e-05 0.00162
## 1605 1.004 5.27e-05 0.00235
## 1606 1.005 1.57e-05 0.00250
## 1607 1.005 6.96e-06 0.00210
## 1608 0.991 9.29e-04 0.00339    *
## 1609 1.005 6.93e-06 0.00199
## 1610 1.007 4.89e-07 0.00433
## 1611 1.005 2.45e-06 0.00240
## 1612 1.005 1.82e-07 0.00235
## 1613 1.005 5.40e-05 0.00313
## 1614 1.002 1.52e-04 0.00259
## 1615 1.005 8.74e-06 0.00271
## 1616 1.006 1.33e-04 0.00458
## 1617 1.000 1.70e-04 0.00206
## 1618 1.006 2.79e-07 0.00346
## 1619 1.004 8.66e-05 0.00304
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## 1620 0.996 3.59e-04 0.00225
## 1621 1.002 2.21e-04 0.00298
## 1622 1.005 3.94e-05 0.00317
## 1623 0.999 2.03e-04 0.00201
## 1624 0.999 3.05e-04 0.00266
## 1625 1.006 1.75e-05 0.00360
## 1626 1.000 2.14e-04 0.00227
## 1627 1.002 2.89e-04 0.00385
## 1628 0.997 2.55e-04 0.00180
## 1629 1.002 7.36e-05 0.00175
## 1630 1.007 2.64e-07 0.00375
## 1631 1.002 2.28e-04 0.00305
## 1632 1.005 1.77e-06 0.00225
## 1633 1.007 6.48e-06 0.00437
## 1634 1.006 1.42e-05 0.00331
## 1635 0.998 3.30e-04 0.00247
## 1636 1.004 9.33e-06 0.00187
## 1637 1.005 1.10e-05 0.00226
## 1638 1.005 1.13e-05 0.00223
## 1639 1.004 1.59e-04 0.00337
## 1640 1.000 2.96e-04 0.00294
## 1641 1.001 2.22e-04 0.00267
## 1642 1.006 3.90e-06 0.00310
## 1643 1.002 1.95e-04 0.00275
## 1644 1.005 1.19e-04 0.00401
## 1645 1.005 5.17e-05 0.00274
## 1646 1.004 9.88e-05 0.00273
## 1647 1.003 8.10e-05 0.00247
## 1648 1.005 1.08e-04 0.00403
## 1649 1.005 1.69e-06 0.00254
## 1650 1.005 1.08e-05 0.00223
## 1651 0.996 3.80e-04 0.00236
## 1652 1.005 4.77e-05 0.00338
## 1653 1.004 3.16e-05 0.00235
## 1654 0.996 5.87e-04 0.00323
## 1655 1.006 7.40e-06 0.00351
## 1656 1.006 1.34e-05 0.00299
## 1657 1.003 1.24e-04 0.00291
## 1658 1.000 8.15e-05 0.00127
## 1659 0.999 2.65e-04 0.00239
## 1660 0.999 3.54e-04 0.00294
## 1661 0.996 2.08e-04 0.00149
## 1662 1.005 7.48e-06 0.00253
## 1663 1.004 3.41e-05 0.00232
## 1664 1.003 8.94e-05 0.00259
## 1665 0.997 2.01e-04 0.00152
## 1666 1.001 5.01e-04 0.00433
## 1667 1.006 5.52e-06 0.00314
## 1668 1.004 3.35e-05 0.00238
## 1669 0.996 4.89e-04 0.00296
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## 1670 1.005 5.73e-06 0.00252
## 1671 0.999 1.93e-04 0.00203
## 1672 0.998 2.89e-04 0.00236
## 1673 1.006 2.10e-05 0.00347
## 1674 1.006 1.59e-05 0.00319
## 1675 1.003 2.24e-04 0.00368
## 1676 1.006 4.31e-06 0.00274
## 1677 1.006 3.33e-06 0.00274
## 1678 1.006 2.42e-07 0.00298
## 1679 1.005 2.82e-08 0.00189
## 1680 1.005 8.26e-05 0.00350
## 1681 1.000 2.12e-04 0.00230
## 1682 0.994 6.27e-04 0.00310
## 1683 1.005 2.10e-05 0.00224
## 1684 1.005 1.15e-08 0.00180
## 1685 1.005 2.35e-04 0.00486
## 1686 1.006 4.01e-05 0.00382
## 1687 1.005 5.81e-06 0.00189
## 1688 1.005 6.98e-05 0.00308
## 1689 1.005 3.00e-06 0.00267
## 1690 1.001 3.00e-04 0.00330
## 1691 1.006 1.16e-05 0.00316
## 1692 1.003 6.50e-05 0.00208
## 1693 1.005 2.90e-05 0.00257
## 1694 1.007 2.11e-06 0.00370
## 1695 1.005 5.30e-06 0.00186
## 1696 1.005 1.10e-06 0.00197
## 1697 0.993 4.67e-04 0.00212
## 1698 1.002 2.33e-04 0.00331
## 1699 1.004 1.28e-04 0.00332
## 1700 1.005 8.43e-05 0.00349
## 1701 1.006 8.48e-05 0.00422
## 1702 1.006 4.63e-06 0.00320
## 1703 0.999 3.45e-04 0.00293
## 1704 0.999 3.29e-04 0.00289
## 1705 1.006 1.10e-04 0.00487
## 1706 1.000 3.40e-04 0.00308
## 1707 1.006 2.34e-08 0.00300
## 1708 1.004 6.88e-05 0.00255
## 1709 1.007 9.77e-06 0.00385
## 1710 1.006 8.90e-07 0.00330
## 1711 1.005 1.12e-06 0.00179
## 1712 1.002 1.46e-04 0.00238
## 1713 1.006 1.07e-05 0.00287
## 1714 1.005 4.77e-06 0.00186
## 1715 0.999 5.80e-04 0.00400
## 1716 0.998 5.54e-04 0.00361
## 1717 1.000 1.95e-04 0.00211
## 1718 1.005 7.79e-05 0.00330
## 1719 1.006 5.65e-06 0.00282
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## 1720 0.996 5.58e-04 0.00311
## 1721 0.995 3.78e-04 0.00210
## 1722 1.004 7.79e-05 0.00263
## 1723 1.004 9.64e-05 0.00321
## 1724 1.006 6.11e-08 0.00289
## 1725 1.006 5.44e-06 0.00309
## 1726 1.001 2.23e-04 0.00268
## 1727 1.002 8.46e-05 0.00191
## 1728 1.005 9.55e-05 0.00358
## 1729 1.004 2.18e-05 0.00182
## 1730 1.001 2.42e-04 0.00296
## 1731 1.005 4.92e-06 0.00255
## 1732 0.992 4.22e-04 0.00182
## 1733 1.002 1.25e-04 0.00241
## 1734 1.006 1.27e-05 0.00321
## 1735 1.001 7.52e-05 0.00129
## 1736 1.006 9.10e-06 0.00281
## 1737 1.003 2.14e-04 0.00369
## 1738 1.003 1.50e-04 0.00310
## 1739 1.005 1.60e-06 0.00262
## 1740 1.004 9.08e-05 0.00288
## 1741 1.005 6.21e-07 0.00209
## 1742 1.005 4.28e-07 0.00245
## 1743 1.004 1.24e-04 0.00312
## 1744 1.005 1.71e-06 0.00199
## 1745 1.003 1.38e-04 0.00293
## 1746 1.006 4.93e-05 0.00372
## 1747 1.002 1.73e-04 0.00273
## 1748 1.005 1.33e-05 0.00252
## 1749 1.007 5.71e-07 0.00375
## 1750 1.006 2.31e-06 0.00335
## 1751 1.004 6.29e-05 0.00235
## 1752 1.006 3.71e-05 0.00403
## 1753 1.007 1.02e-05 0.00379
## 1754 1.005 9.21e-06 0.00276
## 1755 1.004 1.02e-05 0.00161
## 1756 1.006 1.32e-05 0.00319
## 1757 1.005 4.50e-07 0.00245
## 1758 1.002 1.84e-04 0.00272
## 1759 1.001 9.51e-05 0.00166
## 1760 1.006 8.56e-06 0.00338
## 1761 1.004 3.78e-05 0.00212
## 1762 1.004 7.63e-06 0.00174
## 1763 1.005 3.24e-07 0.00222
## 1764 1.007 5.34e-06 0.00382
## 1765 1.006 5.38e-05 0.00361
## 1766 1.000 2.84e-04 0.00281
## 1767 1.003 7.95e-05 0.00228
## 1768 1.002 1.31e-04 0.00219
## 1769 1.006 4.83e-06 0.00284
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## 1770 1.003 9.63e-05 0.00262
## 1771 1.006 2.64e-05 0.00364
## 1772 1.007 1.43e-06 0.00382
## 1773 1.004 7.24e-05 0.00263
## 1774 1.005 6.85e-06 0.00245
## 1775 0.999 4.32e-04 0.00354
## 1776 0.987 7.35e-04 0.00234    *
## 1777 1.003 8.79e-05 0.00230
## 1778 1.003 2.17e-04 0.00383
## 1779 1.001 1.30e-04 0.00212
## 1780 0.991 3.95e-04 0.00170    *
## 1781 1.005 6.27e-06 0.00189
## 1782 0.996 5.67e-04 0.00309
## 1783 1.002 1.70e-04 0.00288
## 1784 1.005 2.63e-07 0.00262
## 1785 1.006 6.01e-05 0.00423
## 1786 1.001 2.19e-04 0.00261
## 1787 1.006 1.04e-05 0.00332
## 1788 1.006 4.16e-05 0.00372
## 1789 1.005 8.04e-06 0.00268
## 1790 1.005 1.67e-05 0.00255
## 1791 1.002 2.32e-04 0.00325
## 1792 1.003 1.82e-04 0.00339
## 1793 1.005 7.83e-08 0.00167
## 1794 1.005 5.55e-06 0.00202
## 1795 1.003 1.24e-04 0.00285
## 1796 1.002 1.17e-04 0.00234
## 1797 1.000 1.41e-04 0.00165
## 1798 1.008 6.22e-05 0.00576
## 1799 1.007 2.24e-05 0.00453
## 1800 1.005 5.74e-06 0.00219
## 1801 1.005 2.26e-05 0.00290
## 1802 1.005 3.44e-07 0.00197
## 1803 1.001 1.67e-04 0.00237
## 1804 1.000 1.50e-04 0.00180
## 1805 1.002 1.51e-04 0.00242
## 1806 1.006 8.66e-08 0.00304
## 1807 0.999 3.32e-04 0.00279
## 1808 1.000 3.43e-04 0.00312
## 1809 1.002 2.17e-04 0.00292
## 1810 1.005 2.15e-06 0.00243
## 1811 1.005 9.36e-06 0.00282
## 1812 1.004 2.20e-05 0.00182
## 1813 1.006 3.97e-05 0.00403
## 1814 1.005 6.82e-05 0.00344
## 1815 1.007 3.16e-08 0.00403
## 1816 1.003 1.04e-04 0.00247
## 1817 1.001 2.29e-04 0.00294
## 1818 1.001 2.42e-04 0.00284
## 1819 0.999 1.86e-04 0.00181
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## 1820 1.005 1.62e-05 0.00275
## 1821 1.003 7.69e-05 0.00242
## 1822 1.005 1.01e-04 0.00334
## 1823 1.006 1.22e-04 0.00448
## 1824 1.004 4.36e-06 0.00176
## 1825 0.997 1.92e-04 0.00143
## 1826 1.005 2.86e-09 0.00213
## 1827 1.006 1.22e-04 0.00436
## 1828 1.000 6.44e-04 0.00465
## 1829 1.003 5.47e-05 0.00197
## 1830 0.998 3.38e-04 0.00265
## 1831 1.002 1.35e-04 0.00232
## 1832 1.001 2.03e-04 0.00247
## 1833 0.992 6.49e-04 0.00264
## 1834 1.003 1.80e-04 0.00308
## 1835 1.006 5.41e-05 0.00397
## 1836 0.986 9.85e-04 0.00284    *
## 1837 1.005 1.71e-06 0.00249
## 1838 1.005 6.04e-05 0.00342
## 1839 1.005 1.28e-05 0.00249
## 1840 1.006 2.58e-06 0.00344
## 1841 1.007 2.20e-05 0.00446
## 1842 1.004 4.10e-06 0.00127
## 1843 1.004 3.73e-06 0.00170
## 1844 1.004 1.14e-06 0.00149
## 1845 0.996 2.21e-04 0.00158
## 1846 1.006 5.59e-05 0.00371
## 1847 1.002 3.46e-04 0.00384
## 1848 0.996 2.82e-04 0.00189
## 1849 0.996 2.56e-04 0.00174
## 1850 1.003 3.97e-04 0.00460
## 1851 1.005 9.68e-08 0.00219
## 1852 0.994 7.25e-04 0.00330
## 1853 1.005 2.83e-05 0.00293
## 1854 0.999 2.76e-04 0.00242
## 1855 0.997 4.86e-04 0.00306
## 1856 1.006 1.28e-05 0.00305
## 1857 0.997 2.60e-04 0.00184
## 1858 1.007 1.24e-04 0.00532
## 1859 1.005 3.83e-05 0.00287
## 1860 1.005 1.43e-04 0.00425
## 1861 1.002 1.66e-04 0.00252
## 1862 1.006 1.95e-05 0.00322
## 1863 1.002 1.90e-04 0.00285
## 1864 1.002 1.18e-04 0.00234
## 1865 1.005 6.87e-06 0.00255
## 1866 1.001 1.05e-04 0.00176
## 1867 1.004 1.01e-04 0.00319
## 1868 1.005 1.39e-06 0.00182
## 1869 1.006 1.28e-05 0.00340
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## 1870 1.006 5.32e-06 0.00329
## 1871 1.005 3.20e-08 0.00221
## 1872 1.002 1.30e-04 0.00214
## 1873 1.005 2.03e-05 0.00231
## 1874 1.004 3.91e-05 0.00218
## 1875 1.001 7.52e-05 0.00130
## 1876 1.003 6.14e-05 0.00213
## 1877 1.005 1.38e-04 0.00423
## 1878 1.005 7.70e-05 0.00342
## 1879 0.999 5.45e-04 0.00407
## 1880 1.005 1.05e-05 0.00273
## 1881 1.006 3.98e-05 0.00352
## 1882 1.006 2.39e-05 0.00309
## 1883 1.000 1.43e-04 0.00167
## 1884 1.005 3.42e-05 0.00316
## 1885 1.003 1.61e-04 0.00298
## 1886 0.993 5.22e-04 0.00244
## 1887 0.999 3.44e-04 0.00281
## 1888 1.001 4.86e-04 0.00424
## 1889 1.005 1.65e-04 0.00410
## 1890 1.004 1.91e-04 0.00391
## 1891 1.006 8.17e-06 0.00354
## 1892 1.006 7.44e-06 0.00333
## 1893 0.996 6.07e-04 0.00344
## 1894 1.003 1.39e-04 0.00281
## 1895 1.000 2.71e-04 0.00279
## 1896 1.006 5.80e-06 0.00296
## 1897 1.004 6.25e-06 0.00135
## 1898 1.004 9.29e-06 0.00188
## 1899 0.995 3.54e-04 0.00197
## 1900 0.996 6.13e-04 0.00335
## 1901 1.005 1.66e-05 0.00222
## 1902 1.006 2.15e-05 0.00345
## 1903 1.004 1.48e-04 0.00353
## 1904 1.005 8.64e-06 0.00263
## 1905 1.004 8.53e-06 0.00186
## 1906 1.003 1.91e-04 0.00357
## 1907 1.006 8.24e-06 0.00320
## 1908 1.005 1.20e-06 0.00206
## 1909 1.005 5.64e-05 0.00295
## 1910 1.003 1.91e-04 0.00333
## 1911 1.004 4.72e-05 0.00226
## 1912 0.997 4.01e-04 0.00268
## 1913 1.006 9.93e-06 0.00298
## 1914 1.005 1.46e-05 0.00231
## 1915 0.997 3.45e-04 0.00237
## 1916 1.005 2.62e-05 0.00274
## 1917 1.005 8.57e-07 0.00241
## 1918 1.004 1.27e-04 0.00317
## 1919 1.005 9.97e-07 0.00187
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## 1920 1.001 4.05e-04 0.00380
## 1921 1.006 2.12e-06 0.00351
## 1922 0.998 2.91e-04 0.00239
## 1923 0.997 4.37e-04 0.00294
## 1924 0.990 6.21e-04 0.00235    *
## 1925 0.997 3.71e-04 0.00256
## 1926 1.004 3.64e-05 0.00193
## 1927 1.003 5.21e-05 0.00203
## 1928 1.004 2.32e-05 0.00177
## 1929 1.004 1.17e-05 0.00160
## 1930 1.001 2.27e-04 0.00265
## 1931 1.005 1.52e-06 0.00229
## 1932 1.006 4.49e-07 0.00280
## 1933 1.005 2.18e-06 0.00239
## 1934 1.004 2.53e-05 0.00176
## 1935 1.004 4.62e-05 0.00257
## 1936 1.005 8.57e-06 0.00279
## 1937 1.002 1.44e-04 0.00251
## 1938 1.004 8.32e-07 0.00164
## 1939 1.001 1.61e-04 0.00225
## 1940 0.998 5.28e-04 0.00353
## 1941 1.005 1.48e-05 0.00260
## 1942 1.004 1.22e-04 0.00315
## 1943 1.006 8.03e-06 0.00339
## 1944 1.002 1.24e-04 0.00227
## 1945 1.006 5.92e-07 0.00358
## 1946 0.996 6.12e-04 0.00335
## 1947 1.004 8.25e-05 0.00284
## 1948 1.002 3.29e-04 0.00376
## 1949 1.002 1.87e-04 0.00267
## 1950 1.002 6.43e-05 0.00156
## 1951 1.002 1.70e-04 0.00267
## 1952 1.007 4.26e-06 0.00373
## 1953 1.006 2.42e-05 0.00319
## 1954 1.001 2.16e-04 0.00271
## 1955 1.005 1.08e-04 0.00405
## 1956 1.005 1.08e-04 0.00361
## 1957 1.005 1.99e-05 0.00279
## 1958 1.002 2.04e-04 0.00285
## 1959 1.000 1.87e-04 0.00213
## 1960 1.007 2.91e-08 0.00367
## 1961 0.993 5.28e-04 0.00250
## 1962 1.004 1.26e-04 0.00330
## 1963 0.983 1.18e-03 0.00295    *
## 1964 1.004 9.23e-05 0.00277
## 1965 1.007 1.06e-05 0.00412
## 1966 1.002 1.15e-04 0.00238
## 1967 1.004 9.53e-06 0.00163
## 1968 1.000 2.63e-04 0.00275
## 1969 1.005 1.28e-05 0.00281
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## 1970 1.002 1.07e-04 0.00190
## 1971 1.005 1.67e-06 0.00192
## 1972 1.005 3.38e-05 0.00262
## 1973 0.999 2.80e-04 0.00256
## 1974 1.007 2.26e-06 0.00389
## 1975 1.005 1.75e-08 0.00218
## 1976 0.998 4.24e-04 0.00303
## 1977 0.996 5.13e-04 0.00287
## 1978 1.005 1.30e-05 0.00211
## 1979 1.005 7.09e-05 0.00366
## 1980 1.003 2.00e-04 0.00327
## 1981 0.997 5.95e-04 0.00359
## 1982 1.006 5.64e-06 0.00361
## 1983 1.000 3.71e-04 0.00329
## 1984 0.995 4.64e-04 0.00251
## 1985 1.007 3.07e-05 0.00440
## 1986 1.003 8.73e-05 0.00231
## 1987 1.005 2.79e-05 0.00299
## 1988 0.999 2.27e-04 0.00223
## 1989 0.997 2.96e-04 0.00223
## 1990 1.004 3.49e-06 0.00125
## 1991 1.002 8.38e-05 0.00192
## 1992 1.006 3.56e-05 0.00347
## 1993 1.005 1.98e-05 0.00278
## 1994 1.002 3.55e-04 0.00397
## 1995 1.000 1.11e-04 0.00143
## 1996 1.000 3.22e-04 0.00303
## 1997 1.004 2.03e-05 0.00169
## 1998 1.007 1.04e-06 0.00425
## 1999 0.995 6.68e-04 0.00338
## 2000 1.002 1.66e-04 0.00250
## 2001 0.997 5.01e-04 0.00306
## 2002 0.997 3.04e-04 0.00218
## 2003 1.002 8.29e-05 0.00189
## 2004 1.004 2.69e-04 0.00429
## 2005 1.005 2.24e-05 0.00265
## 2006 1.002 1.00e-04 0.00201
## 2007 1.006 6.56e-06 0.00371
## 2008 0.997 5.06e-04 0.00312
## 2009 1.005 6.86e-07 0.00174
## 2010 1.006 4.87e-05 0.00379
## 2011 1.004 8.10e-05 0.00287
## 2012 1.002 1.20e-04 0.00238
## 2013 1.005 1.33e-07 0.00221
## 2014 0.998 2.18e-04 0.00180
## 2015 0.992 6.65e-04 0.00278
## 2016 1.006 2.16e-05 0.00362
## 2017 1.006 1.55e-06 0.00316
## 2018 0.999 2.59e-04 0.00235
## 2019 1.004 1.08e-04 0.00292
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## 2020 1.000 2.94e-04 0.00282
## 2021 1.005 4.05e-07 0.00259
## 2022 1.007 3.33e-05 0.00425
## 2023 1.004 5.26e-06 0.00170
## 2024 1.005 3.42e-06 0.00218
## 2025 0.991 9.95e-04 0.00359    *
## 2026 1.005 1.31e-04 0.00416
## 2027 1.004 1.64e-04 0.00351
## 2028 1.002 1.77e-04 0.00259
## 2029 0.993 4.14e-04 0.00204
## 2030 1.006 2.64e-06 0.00301
## 2031 1.007 3.24e-05 0.00414
## 2032 0.997 4.24e-04 0.00282
## 2033 0.996 3.27e-04 0.00211
## 2034 1.001 1.69e-04 0.00224
## 2035 1.000 1.51e-04 0.00178
## 2036 1.005 1.77e-05 0.00225
## 2037 1.005 6.43e-06 0.00260
## 2038 1.006 8.28e-05 0.00456
## 2039 1.000 2.13e-04 0.00225
## 2040 1.004 9.36e-06 0.00160
## 2041 1.005 9.96e-06 0.00265
## 2042 1.004 1.84e-04 0.00376
## 2043 1.002 2.46e-04 0.00322
## 2044 1.003 1.46e-04 0.00285
## 2045 1.005 5.48e-05 0.00347
## 2046 1.007 5.91e-06 0.00408
## 2047 1.006 1.04e-05 0.00293
## 2048 1.003 1.27e-04 0.00254
## 2049 0.996 4.60e-04 0.00282
## 2050 0.999 2.21e-04 0.00210
## 2051 1.004 9.44e-05 0.00276
## 2052 1.004 8.54e-05 0.00293
## 2053 0.998 5.61e-04 0.00366
## 2054 1.005 2.63e-05 0.00250
## 2055 1.002 1.68e-04 0.00271
## 2056 1.004 1.77e-05 0.00208
## 2057 0.995 4.85e-04 0.00269
## 2058 1.006 9.26e-08 0.00274
## 2059 1.006 2.67e-06 0.00309
## 2060 1.005 3.47e-07 0.00172
## 2061 1.001 1.94e-04 0.00251
## 2062 1.006 8.18e-08 0.00303
## 2063 1.004 6.51e-05 0.00248
## 2064 1.006 7.79e-05 0.00405
## 2065 1.004 1.23e-04 0.00308
## 2066 0.991 7.45e-04 0.00292    *
## 2067 1.007 1.79e-06 0.00372
## 2068 1.005 4.09e-08 0.00222
## 2069 1.004 1.32e-05 0.00156
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## 2070 0.998 5.68e-04 0.00376
## 2071 1.002 1.99e-04 0.00282
## 2072 1.005 5.92e-05 0.00290
## 2073 1.001 1.13e-04 0.00164
## 2074 1.005 4.66e-05 0.00300
## 2075 1.006 4.52e-05 0.00388
## 2076 1.006 6.93e-07 0.00344
## 2077 1.001 1.80e-04 0.00256
## 2078 1.005 2.76e-05 0.00276
## 2079 0.993 4.11e-04 0.00204
## 2080 1.001 2.53e-04 0.00289
## 2081 1.002 1.13e-04 0.00214
## 2082 1.000 2.44e-04 0.00265
## 2083 0.998 5.19e-04 0.00342
## 2084 1.005 4.62e-05 0.00282
## 2085 1.007 1.69e-06 0.00408
## 2086 1.006 5.91e-05 0.00420
## 2087 1.005 2.86e-06 0.00220
## 2088 1.005 2.90e-05 0.00262
## 2089 1.005 3.53e-05 0.00294
## 2090 1.004 1.19e-05 0.00161
## 2091 1.002 8.01e-05 0.00187
## 2092 0.991 4.29e-04 0.00181     *
## 2093 0.997 3.18e-04 0.00214
## 2094 0.999 4.95e-04 0.00368
## 2095 1.003 1.33e-04 0.00282
## 2096 1.005 4.09e-05 0.00315
## 2097 0.996 5.31e-04 0.00310
## 2098 1.000 2.91e-04 0.00297
## 2099 0.998 2.76e-04 0.00222
## 2100 1.003 9.56e-05 0.00252
## 2101 1.001 1.05e-04 0.00184
## 2102 1.006 7.47e-07 0.00328
## 2103 1.001 2.12e-04 0.00270
## 2104 1.005 2.50e-05 0.00306
## 2105 1.005 1.74e-06 0.00243
## 2106 1.004 2.01e-05 0.00171
## 2107 1.005 3.92e-08 0.00175
## 2108 1.005 9.55e-06 0.00248
## 2109 1.003 9.46e-05 0.00258
## 2110 1.006 9.50e-06 0.00303
## 2111 1.006 1.03e-06 0.00285
## 2112 0.998 3.59e-04 0.00280
## 2113 1.006 1.27e-05 0.00313
## 2114 1.000 2.24e-04 0.00241
## 2115 1.005 9.77e-07 0.00213
## 2116 1.005 2.42e-06 0.00205
## 2117 1.004 2.35e-05 0.00176
## 2118 1.002 2.22e-04 0.00330
## 2119 1.000 1.42e-04 0.00183
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## 2120 1.000 3.92e-04 0.00335
## 2121 1.007 2.34e-06 0.00369
## 2122 1.002 7.96e-05 0.00181
## 2123 0.993 9.14e-04 0.00385
## 2124 1.006 4.47e-05 0.00366
## 2125 1.002 6.46e-05 0.00155
## 2126 0.995 5.38e-04 0.00281
## 2127 1.007 9.73e-07 0.00392
## 2128 1.004 2.07e-06 0.00140
## 2129 1.002 8.24e-05 0.00194
## 2130 1.004 2.43e-05 0.00179
## 2131 1.004 9.76e-05 0.00281
## 2132 0.999 3.71e-04 0.00307
## 2133 1.006 2.74e-05 0.00398
## 2134 1.006 1.36e-05 0.00301
## 2135 1.000 2.03e-04 0.00227
## 2136 1.000 3.00e-04 0.00284
## 2137 1.004 9.11e-06 0.00178
## 2138 1.006 5.06e-05 0.00383
## 2139 1.005 1.80e-04 0.00475
## 2140 1.003 9.22e-05 0.00216
## 2141 1.001 1.65e-04 0.00212
## 2142 1.005 1.13e-05 0.00205
## 2143 1.004 8.94e-06 0.00150
## 2144 1.005 1.75e-05 0.00222
## 2145 1.001 1.22e-04 0.00194
## 2146 0.998 2.23e-04 0.00183
## 2147 1.006 1.22e-08 0.00320
## 2148 1.001 1.59e-04 0.00209
## 2149 1.001 1.88e-04 0.00247
## 2150 1.005 3.23e-07 0.00226
## 2151 1.001 1.67e-04 0.00222
## 2152 1.002 1.25e-04 0.00225
## 2153 1.003 8.44e-05 0.00206
## 2154 1.005 1.22e-07 0.00254
## 2155 1.006 1.27e-05 0.00328
## 2156 1.005 2.63e-05 0.00233
## 2157 1.002 1.22e-04 0.00209
## 2158 1.002 2.49e-04 0.00325
## 2159 1.002 1.19e-04 0.00220
## 2160 1.006 4.43e-06 0.00334
## 2161 1.004 7.20e-06 0.00141
## 2162 1.006 2.75e-05 0.00338
## 2163 1.004 5.62e-05 0.00243
## 2164 1.003 9.17e-05 0.00248
## 2165 1.006 5.84e-06 0.00323
## 2166 1.005 2.10e-05 0.00254
## 2167 1.002 1.65e-04 0.00279
## 2168 1.003 7.84e-05 0.00194
## 2169 0.999 3.45e-04 0.00280
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## 2170 1.004 3.74e-06 0.00133
## 2171 0.998 4.38e-04 0.00316
## 2172 1.005 3.65e-06 0.00260
## 2173 1.007 1.65e-05 0.00391
## 2174 1.005 1.94e-06 0.00195
## 2175 1.004 9.89e-06 0.00166
## 2176 1.007 8.93e-06 0.00425
## 2177 1.005 1.41e-05 0.00248
## 2178 1.005 3.65e-05 0.00264
## 2179 1.003 8.64e-05 0.00220
## 2180 1.005 7.28e-05 0.00316
## 2181 0.993 5.69e-04 0.00268
## 2182 1.004 1.46e-06 0.00152
## 2183 1.006 5.12e-08 0.00277
## 2184 1.004 1.02e-04 0.00321
## 2185 1.005 6.70e-06 0.00253
## 2186 1.005 5.33e-06 0.00273
## 2187 1.004 4.60e-05 0.00254
## 2188 1.006 7.41e-10 0.00348
## 2189 1.006 8.79e-07 0.00314
## 2190 1.002 8.10e-05 0.00185
## 2191 1.005 1.46e-05 0.00215
## 2192 1.004 1.05e-05 0.00190
## 2193 1.008 1.07e-05 0.00494
## 2194 1.005 1.01e-04 0.00361
## 2195 1.005 2.46e-08 0.00222
## 2196 1.005 7.07e-05 0.00309
## 2197 1.006 5.33e-06 0.00281
## 2198 1.002 1.22e-04 0.00244
## 2199 1.006 6.16e-09 0.00303
## 2200 0.991 6.64e-04 0.00256     *
## 2201 1.001 2.21e-04 0.00283
## 2202 0.998 4.59e-04 0.00313
## 2203 1.003 1.45e-04 0.00293
## 2204 1.006 3.67e-05 0.00344
## 2205 1.005 4.35e-05 0.00316
## 2206 1.006 1.13e-05 0.00336
## 2207 1.003 1.05e-04 0.00273
## 2208 1.004 7.48e-06 0.00151
## 2209 1.006 1.13e-05 0.00310
## 2210 1.001 1.55e-04 0.00237
## 2211 1.007 4.59e-08 0.00427
## 2212 1.006 7.21e-05 0.00428
## 2213 1.004 1.25e-05 0.00196
## 2214 1.005 1.40e-05 0.00272
## 2215 0.999 3.60e-04 0.00285
## 2216 1.006 1.93e-05 0.00317
## 2217 1.004 5.47e-05 0.00249
## 2218 1.000 1.74e-04 0.00212
## 2219 1.000 1.76e-04 0.00216
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## 2220 1.001 1.88e-04 0.00265
## 2221 1.005 1.17e-04 0.00354
## 2222 1.007 1.53e-05 0.00438
## 2223 1.005 1.45e-07 0.00242
## 2224 1.006 3.17e-05 0.00370
## 2225 0.999 2.19e-04 0.00217
## 2226 1.005 7.67e-07 0.00175
## 2227 1.000 9.36e-05 0.00128
## 2228 1.004 6.01e-07 0.00152
## 2229 1.007 3.50e-06 0.00413
## 2230 1.007 2.35e-05 0.00419
## 2231 1.005 2.94e-05 0.00303
## 2232 0.997 3.06e-04 0.00210
## 2233 1.005 1.26e-04 0.00399
## 2234 0.997 4.40e-04 0.00281
## 2235 1.007 7.23e-06 0.00395
## 2236 1.006 5.70e-06 0.00308
## 2237 1.005 1.53e-07 0.00221
## 2238 1.005 1.81e-06 0.00180
## 2239 1.003 1.49e-04 0.00318
## 2240 0.991 7.79e-04 0.00294    *
## 2241 1.006 8.18e-06 0.00337
## 2242 1.005 1.64e-04 0.00432
## 2243 1.004 1.51e-07 0.00158
## 2244 1.005 5.97e-05 0.00304
## 2245 1.003 1.45e-04 0.00303
## 2246 1.004 5.00e-06 0.00144
## 2247 1.001 1.89e-04 0.00258
## 2248 1.005 4.49e-06 0.00266
## 2249 1.006 4.27e-05 0.00398
## 2250 1.007 3.31e-08 0.00370
## 2251 1.004 8.03e-05 0.00266
## 2252 1.006 7.10e-06 0.00331
## 2253 1.006 6.08e-06 0.00303
## 2254 1.006 7.04e-08 0.00338
## 2255 1.005 8.29e-06 0.00251
## 2256 1.000 3.19e-04 0.00322
## 2257 1.004 7.03e-05 0.00290
## 2258 1.002 7.96e-05 0.00186
## 2259 1.002 5.12e-04 0.00497
## 2260 1.005 5.73e-07 0.00239
## 2261 1.004 1.73e-04 0.00369
## 2262 1.005 5.97e-05 0.00344
## 2263 1.005 1.98e-08 0.00221
## 2264 1.005 8.87e-07 0.00225
## 2265 1.001 1.19e-04 0.00177
## 2266 1.004 9.67e-05 0.00313
## 2267 1.000 2.67e-04 0.00273
## 2268 1.003 1.43e-04 0.00295
## 2269 1.004 1.71e-06 0.00159
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## 2270 1.000 4.01e-04 0.00341
## 2271 1.002 1.03e-04 0.00212
## 2272 1.003 2.05e-04 0.00346
## 2273 0.994 6.41e-04 0.00300
## 2274 1.003 1.35e-04 0.00292
## 2275 1.007 2.25e-06 0.00396
## 2276 0.996 5.91e-04 0.00332
## 2277 0.999 3.42e-04 0.00301
## 2278 0.998 6.28e-04 0.00387
## 2279 1.001 7.95e-05 0.00151
## 2280 1.005 8.52e-05 0.00324
## 2281 0.995 7.17e-04 0.00363
## 2282 1.004 2.46e-04 0.00436
## 2283 0.991 7.50e-04 0.00287    *
## 2284 0.998 3.62e-04 0.00263
## 2285 1.006 3.05e-07 0.00342
## 2286 1.001 3.97e-04 0.00407
## 2287 1.003 6.34e-05 0.00203
## 2288 1.005 2.05e-06 0.00210
## 2289 1.006 6.56e-06 0.00284
## 2290 1.004 9.97e-05 0.00277
## 2291 0.999 3.24e-04 0.00288
## 2292 1.002 1.51e-04 0.00265
## 2293 0.993 5.25e-04 0.00242
## 2294 1.006 2.35e-05 0.00348
## 2295 1.006 4.88e-07 0.00306
## 2296 0.995 4.37e-04 0.00238
## 2297 0.998 4.58e-04 0.00337
## 2298 1.005 9.63e-06 0.00254
## 2299 0.996 3.27e-04 0.00203
## 2300 1.006 2.36e-05 0.00334
## 2301 1.001 1.94e-04 0.00249
## 2302 0.997 1.57e-04 0.00129
## 2303 1.005 1.13e-04 0.00370
## 2304 1.006 4.07e-06 0.00319
## 2305 1.006 5.53e-05 0.00366
## 2306 1.006 2.01e-06 0.00340
## 2307 1.006 1.27e-04 0.00431
## 2308 1.004 4.62e-06 0.00130
## 2309 1.003 8.41e-05 0.00211
## 2310 1.005 9.16e-06 0.00196
## 2311 1.005 6.35e-05 0.00323
## 2312 1.004 2.08e-05 0.00166
## 2313 1.005 3.40e-08 0.00221
## 2314 1.006 8.44e-08 0.00356
## 2315 0.999 3.19e-04 0.00270
## 2316 1.005 3.24e-06 0.00196
## 2317 1.005 1.26e-04 0.00380
## 2318 1.005 2.69e-06 0.00215
## 2319 1.001 1.23e-04 0.00176
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## 2320 1.003 2.68e-04 0.00375
## 2321 1.004 3.57e-05 0.00236
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## 2324 1.000 3.12e-04 0.00302
## 2325 1.006 3.68e-05 0.00338
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## 2329 1.007 1.45e-06 0.00370
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## 2331 1.003 1.09e-04 0.00271
## 2332 1.000 2.02e-04 0.00227
## 2333 0.997 3.43e-04 0.00243
## 2334 1.005 1.62e-05 0.00282
## 2335 1.003 7.13e-05 0.00206
## 2336 1.006 2.15e-05 0.00387
## 2337 1.005 4.73e-07 0.00264
## 2338 1.003 2.05e-04 0.00362
## 2339 1.002 1.46e-04 0.00241
## 2340 1.008 7.50e-05 0.00589
## 2341 1.005 4.24e-05 0.00332
## 2342 1.006 1.69e-05 0.00351
## 2343 1.005 2.25e-05 0.00248
## 2344 1.008 8.62e-06 0.00506
## 2345 1.007 3.12e-06 0.00371
## 2346 0.995 3.25e-04 0.00196
## 2347 1.005 1.25e-05 0.00283
## 2348 1.005 3.53e-05 0.00259
## 2349 0.996 2.76e-04 0.00188
## 2350 1.005 3.06e-06 0.00262
## 2351 1.006 1.38e-05 0.00326
## 2352 1.005 4.15e-05 0.00258
## 2353 1.007 9.20e-08 0.00382
## 2354 1.005 1.87e-08 0.00216
## 2355 1.006 7.92e-05 0.00417
## 2356 1.005 6.72e-06 0.00194
## 2357 0.997 3.80e-04 0.00249
## 2358 1.006 9.02e-05 0.00450
## 2359 1.001 9.27e-05 0.00166
## 2360 1.000 3.03e-04 0.00296
## 2361 1.002 4.19e-04 0.00447
## 2362 1.002 8.33e-05 0.00193
## 2363 1.003 1.16e-04 0.00264
## 2364 1.005 9.28e-08 0.00250
## 2365 1.006 1.14e-07 0.00355
## 2366 1.005 3.51e-08 0.00233
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## 2368 1.004 1.76e-05 0.00192
## 2369 1.006 1.93e-08 0.00345
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## 2370 1.004 2.11e-05 0.00178
## 2371 1.007 9.08e-08 0.00365
## 2372 1.003 1.36e-04 0.00308
## 2373 1.006 1.10e-05 0.00355
## 2374 0.998 2.53e-04 0.00216
## 2375 1.001 2.68e-04 0.00319
## 2376 1.005 7.01e-05 0.00327
## 2377 1.004 7.06e-06 0.00146
## 2378 1.006 1.31e-05 0.00334
## 2379 1.003 1.36e-04 0.00297
## 2380 1.001 2.11e-04 0.00281
## 2381 1.004 1.68e-04 0.00396
## 2382 1.006 2.34e-05 0.00329
## 2383 0.998 5.91e-04 0.00373
## 2384 1.001 1.73e-04 0.00226
## 2385 1.006 9.11e-06 0.00306
## 2386 1.004 6.47e-06 0.00178
## 2387 1.001 2.12e-04 0.00260
## 2388 0.998 2.81e-04 0.00232
## 2389 0.999 3.41e-04 0.00286
## 2390 1.005 3.13e-05 0.00279
## 2391 1.000 3.05e-04 0.00303
## 2392 1.004 1.60e-04 0.00363
## 2393 1.003 6.17e-05 0.00191
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## 2395 1.002 3.42e-04 0.00406
## 2396 1.005 2.69e-04 0.00512
## 2397 1.005 1.43e-04 0.00437
## 2398 1.005 1.79e-05 0.00220
## 2399 1.005 9.52e-06 0.00274
## 2400 1.004 8.72e-05 0.00275
## 2401 1.003 1.26e-04 0.00265
## 2402 1.003 9.44e-05 0.00255
## 2403 1.002 1.09e-04 0.00193
## 2404 1.005 4.18e-07 0.00180
## 2405 1.005 9.10e-05 0.00354
## 2406 1.003 1.18e-04 0.00267
## 2407 1.006 9.80e-09 0.00330
## 2408 0.992 1.11e-03 0.00412
## 2409 1.008 6.72e-05 0.00539
## 2410 1.005 1.12e-05 0.00232
## 2411 1.001 2.02e-04 0.00272
## 2412 0.999 2.28e-04 0.00226
## 2413 1.005 9.79e-05 0.00345
## 2414 1.001 2.90e-04 0.00305
## 2415 1.005 3.51e-05 0.00312
## 2416 1.005 1.77e-04 0.00442
## 2417 1.007 8.91e-05 0.00531
## 2418 0.996 2.83e-04 0.00192
## 2419 1.004 5.05e-06 0.00132
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## 2420 0.993 6.78e-04 0.00294
## 2421 1.004 1.74e-05 0.00174
## 2422 1.004 1.74e-04 0.00386
## 2423 1.000 3.61e-04 0.00336
## 2424 1.000 3.04e-04 0.00303
## 2425 1.006 3.03e-05 0.00347
## 2426 1.006 2.51e-05 0.00380
## 2427 1.001 3.44e-04 0.00367
## 2428 1.005 1.19e-05 0.00285
## 2429 1.006 1.04e-04 0.00416
## 2430 1.004 2.09e-05 0.00218
## 2431 1.004 1.63e-04 0.00352
## 2432 1.002 1.79e-04 0.00285
## 2433 1.004 6.69e-05 0.00287
## 2434 1.003 2.47e-04 0.00405
## 2435 1.005 2.51e-06 0.00205
## 2436 1.005 1.02e-05 0.00225
## 2437 0.997 5.01e-04 0.00315
## 2438 1.004 6.53e-05 0.00246
## 2439 1.006 2.73e-08 0.00300
## 2440 1.002 1.31e-04 0.00225
## 2441 1.004 1.16e-04 0.00294
## 2442 1.002 1.40e-04 0.00231
## 2443 0.999 2.20e-04 0.00200
## 2444 1.004 9.18e-05 0.00295
## 2445 1.004 1.68e-04 0.00361
## 2446 1.006 8.09e-08 0.00313
## 2447 0.999 4.31e-04 0.00340
## 2448 1.002 1.02e-04 0.00193
## 2449 0.995 3.33e-04 0.00198
## 2450 1.006 2.37e-06 0.00297
## 2451 1.002 2.34e-04 0.00329
## 2452 1.005 8.82e-09 0.00216
## 2453 1.005 9.96e-05 0.00348
## 2454 1.004 1.25e-04 0.00332
## 2455 1.004 3.14e-05 0.00202
## 2456 1.005 1.06e-06 0.00188
## 2457 1.006 4.05e-06 0.00341
## 2458 1.006 1.44e-04 0.00470
## 2459 0.997 4.55e-04 0.00292
## 2460 1.002 6.01e-05 0.00161
## 2461 1.001 3.76e-04 0.00391
## 2462 1.005 4.36e-06 0.00230
## 2463 1.004 8.26e-05 0.00252
## 2464 1.002 3.49e-04 0.00408
## 2465 1.004 2.56e-06 0.00129
## 2466 1.006 6.20e-08 0.00275
## 2467 0.998 3.04e-04 0.00229
## 2468 1.005 2.31e-05 0.00260
## 2469 1.004 1.83e-05 0.00208
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## 2470 1.001 1.37e-04 0.00203
## 2471 1.007 1.19e-06 0.00385
## 2472 1.006 1.29e-05 0.00295
## 2473 0.999 3.95e-04 0.00306
## 2474 1.002 7.39e-05 0.00181
## 2475 1.006 9.03e-07 0.00299
## 2476 0.999 3.67e-04 0.00304
## 2477 1.006 3.12e-07 0.00335
## 2478 1.002 1.31e-04 0.00230
## 2479 0.998 5.53e-04 0.00382
## 2480 1.004 1.36e-05 0.00191
## 2481 1.001 1.29e-04 0.00212
## 2482 1.002 2.01e-04 0.00307
## 2483 1.006 1.02e-05 0.00294
## 2484 0.993 6.34e-04 0.00283
## 2485 1.006 5.59e-06 0.00297
## 2486 1.005 1.47e-04 0.00440
## 2487 1.005 4.43e-06 0.00250
## 2488 1.000 5.85e-04 0.00434
## 2489 0.997 5.16e-04 0.00319
## 2490 0.998 2.53e-04 0.00205
## 2491 1.005 4.93e-06 0.00184
## 2492 1.005 1.33e-06 0.00209
## 2493 1.005 2.86e-05 0.00237
## 2494 1.005 4.43e-05 0.00296
## 2495 1.007 4.73e-06 0.00399
## 2496 1.006 4.46e-08 0.00299
## 2497 1.005 1.19e-05 0.00277
## 2498 1.006 4.84e-08 0.00304
## 2499 1.005 9.23e-08 0.00177
## 2500 1.001 1.62e-04 0.00216
## 2501 1.005 3.21e-06 0.00197
## 2502 1.007 4.17e-07 0.00368
## 2503 1.006 2.51e-08 0.00309
## 2504 1.005 1.68e-05 0.00246
## 2505 1.006 2.10e-07 0.00310
## 2506 1.002 7.03e-05 0.00169
## 2507 1.005 1.96e-04 0.00430
## 2508 1.006 3.25e-05 0.00357
## 2509 1.005 2.62e-06 0.00192
## 2510 1.002 1.49e-04 0.00260
## 2511 1.005 3.14e-06 0.00241
## 2512 1.004 5.37e-05 0.00212
## 2513 1.003 1.23e-04 0.00248
## 2514 0.999 2.74e-04 0.00234
## 2515 0.996 5.99e-04 0.00332
## 2516 1.006 1.40e-06 0.00318
## 2517 1.001 1.81e-04 0.00244
## 2518 1.006 2.91e-05 0.00320
## 2519 1.004 1.27e-06 0.00155
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## 2520 1.006 2.02e-05 0.00326
## 2521 1.006 6.51e-07 0.00327
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## 2523 1.002 7.95e-05 0.00187
## 2524 1.002 1.32e-04 0.00230
## 2525 0.991 1.13e-03 0.00406    *
## 2526 0.998 3.88e-04 0.00290
## 2527 1.006 4.53e-09 0.00304
## 2528 1.003 1.68e-04 0.00322
## 2529 1.007 5.35e-06 0.00436
## 2530 1.006 3.67e-06 0.00288
## 2531 1.006 1.18e-06 0.00285
## 2532 0.989 6.07e-04 0.00218    *
## 2533 1.006 4.00e-06 0.00287
## 2534 1.006 7.07e-05 0.00446
## 2535 1.005 2.19e-06 0.00219
## 2536 1.005 9.71e-08 0.00229
## 2537 1.007 3.42e-06 0.00391
## 2538 1.005 6.86e-05 0.00355
## 2539 1.003 2.14e-04 0.00342
## 2540 1.004 1.88e-04 0.00410
## 2541 1.006 2.80e-06 0.00335
## 2542 1.004 7.69e-05 0.00298
## 2543 1.007 1.51e-07 0.00425
## 2544 0.998 2.53e-04 0.00198
## 2545 1.004 2.20e-05 0.00174
## 2546 1.005 2.77e-06 0.00216
## 2547 1.005 1.52e-05 0.00226
## 2548 1.005 4.47e-06 0.00202
## 2549 1.005 5.11e-05 0.00286
## 2550 1.003 9.90e-05 0.00250
## 2551 1.003 1.32e-04 0.00269
## 2552 1.004 1.41e-04 0.00343
## 2553 1.002 7.86e-05 0.00179
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## 2557 1.006 1.58e-06 0.00324
## 2558 1.007 3.06e-06 0.00436
## 2559 1.003 2.03e-04 0.00338
## 2560 0.998 3.96e-04 0.00291
## 2561 1.006 2.61e-05 0.00388
## 2562 1.005 1.22e-05 0.00209
## 2563 0.996 5.27e-04 0.00307
## 2564 1.005 1.36e-06 0.00225
## 2565 1.006 3.57e-06 0.00272
## 2566 1.001 1.29e-04 0.00192
## 2567 1.005 7.43e-05 0.00304
## 2568 1.006 3.66e-06 0.00289
## 2569 1.000 2.42e-04 0.00241
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## 2570 1.001 1.73e-04 0.00248
## 2571 1.005 5.05e-06 0.00236
## 2572 1.005 6.49e-05 0.00338
## 2573 1.004 3.97e-05 0.00213
## 2574 1.001 3.63e-04 0.00374
## 2575 1.005 8.54e-07 0.00168
## 2576 1.001 4.56e-04 0.00413
## 2577 1.004 1.42e-05 0.00176
## 2578 0.998 5.27e-04 0.00352
## 2579 1.007 4.71e-06 0.00451
## 2580 1.007 1.26e-05 0.00396
## 2581 1.005 2.41e-08 0.00176
## 2582 1.006 3.29e-06 0.00275
## 2583 1.005 8.60e-07 0.00171
## 2584 1.004 5.13e-05 0.00210
## 2585 1.003 6.43e-05 0.00204
## 2586 1.003 3.02e-04 0.00403
## 2587 1.003 1.23e-04 0.00270
## 2588 1.004 1.47e-05 0.00161
## 2589 1.005 8.03e-06 0.00216
## 2590 1.005 1.04e-05 0.00246
## 2591 1.006 2.51e-07 0.00305
## 2592 1.005 8.13e-05 0.00322
## 2593 1.005 1.58e-05 0.00266
## 2594 0.998 2.25e-04 0.00201
## 2595 1.005 2.99e-05 0.00300
## 2596 0.998 1.69e-04 0.00158
## 2597 1.006 5.52e-07 0.00337
## 2598 1.005 2.33e-05 0.00243
## 2599 1.006 1.44e-09 0.00285
## 2600 1.000 2.48e-04 0.00262
## 2601 1.005 1.60e-05 0.00268
## 2602 1.002 2.06e-04 0.00307
## 2603 1.002 8.58e-05 0.00191
## 2604 0.996 7.25e-04 0.00390
## 2605 0.996 3.90e-04 0.00246
## 2606 0.995 9.08e-04 0.00434
## 2607 1.001 1.32e-04 0.00184
## 2608 1.004 1.78e-04 0.00407
## 2609 1.003 1.04e-04 0.00239
## 2610 0.990 1.03e-03 0.00356      *
## 2611 1.005 9.49e-06 0.00233
## 2612 0.997 4.22e-04 0.00273
## 2613 0.993 4.22e-04 0.00207
## 2614 1.004 1.17e-06 0.00123
## 2615 1.001 2.43e-04 0.00287
## 2616 1.005 6.49e-05 0.00325
## 2617 1.006 4.20e-06 0.00287
## 2618 1.004 1.43e-04 0.00352
## 2619 1.001 3.35e-04 0.00349
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## 2620 1.005 1.24e-04 0.00389
## 2621 1.005 6.47e-05 0.00292
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## 2623 1.005 2.96e-06 0.00209
## 2624 1.002 2.83e-04 0.00365
## 2625 1.000 1.32e-04 0.00174
## 2626 1.006 6.64e-06 0.00352
## 2627 1.005 5.67e-05 0.00307
## 2628 1.007 1.08e-05 0.00430
## 2629 1.006 8.50e-06 0.00327
## 2630 1.003 1.95e-04 0.00338
## 2631 1.006 2.82e-07 0.00287
## 2632 1.006 3.64e-06 0.00278
## 2633 1.007 9.91e-07 0.00384
## 2634 0.993 5.46e-04 0.00248
## 2635 0.996 3.97e-04 0.00235
## 2636 1.003 2.21e-04 0.00358
## 2637 1.005 8.40e-05 0.00384
## 2638 0.998 4.38e-04 0.00315
## 2639 1.000 1.65e-04 0.00197
## 2640 0.997 5.33e-04 0.00339
## 2641 1.004 2.31e-05 0.00207
## 2642 1.006 1.04e-06 0.00273
## 2643 1.004 4.20e-05 0.00202
## 2644 1.005 5.96e-05 0.00304
## 2645 1.005 8.60e-07 0.00245
## 2646 1.001 2.53e-04 0.00285
## 2647 1.001 1.20e-04 0.00177
## 2648 1.002 1.55e-04 0.00250
## 2649 1.006 2.54e-05 0.00327
## 2650 1.004 7.25e-05 0.00256
## 2651 1.004 2.19e-04 0.00402
## 2652 1.005 1.87e-05 0.00298
## 2653 1.004 1.18e-04 0.00301
## 2654 1.005 1.60e-06 0.00233
## 2655 1.005 1.03e-06 0.00258
## 2656 1.004 7.30e-05 0.00268
## 2657 1.007 1.01e-06 0.00456
## 2658 1.002 2.45e-04 0.00321
## 2659 1.004 3.31e-05 0.00213
## 2660 1.005 2.87e-05 0.00285
## 2661 1.005 1.47e-04 0.00413
## 2662 1.006 4.35e-06 0.00348
## 2663 1.006 2.67e-06 0.00289
## 2664 0.991 5.75e-04 0.00233    *
## 2665 1.001 2.41e-04 0.00304
## 2666 1.006 5.75e-05 0.00360
## 2667 1.006 5.68e-05 0.00391
## 2668 1.004 1.68e-06 0.00165
## 2669 1.002 1.97e-04 0.00286
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## 2670 1.005 5.55e-05 0.00280
## 2671 1.005 3.04e-07 0.00172
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## 2673 1.001 8.95e-05 0.00141
## 2674 1.004 1.95e-06 0.00128
## 2675 1.002 9.50e-05 0.00204
## 2676 1.004 3.73e-05 0.00229
## 2677 1.007 2.35e-07 0.00394
## 2678 0.998 2.83e-04 0.00227
## 2679 1.002 1.60e-04 0.00247
## 2680 1.006 2.45e-05 0.00316
## 2681 1.007 3.94e-10 0.00380
## 2682 1.002 1.45e-04 0.00251
## 2683 1.003 1.62e-04 0.00327
## 2684 1.002 1.44e-04 0.00260
## 2685 1.006 4.95e-06 0.00282
## 2686 1.003 1.50e-04 0.00322
## 2687 1.004 1.20e-04 0.00308
## 2688 1.004 4.88e-05 0.00203
## 2689 1.006 1.43e-05 0.00306
## 2690 1.005 1.33e-05 0.00220
## 2691 1.006 1.46e-06 0.00271
## 2692 1.008 6.60e-06 0.00472
## 2693 1.005 2.16e-05 0.00231
## 2694 1.004 2.17e-05 0.00176
## 2695 1.001 2.83e-04 0.00338
## 2696 1.004 8.41e-05 0.00293
## 2697 1.005 2.18e-06 0.00233
## 2698 1.002 7.08e-05 0.00171
## 2699 0.999 2.21e-04 0.00223
## 2700 1.006 8.50e-06 0.00344
## 2701 1.006 4.08e-06 0.00285
## 2702 1.002 2.13e-04 0.00293
## 2703 1.003 1.52e-04 0.00308
## 2704 1.004 1.09e-04 0.00326
## 2705 1.004 2.27e-04 0.00416
## 2706 1.004 3.60e-06 0.00165
## 2707 1.000 2.81e-04 0.00271
## 2708 1.004 1.08e-04 0.00313
## 2709 1.004 4.28e-05 0.00202
## 2710 1.005 5.43e-05 0.00347
## 2711 1.005 2.75e-05 0.00296
## 2712 1.004 7.47e-05 0.00249
## 2713 1.004 2.18e-05 0.00209
## 2714 1.007 2.88e-06 0.00413
## 2715 1.007 1.01e-06 0.00435
## 2716 0.997 3.00e-04 0.00207
## 2717 1.003 1.05e-04 0.00235
## 2718 1.005 3.45e-08 0.00171
## 2719 1.004 9.14e-06 0.00164
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## 2720 1.005 3.67e-06 0.00255
## 2721 1.003 1.54e-04 0.00296
## 2722 1.005 1.33e-07 0.00217
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## 2724 1.005 1.03e-04 0.00384
## 2725 1.003 5.99e-05 0.00210
## 2726 1.003 8.14e-05 0.00244
## 2727 1.006 3.68e-05 0.00337
## 2728 1.005 1.98e-05 0.00251
## 2729 1.001 2.40e-04 0.00303
## 2730 1.004 1.52e-05 0.00156
## 2731 1.003 1.56e-04 0.00284
## 2732 1.004 1.42e-04 0.00373
## 2733 1.005 3.70e-05 0.00263
## 2734 1.006 3.38e-06 0.00350
## 2735 1.006 4.84e-05 0.00363
## 2736 0.996 2.72e-04 0.00185
## 2737 1.004 6.20e-05 0.00239
## 2738 1.005 2.90e-05 0.00282
## 2739 1.006 2.88e-07 0.00284
## 2740 1.004 8.09e-05 0.00298
## 2741 1.005 5.57e-05 0.00301
## 2742 1.005 5.15e-08 0.00176
## 2743 1.004 3.26e-05 0.00193
## 2744 1.002 2.33e-04 0.00304
## 2745 1.005 7.89e-05 0.00327
## 2746 1.004 2.72e-05 0.00216
## 2747 1.003 1.58e-04 0.00320
## 2748 0.992 1.10e-03 0.00415
## 2749 1.004 7.10e-05 0.00288
## 2750 1.005 1.10e-04 0.00391
## 2751 1.006 3.85e-06 0.00272
## 2752 0.992 3.97e-04 0.00176
## 2753 1.006 3.45e-06 0.00355
## 2754 1.004 1.94e-05 0.00167
## 2755 1.005 2.56e-05 0.00266
## 2756 1.004 7.15e-06 0.00151
## 2757 1.002 3.11e-04 0.00372
## 2758 1.005 1.46e-04 0.00382
## 2759 1.007 1.17e-05 0.00402
## 2760 1.006 9.70e-06 0.00360
## 2761 0.998 1.30e-04 0.00131
## 2762 1.005 1.04e-05 0.00216
## 2763 1.006 1.21e-04 0.00429
## 2764 1.004 7.24e-06 0.00145
## 2765 0.990 5.85e-04 0.00219    *
## 2766 1.002 1.04e-04 0.00213
## 2767 1.005 1.31e-04 0.00372
## 2768 1.005 2.02e-05 0.00288
## 2769 1.005 1.14e-04 0.00351
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## 2770 1.003 6.15e-05 0.00219
## 2771 0.990 1.04e-03 0.00367    *
## 2772 1.001 2.05e-04 0.00266
## 2773 1.004 1.36e-05 0.00152
## 2774 1.001 2.13e-04 0.00264
## 2775 1.003 7.58e-05 0.00192
## 2776 0.990 9.32e-04 0.00327    *
## 2777 1.004 3.25e-04 0.00465
## 2778 1.006 1.36e-05 0.00312
## 2779 1.003 1.37e-04 0.00297
## 2780 1.004 2.66e-04 0.00424
## 2781 1.004 1.83e-04 0.00374
## 2782 1.006 1.19e-05 0.00307
## 2783 1.006 4.26e-06 0.00305
## 2784 1.007 9.91e-06 0.00379
## 2785 0.999 2.47e-04 0.00227
## 2786 0.993 6.73e-04 0.00292
## 2787 1.006 1.63e-06 0.00358
## 2788 1.004 5.29e-05 0.00210
## 2789 0.998 2.88e-04 0.00239
## 2790 1.005 2.34e-05 0.00237
## 2791 1.002 7.67e-05 0.00192
## 2792 1.005 1.14e-04 0.00349
## 2793 1.004 5.37e-05 0.00256
## 2794 1.002 9.44e-05 0.00206
## 2795 1.006 2.28e-06 0.00286
## 2796 1.004 9.97e-06 0.00191
## 2797 1.005 3.46e-05 0.00268
## 2798 1.001 2.15e-04 0.00287
## 2799 1.005 4.53e-07 0.00228
## 2800 0.997 7.90e-04 0.00448
## 2801 1.005 2.43e-05 0.00297
## 2802 1.006 6.29e-06 0.00303
## 2803 1.005 7.84e-06 0.00205
## 2804 1.000 4.97e-04 0.00398
## 2805 1.005 1.35e-04 0.00429
## 2806 1.005 6.23e-05 0.00355
## 2807 1.005 1.72e-07 0.00172
## 2808 0.992 6.47e-04 0.00276
## 2809 1.006 1.41e-06 0.00317
## 2810 1.007 7.47e-06 0.00415
## 2811 1.003 2.18e-04 0.00339
## 2812 1.006 5.90e-06 0.00315
## 2813 1.005 8.19e-08 0.00183
## 2814 0.999 4.33e-04 0.00332
## 2815 1.004 5.93e-05 0.00232
## 2816 1.005 4.81e-07 0.00240
## 2817 1.004 7.64e-05 0.00244
## 2818 0.989 1.14e-03 0.00372    *
## 2819 1.005 1.02e-06 0.00254
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## 2820 1.006 4.30e-06 0.00281
## 2821 1.004 5.17e-05 0.00214
## 2822 1.004 6.11e-05 0.00266
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## 2824 1.006 1.25e-05 0.00299
## 2825 1.002 1.02e-04 0.00186
## 2826 1.006 8.97e-06 0.00329
## 2827 1.005 1.20e-04 0.00372
## 2828 1.006 2.22e-05 0.00342
## 2829 1.006 8.13e-06 0.00353
## 2830 1.004 1.41e-07 0.00161
## 2831 1.007 2.18e-08 0.00372
## 2832 1.003 1.28e-04 0.00278
## 2833 0.992 4.04e-04 0.00178
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## 2838 1.005 1.50e-04 0.00429
## 2839 1.005 2.03e-06 0.00196
## 2840 1.006 8.93e-05 0.00404
## 2841 1.001 3.28e-04 0.00357
## 2842 1.003 2.24e-04 0.00343
## 2843 1.002 1.85e-04 0.00283
## 2844 1.005 2.79e-05 0.00285
## 2845 1.004 1.55e-05 0.00158
## 2846 1.004 1.64e-04 0.00370
## 2847 1.005 2.47e-06 0.00251
## 2848 1.005 9.72e-06 0.00245
## 2849 1.005 6.39e-05 0.00293
## 2850 1.005 1.27e-04 0.00414
## 2851 1.005 7.13e-07 0.00170
## 2852 1.001 1.56e-04 0.00207
## 2853 1.007 8.09e-07 0.00375
## 2854 1.004 4.29e-05 0.00242
## 2855 1.006 2.46e-06 0.00290
## 2856 1.004 1.60e-04 0.00352
## 2857 1.003 7.49e-05 0.00196
## 2858 1.001 1.24e-04 0.00182
## 2859 1.002 8.00e-05 0.00180
## 2860 1.004 1.53e-04 0.00364
## 2861 1.006 2.25e-06 0.00291
## 2862 0.999 2.68e-04 0.00234
## 2863 1.004 2.47e-06 0.00125
## 2864 1.000 1.94e-04 0.00228
## 2865 1.003 6.24e-05 0.00190
## 2866 1.005 4.34e-05 0.00307
## 2867 1.003 1.06e-04 0.00230
## 2868 1.005 8.21e-09 0.00188
## 2869 1.002 1.16e-04 0.00199
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## 2870 1.005 5.07e-06 0.00242
## 2871 1.002 1.33e-04 0.00221
## 2872 1.004 1.01e-05 0.00165
## 2873 0.996 4.77e-04 0.00291
## 2874 1.000 2.97e-04 0.00308
## 2875 0.996 5.22e-04 0.00305
## 2876 0.999 2.63e-04 0.00230
## 2877 1.005 2.74e-05 0.00312
## 2878 1.001 1.80e-04 0.00233
## 2879 1.006 2.55e-06 0.00287
## 2880 1.006 9.21e-06 0.00325
## 2881 1.006 9.31e-06 0.00317
## 2882 1.006 3.86e-05 0.00390
## 2883 0.998 2.19e-04 0.00176
## 2884 1.003 1.49e-04 0.00313
## 2885 1.007 6.30e-06 0.00450
## 2886 0.998 6.57e-04 0.00401
## 2887 1.002 7.93e-05 0.00188
## 2888 1.004 2.35e-05 0.00176
## 2889 0.994 5.65e-04 0.00270
## 2890 0.986 9.10e-04 0.00265    *
## 2891 1.005 5.33e-06 0.00219
## 2892 1.004 1.44e-05 0.00163
## 2893 1.005 5.34e-07 0.00229
## 2894 1.007 1.88e-04 0.00555
## 2895 1.007 1.95e-05 0.00406
## 2896 1.003 1.37e-04 0.00271
## 2897 1.007 6.01e-06 0.00373
## 2898 0.999 3.03e-04 0.00272
## 2899 1.006 9.80e-05 0.00404
## 2900 0.998 2.36e-04 0.00207
## 2901 1.004 1.24e-04 0.00338
## 2902 1.004 9.00e-05 0.00276
## 2903 1.002 1.40e-04 0.00236
## 2904 1.003 1.71e-04 0.00300
## 2905 1.005 1.93e-06 0.00262
## 2906 1.005 5.20e-06 0.00233
## 2907 1.001 2.32e-04 0.00281
## 2908 1.000 2.88e-04 0.00290
## 2909 1.006 1.22e-07 0.00332
## 2910 1.004 9.73e-05 0.00300
## 2911 1.006 5.23e-06 0.00304
## 2912 1.007 5.20e-05 0.00466
## 2913 1.006 4.83e-06 0.00284
## 2914 1.003 4.19e-04 0.00492
## 2915 1.007 5.46e-05 0.00453
## 2916 1.005 3.21e-05 0.00300
## 2917 1.003 5.16e-05 0.00189
## 2918 1.000 3.07e-04 0.00313
## 2919 1.006 7.79e-05 0.00440
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## 2920 1.000 1.46e-04 0.00177
## 2921 1.005 6.23e-05 0.00346
## 2922 1.005 9.53e-07 0.00256
## 2923 0.997 1.62e-04 0.00129
## 2924 1.007 1.52e-05 0.00415
## 2925 1.007 4.58e-06 0.00421
## 2926 1.005 2.88e-06 0.00225
## 2927 1.001 3.94e-04 0.00386
## 2928 1.004 7.95e-05 0.00300
## 2929 1.006 1.22e-06 0.00279
## 2930 1.005 1.25e-05 0.00258
## 2931 1.005 1.60e-05 0.00245
## 2932 1.001 1.74e-04 0.00228
## 2933 1.005 4.21e-05 0.00291
## 2934 1.006 5.47e-05 0.00353
## 2935 1.002 3.70e-04 0.00413
## 2936 0.999 6.94e-04 0.00448
## 2937 1.006 2.34e-06 0.00329
## 2938 1.004 3.41e-07 0.00163
## 2939 1.005 8.66e-06 0.00256
## 2940 1.006 1.57e-04 0.00466
## 2941 1.001 1.63e-04 0.00226
## 2942 1.005 1.05e-04 0.00342
## 2943 1.004 9.69e-05 0.00318
## 2944 1.001 1.71e-04 0.00221
## 2945 1.006 3.59e-07 0.00287
## 2946 1.004 3.48e-05 0.00189
## 2947 1.005 5.72e-05 0.00352
## 2948 1.005 1.55e-05 0.00215
## 2949 1.002 1.86e-04 0.00293
## 2950 1.001 1.20e-04 0.00200
## 2951 1.003 5.21e-05 0.00192
## 2952 1.003 1.06e-04 0.00260
## 2953 0.997 3.26e-04 0.00230
## 2954 1.004 2.28e-05 0.00208
## 2955 1.005 1.58e-04 0.00399
## 2956 1.002 1.59e-04 0.00258
## 2957 1.004 6.82e-05 0.00255
## 2958 0.999 5.61e-04 0.00398
## 2959 1.005 1.12e-05 0.00196
## 2960 1.005 3.93e-05 0.00304
## 2961 0.996 5.39e-04 0.00303
## 2962 1.000 3.99e-04 0.00358
## 2963 1.005 3.35e-06 0.00246
## 2964 1.000 4.09e-04 0.00355
## 2965 1.006 2.23e-07 0.00307
## 2966 1.002 9.74e-05 0.00206
## 2967 1.005 4.62e-06 0.00203
## 2968 1.006 2.10e-06 0.00301
## 2969 0.995 6.87e-04 0.00341
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## 2970 1.000 3.07e-04 0.00287
## 2971 1.003 1.27e-04 0.00286
## 2972 1.005 4.41e-05 0.00302
## 2973 1.004 4.14e-05 0.00207
## 2974 1.003 1.56e-04 0.00305
## 2975 1.007 1.14e-05 0.00423
## 2976 1.006 3.32e-06 0.00280
## 2977 1.005 9.07e-06 0.00265
## 2978 1.005 5.13e-07 0.00200
## 2979 1.004 2.07e-05 0.00196
## 2980 1.005 1.60e-05 0.00216
## 2981 1.004 1.05e-04 0.00337
## 2982 1.006 4.50e-05 0.00349
## 2983 1.005 1.05e-10 0.00173
## 2984 1.006 7.34e-06 0.00292
## 2985 1.005 4.21e-05 0.00266
## 2986 1.000 3.24e-04 0.00318
## 2987 1.004 2.07e-04 0.00431
## 2988 1.005 9.34e-05 0.00357
## 2989 1.005 1.28e-05 0.00219
## 2990 1.007 4.18e-07 0.00413
## 2991 1.004 1.86e-04 0.00372
## 2992 1.004 1.22e-04 0.00313
## 2993 0.997 5.95e-04 0.00359
## 2994 0.998 2.19e-04 0.00191
## 2995 1.004 9.90e-06 0.00187
## 2996 1.002 8.52e-05 0.00184
## 2997 1.004 1.66e-05 0.00158
## 2998 1.005 2.50e-05 0.00258
## 2999 0.999 3.78e-04 0.00317
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## 3001 1.005 5.54e-05 0.00280
## 3002 1.002 8.93e-05 0.00188
## 3003 0.999 2.54e-04 0.00246
## 3004 1.004 8.11e-06 0.00146
## 3005 1.004 8.45e-05 0.00264
## 3006 1.004 2.70e-04 0.00438
## 3007 1.005 3.58e-06 0.00264
## 3008 1.006 2.40e-06 0.00272
## 3009 1.003 1.43e-04 0.00274
## 3010 1.001 2.31e-04 0.00287
## 3011 1.005 4.42e-06 0.00224
## 3012 0.999 2.39e-04 0.00226
## 3013 1.005 2.27e-05 0.00294
## 3014 1.006 2.18e-08 0.00353
## 3015 0.992 7.12e-04 0.00287
## 3016 1.006 9.35e-06 0.00372
## 3017 1.004 1.90e-05 0.00168
## 3018 1.004 2.30e-05 0.00177
## 3019 1.004 1.98e-05 0.00194
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## 3020 1.005 1.66e-05 0.00214
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## 3024 0.997 7.88e-04 0.00429
## 3025 0.995 4.80e-04 0.00265
## 3026 1.002 8.09e-05 0.00185
## 3027 0.999 3.86e-04 0.00305
## 3028 1.005 1.25e-06 0.00215
## 3029 1.005 1.11e-05 0.00285
## 3030 1.003 1.05e-04 0.00252
## 3031 1.000 2.13e-04 0.00226
## 3032 1.007 1.88e-06 0.00451
## 3033 1.004 9.67e-07 0.00122
## 3034 1.005 6.57e-05 0.00319
## 3035 1.007 3.18e-07 0.00382
## 3036 0.988 7.31e-04 0.00243    *
## 3037 1.003 1.21e-04 0.00269
## 3038 0.994 8.56e-04 0.00384
## 3039 1.002 3.82e-04 0.00403
## 3040 0.998 2.18e-04 0.00179
## 3041 1.006 3.31e-05 0.00337
## 3042 1.005 4.08e-05 0.00258
## 3043 0.999 4.56e-04 0.00341
## 3044 1.002 7.32e-05 0.00173
## 3045 0.991 4.10e-04 0.00172    *
## 3046 1.002 1.81e-04 0.00280
## 3047 1.004 2.14e-05 0.00208
## 3048 1.005 7.15e-05 0.00317
## 3049 1.005 1.70e-05 0.00281
## 3050 1.006 3.13e-05 0.00397
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## 3052 1.006 1.45e-06 0.00325
## 3053 1.004 1.28e-06 0.00122
## 3054 0.998 6.01e-04 0.00381
## 3055 1.006 2.43e-08 0.00301
## 3056 1.005 1.58e-04 0.00394
## 3057 1.003 1.12e-04 0.00254
## 3058 1.006 1.56e-04 0.00491
## 3059 0.999 1.74e-04 0.00184
## 3060 1.000 1.14e-04 0.00139
## 3061 1.001 1.06e-04 0.00175
## 3062 0.997 2.26e-04 0.00166
## 3063 1.002 1.41e-04 0.00246
## 3064 1.004 7.24e-05 0.00283
## 3065 1.004 3.25e-05 0.00181
## 3066 1.006 1.38e-04 0.00441
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## 3068 1.006 7.57e-07 0.00284
## 3069 1.007 2.32e-05 0.00410
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## 3070 1.005 3.71e-05 0.00285
## 3071 1.005 3.41e-05 0.00250
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## 3073 1.006 1.81e-08 0.00328
## 3074 1.004 5.14e-05 0.00258
## 3075 1.000 3.59e-04 0.00345
## 3076 1.003 1.57e-04 0.00298
## 3077 1.001 1.40e-04 0.00213
## 3078 1.005 8.53e-08 0.00263
## 3079 1.005 1.53e-07 0.00231
## 3080 1.004 2.09e-05 0.00185
## 3081 1.005 1.08e-04 0.00385
## 3082 1.000 3.45e-04 0.00340
## 3083 1.003 6.90e-05 0.00195
## 3084 1.006 1.83e-07 0.00291
## 3085 1.005 1.41e-05 0.00245
## 3086 0.999 2.55e-04 0.00241
## 3087 1.006 1.72e-05 0.00305
## 3088 1.000 3.26e-04 0.00301
## 3089 1.006 1.70e-05 0.00304
## 3090 1.005 4.42e-05 0.00297
## 3091 1.000 2.71e-04 0.00264
## 3092 1.006 3.89e-06 0.00344
## 3093 1.005 2.25e-05 0.00228
## 3094 1.000 3.47e-04 0.00338
## 3095 1.004 5.55e-06 0.00132
## 3096 1.003 1.10e-04 0.00277
## 3097 1.005 7.74e-05 0.00319
## 3098 0.993 4.73e-04 0.00218
## 3099 0.996 5.58e-04 0.00306
## 3100 0.996 2.87e-04 0.00190
## 3101 1.005 2.78e-05 0.00276
## 3102 1.005 1.24e-06 0.00172
## 3103 1.005 2.85e-08 0.00238
## 3104 1.005 5.77e-05 0.00339
## 3105 1.005 1.02e-06 0.00263
## 3106 1.004 2.30e-05 0.00184
## 3107 0.991 7.60e-04 0.00284     *
## 3108 1.007 1.98e-08 0.00368
## 3109 0.999 2.05e-04 0.00198
## 3110 1.004 1.72e-04 0.00361
## 3111 1.002 1.77e-04 0.00260
## 3112 1.005 1.19e-04 0.00365
## 3113 1.006 3.22e-05 0.00325
## 3114 1.004 1.08e-07 0.00149
## 3115 1.002 1.51e-04 0.00245
## 3116 1.006 1.01e-08 0.00288
## 3117 0.998 6.31e-04 0.00390
## 3118 1.007 8.98e-07 0.00427
## 3119 0.999 1.27e-04 0.00142
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## 3120 1.005 3.20e-05 0.00300
## 3121 1.004 1.89e-05 0.00174
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## 3124 1.005 1.76e-05 0.00246
## 3125 1.005 3.39e-05 0.00298
## 3126 1.006 3.71e-05 0.00362
## 3127 1.006 2.22e-05 0.00357
## 3128 0.999 2.44e-04 0.00234
## 3129 1.007 6.38e-06 0.00435
## 3130 1.005 2.17e-06 0.00254
## 3131 1.001 2.45e-04 0.00293
## 3132 1.000 1.12e-04 0.00136
## 3133 1.003 7.98e-05 0.00226
## 3134 0.997 2.09e-04 0.00167
## 3135 0.997 6.83e-04 0.00402
## 3136 1.001 1.81e-04 0.00227
## 3137 1.005 2.61e-04 0.00485
## 3138 0.991 4.16e-04 0.00179    *
## 3139 1.005 1.66e-04 0.00417
## 3140 1.004 1.72e-05 0.00169
## 3141 1.001 1.68e-04 0.00243
## 3142 1.004 2.39e-04 0.00407
## 3143 1.001 3.39e-04 0.00360
## 3144 1.005 5.93e-05 0.00307
## 3145 1.004 1.16e-04 0.00323
## 3146 1.002 1.52e-04 0.00269
## 3147 1.002 1.59e-04 0.00283
## 3148 1.004 1.33e-04 0.00353
## 3149 1.004 5.58e-05 0.00241
## 3150 1.000 2.91e-04 0.00275
## 3151 1.005 1.51e-06 0.00175
## 3152 1.004 9.47e-06 0.00173
## 3153 0.995 2.94e-04 0.00181
## 3154 0.997 4.68e-04 0.00294
## 3155 0.992 5.75e-04 0.00252
## 3156 1.006 2.34e-05 0.00381
## 3157 1.004 5.50e-06 0.00140
## 3158 1.002 2.04e-04 0.00311
## 3159 1.002 2.44e-04 0.00320
## 3160 1.000 1.88e-04 0.00222
## 3161 1.004 2.22e-06 0.00138
## 3162 1.005 5.35e-05 0.00319
## 3163 1.006 1.25e-05 0.00348
## 3164 1.005 3.18e-06 0.00228
## 3165 1.006 1.88e-06 0.00316
## 3166 1.001 2.22e-04 0.00272
## 3167 1.005 7.44e-06 0.00232
## 3168 1.001 2.46e-04 0.00292
## 3169 1.004 7.44e-06 0.00183
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## 3170 1.005 9.65e-05 0.00376
## 3171 1.002 2.45e-04 0.00355
## 3172 1.005 5.82e-07 0.00255
## 3173 1.007 1.06e-05 0.00465
## 3174 0.995 8.18e-04 0.00395
## 3175 1.005 5.66e-06 0.00222
## 3176 1.004 2.20e-05 0.00174
## 3177 1.006 2.39e-06 0.00329
## 3178 1.005 9.36e-05 0.00342
## 3179 1.003 3.10e-04 0.00443
## 3180 1.005 5.05e-07 0.00259
## 3181 1.001 4.23e-04 0.00389
## 3182 1.005 4.21e-06 0.00181
## 3183 1.003 1.62e-04 0.00293
## 3184 0.995 3.16e-04 0.00193
## 3185 1.004 1.23e-05 0.00192
## 3186 1.007 4.99e-07 0.00378
## 3187 1.003 2.28e-04 0.00369
## 3188 1.006 4.72e-07 0.00265
## 3189 1.006 6.16e-06 0.00306
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## 3198 1.001 1.69e-04 0.00226
## 3199 1.005 2.42e-05 0.00232
## 3200 1.005 1.82e-06 0.00250
## 3201 1.005 3.84e-08 0.00244
## 3202 1.004 1.94e-05 0.00166
## 3203 1.004 3.54e-05 0.00214
## 3204 1.005 4.34e-05 0.00316
## 3205 1.004 4.13e-05 0.00212
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## 3209 1.006 1.84e-05 0.00351
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## 3212 0.997 4.58e-04 0.00294
## 3213 1.004 4.27e-05 0.00200
## 3214 1.006 7.51e-06 0.00357
## 3215 1.005 5.27e-06 0.00248
## 3216 1.006 1.49e-05 0.00299
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## 3218 1.003 9.09e-05 0.00239
## 3219 1.004 1.77e-04 0.00402
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## 3220 1.001 2.84e-04 0.00304
## 3221 1.002 1.70e-04 0.00279
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## 3225 1.003 5.71e-05 0.00179
## 3226 1.005 6.72e-06 0.00246
## 3227 1.005 8.61e-05 0.00379
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## 3229 1.003 3.43e-04 0.00433
## 3230 1.005 3.82e-07 0.00190
## 3231 1.007 2.46e-06 0.00383
## 3232 1.003 9.17e-05 0.00245
## 3233 1.005 2.68e-06 0.00248
## 3234 1.005 3.18e-09 0.00178
## 3235 1.004 6.47e-05 0.00227
## 3236 0.994 6.59e-04 0.00308
## 3237 0.991 4.11e-04 0.00178
## 3238 1.006 5.85e-06 0.00305
## 3239 1.003 2.01e-04 0.00334
## 3240 1.003 1.09e-04 0.00249
## 3241 0.997 6.27e-04 0.00369
## 3242 0.998 3.15e-04 0.00252
## 3243 1.006 6.23e-06 0.00294
## 3244 1.004 7.30e-05 0.00267
## 3245 1.004 1.24e-04 0.00322
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## 3247 1.001 2.99e-04 0.00316
## 3248 1.005 5.91e-05 0.00321
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## 3252 1.005 1.31e-05 0.00260
## 3253 0.999 2.43e-04 0.00232
## 3254 1.002 1.90e-04 0.00289
## 3255 0.999 1.63e-04 0.00172
## 3256 0.997 4.04e-04 0.00260
## 3257 1.005 1.25e-05 0.00213
## 3258 0.999 3.60e-04 0.00302
## 3259 1.007 2.46e-05 0.00426
## 3260 1.001 3.67e-04 0.00382
## 3261 0.998 2.32e-04 0.00204
## 3262 1.005 1.61e-05 0.00271
## 3263 1.005 4.38e-10 0.00181
## 3264 1.005 1.03e-04 0.00364
## 3265 1.006 2.53e-09 0.00277
## 3266 0.996 5.69e-04 0.00316
## 3267 1.005 7.47e-05 0.00304
## 3268 1.002 1.35e-04 0.00254
## 3269 0.997 2.74e-04 0.00195
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## 3270 1.002 1.43e-04 0.00255
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## 3278 1.005 3.93e-05 0.00256
## 3279 1.006 4.62e-07 0.00307
## 3280 1.000 1.72e-04 0.00215
## 3281 1.006 1.60e-05 0.00328
## 3282 1.002 1.26e-04 0.00213
## 3283 1.001 2.27e-04 0.00295
## 3284 1.005 3.05e-06 0.00238
## 3285 1.003 1.86e-04 0.00336
## 3286 1.004 1.40e-04 0.00367
## 3287 1.005 1.31e-05 0.00263
## 3288 1.001 3.39e-04 0.00355
## 3289 1.001 2.47e-04 0.00312
## 3290 1.001 1.29e-04 0.00205
## 3291 1.005 3.53e-05 0.00259
## 3292 1.004 7.09e-05 0.00245
## 3293 1.006 4.73e-06 0.00294
## 3294 1.004 2.12e-05 0.00171
## 3295 1.005 5.44e-06 0.00240
## 3296 1.004 1.18e-06 0.00145
## 3297 1.002 8.46e-05 0.00191
## 3298 1.000 1.97e-04 0.00213
## 3299 1.002 2.16e-04 0.00291
## 3300 1.005 2.57e-05 0.00309
## 3301 1.000 2.72e-04 0.00283
## 3302 1.001 2.85e-04 0.00333
## 3303 1.006 5.57e-06 0.00337
## 3304 1.006 1.95e-05 0.00326
## 3305 1.004 2.09e-06 0.00124
## 3306 1.003 1.30e-04 0.00290
## 3307 1.006 8.63e-05 0.00435
## 3308 1.004 2.33e-05 0.00177
## 3309 1.004 2.01e-05 0.00181
## 3310 1.004 7.43e-05 0.00286
## 3311 1.005 3.53e-05 0.00259
## 3312 1.007 6.45e-05 0.00480
## 3313 1.006 1.07e-05 0.00328
## 3314 0.998 4.74e-04 0.00324
## 3315 1.000 2.98e-04 0.00292
## 3316 1.004 1.83e-04 0.00392
## 3317 1.006 3.50e-07 0.00288
## 3318 1.004 6.83e-05 0.00236
## 3319 1.005 8.56e-06 0.00238
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## 3320 0.999 2.48e-04 0.00233
## 3321 1.003 6.59e-05 0.00206
## 3322 0.994 9.20e-04 0.00395
## 3323 1.006 3.38e-05 0.00323
## 3324 0.997 1.68e-04 0.00131
## 3325 1.004 8.38e-05 0.00287
## 3326 1.000 2.62e-04 0.00259
## 3327 0.997 2.54e-04 0.00179
## 3328 1.006 7.08e-07 0.00329
## 3329 0.999 1.92e-04 0.00192
## 3330 1.004 3.24e-05 0.00209
## 3331 1.005 2.36e-06 0.00211
## 3332 0.996 2.01e-04 0.00145
## 3333 1.001 2.42e-04 0.00298
## 3334 1.004 1.88e-05 0.00201
## 3335 1.004 7.16e-05 0.00256
## 3336 1.006 6.80e-05 0.00414
## 3337 1.006 4.86e-05 0.00362
## 3338 1.005 5.26e-06 0.00189
## 3339 1.001 8.86e-05 0.00159
## 3340 1.005 3.15e-05 0.00249
## 3341 0.994 5.07e-04 0.00253
## 3342 1.005 6.27e-07 0.00191
## 3343 1.005 7.70e-05 0.00314
## 3344 1.004 8.19e-05 0.00258
## 3345 0.997 2.26e-04 0.00178
## 3346 0.995 4.96e-04 0.00258
## 3347 1.004 6.06e-05 0.00231
## 3348 0.999 3.33e-04 0.00296
## 3349 1.007 5.94e-06 0.00423
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## 3351 0.998 3.71e-04 0.00281
## 3352 0.999 4.88e-04 0.00354
## 3353 1.005 1.32e-05 0.00261
## 3354 1.004 2.25e-05 0.00182
## 3355 1.001 1.53e-04 0.00226
## 3356 1.008 1.11e-05 0.00513
## 3357 0.996 3.79e-04 0.00238
## 3358 1.006 1.14e-05 0.00371
## 3359 1.002 2.01e-04 0.00297
## 3360 1.005 2.12e-06 0.00199
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## 3362 1.006 1.31e-06 0.00287
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## 3365 1.007 4.40e-05 0.00493
## 3366 0.992 5.20e-04 0.00225
## 3367 1.004 1.40e-04 0.00351
## 3368 1.003 6.46e-05 0.00223
## 3369 0.997 5.54e-04 0.00351
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## 3370 1.005 1.50e-05 0.00268
## 3371 1.004 4.33e-05 0.00256
## 3372 1.005 1.83e-06 0.00265
## 3373 1.005 3.29e-05 0.00298
## 3374 1.004 2.22e-05 0.00180
## 3375 1.005 3.34e-05 0.00299
## 3376 1.005 1.15e-05 0.00270
## 3377 1.005 6.03e-06 0.00245
## 3378 1.002 9.61e-05 0.00202
## 3379 1.001 1.88e-04 0.00256
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## 3381 1.006 4.43e-06 0.00337
## 3382 1.004 1.92e-05 0.00163
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## 3385 1.005 1.94e-07 0.00219
## 3386 1.004 1.89e-05 0.00173
## 3387 1.006 1.82e-05 0.00347
## 3388 1.005 3.36e-05 0.00310
## 3389 1.005 3.24e-05 0.00269
## 3390 1.006 2.26e-05 0.00378
## 3391 1.006 1.68e-05 0.00332
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## 3394 1.005 3.21e-05 0.00300
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## 3401 1.004 2.55e-06 0.00130
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## 3406 0.999 2.77e-04 0.00256
## 3407 1.007 1.97e-05 0.00441
## 3408 1.000 1.91e-04 0.00225
## 3409 1.007 2.26e-06 0.00426
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## 3411 1.004 1.94e-04 0.00369
## 3412 1.005 5.98e-05 0.00343
## 3413 1.005 6.36e-05 0.00311
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## 3415 1.005 1.13e-04 0.00361
## 3416 1.006 1.98e-06 0.00335
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## 3418 0.995 4.78e-04 0.00263
## 3419 1.002 7.62e-05 0.00177
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## 3420 1.003 1.33e-04 0.00264
## 3421 1.001 7.53e-05 0.00129
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## 3425 1.007 2.19e-05 0.00410
## 3426 1.002 1.10e-04 0.00211
## 3427 1.005 4.22e-06 0.00201
## 3428 1.004 3.27e-05 0.00231
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## 3430 0.997 1.83e-04 0.00148
## 3431 1.005 7.72e-06 0.00197
## 3432 1.004 4.19e-05 0.00251
## 3433 1.003 8.50e-05 0.00206
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## 3435 1.005 6.89e-06 0.00186
## 3436 1.006 1.53e-05 0.00316
## 3437 1.001 1.74e-04 0.00247
## 3438 1.006 7.33e-05 0.00380
## 3439 1.006 4.04e-05 0.00392
## 3440 1.003 9.38e-05 0.00234
## 3441 1.004 3.85e-05 0.00227
## 3442 1.003 9.00e-05 0.00248
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## 3447 1.001 1.04e-04 0.00177
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## 3449 1.005 2.19e-04 0.00480
## 3450 1.003 5.70e-05 0.00197
## 3451 1.006 2.40e-07 0.00322
## 3452 1.004 4.29e-05 0.00208
## 3453 1.001 1.66e-04 0.00216
## 3454 1.005 1.13e-05 0.00267
## 3455 1.004 1.11e-04 0.00299
## 3456 1.006 2.21e-07 0.00336
## 3457 1.003 7.63e-05 0.00218
## 3458 1.002 1.84e-04 0.00272
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## 3465 1.004 7.65e-05 0.00249
## 3466 1.004 2.12e-06 0.00138
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## 3468 0.998 3.35e-04 0.00269
## 3469 1.006 6.82e-05 0.00403
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## 3470 1.005 1.28e-05 0.00214
## 3471 1.005 9.95e-05 0.00351
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## 3474 0.997 2.27e-04 0.00179
## 3475 1.005 9.29e-06 0.00269
## 3476 1.002 1.25e-04 0.00216
## 3477 1.003 7.45e-05 0.00217
## 3478 1.002 1.60e-04 0.00263
## 3479 1.003 2.21e-04 0.00349
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## 3481 1.005 5.77e-05 0.00331
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## 3485 0.997 4.00e-04 0.00267
## 3486 1.006 1.27e-05 0.00314
## 3487 1.003 1.57e-04 0.00332
## 3488 1.002 1.23e-04 0.00226
## 3489 1.003 1.37e-04 0.00286
## 3490 1.003 6.25e-05 0.00207
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## 3492 0.997 3.34e-04 0.00230
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## 3498 1.005 3.53e-05 0.00280
## 3499 1.005 1.32e-05 0.00245
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## 3501 1.001 2.28e-04 0.00276
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## 3504 1.001 1.03e-04 0.00177
## 3505 0.996 1.98e-04 0.00145
## 3506 1.005 8.28e-08 0.00246
## 3507 1.006 8.55e-06 0.00322
## 3508 1.005 1.39e-05 0.00260
## 3509 1.005 1.30e-05 0.00264
## 3510 1.004 5.19e-05 0.00234
## 3511 0.997 2.26e-04 0.00166
## 3512 0.986 9.85e-04 0.00287    *
## 3513 1.004 2.23e-05 0.00181
## 3514 1.000 2.42e-04 0.00267
## 3515 1.005 1.76e-05 0.00212
## 3516 1.006 1.98e-06 0.00273
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## 3518 1.005 2.00e-06 0.00238
## 3519 1.003 7.74e-05 0.00240
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## 3520 0.999 3.60e-04 0.00296
## 3521 0.998 4.29e-04 0.00315
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## 3524 0.998 4.28e-04 0.00303
## 3525 1.004 1.85e-04 0.00362
## 3526 1.004 4.26e-06 0.00142
## 3527 0.998 3.59e-04 0.00269
## 3528 1.004 2.03e-05 0.00184
## 3529 0.993 8.55e-04 0.00363
## 3530 1.005 1.12e-05 0.00218
## 3531 0.997 3.43e-04 0.00235
## 3532 1.006 2.55e-05 0.00315
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## 3538 1.006 6.02e-06 0.00330
## 3539 0.999 3.62e-04 0.00313
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## 3544 1.005 2.08e-05 0.00273
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## 3548 1.005 1.94e-06 0.00264
## 3549 0.999 2.28e-04 0.00211
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## 3551 1.005 8.03e-06 0.00193
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## 3553 1.002 2.00e-04 0.00285
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## 3557 1.004 9.01e-05 0.00313
## 3558 1.000 3.06e-04 0.00311
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## 3564 1.004 5.12e-06 0.00130
## 3565 1.005 1.76e-06 0.00219
## 3566 1.004 1.03e-04 0.00303
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## 3568 1.005 1.41e-05 0.00260
## 3569 1.004 4.42e-05 0.00203
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## 3585 1.005 2.11e-06 0.00243
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## 3587 0.997 2.06e-04 0.00167
## 3588 1.001 9.65e-05 0.00146
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## 3590 1.003 1.19e-04 0.00247
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## 3601 1.004 7.10e-05 0.00286
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## 3607 0.998 1.40e-04 0.00138
## 3608 1.005 1.42e-04 0.00423
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## 3611 1.007 1.28e-05 0.00425
## 3612 1.002 3.24e-04 0.00397
## 3613 1.006 2.75e-05 0.00316
## 3614 1.004 3.90e-05 0.00231
## 3615 1.006 1.82e-04 0.00490
## 3616 1.000 4.30e-04 0.00358
## 3617 1.004 2.09e-05 0.00198
## 3618 1.001 2.09e-04 0.00280
## 3619 1.005 1.32e-04 0.00381
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## 3620 1.006 8.80e-06 0.00283
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## 3627 1.000 2.64e-04 0.00269
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## 3630 1.006 2.54e-06 0.00298
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## 3635 1.002 1.99e-04 0.00295
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## 3645 1.007 4.86e-06 0.00449
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## 3647 1.000 4.22e-04 0.00380
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## 3651 1.007 1.72e-05 0.00473
## 3652 1.005 3.71e-06 0.00263
## 3653 1.004 5.49e-05 0.00258
## 3654 1.005 1.10e-05 0.00267
## 3655 1.005 1.32e-04 0.00394
## 3656 1.004 8.32e-05 0.00291
## 3657 0.995 2.79e-04 0.00171
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## 3659 1.003 9.09e-05 0.00216
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## 3662 1.002 4.24e-04 0.00454
## 3663 1.005 7.61e-05 0.00371
## 3664 1.002 1.27e-04 0.00245
## 3665 1.006 1.17e-05 0.00287
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## 3668 0.999 1.91e-04 0.00199
## 3669 0.996 2.52e-04 0.00173
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## 3684 1.002 8.11e-05 0.00196
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## 3697 1.001 1.98e-04 0.00267
## 3698 1.005 7.35e-06 0.00197
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## 3701 1.002 2.12e-04 0.00307
## 3702 1.005 1.39e-05 0.00254
## 3703 1.005 5.38e-06 0.00235
## 3704 1.002 1.45e-04 0.00229
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## 3706 1.006 1.18e-07 0.00302
## 3707 1.006 2.05e-06 0.00296
## 3708 1.000 3.38e-04 0.00315
## 3709 1.006 1.83e-05 0.00331
## 3710 0.997 3.32e-04 0.00233
## 3711 1.004 8.98e-05 0.00283
## 3712 1.005 4.47e-05 0.00291
## 3713 1.004 1.32e-04 0.00312
## 3714 1.004 9.88e-07 0.00125
## 3715 1.006 8.83e-06 0.00307
## 3716 0.992 3.97e-04 0.00174
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## 3718 1.004 1.13e-05 0.00189
## 3719 1.006 2.71e-07 0.00268
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## 3720 1.001 7.93e-05 0.00150
## 3721 1.001 1.98e-04 0.00272
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## 3747 1.006 3.71e-06 0.00307
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## 3749 1.004 2.30e-05 0.00178
## 3750 1.002 6.76e-05 0.00152
## 3751 0.999 3.32e-04 0.00297
## 3752 1.006 4.36e-06 0.00336
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## 3755 0.999 2.35e-04 0.00211
## 3756 1.006 9.14e-07 0.00286
## 3757 1.002 1.08e-04 0.00198
## 3758 1.003 1.11e-04 0.00242
## 3759 1.004 2.19e-05 0.00197
## 3760 1.004 4.90e-05 0.00230
## 3761 0.999 4.52e-04 0.00355
## 3762 1.006 1.02e-06 0.00315
## 3763 1.003 8.26e-05 0.00243
## 3764 1.005 2.53e-05 0.00266
## 3765 1.005 3.38e-06 0.00233
## 3766 1.002 8.19e-05 0.00184
## 3767 1.004 1.53e-04 0.00368
## 3768 0.999 3.95e-04 0.00308
## 3769 1.005 7.99e-05 0.00361
```

