Chapter 6

Multiple Regression Analysis - Further Issues

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Data Scaling & Units of Measurement

Smoking and Birthweight

Estimate and compare the following regressions for a baby's birth weight on an expecting mother's smoking using the *bwght* data (preloaded with this tutorial):

1. $BirthWeight_{oz} = \beta_0 + \beta_1 Cigarettes + \beta_2 Income + u$: (`bwght.lm1`)
2. $BirthWeight_{lbs} = \beta_0 + \beta_1 Cigarettes + \beta_2 Income + u$: (`bwght.lm2`)
3. $BirthWeight_{oz} = \beta_0 + \beta_1 Packs + \beta_2 Income + u$: (`bwght.lm3`)

Where:

$BirthWeight_{oz}$ Birthweight in ounces, `bwght`

$BirthWeight_{lbs}$ Birthweight in pounds, `bwghtlbs`

$Cigarettes$ Cigarettes the mother smoked per day during pregnancy, `cigs`

$Packs$ Packs of cigarettes the mother smoked per day during pregnancy, `packs`

$Income$ Family Income, `faminc`

Summarize your output in a text table using `stargazer()`

```
bwght.lm1 <- lm(bwght ~ cigs + faminc, data = bwght)
bwght.lm2 <- lm(bwghtlbs ~ cigs + faminc, data = bwght)
bwght.lm3 <- lm(bwght ~ packs + faminc, data = bwght)
stargazer(bwght.lm1, bwght.lm2, bwght.lm3, type = 'text')
```

```
## 
## ===============================================================
##                                 Dependent variable:
##                         ---------------------------------
##                            bwght      bwghtlbs     bwght
##                             (1)         (2)         (3)
## ---------------------------------------------------------------
## cigs                     -0.463***   -0.029***
##                           (0.092)     (0.006)
## 
## packs                                             -9.268***
##                                                   (1.832)
## 
## faminc                    0.093***    0.006***    0.093***
##                           (0.029)     (0.002)     (0.029)
## 
## Constant                 116.974*** 7.311***    116.974***
##                           (1.049)     (0.066)     (1.049)
## 
## ---------------------------------------------------------------
## Observations              1,388       1,388       1,388
## R2                        0.030       0.030       0.030
## Adjusted R2               0.028       0.028       0.028
## Residual Std. Error (df = 1385)  20.063   1.254     20.063
## F Statistic (df = 2; 1385)     21.274***  21.274*** 21.274***
## ===============================================================
## Note:                          *p<0.1; **p<0.05; ***p<0.01
```

Standardized Coefficients and Elasticities

To compare coefficients that have different units or that might be scaled differently, we can interpret the results a few different ways:

1. Transform the raw data (X and y) as zscores (subtract the mean and dividing by the standard deviation).
2. Calculate the standardied coefficients:

$$\hat{b}_j = \frac{\hat{\sigma}_{x_j}}{\hat{\sigma}_y} \hat{\beta}_j$$

3. Calculate the elasticities:

$$E_{yx_j} = \frac{\%\Delta y}{\%\Delta x_j} = \frac{\Delta y/y}{\Delta x_j/x_j} = \beta_j \left(\frac{\bar{x}_j}{\bar{y}} \right)$$

Note: (1) and (2) are numerically equivalent. Also, in all of the cases, we can standardize partially, which usually means standardizing the x variable(s), but not y.

Standardizing Variables

Estimate the models bwght.lm1, bwght.lm2, and bwght.lm3 using the standardized transformations of the variables with the *scale*() function and output all three results with a text *stargazer* table. Name them *bwght.lm4*, *bwght.lm5*, and *bwght.lm6*.

```
bwght.lm4 <- lm(scale(bwght) ~ scale(cigs) + scale(faminc), data = bwght)
bwght.lm5 <- lm(scale(bwghtlbs) ~ scale(cigs) + scale(faminc), data = bwght)
bwght.lm6 <- lm(scale(bwght) ~ scale(packs) + scale(faminc), data = bwght)
stargazer(bwght.lm4, bwght.lm5, bwght.lm6, type = 'text')
```

```
##
## =================================================================
##                              Dependent variable:
##                   -----------------------------------------
##                   scale(bwght)  scale(bwghtlbs)  scale(bwght)
##                       (1)            (2)             (3)
## -----------------------------------------------------------------
```

```
## scale(cigs)                           -0.136***        -0.136***
##                                         (0.027)          (0.027)
##
## scale(packs)                                                             -0.136***
##                                                                           (0.027)
##
## scale(faminc)                          0.085***         0.085***         0.085***
##                                         (0.027)          (0.027)          (0.027)
##
## Constant                               0.000            0.000            0.000
##                                         (0.026)          (0.026)          (0.026)
##
## --------------------------------------------------------------------------
## Observations                           1,388            1,388            1,388
## R2                                      0.030            0.030            0.030
## Adjusted R2                             0.028            0.028            0.028
## Residual Std. Error (df = 1385)         0.986            0.986            0.986
## F Statistic (df = 2; 1385)           21.274***        21.274***        21.274***
## ==========================================================================
## Note:                                            *p<0.1; **p<0.05; ***p<0.01
```