```
## 3770 1.001 1.84e-04 0.00229
## 3771 1.005 7.20e-05 0.00347
## 3772 1.005 2.64e-06 0.00183
## 3773 1.003 1.48e-04 0.00278
## 3774 0.982 1.65e-03 0.00378     *
## 3775 1.006 6.47e-07 0.00327
## 3776 1.004 2.08e-06 0.00127
## 3777 0.998 3.62e-04 0.00265
## 3778 1.004 8.42e-05 0.00281
## 3779 1.002 1.27e-04 0.00217
## 3780 1.004 9.94e-05 0.00313
## 3781 1.000 1.86e-04 0.00225
## 3782 1.005 9.99e-05 0.00389
## 3783 0.987 1.04e-03 0.00309     *
## 3784 1.004 1.60e-05 0.00160
## 3785 0.990 5.66e-04 0.00209     *
## 3786 0.998 1.38e-04 0.00124
## 3787 1.002 1.23e-04 0.00234
## 3788 1.004 1.74e-05 0.00161
## 3789 1.004 1.47e-04 0.00334
## 3790 0.997 2.36e-04 0.00184
## 3791 0.998 2.53e-04 0.00199
## 3792 1.005 5.26e-05 0.00296
## 3793 1.002 1.67e-04 0.00249
## 3794 0.991 8.38e-04 0.00321     *
## 3795 1.007 7.92e-07 0.00428
## 3796 1.002 2.50e-04 0.00328
## 3797 1.004 2.29e-05 0.00178
## 3798 0.992 8.78e-04 0.00350
## 3799 0.999 2.32e-04 0.00231
## 3800 1.002 8.16e-05 0.00197
## 3801 1.000 2.23e-04 0.00229
## 3802 1.002 1.52e-04 0.00243
## 3803 1.005 2.04e-05 0.00219
## 3804 1.005 8.15e-10 0.00172
## 3805 1.003 8.24e-05 0.00222
## 3806 1.004 7.22e-05 0.00242
## 3807 1.005 1.27e-05 0.00218
## 3808 1.005 2.38e-05 0.00290
## 3809 1.005 7.53e-06 0.00208
## 3810 1.002 6.68e-05 0.00148
## 3811 1.007 1.38e-05 0.00465
## 3812 1.005 6.72e-07 0.00219
## 3813 1.005 1.56e-05 0.00277
## 3814 1.006 3.91e-05 0.00351
## 3815 1.006 2.32e-05 0.00362
## 3816 1.003 6.36e-05 0.00204
## 3817 0.999 5.76e-04 0.00395
## 3818 1.005 3.42e-05 0.00275
## 3819 1.001 1.73e-04 0.00238
```

```
## 3820 1.005 2.17e-06 0.00197
## 3821 1.004 1.51e-05 0.00182
## 3822 1.005 7.80e-06 0.00260
## 3823 1.000 1.89e-04 0.00230
## 3824 1.005 8.41e-05 0.00332
## 3825 1.002 3.01e-04 0.00356
## 3826 1.005 2.66e-05 0.00290
## 3827 1.003 2.55e-04 0.00365
## 3828 0.990 1.02e-03 0.00350     *
## 3829 1.004 2.06e-06 0.00143
## 3830 1.006 2.34e-07 0.00362
## 3831 1.003 2.60e-04 0.00404
## 3832 0.998 2.55e-04 0.00210
## 3833 1.004 1.25e-05 0.00191
## 3834 1.006 1.46e-07 0.00312
## 3835 1.001 1.71e-04 0.00234
## 3836 0.999 2.70e-04 0.00251
## 3837 1.003 1.54e-04 0.00287
## 3838 0.993 5.59e-04 0.00251
## 3839 1.001 1.32e-04 0.00199
## 3840 1.002 9.59e-05 0.00216
## 3841 1.004 2.84e-05 0.00198
## 3842 1.003 8.85e-05 0.00227
## 3843 0.992 6.26e-04 0.00265
## 3844 1.005 1.99e-07 0.00262
## 3845 1.005 1.24e-07 0.00223
## 3846 1.005 4.74e-05 0.00289
## 3847 1.003 1.01e-04 0.00257
## 3848 1.004 8.23e-05 0.00312
## 3849 1.007 2.83e-06 0.00412
## 3850 1.004 6.90e-05 0.00290
## 3851 1.005 2.26e-05 0.00244
## 3852 1.005 2.23e-06 0.00247
## 3853 1.004 7.64e-05 0.00270
## 3854 1.004 1.46e-04 0.00341
## 3855 1.004 1.82e-04 0.00413
## 3856 1.006 3.87e-06 0.00294
## 3857 0.998 3.82e-04 0.00282
## 3858 1.001 1.31e-04 0.00190
## 3859 1.005 5.42e-05 0.00307
## 3860 1.005 8.97e-06 0.00268
## 3861 1.006 9.76e-05 0.00421
## 3862 0.999 3.02e-04 0.00258
## 3863 1.002 1.03e-04 0.00214
## 3864 1.007 3.18e-05 0.00413
## 3865 1.005 6.95e-05 0.00307
## 3866 1.001 3.97e-04 0.00381
## 3867 1.007 8.21e-07 0.00386
## 3868 1.002 7.70e-05 0.00166
## 3869 0.998 3.81e-04 0.00293
```