Standardizing Coefficients

Calculate the beta coefficients for the original coefficients, excluding the intercept. (Hint: `sapply(list, function)` returns a simple vector you get from *apply*ing a function to an list of variables; `bwght.lm1(model)` pulls the variables *and observations* included in `bwght.lm1`, including y.)

```
bwght.lm1$coefficients[-1]*sapply(bwght.lm1$model, sd)[-1]/sd(bwght.lm1$model$bwght)
```

```
##        cigs      faminc
## -0.13598278  0.08540571
```

```
bwght.lm2$coefficients[-1]*sapply(bwght.lm2$model, sd)[-1]/sd(bwght.lm2$model$bwght)
```

```
##        cigs      faminc
## -0.13598278  0.08540571
```

```
bwght.lm3$coefficients[-1]*sapply(bwght.lm3$model, sd)[-1]/sd(bwght.lm3$model$bwght)
```

```
##       packs      faminc
## -0.13598278  0.08540571
```

Elasticities *at the Mean*

The simplest way to calculate the elasticity is to note that:

$$E = \frac{dy/y}{dx/x} = \frac{dy}{dx} \cdot \frac{x}{y}$$

Evaluating this expression at the sample means of x and y gives

$$E_{MEM} = \frac{dy}{dx} \cdot \frac{\bar{x}}{\bar{y}}$$

which is a good approximation of the elasticity called the *marginal effect at the mean (MEM)*. The (right-hand side) partial elasticity using the MEM formula would be:

$$E_{MEM} = \frac{dy}{dx/\bar{x}} = \frac{dy}{dx} \cdot \bar{x}.$$

Calculate the full and partial elasticities for `bwght.lm1` using the `sapply` function (except applying the mean to the model data frame instead of standard deviation).

```
bwght.lm1$coefficients[-1]*sapply(bwght.lm1$model, mean)[-1]/mean(bwght.lm1$model$bwght)
```

```
##         cigs        faminc
## -0.008148412  0.022684583
```

```
bwght.lm1$coefficients[-1]*sapply(bwght.lm1$model, mean)[-1]
```

```
##       cigs    faminc
## -0.967213  2.692650
```

Average Elasticities

A better calculation of the elasticity for a model estimated in levels uses the concept of the *average marginal effect (AME)*. Implementing AME starts from the same point,

$$E = \frac{dy/y}{dx/x} = \frac{dy}{dx} \cdot \frac{x}{y},$$

but then inserts each individual observation's *observed* value,

$$E_i = \frac{d\hat{y}_i}{dx_i} \cdot \frac{x_i}{\hat{y}_i},$$

and averages them:

$$E_{AME} = \sum_{i=1}^{n} \frac{d\hat{y}_i}{dx_i} \cdot \frac{x_i}{\hat{y}_i}$$

The (right-hand side) partial elasticities would be:

$$E_{AME} = \sum_{i=1}^{n} \frac{d\hat{y}_i}{dx_i} \cdot x_i$$

Estimate the full and partial elasticities for the `bwght.lm1` estimates using `marginaleffects::marginaleffects()`.

```
marginaleffects(bwght.lm1, slope = 'eyex')
```

```
##      rowid     type    term contrast         dydx    std.error statistic
## 1        1 response    cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 2        2 response    cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 3        3 response    cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 4        4 response    cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 5        5 response    cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 6        6 response    cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 7        7 response    cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 8        8 response    cigs   eY/eX  0.0000000000 0.0000000000       NaN
```

```
## 9           9 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 10         10 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 11         11 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 12         12 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 13         13 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 14         14 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 15         15 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 16         16 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 17         17 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 18         18 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 19         19 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 20         20 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 21         21 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 22         22 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 23         23 response   cigs   eY/eX -0.0240457342 0.0048140893 -4.994867
## 24         24 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 25         25 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 26         26 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 27         27 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 28         28 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 29         29 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 30         30 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 31         31 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 32         32 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 33         33 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 34         34 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 35         35 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 36         36 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 37         37 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 38         38 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 39         39 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 40         40 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 41         41 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 42         42 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 43         43 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 44         44 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 45         45 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 46         46 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
## 47         47 response   cigs   eY/eX  0.0000000000 0.0000000000         NaN
```

```
## 48       48 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 49       49 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 50       50 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 51       51 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 52       52 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 53       53 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 54       54 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 55       55 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 56       56 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 57       57 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 58       58 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 59       59 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 60       60 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 61       61 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 62       62 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 63       63 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 64       64 response   cigs     eY/eX -0.0412334042 0.0083690533  -4.926890
## 65       65 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 66       66 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 67       67 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 68       68 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 69       69 response   cigs     eY/eX -0.0854981933 0.0181151009  -4.719719
## 70       70 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 71       71 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 72       72 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 73       73 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 74       74 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 75       75 response   cigs     eY/eX -0.1850780393 0.0429055270  -4.313618
## 76       76 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 77       77 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 78       78 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 79       79 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 80       80 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 81       81 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 82       82 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 83       83 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 84       84 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 85       85 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 86       86 response   cigs     eY/eX  0.0000000000 0.0000000000        NaN
```

```
## 87       87 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 88       88 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 89       89 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 90       90 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 91       91 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 92       92 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 93       93 response  cigs     eY/eX -0.0409965320 0.0083301980 -4.921435
## 94       94 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 95       95 response  cigs     eY/eX -0.0407956541 0.0082976901 -4.916507
## 96       96 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 97       97 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 98       98 response  cigs     eY/eX -0.0844146264 0.0179226064 -4.709953
## 99       99 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 100     100 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 101     101 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 102     102 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 103     103 response  cigs     eY/eX -0.0119178247 0.0023558501 -5.058821
## 104     104 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 105     105 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 106     106 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 107     107 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 108     108 response  cigs     eY/eX -0.0403345080 0.0082245527 -4.904158
## 109     109 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 110     110 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 111     111 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 112     112 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 113     113 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 114     114 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 115     115 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 116     116 response  cigs     eY/eX -0.0833581811 0.0177400729 -4.698863
## 117     117 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 118     118 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 119     119 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 120     120 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 121     121 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 122     122 response  cigs     eY/eX -0.1871582385 0.0433588811 -4.316491
## 123     123 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 124     124 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 125     125 response  cigs     eY/eX  0.0000000000 0.0000000000      NaN
```

```
## 126      126 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 127      127 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 128      128 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 129      129 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 130      130 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 131      131 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 132      132 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 133      133 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 134      134 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 135      135 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 136      136 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 137      137 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 138      138 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 139      139 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 140      140 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 141      141 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 142      142 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 143      143 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 144      144 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 145      145 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 146      146 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 147      147 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 148      148 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 149      149 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 150      150 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 151      151 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 152      152 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 153      153 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 154      154 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 155      155 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 156      156 response   cigs   eY/eX -0.0156907318 0.0031271735 -5.017544
## 157      157 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 158      158 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 159      159 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 160      160 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 161      161 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 162      162 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 163      163 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
## 164      164 response   cigs   eY/eX  0.0000000000 0.0000000000          NaN
```

```