```
## 3870 0.998 2.49e-04 0.00195
## 3871 0.998 5.81e-04 0.00383
## 3872 1.005 3.55e-07 0.00251
## 3873 0.996 2.49e-04 0.00169
## 3874 1.004 9.83e-05 0.00288
## 3875 1.005 3.14e-05 0.00292
## 3876 1.002 9.10e-05 0.00179
## 3877 0.999 2.22e-04 0.00217
## 3878 1.000 3.23e-04 0.00305
## 3879 0.996 2.23e-04 0.00150
## 3880 1.006 4.72e-05 0.00342
## 3881 0.999 2.07e-04 0.00209
## 3882 1.002 1.35e-04 0.00239
## 3883 1.004 4.87e-06 0.00154
## 3884 0.990 7.64e-04 0.00275    *
## 3885 1.005 1.47e-05 0.00268
## 3886 1.004 1.06e-05 0.00168
## 3887 1.002 1.89e-04 0.00297
## 3888 1.006 5.02e-07 0.00320
## 3889 1.005 1.97e-06 0.00217
## 3890 1.004 5.64e-07 0.00154
## 3891 1.005 1.49e-07 0.00258
## 3892 1.005 2.31e-06 0.00193
## 3893 1.003 1.35e-04 0.00279
## 3894 1.004 6.19e-07 0.00147
## 3895 1.005 1.03e-05 0.00267
## 3896 1.004 1.37e-04 0.00331
## 3897 1.006 6.76e-05 0.00375
## 3898 1.005 5.85e-06 0.00217
## 3899 1.000 4.17e-04 0.00364
## 3900 1.002 1.60e-04 0.00280
## 3901 1.003 2.37e-04 0.00351
## 3902 1.005 2.18e-05 0.00283
## 3903 1.005 3.06e-06 0.00248
## 3904 0.998 2.40e-04 0.00204
## 3905 0.993 4.20e-04 0.00195
## 3906 1.005 9.01e-07 0.00225
## 3907 1.005 4.11e-06 0.00271
## 3908 1.004 9.97e-07 0.00148
## 3909 1.006 3.29e-05 0.00331
## 3910 1.000 2.20e-04 0.00226
## 3911 1.002 1.33e-04 0.00222
## 3912 1.001 1.43e-04 0.00219
## 3913 1.004 6.85e-05 0.00240
## 3914 1.007 8.74e-06 0.00393
## 3915 1.005 7.63e-05 0.00377
## 3916 1.003 1.71e-04 0.00316
## 3917 1.003 8.21e-05 0.00210
## 3918 0.997 4.38e-04 0.00297
## 3919 1.006 4.62e-05 0.00380
```

```
## 3920 1.004 1.40e-04 0.00358
## 3921 0.994 5.95e-04 0.00280
## 3922 0.998 3.01e-04 0.00239
## 3923 1.005 1.50e-05 0.00283
## 3924 1.005 1.15e-05 0.00280
## 3925 1.006 6.44e-05 0.00378
## 3926 1.004 9.68e-05 0.00281
## 3927 1.004 1.46e-05 0.00180
## 3928 1.007 4.42e-05 0.00434
## 3929 1.006 7.90e-06 0.00279
## 3930 1.005 1.02e-04 0.00382
## 3931 1.004 3.78e-05 0.00214
## 3932 1.003 6.96e-05 0.00206
## 3933 1.002 1.91e-04 0.00295
## 3934 1.003 1.45e-04 0.00302
## 3935 1.005 3.44e-05 0.00302
## 3936 0.997 2.28e-04 0.00170
## 3937 1.002 1.46e-04 0.00267
## 3938 1.004 7.72e-06 0.00179
## 3939 0.996 6.69e-04 0.00356
## 3940 0.998 6.33e-04 0.00418
## 3941 1.004 6.96e-05 0.00264
## 3942 1.005 6.52e-05 0.00347
## 3943 1.004 9.33e-05 0.00323
## 3944 1.001 2.21e-04 0.00259
## 3945 1.006 2.59e-05 0.00333
## 3946 1.005 4.52e-06 0.00266
## 3947 1.002 1.98e-04 0.00291
## 3948 0.995 4.23e-04 0.00232
## 3949 1.002 2.41e-04 0.00343
## 3950 1.005 9.97e-05 0.00366
## 3951 1.005 6.01e-05 0.00333
## 3952 1.001 1.64e-04 0.00223
## 3953 1.006 1.92e-05 0.00365
## 3954 1.003 1.48e-04 0.00291
## 3955 1.003 1.76e-04 0.00310
## 3956 1.004 7.15e-05 0.00269
## 3957 1.005 8.14e-06 0.00252
## 3958 1.006 1.23e-07 0.00297
## 3959 1.002 1.24e-04 0.00219
## 3960 1.006 2.32e-07 0.00299
## 3961 1.004 2.70e-06 0.00171
## 3962 1.006 1.16e-05 0.00303
## 3963 0.998 2.30e-04 0.00204
## 3964 1.006 4.56e-08 0.00290
## 3965 0.988 7.09e-04 0.00235    *
## 3966 1.005 2.26e-05 0.00298
## 3967 1.006 3.23e-05 0.00331
## 3968 1.005 5.99e-05 0.00352
## 3969 1.003 1.01e-04 0.00230
```

```
## 3970 0.999 3.27e-04 0.00281
## 3971 1.005 1.50e-06 0.00257
## 3972 0.997 3.98e-04 0.00257
## 3973 1.005 1.90e-07 0.00250
## 3974 1.001 1.40e-04 0.00202
## 3975 0.997 4.67e-04 0.00289
## 3976 1.007 6.00e-06 0.00392
## 3977 0.999 3.33e-04 0.00289
## 3978 1.005 7.52e-06 0.00262
## 3979 1.005 1.21e-04 0.00392
## 3980 1.007 1.17e-06 0.00385
## 3981 1.001 7.69e-05 0.00146
## 3982 1.006 2.18e-06 0.00271
## 3983 1.004 2.22e-04 0.00430
## 3984 0.996 2.64e-04 0.00179
## 3985 1.003 1.93e-04 0.00362
## 3986 1.007 3.47e-06 0.00369
## 3987 1.006 4.23e-05 0.00355
## 3988 0.998 2.94e-04 0.00235
## 3989 0.998 4.95e-04 0.00332
## 3990 1.005 1.51e-06 0.00185
## 3991 1.007 2.05e-06 0.00413
## 3992 1.006 6.04e-06 0.00317
## 3993 1.002 8.65e-05 0.00190
## 3994 0.999 2.42e-04 0.00226
## 3995 1.004 5.63e-05 0.00267
## 3996 1.005 1.94e-05 0.00259
## 3997 1.005 8.96e-08 0.00178
## 3998 1.005 2.39e-05 0.00284
## 3999 0.995 4.76e-04 0.00269
##  [ reached getOption("max.print") -- omitted 3033 rows ]

##Diagnostics Plots for visualization
plot(fit)
```
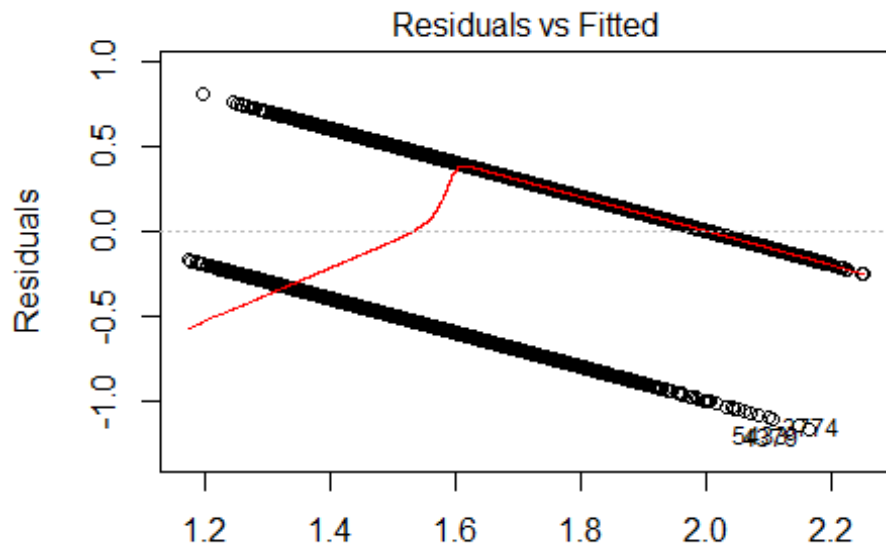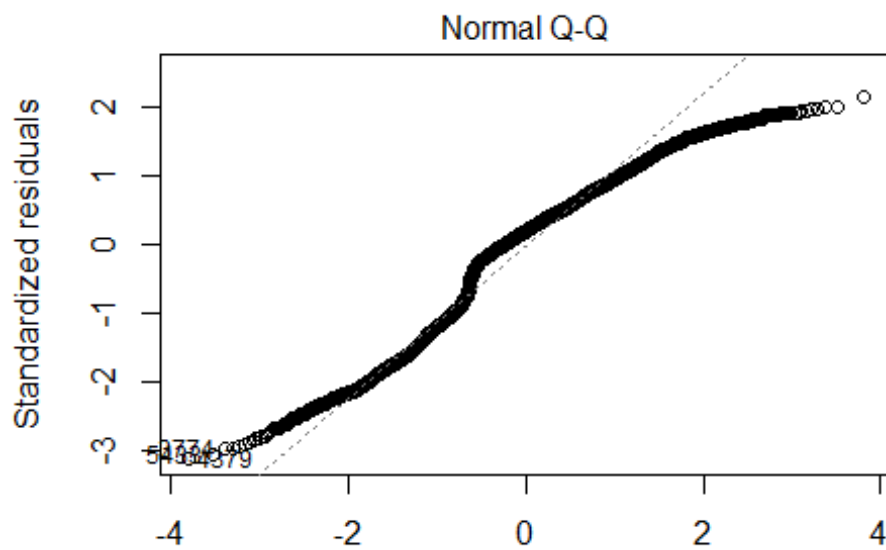
Residuals vs Fitted

Residuals

Fitted values
Churn ~ Gender + SeniorCitizen + Partner + Dependents + Tenure + Pr

Normal Q-Q

Standardized residuals

Theoretical Quantiles
Churn ~ Gender + SeniorCitizen + Partner + Dependents + Tenure + Pr

Scale-Location

Fitted values
Churn ~ Gender + SeniorCitizen + Partner + Dependents + Tenure + Ph

Residuals vs Leverage

Leverage
Churn ~ Gender + SeniorCitizen + Partner + Dependents + Tenure + Ph
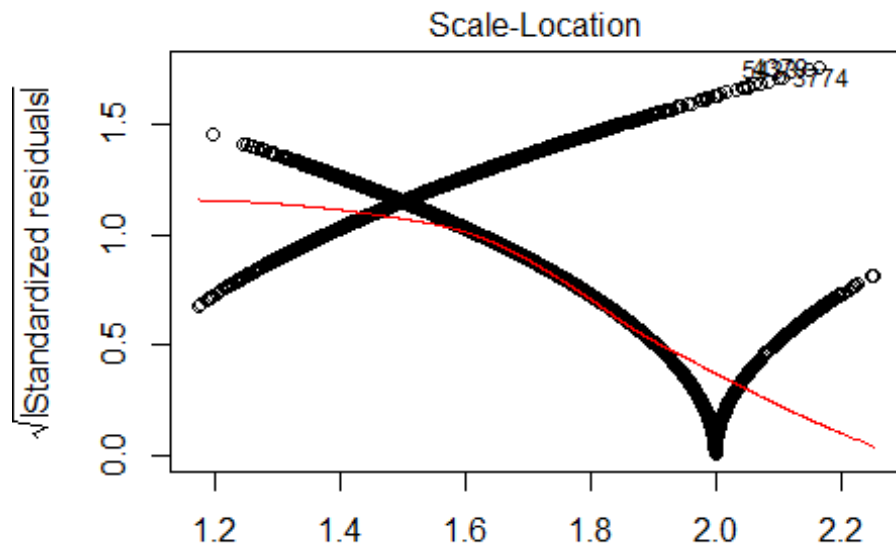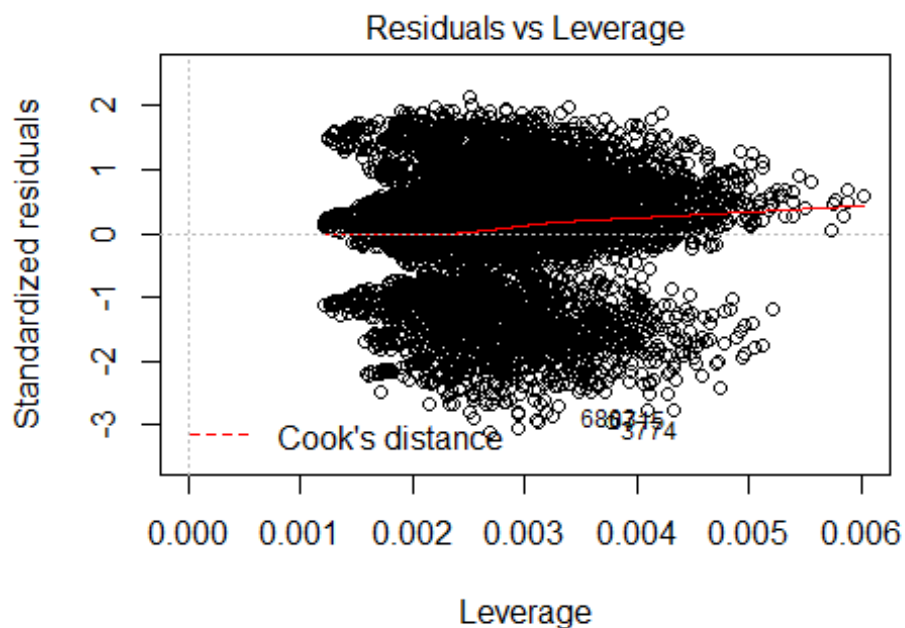
```r
#Finding Outliers and plottting scatterplot for visual analysis
outlierTest(fit)
```

```
## No Studentized residuals with Bonferonni p < 0.05
## Largest |rstudent|:
##       rstudent unadjusted p-value Bonferonni p
## 4379 -3.101834          0.0019309           NA
```

```
qqPlot(fit, main="QQ Plot")
```

QQ Plot
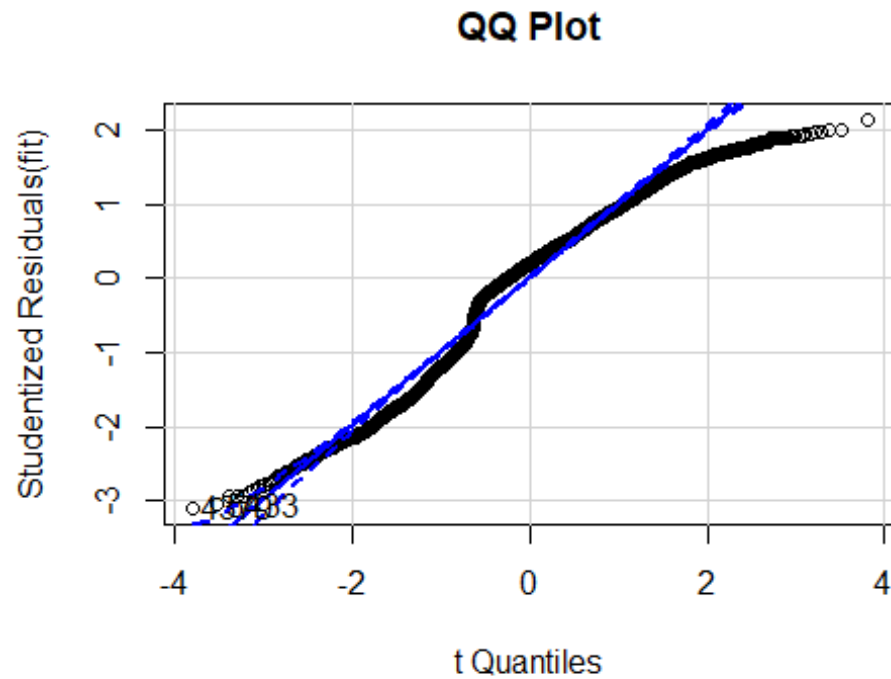

```
## [1] 4379 5433
```

```
#Plotting leverage plots
leveragePlots(fit)
```
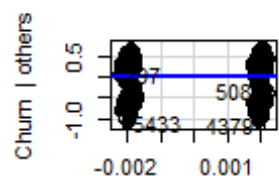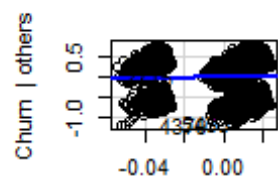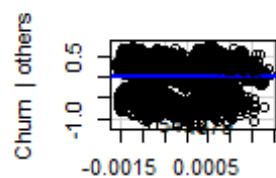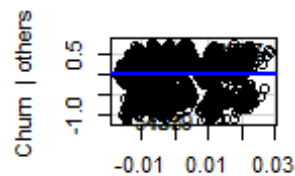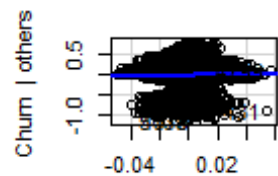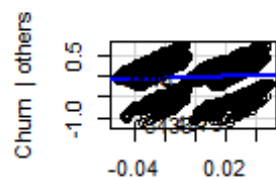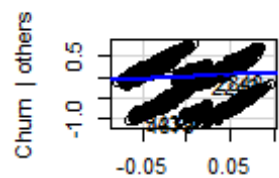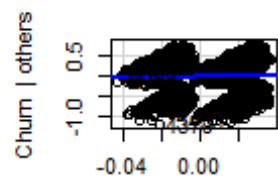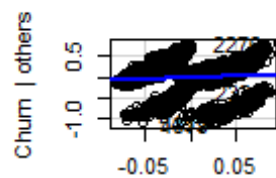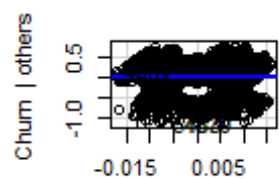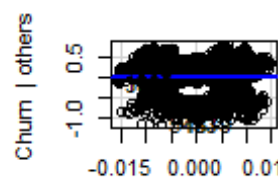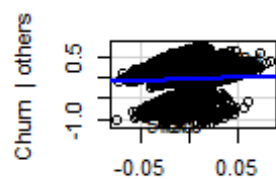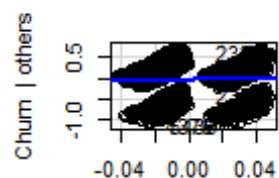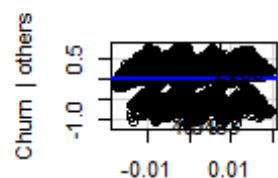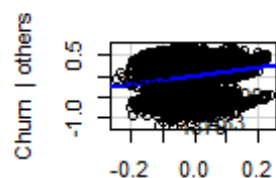
Leverage Plots
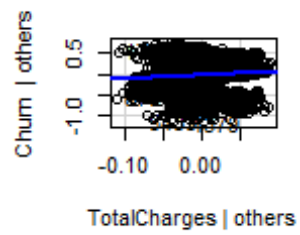

```r
# Plotting variable plots for Influential Observations

avPlots(fit)
```
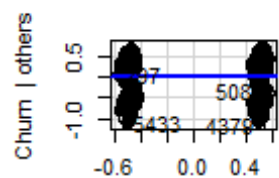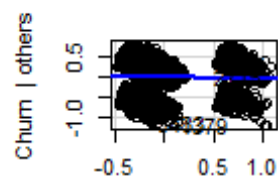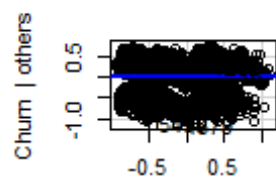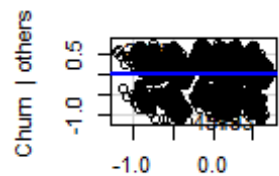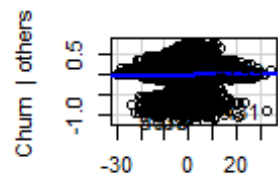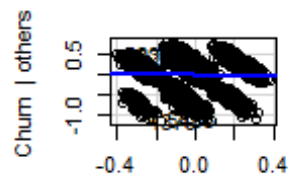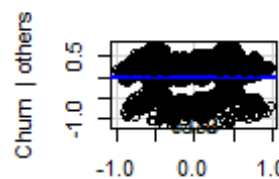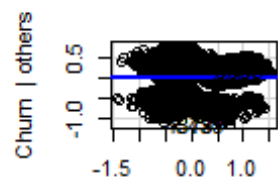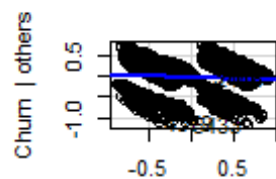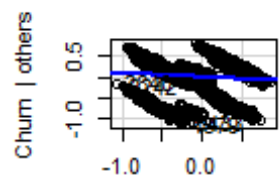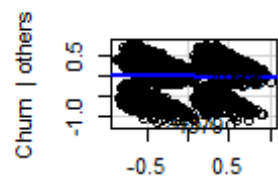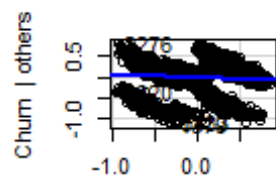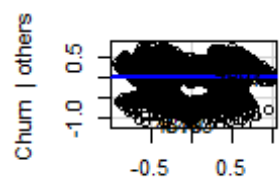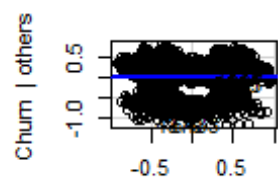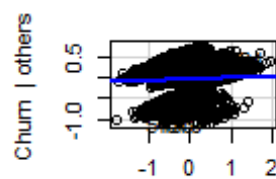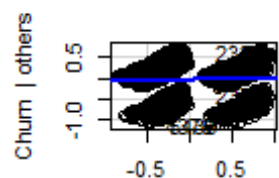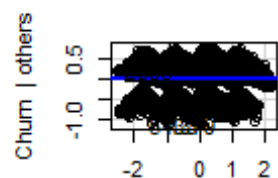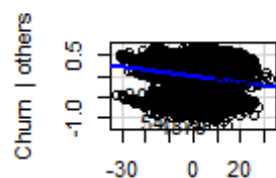
Added-Variable Plots
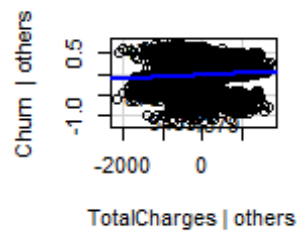

```
# Normality of Residuals and qqplot for studentized resid
qqPlot(fit, main="QQ Plot")
```

QQ Plot
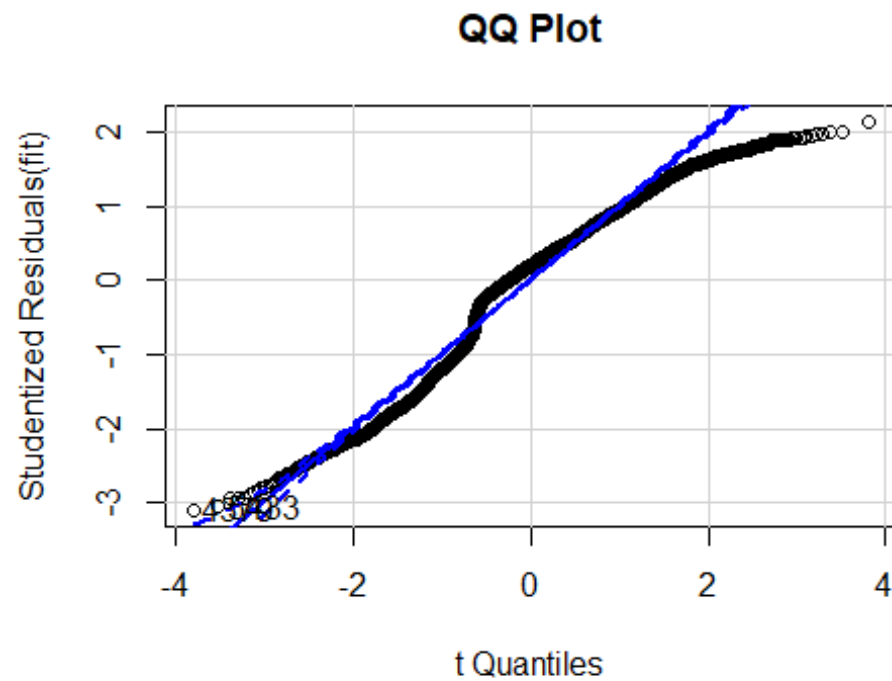
```
## [1] 4379 5433
```

```
#Distribution of studentized residuals
sresid <- studres(fit)
hist(sresid, freq=FALSE,
     main="Distribution of Studentized Residuals")
xfit<-seq(min(sresid),max(sresid),length=40)
yfit<-dnorm(xfit)
lines(xfit, yfit)
```

Distribution of Studentized Residuals
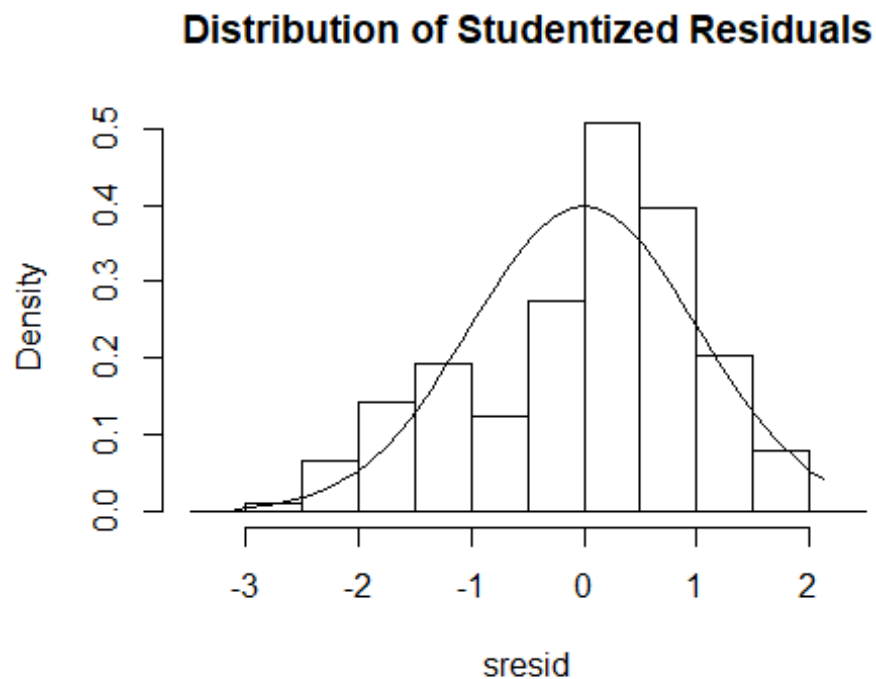

```
#Non-constant Error Variance
#Evaluating homoscedasticity
#Non-constant error variance test
ncvTest(fit)
```

```
## Non-constant Variance Score Test
## Variance formula: ~ fitted.values
## Chisquare = 914.0037    Df = 1     p = 8.863657e-201
```

```
#Plotting studentized residuals v/s. fitted values
spreadLevelPlot(fit)
```

Spread-Level Plot for
fit
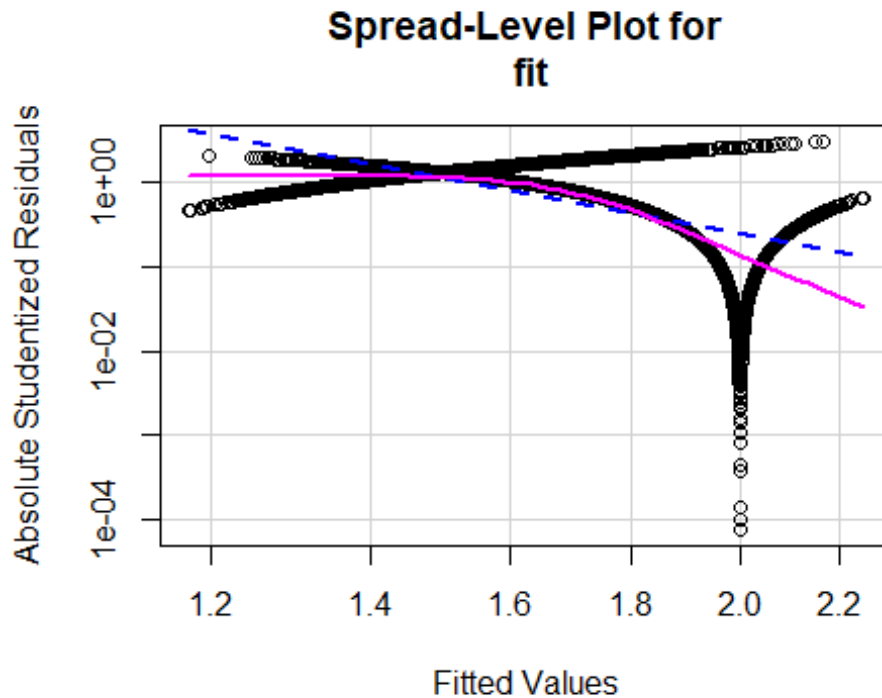

```
##
## Suggested power transformation:  6.282503
```

```
#Multi-collinearity
# Evaluate Collinearity
vif(fit) # variance inflation factors
```

```
##          Gender    SeniorCitizen          Partner         Dependents
##        1.001896         1.149619         1.461181           1.379675
##          Tenure     PhoneService     MultipleLines    InternetService
##        7.493307         3.653103         2.726882           1.923602
##    OnlineBackup    OnlineSecurity DeviceProtection        TechSupport
##        1.517621         1.494666         1.593000           1.541748
##     StreamingTV   StreamingMovies         Contract   PaperlessBilling
##        1.939452         1.945417         2.492521           1.202420
##   PaymentMethod    MonthlyCharges     TotalCharges
##        1.186114         6.434736        10.616907
```

```
sqrt(vif(fit)) > 2
```

```
##          Gender    SeniorCitizen          Partner         Dependents
##           FALSE            FALSE            FALSE              FALSE
##          Tenure     PhoneService     MultipleLines    InternetService
##            TRUE            FALSE            FALSE              FALSE
##    OnlineBackup    OnlineSecurity DeviceProtection        TechSupport
##           FALSE            FALSE            FALSE              FALSE
##     StreamingTV   StreamingMovies         Contract   PaperlessBilling
```

```
##              FALSE              FALSE              FALSE              FALSE
##      PaymentMethod    MonthlyCharges      TotalCharges
##              FALSE               TRUE               TRUE
```

```r
#Nonlinearity
# component + residual plot
crPlots(fit)
```
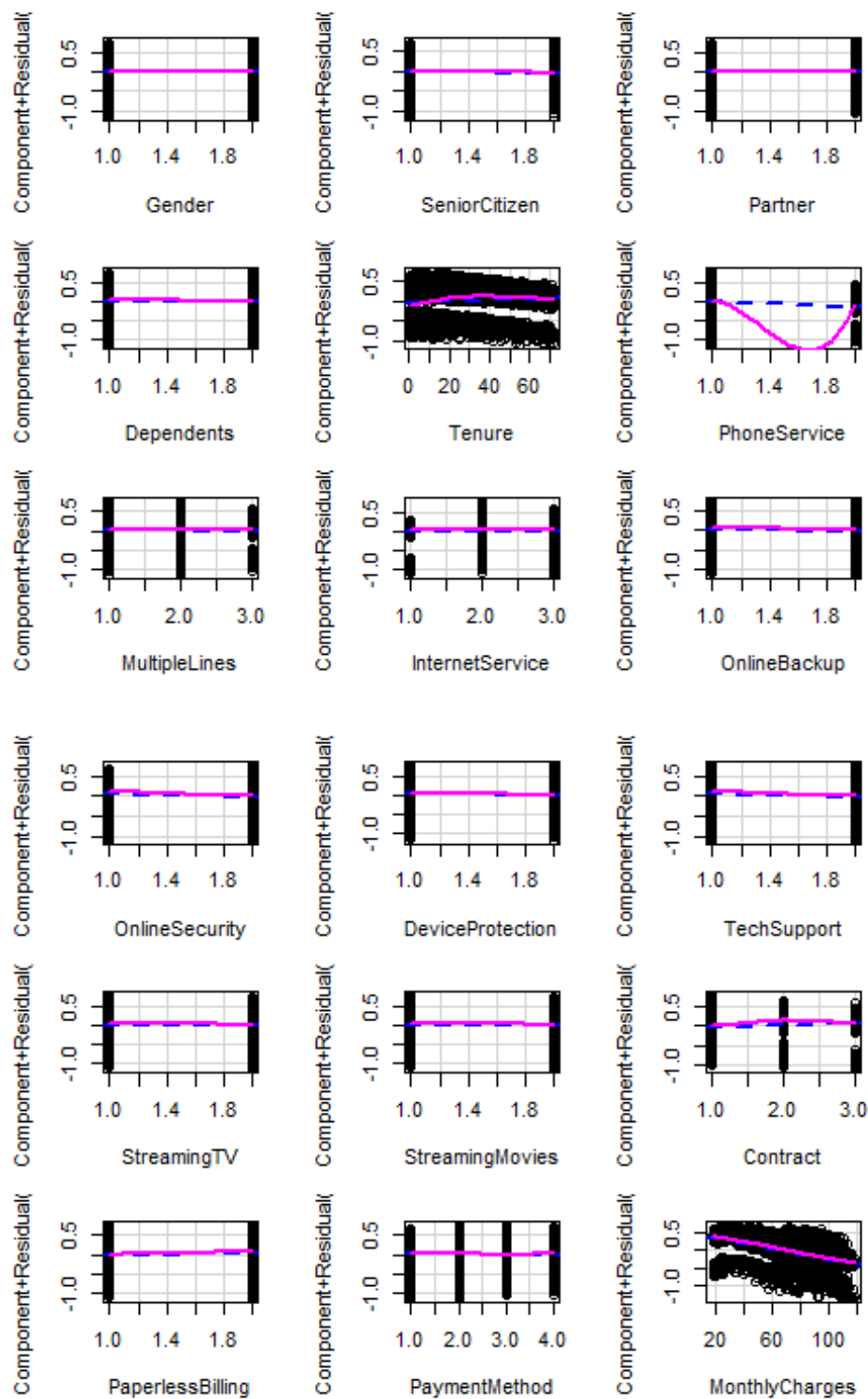
Component + Residual Plots
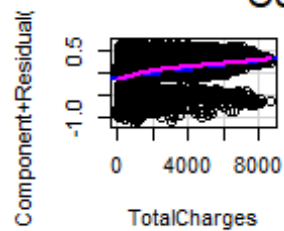
#Global test of model assumptions

##In the below steps we are performing regressions using all independent variable and we keep
##on eliminating the ones which are not significant in the next regression until we see
##constant values for R2

```
gvmodel <- gvlma(fit)
summary(gvmodel)

##
## Call:
## lm(formula = Churn ~ Gender + SeniorCitizen + Partner + Dependents +
##     Tenure + PhoneService + MultipleLines + InternetService +
##     OnlineBackup + OnlineSecurity + DeviceProtection + TechSupport +
##     StreamingTV + StreamingMovies + Contract + PaperlessBilling +
##     PaymentMethod + MonthlyCharges + TotalCharges, data = tablechurn)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.16590 -0.29353  0.07249  0.26751  0.80298
##
## Coefficients:
##                    Estimate Std. Error t value Pr(>|t|)
## (Intercept)       2.714e+00  9.660e-02  28.098  < 2e-16 ***
## Gender            3.950e-03  8.991e-03   0.439 0.660414
```

```
## SeniorCitizen      -5.014e-02  1.306e-02   -3.840 0.000124 ***
## Partner             1.714e-03  1.086e-02    0.158 0.874621
## Dependents          -2.389e-02  1.153e-02   -2.072 0.038282 *
## Tenure              1.677e-03  5.009e-04    3.348 0.000818 ***
## PhoneService        -1.394e-01  2.904e-02   -4.799 1.63e-06 ***
## MultipleLines       -2.248e-02  1.131e-02   -1.987 0.046912 *
## InternetService     9.770e-03  8.449e-03    1.156 0.247568
## OnlineBackup        -5.578e-02  1.164e-02   -4.792 1.68e-06 ***
## OnlineSecurity      -9.139e-02  1.214e-02   -7.526 5.88e-14 ***
## DeviceProtection    -4.199e-02  1.193e-02   -3.518 0.000437 ***
## TechSupport         -9.267e-02  1.229e-02   -7.541 5.23e-14 ***
## StreamingTV         -1.756e-02  1.286e-02   -1.366 0.172065
## StreamingMovies     -1.631e-02  1.285e-02   -1.269 0.204469
## Contract            4.278e-02  8.513e-03    5.025 5.16e-07 ***
## PaperlessBilling    5.032e-02  1.002e-02    5.020 5.28e-07 ***
## PaymentMethod       -7.811e-03  4.582e-03   -1.705 0.088325 .
## MonthlyCharges      -7.487e-03  3.787e-04  -19.771  < 2e-16 ***
## TotalCharges        5.178e-05  6.456e-06    8.020 1.23e-15 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3766 on 7012 degrees of freedom
## Multiple R-squared:  0.2752, Adjusted R-squared:  0.2733
## F-statistic: 140.1 on 19 and 7012 DF,  p-value: < 2.2e-16
##
##
## ASSESSMENT OF THE LINEAR MODEL ASSUMPTIONS
## USING THE GLOBAL TEST ON 4 DEGREES-OF-FREEDOM:
## Level of Significance =  0.05
##
## Call:
##  gvlma(x = fit)
##
##                    Value    p-value                  Decision
## Global Stat       664.671 0.000e+00 Assumptions NOT satisfied!
## Skewness          366.591 0.000e+00 Assumptions NOT satisfied!
## Kurtosis           51.526 7.064e-13 Assumptions NOT satisfied!
## Link Function     244.686 0.000e+00 Assumptions NOT satisfied!
## Heteroscedasticity   1.867 1.718e-01    Assumptions acceptable.

fit

##
## Call:
## lm(formula = Churn ~ Gender + SeniorCitizen + Partner + Dependents +
##     Tenure + PhoneService + MultipleLines + InternetService +
##     OnlineBackup + OnlineSecurity + DeviceProtection + TechSupport +
##     StreamingTV + StreamingMovies + Contract + PaperlessBilling +
##     PaymentMethod + MonthlyCharges + TotalCharges, data = tablechurn)
##
```

```
## Coefficients:
##      (Intercept)             Gender        SeniorCitizen            Partner
##         2.714e+00          3.950e-03          -5.014e-02          1.714e-03
##        Dependents             Tenure         PhoneService       MultipleLines
##        -2.389e-02          1.677e-03          -1.394e-01          -2.248e-02
##   InternetService        OnlineBackup       OnlineSecurity   DeviceProtection
##         9.770e-03          -5.578e-02          -9.139e-02          -4.199e-02
##       TechSupport         StreamingTV      StreamingMovies            Contract
##        -9.267e-02          -1.756e-02          -1.631e-02          4.278e-02
## PaperlessBilling      PaymentMethod        MonthlyCharges         TotalCharges
##         5.032e-02          -7.811e-03          -7.487e-03          5.178e-05
```

```r
summary(fit)
```

```
##
## Call:
## lm(formula = Churn ~ Gender + SeniorCitizen + Partner + Dependents +
##     Tenure + PhoneService + MultipleLines + InternetService +
##     OnlineBackup + OnlineSecurity + DeviceProtection + TechSupport +
##     StreamingTV + StreamingMovies + Contract + PaperlessBilling +
##     PaymentMethod + MonthlyCharges + TotalCharges, data = tablechurn)
##
## Residuals:
##      Min      1Q   Median      3Q      Max
## -1.16590 -0.29353  0.07249  0.26751  0.80298
##
## Coefficients:
##                    Estimate Std. Error t value Pr(>|t|)
## (Intercept)       2.714e+00  9.660e-02  28.098  < 2e-16 ***
## Gender            3.950e-03  8.991e-03   0.439 0.660414
## SeniorCitizen    -5.014e-02  1.306e-02  -3.840 0.000124 ***
## Partner           1.714e-03  1.086e-02   0.158 0.874621
## Dependents       -2.389e-02  1.153e-02  -2.072 0.038282 *
## Tenure            1.677e-03  5.009e-04   3.348 0.000818 ***
## PhoneService     -1.394e-01  2.904e-02  -4.799 1.63e-06 ***
## MultipleLines    -2.248e-02  1.131e-02  -1.987 0.046912 *
## InternetService   9.770e-03  8.449e-03   1.156 0.247568
## OnlineBackup     -5.578e-02  1.164e-02  -4.792 1.68e-06 ***
## OnlineSecurity   -9.139e-02  1.214e-02  -7.526 5.88e-14 ***
## DeviceProtection -4.199e-02  1.193e-02  -3.518 0.000437 ***
## TechSupport      -9.267e-02  1.229e-02  -7.541 5.23e-14 ***
## StreamingTV      -1.756e-02  1.286e-02  -1.366 0.172065
## StreamingMovies  -1.631e-02  1.285e-02  -1.269 0.204469
## Contract          4.278e-02  8.513e-03   5.025 5.16e-07 ***
## PaperlessBilling  5.032e-02  1.002e-02   5.020 5.28e-07 ***
## PaymentMethod    -7.811e-03  4.582e-03  -1.705 0.088325 .
## MonthlyCharges   -7.487e-03  3.787e-04 -19.771  < 2e-16 ***
## TotalCharges      5.178e-05  6.456e-06   8.020 1.23e-15 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
## Residual standard error: 0.3766 on 7012 degrees of freedom
## Multiple R-squared:  0.2752, Adjusted R-squared:  0.2733
## F-statistic: 140.1 on 19 and 7012 DF,  p-value: < 2.2e-16

fit1<-fit
fit2<-  lm(Churn~Gender+SeniorCitizen+Partner+Dependents+Tenure+PhoneService
          +MultipleLines+InternetService+OnlineBackup+OnlineSecurity
          +DeviceProtection+TechSupport+StreamingTV+StreamingMovies
          +Contract+PaperlessBilling+MonthlyCharges
          +TotalCharges, data=tablechurn)
summary(fit2)

##
## Call:
## lm(formula = Churn ~ Gender + SeniorCitizen + Partner + Dependents +
##     Tenure + PhoneService + MultipleLines + InternetService +
##     OnlineBackup + OnlineSecurity + DeviceProtection + TechSupport +
##     StreamingTV + StreamingMovies + Contract + PaperlessBilling +
##     MonthlyCharges + TotalCharges, data = tablechurn)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.15675 -0.29405  0.07269  0.26618  0.80173
##
## Coefficients:
##                    Estimate Std. Error t value Pr(>|t|)
## (Intercept)       2.685e+00  9.508e-02  28.238  < 2e-16 ***
## Gender            3.673e-03  8.991e-03   0.409 0.682870
## SeniorCitizen    -5.002e-02  1.306e-02  -3.831 0.000129 ***
## Partner           1.343e-03  1.086e-02   0.124 0.901592
## Dependents       -2.372e-02  1.153e-02  -2.057 0.039706 *
## Tenure            1.838e-03  4.920e-04   3.737 0.000188 ***
## PhoneService     -1.394e-01  2.905e-02  -4.799 1.63e-06 ***
## MultipleLines    -2.224e-02  1.131e-02  -1.966 0.049322 *
## InternetService   1.023e-02  8.446e-03   1.212 0.225669
## OnlineBackup     -5.574e-02  1.164e-02  -4.788 1.72e-06 ***
## OnlineSecurity   -9.131e-02  1.215e-02  -7.518 6.24e-14 ***
## DeviceProtection -4.213e-02  1.194e-02  -3.530 0.000418 ***
## TechSupport      -9.277e-02  1.229e-02  -7.548 4.96e-14 ***
## StreamingTV      -1.709e-02  1.286e-02  -1.330 0.183666
## StreamingMovies  -1.601e-02  1.285e-02  -1.246 0.212850
## Contract          4.305e-02  8.513e-03   5.057 4.37e-07 ***
## PaperlessBilling  4.995e-02  1.002e-02   4.984 6.39e-07 ***
## MonthlyCharges   -7.428e-03  3.771e-04 -19.695  < 2e-16 ***
## TotalCharges      5.099e-05  6.440e-06   7.917 2.81e-15 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3767 on 7013 degrees of freedom
```

```
## Multiple R-squared:  0.2749, Adjusted R-squared:  0.2731
## F-statistic: 147.7 on 18 and 7013 DF,  p-value: < 2.2e-16

fit3<-  lm(Churn~Gender+SeniorCitizen+Partner+Dependents+Tenure+PhoneService
          +MultipleLines+InternetService+OnlineBackup+OnlineSecurity
          +DeviceProtection+TechSupport+StreamingTV+
            Contract+PaperlessBilling+MonthlyCharges
          +TotalCharges, data=tablechurn)
summary(fit3)

##
## Call:
## lm(formula = Churn ~ Gender + SeniorCitizen + Partner + Dependents +
##      Tenure + PhoneService + MultipleLines + InternetService +
##      OnlineBackup + OnlineSecurity + DeviceProtection + TechSupport +
##      StreamingTV + Contract + PaperlessBilling + MonthlyCharges +
##      TotalCharges, data = tablechurn)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.16051 -0.29141  0.07225  0.26624  0.80783
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)      2.637e+00  8.688e-02  30.351  < 2e-16 ***
## Gender           3.585e-03  8.991e-03   0.399 0.690116
## SeniorCitizen   -5.029e-02  1.306e-02  -3.851 0.000119 ***
## Partner          1.243e-03  1.086e-02   0.114 0.908887
## Dependents      -2.370e-02  1.153e-02  -2.056 0.039846 *
## Tenure           1.814e-03  4.916e-04   3.690 0.000226 ***
## PhoneService    -1.318e-01  2.840e-02  -4.641 3.54e-06 ***
## MultipleLines   -2.337e-02  1.127e-02  -2.073 0.038233 *
## InternetService  1.023e-02  8.446e-03   1.211 0.225933
## OnlineBackup    -5.419e-02  1.158e-02  -4.681 2.90e-06 ***
## OnlineSecurity  -8.973e-02  1.208e-02  -7.428 1.23e-13 ***
## DeviceProtection -4.236e-02  1.193e-02  -3.549 0.000388 ***
## TechSupport     -9.238e-02  1.229e-02  -7.519 6.19e-14 ***
## StreamingTV     -1.878e-02  1.279e-02  -1.469 0.141814
## Contract         4.440e-02  8.444e-03   5.259 1.49e-07 ***
## PaperlessBilling 5.006e-02  1.002e-02   4.995 6.03e-07 ***
## MonthlyCharges  -7.269e-03  3.549e-04 -20.481  < 2e-16 ***
## TotalCharges     5.171e-05  6.414e-06   8.062 8.73e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3767 on 7014 degrees of freedom
## Multiple R-squared:  0.2748, Adjusted R-squared:  0.273
## F-statistic: 156.3 on 17 and 7014 DF,  p-value: < 2.2e-16
```

```
fit4<-  lm(Churn~Gender+SeniorCitizen+Partner+Dependents+Tenure+PhoneService
          +MultipleLines+InternetService+OnlineBackup+OnlineSecurity

+DeviceProtection+TechSupport+Contract+PaperlessBilling+MonthlyCharges
          +TotalCharges, data=tablechurn)
summary(fit4)

##
## Call:
## lm(formula = Churn ~ Gender + SeniorCitizen + Partner + Dependents +
##     Tenure + PhoneService + MultipleLines + InternetService +
##     OnlineBackup + OnlineSecurity + DeviceProtection + TechSupport +
##     Contract + PaperlessBilling + MonthlyCharges + TotalCharges,
##     data = tablechurn)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.16571 -0.28928  0.07148  0.26612  0.81598
##
## Coefficients:
##                    Estimate Std. Error t value Pr(>|t|)
## (Intercept)       2.575e+00  7.608e-02  33.847  < 2e-16 ***
## Gender            3.532e-03  8.992e-03   0.393 0.694445
## SeniorCitizen    -5.102e-02  1.305e-02  -3.910 9.31e-05 ***
## Partner           1.112e-03  1.086e-02   0.102 0.918482
## Dependents       -2.420e-02  1.153e-02  -2.100 0.035773 *
## Tenure            1.784e-03  4.912e-04   3.632 0.000284 ***
## PhoneService     -1.219e-01  2.760e-02  -4.418 1.01e-05 ***
## MultipleLines    -2.496e-02  1.122e-02  -2.225 0.026143 *
## InternetService   1.013e-02  8.447e-03   1.199 0.230417
## OnlineBackup     -5.247e-02  1.152e-02  -4.556 5.31e-06 ***
## OnlineSecurity   -8.740e-02  1.198e-02  -7.298 3.24e-13 ***
## DeviceProtection -4.236e-02  1.194e-02  -3.550 0.000388 ***
## TechSupport      -9.194e-02  1.228e-02  -7.485 8.05e-14 ***
## Contract          4.613e-02  8.362e-03   5.516 3.59e-08 ***
## PaperlessBilling  4.991e-02  1.002e-02   4.980 6.51e-07 ***
## MonthlyCharges   -7.055e-03  3.238e-04 -21.788  < 2e-16 ***
## TotalCharges      5.260e-05  6.386e-06   8.237  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3767 on 7015 degrees of freedom
## Multiple R-squared:  0.2745, Adjusted R-squared:  0.2729
## F-statistic: 165.9 on 16 and 7015 DF,  p-value: < 2.2e-16

fit5<-  lm(Churn~Gender+SeniorCitizen+Partner+Dependents+Tenure+PhoneService
          +MultipleLines+InternetService+OnlineSecurity

+DeviceProtection+TechSupport+Contract+PaperlessBilling+MonthlyCharges
```

```
            +TotalCharges, data=tablechurn)
summary(fit5)

##
## Call:
## lm(formula = Churn ~ Gender + SeniorCitizen + Partner + Dependents +
##     Tenure + PhoneService + MultipleLines + InternetService +
##     OnlineSecurity + DeviceProtection + TechSupport + Contract +
##     PaperlessBilling + MonthlyCharges + TotalCharges, data = tablechurn)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.19592 -0.29079  0.07252  0.26750  0.80480
##
## Coefficients:
##                    Estimate Std. Error t value Pr(>|t|)
## (Intercept)       2.443e+00  7.042e-02  34.691  < 2e-16 ***
## Gender            2.921e-03  9.003e-03   0.324 0.745619
## SeniorCitizen    -5.133e-02  1.307e-02  -3.929 8.62e-05 ***
## Partner           1.329e-03  1.088e-02   0.122 0.902810
## Dependents       -2.550e-02  1.154e-02  -2.210 0.027160 *
## Tenure            1.760e-03  4.919e-04   3.578 0.000349 ***
## PhoneService     -1.107e-01  2.753e-02  -4.022 5.84e-05 ***
## MultipleLines    -2.757e-02  1.122e-02  -2.457 0.014049 *
## InternetService   1.603e-02  8.359e-03   1.917 0.055260 .
## OnlineSecurity   -8.723e-02  1.199e-02  -7.274 3.88e-13 ***
## DeviceProtection -3.951e-02  1.194e-02  -3.311 0.000935 ***
## TechSupport      -9.150e-02  1.230e-02  -7.439 1.14e-13 ***
## Contract          4.681e-02  8.373e-03   5.591 2.34e-08 ***
## PaperlessBilling  5.042e-02  1.004e-02   5.024 5.19e-07 ***
## MonthlyCharges   -6.895e-03  3.223e-04 -21.391  < 2e-16 ***
## TotalCharges      5.734e-05  6.310e-06   9.087  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3772 on 7016 degrees of freedom
## Multiple R-squared:  0.2724, Adjusted R-squared:  0.2708
## F-statistic: 175.1 on 15 and 7016 DF,  p-value: < 2.2e-16

fit6<-  lm(Churn~Gender+SeniorCitizen+Partner+Dependents+Tenure+PhoneService
           +MultipleLines+OnlineSecurity

+DeviceProtection+TechSupport+Contract+PaperlessBilling+MonthlyCharges
           +TotalCharges, data=tablechurn)
summary(fit6)

##
## Call:
## lm(formula = Churn ~ Gender + SeniorCitizen + Partner + Dependents +
##     Tenure + PhoneService + MultipleLines + OnlineSecurity +
```

```
##      DeviceProtection + TechSupport + Contract + PaperlessBilling +
##      MonthlyCharges + TotalCharges, data = tablechurn)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.18559 -0.29352  0.07063  0.26881  0.80231
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)      2.483e+00  6.723e-02  36.936  < 2e-16 ***
## Gender           3.160e-03  9.004e-03   0.351 0.725623
## SeniorCitizen   -5.201e-02  1.306e-02  -3.981 6.93e-05 ***
## Partner          1.465e-03  1.088e-02   0.135 0.892890
## Dependents      -2.551e-02  1.154e-02  -2.210 0.027110 *
## Tenure           1.794e-03  4.916e-04   3.649 0.000265 ***
## PhoneService    -9.332e-02  2.600e-02  -3.590 0.000333 ***
## MultipleLines   -2.857e-02  1.121e-02  -2.548 0.010842 *
## OnlineSecurity  -9.400e-02  1.146e-02  -8.202 2.80e-16 ***
## DeviceProtection -4.200e-02 1.187e-02  -3.539 0.000404 ***
## TechSupport     -9.767e-02  1.187e-02  -8.225 2.31e-16 ***
## Contract         4.456e-02  8.292e-03   5.374 7.95e-08 ***
## PaperlessBilling 4.994e-02  1.003e-02   4.977 6.61e-07 ***
## MonthlyCharges  -6.753e-03  3.138e-04 -21.522  < 2e-16 ***
## TotalCharges     5.606e-05  6.276e-06   8.933  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3773 on 7017 degrees of freedom
## Multiple R-squared:  0.272,  Adjusted R-squared:  0.2706
## F-statistic: 187.3 on 14 and 7017 DF,  p-value: < 2.2e-16

fit7<-  lm(Churn~SeniorCitizen+Dependents+Tenure+PhoneService
          +MultipleLines+OnlineSecurity

+DeviceProtection+TechSupport+Contract+PaperlessBilling+MonthlyCharges
          +TotalCharges, data=tablechurn)
summary(fit7)

##
## Call:
## lm(formula = Churn ~ SeniorCitizen + Dependents + Tenure + PhoneService +
##      MultipleLines + OnlineSecurity + DeviceProtection + TechSupport +
##      Contract + PaperlessBilling + MonthlyCharges + TotalCharges,
##      data = tablechurn)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.18779 -0.29342  0.07041  0.26863  0.80440
##
## Coefficients:
```

```
##                     Estimate Std. Error t value Pr(>|t|)
## (Intercept)        2.489e+00  6.480e-02  38.418  < 2e-16 ***
## SeniorCitizen     -5.218e-02  1.300e-02  -4.016 5.99e-05 ***
## Dependents        -2.486e-02  1.036e-02  -2.400 0.016420 *
## Tenure             1.786e-03  4.881e-04   3.660 0.000254 ***
## PhoneService      -9.319e-02  2.599e-02  -3.586 0.000338 ***
## MultipleLines     -2.863e-02  1.121e-02  -2.554 0.010660 *
## OnlineSecurity    -9.393e-02  1.146e-02  -8.197 2.90e-16 ***
## DeviceProtection -4.199e-02  1.186e-02  -3.539 0.000404 ***
## TechSupport       -9.768e-02  1.187e-02  -8.230  < 2e-16 ***
## Contract           4.452e-02  8.289e-03   5.370 8.11e-08 ***
## PaperlessBilling   4.998e-02  1.003e-02   4.981 6.47e-07 ***
## MonthlyCharges    -6.755e-03  3.136e-04 -21.538  < 2e-16 ***
## TotalCharges       5.608e-05  6.274e-06   8.938  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3773 on 7019 degrees of freedom
## Multiple R-squared:  0.272,  Adjusted R-squared:  0.2708
## F-statistic: 218.5 on 12 and 7019 DF,  p-value: < 2.2e-16

fit7<-  lm(Churn~SeniorCitizen+Dependents+Tenure+PhoneService+OnlineSecurity

+DeviceProtection+TechSupport+Contract+PaperlessBilling+MonthlyCharges
          +TotalCharges, data=tablechurn)
summary(fit7)

##
## Call:
## lm(formula = Churn ~ SeniorCitizen + Dependents + Tenure + PhoneService +
##     OnlineSecurity + DeviceProtection + TechSupport + Contract +
##     PaperlessBilling + MonthlyCharges + TotalCharges, data = tablechurn)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.20248 -0.29768  0.07117  0.26882  0.79270
##
## Coefficients:
##                     Estimate Std. Error t value Pr(>|t|)
## (Intercept)        2.531e+00  6.274e-02  40.339  < 2e-16 ***
## SeniorCitizen     -5.345e-02  1.299e-02  -4.114 3.93e-05 ***
## Dependents        -2.492e-02  1.036e-02  -2.405 0.016190 *
## Tenure             1.663e-03  4.859e-04   3.424 0.000621 ***
## PhoneService      -1.437e-01  1.688e-02  -8.511  < 2e-16 ***
## OnlineSecurity    -9.623e-02  1.143e-02  -8.421  < 2e-16 ***
## DeviceProtection -4.425e-02  1.184e-02  -3.738 0.000187 ***
## TechSupport       -1.006e-01  1.182e-02  -8.508  < 2e-16 ***
## Contract           4.430e-02  8.292e-03   5.342 9.46e-08 ***
## PaperlessBilling   5.013e-02  1.004e-02   4.995 6.02e-07 ***
## MonthlyCharges    -6.950e-03  3.044e-04 -22.836  < 2e-16 ***
```

```
## TotalCharges       5.541e-05  6.271e-06   8.835  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3774 on 7020 degrees of freedom
## Multiple R-squared:  0.2713, Adjusted R-squared:  0.2702
## F-statistic: 237.6 on 11 and 7020 DF,  p-value: < 2.2e-16
```

```r
fit8<-  lm(Churn~SeniorCitizen+Tenure+PhoneService+OnlineSecurity

+DeviceProtection+TechSupport+Contract+PaperlessBilling+MonthlyCharges
         +TotalCharges, data=tablechurn)
summary(fit8)
```

```
##
## Call:
## lm(formula = Churn ~ SeniorCitizen + Tenure + PhoneService +
##     OnlineSecurity + DeviceProtection + TechSupport + Contract +
##     PaperlessBilling + MonthlyCharges + TotalCharges, data = tablechurn)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.21609 -0.29808  0.07179  0.27000  0.79348
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)      2.495e+00  6.099e-02  40.917  < 2e-16 ***
## SeniorCitizen   -5.853e-02  1.282e-02  -4.564 5.10e-06 ***
## Tenure           1.709e-03  4.857e-04   3.519 0.000435 ***
## PhoneService    -1.448e-01  1.688e-02  -8.581  < 2e-16 ***
## OnlineSecurity  -9.735e-02  1.142e-02  -8.523  < 2e-16 ***
## DeviceProtection -4.437e-02  1.184e-02  -3.748 0.000180 ***
## TechSupport     -1.008e-01  1.182e-02  -8.526  < 2e-16 ***
## Contract         4.617e-02  8.258e-03   5.591 2.34e-08 ***
## PaperlessBilling 5.074e-02  1.004e-02   5.055 4.40e-07 ***
## MonthlyCharges  -6.984e-03  3.041e-04 -22.965  < 2e-16 ***
## TotalCharges     5.527e-05  6.273e-06   8.811  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3775 on 7021 degrees of freedom
## Multiple R-squared:  0.2707, Adjusted R-squared:  0.2697
## F-statistic: 260.6 on 10 and 7021 DF,  p-value: < 2.2e-16
```

```r
fit9<-  lm(Churn~Tenure+MonthlyCharges+TotalCharges, data=tablechurn)
summary(fit9)
```

```
##
## Call:
## lm(formula = Churn ~ Tenure + MonthlyCharges + TotalCharges,
##     data = tablechurn)
```

```
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.05221 -0.31778  0.09134  0.25874  0.80134
##
## Coefficients:
##                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)    1.931e+00  1.795e-02  107.57  < 2e-16 ***
## Tenure         2.774e-03  4.570e-04    6.07 1.34e-09 ***
## MonthlyCharges -7.083e-03  2.770e-04  -25.57  < 2e-16 ***
## TotalCharges    7.528e-05  6.318e-06   11.91  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3891 on 7028 degrees of freedom
## Multiple R-squared:  0.2247, Adjusted R-squared:  0.2243
## F-statistic: 678.8 on 3 and 7028 DF,  p-value: < 2.2e-16

##By running the above regression we notice that independent variables like
SeniorCitizen,Tenure,PhoneService,OnlineSecurity
##DeviceProtection,TechSupportContract,PaperlessBilling,MonthlyCharges and
TotalCharges could be factors
##that cause person to churn

#Comparing model
anova(fit1,fit8)

## Analysis of Variance Table
##
## Model 1: Churn ~ Gender + SeniorCitizen + Partner + Dependents + Tenure +
##     PhoneService + MultipleLines + InternetService + OnlineBackup +
##     OnlineSecurity + DeviceProtection + TechSupport + StreamingTV +
##     StreamingMovies + Contract + PaperlessBilling + PaymentMethod +
##     MonthlyCharges + TotalCharges
## Model 2: Churn ~ SeniorCitizen + Tenure + PhoneService + OnlineSecurity +
##     DeviceProtection + TechSupport + Contract + PaperlessBilling +
##     MonthlyCharges + TotalCharges
##   Res.Df     RSS Df Sum of Sq      F    Pr(>F)
## 1   7012  994.57
## 2   7021 1000.75 -9   -6.1797 4.8409 1.778e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

step <- stepAIC(fit, direction="both")

## Start:  AIC=-13714
## Churn ~ Gender + SeniorCitizen + Partner + Dependents + Tenure +
##     PhoneService + MultipleLines + InternetService + OnlineBackup +
##     OnlineSecurity + DeviceProtection + TechSupport + StreamingTV +
##     StreamingMovies + Contract + PaperlessBilling + PaymentMethod +
##     MonthlyCharges + TotalCharges
```

```
##
##                        Df Sum of Sq      RSS     AIC
## - Partner               1     0.004   994.57  -13716
## - Gender                1     0.027   994.60  -13716
## - InternetService       1     0.190   994.76  -13715
## - StreamingMovies        1     0.228   994.80  -13714
## - StreamingTV            1     0.265   994.84  -13714
## <none>                             994.57  -13714
## - PaymentMethod         1     0.412   994.98  -13713
## - MultipleLines         1     0.560   995.13  -13712
## - Dependents            1     0.609   995.18  -13712
## - Tenure                1     1.590   996.16  -13705
## - DeviceProtection      1     1.756   996.33  -13704
## - SeniorCitizen         1     2.092   996.66  -13701
## - OnlineBackup          1     3.258   997.83  -13693
## - PhoneService          1     3.267   997.84  -13693
## - PaperlessBilling      1     3.575   998.15  -13691
## - Contract             1     3.582   998.15  -13691
## - OnlineSecurity        1     8.034  1002.60  -13659
## - TechSupport           1     8.067  1002.64  -13659
## - TotalCharges          1     9.124  1003.69  -13652
## - MonthlyCharges        1    55.442  1050.01  -13334
##
## Step:  AIC=-13715.97
## Churn ~ Gender + SeniorCitizen + Dependents + Tenure + PhoneService +
##      MultipleLines + InternetService + OnlineBackup + OnlineSecurity +
##      DeviceProtection + TechSupport + StreamingTV + StreamingMovies +
##      Contract + PaperlessBilling + PaymentMethod + MonthlyCharges +
##      TotalCharges
##
##                        Df Sum of Sq      RSS     AIC
## - Gender                1     0.028   994.60  -13718
## - InternetService       1     0.190   994.76  -13717
## - StreamingMovies        1     0.228   994.80  -13716
## - StreamingTV            1     0.264   994.84  -13716
## <none>                             994.57  -13716
## - PaymentMethod         1     0.411   994.98  -13715
## - MultipleLines         1     0.562   995.14  -13714
## + Partner               1     0.004   994.57  -13714
## - Dependents            1     0.706   995.28  -13713
## - Tenure                1     1.594   996.17  -13707
## - DeviceProtection      1     1.754   996.33  -13706
## - SeniorCitizen         1     2.131   996.71  -13703
## - OnlineBackup          1     3.258   997.83  -13695
## - PhoneService          1     3.264   997.84  -13695
## - PaperlessBilling      1     3.575   998.15  -13693
## - Contract             1     3.580   998.15  -13693
## - OnlineSecurity        1     8.032  1002.61  -13661
## - TechSupport           1     8.077  1002.65  -13661
## - TotalCharges          1     9.122  1003.70  -13654
```

```
## - MonthlyCharges      1     55.460 1050.03 -13336
##
## Step:  AIC=-13717.78
## Churn ~ SeniorCitizen + Dependents + Tenure + PhoneService +
##      MultipleLines + InternetService + OnlineBackup + OnlineSecurity +
##      DeviceProtection + TechSupport + StreamingTV + StreamingMovies +
##      Contract + PaperlessBilling + PaymentMethod + MonthlyCharges +
##      TotalCharges
##
##                      Df Sum of Sq      RSS    AIC
## - InternetService     1      0.192   994.79 -13718
## - StreamingMovies     1      0.227   994.83 -13718
## - StreamingTV         1      0.263   994.87 -13718
## <none>                               994.60 -13718
## - PaymentMethod       1      0.407   995.01 -13717
## + Gender              1      0.028   994.57 -13716
## + Partner             1      0.004   994.60 -13716
## - MultipleLines       1      0.564   995.17 -13716
## - Dependents          1      0.709   995.31 -13715
## - Tenure              1      1.595   996.20 -13708
## - DeviceProtection    1      1.755   996.36 -13707
## - SeniorCitizen       1      2.131   996.73 -13705
## - OnlineBackup        1      3.250   997.85 -13697
## - PhoneService        1      3.260   997.86 -13697
## - Contract            1      3.577   998.18 -13694
## - PaperlessBilling    1      3.581   998.18 -13694
## - OnlineSecurity      1      8.016  1002.62 -13663
## - TechSupport         1      8.070  1002.67 -13663
## - TotalCharges        1      9.138  1003.74 -13656
## - MonthlyCharges      1     55.471  1050.07 -13338
##
## Step:  AIC=-13718.42
## Churn ~ SeniorCitizen + Dependents + Tenure + PhoneService +
##      MultipleLines + OnlineBackup + OnlineSecurity + DeviceProtection +
##      TechSupport + StreamingTV + StreamingMovies + Contract +
##      PaperlessBilling + PaymentMethod + MonthlyCharges + TotalCharges
##
##                      Df Sum of Sq      RSS    AIC
## - StreamingMovies     1      0.227   995.02 -13719
## - StreamingTV         1      0.260   995.05 -13719
## <none>                               994.79 -13718
## + InternetService     1      0.192   994.60 -13718
## - PaymentMethod       1      0.425   995.22 -13717
## + Gender              1      0.030   994.76 -13717
## + Partner             1      0.004   994.79 -13716
## - MultipleLines       1      0.591   995.39 -13716
## - Dependents          1      0.704   995.50 -13715
## - Tenure              1      1.630   996.42 -13709
## - DeviceProtection    1      1.916   996.71 -13707
## - SeniorCitizen       1      2.167   996.96 -13705
```

```
## - PhoneService         1      3.078   997.87 -13699
## - Contract             1      3.416   998.21 -13696
## - PaperlessBilling      1      3.542   998.34 -13695
## - OnlineBackup          1      3.573   998.37 -13695
## - TotalCharges          1      8.950  1003.74 -13657
## - TechSupport           1      9.356  1004.15 -13655
## - OnlineSecurity        1      9.522  1004.32 -13653
## - MonthlyCharges        1     56.102  1050.90 -13335
##
## Step:  AIC=-13718.82
## Churn ~ SeniorCitizen + Dependents + Tenure + PhoneService +
##       MultipleLines + OnlineBackup + OnlineSecurity + DeviceProtection +
##       TechSupport + StreamingTV + Contract + PaperlessBilling +
##       PaymentMethod + MonthlyCharges + TotalCharges
##
##                       Df Sum of Sq      RSS     AIC
## <none>                                 995.02 -13719
## - StreamingTV          1      0.317   995.34 -13719
## + StreamingMovies      1      0.227   994.79 -13718
## + InternetService      1      0.192   994.83 -13718
## - PaymentMethod        1      0.417   995.44 -13718
## + Gender               1      0.029   994.99 -13717
## + Partner              1      0.004   995.02 -13717
## - MultipleLines        1      0.656   995.68 -13716
## - Dependents           1      0.706   995.73 -13716
## - Tenure               1      1.588   996.61 -13710
## - DeviceProtection     1      1.937   996.96 -13707
## - SeniorCitizen        1      2.189   997.21 -13705
## - PhoneService         1      2.860   997.88 -13701
## - OnlineBackup         1      3.421   998.44 -13697
## - PaperlessBilling      1      3.558   998.58 -13696
## - Contract             1      3.709   998.73 -13695
## - TotalCharges          1      9.282  1004.30 -13656
## - TechSupport           1      9.287  1004.31 -13656
## - OnlineSecurity        1      9.316  1004.34 -13655
## - MonthlyCharges        1     60.876  1055.90 -13303

step$anova

## Stepwise Model Path
## Analysis of Deviance Table
##
## Initial Model:
## Churn ~ Gender + SeniorCitizen + Partner + Dependents + Tenure +
##       PhoneService + MultipleLines + InternetService + OnlineBackup +
##       OnlineSecurity + DeviceProtection + TechSupport + StreamingTV +
##       StreamingMovies + Contract + PaperlessBilling + PaymentMethod +
##       MonthlyCharges + TotalCharges
##
## Final Model:
```

```
## Churn ~ SeniorCitizen + Dependents + Tenure + PhoneService +
##      MultipleLines + OnlineBackup + OnlineSecurity + DeviceProtection +
##      TechSupport + StreamingTV + Contract + PaperlessBilling +
##      PaymentMethod + MonthlyCharges + TotalCharges
##
##
##                  Step Df    Deviance Resid. Df Resid. Dev       AIC
## 1                                        7012    994.5705 -13714.00
## 2          - Partner  1 0.003531785      7013    994.5741 -13715.97
## 3           - Gender  1 0.027527274      7014    994.6016 -13717.78
## 4 - InternetService   1 0.192459783      7015    994.7941 -13718.42
## 5 - StreamingMovies   1 0.226610422      7016    995.0207 -13718.82
```

```r
predict.lm(fit8, data.frame(SeniorCitizen = 0,Tenure =20,PhoneService =
1,OnlineSecurity = 2,
                            DeviceProtection = 1,TechSupport = 2,Contract =
3,PaperlessBilling = 1,
                            MonthlyCharges = 100,TotalCharges=1000) )
```

```
##        1
## 1.490098
```

```
##By running the above prediction model using values like the user not being
senior citizen,Tenure
##being 20 months, leveraging Phoneservice,DeviceProtection and
PaperlessBilling, not using OnlineSecurity
##and TechSupport, having contract of 2 years, MonthlyCharges and
TotalCharges being 100 &1000 respectively
##there is a likelihood of this customer churning
```