## 165      165 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 166      166 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 167      167 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 168      168 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 169      169 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 170      170 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 171      171 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 172      172 response    cigs     eY/eX -0.0200703867 0.0039969793  -5.021389
## 173      173 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 174      174 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 175      175 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 176      176 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 177      177 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 178      178 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 179      179 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 180      180 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 181      181 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 182      182 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 183      183 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 184      184 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 185      185 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 186      186 response    cigs     eY/eX -0.0401723294 0.0081993096  -4.899477
## 187      187 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 188      188 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 189      189 response    cigs     eY/eX -0.0826684531 0.0176235111  -4.690805
## 190      190 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 191      191 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 192      192 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 193      193 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 194      194 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 195      195 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 196      196 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 197      197 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 198      198 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 199      199 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 200      200 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 201      201 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
## 202      202 response    cigs     eY/eX -0.0318817110 0.0064553128  -4.938833
## 203      203 response    cigs     eY/eX  0.0000000000 0.0000000000        NaN
```

```
## 204      204 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 205      205 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 206      206 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 207      207 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 208      208 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 209      209 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 210      210 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 211      211 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 212      212 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 213      213 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 214      214 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 215      215 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 216      216 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 217      217 response      cigs      eY/eX  -0.0157525797 0.0031362051  -5.022815
## 218      218 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 219      219 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 220      220 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 221      221 response      cigs      eY/eX  -0.0837073792 0.0177998626  -4.702698
## 222      222 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 223      223 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 224      224 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 225      225 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 226      226 response      cigs      eY/eX  -0.0407291315 0.0082870129  -4.914815
## 227      227 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 228      228 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 229      229 response      cigs      eY/eX  -0.0489944370 0.0100626272  -4.868951
## 230      230 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 231      231 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 232      232 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 233      233 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 234      234 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 235      235 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 236      236 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 237      237 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 238      238 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 239      239 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 240      240 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 241      241 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
## 242      242 response      cigs      eY/eX   0.0000000000 0.0000000000        NaN
```

```
## 243       243 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 244       244 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 245       245 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 246       246 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 247       247 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 248       248 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 249       249 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 250       250 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 251       251 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 252       252 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 253       253 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 254       254 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 255       255 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 256       256 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 257       257 response   cigs    eY/eX -0.0847727507 0.0179856220 -4.713362
## 258       258 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 259       259 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 260       260 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 261       261 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 262       262 response   cigs    eY/eX -0.0407956541 0.0082976901 -4.916507
## 263       263 response   cigs    eY/eX -0.0401723294 0.0081993096 -4.899477
## 264       264 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 265       265 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 266       266 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 267       267 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 268       268 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 269       269 response   cigs    eY/eX -0.0855714210 0.0181283095 -4.720320
## 270       270 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 271       271 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 272       272 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 273       273 response   cigs    eY/eX -0.0851339267 0.0180497758 -4.716620
## 274       274 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 275       275 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 276       276 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 277       277 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 278       278 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 279       279 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 280       280 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
## 281       281 response   cigs    eY/eX  0.0000000000 0.0000000000         NaN
```

```
## 282        282 response    cigs    eY/eX -0.0156907318 0.0031271735 -5.017544
## 283        283 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 284        284 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 285        285 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 286        286 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 287        287 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 288        288 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 289        289 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 290        290 response    cigs    eY/eX -0.0038770575 0.0007637148 -5.076578
## 291        291 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 292        292 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 293        293 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 294        294 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 295        295 response    cigs    eY/eX -0.0847008830 0.0179729288 -4.712692
## 296        296 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 297        297 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 298        298 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 299        299 response    cigs    eY/eX -0.1835479850 0.0425779222 -4.310872
## 300        300 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 301        301 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 302        302 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 303        303 response    cigs    eY/eX -0.0857918588 0.0181682274 -4.722082
## 304        304 response    cigs    eY/eX -0.0406297535 0.0082711426 -4.912230
## 305        305 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 306        306 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 307        307 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 308        308 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 309        309 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 310        310 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 311        311 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 312        312 response    cigs    eY/eX -0.0407623657 0.0082923417 -4.915664
## 313        313 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 314        314 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 315        315 response    cigs    eY/eX -0.0857182534 0.0181548725 -4.721501
## 316        316 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 317        317 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 318        318 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 319        319 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 320        320 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
```

```
## 321      321 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 322      322 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 323      323 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 324      324 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 325      325 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 326      326 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 327      327 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 328      328 response    cigs      eY/eX -0.0631520942 0.0130876030  -4.825337
## 329      329 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 330      330 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 331      331 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 332      332 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 333      333 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 334      334 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 335      335 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 336      336 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 337      337 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 338      338 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 339      339 response    cigs      eY/eX -0.0851339267 0.0180497758  -4.716620
## 340      340 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 341      341 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 342      342 response    cigs      eY/eX -0.0833581811 0.0177400729  -4.698863
## 343      343 response    cigs      eY/eX -0.0487950343 0.0100306242  -4.864606
## 344      344 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 345      345 response    cigs      eY/eX -0.0325304980 0.0065562171  -4.961779
## 346      346 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 347      347 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 348      348 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 349      349 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 350      350 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 351      351 response    cigs      eY/eX -0.0612423726 0.0127674380  -4.796763
## 352      352 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 353      353 response    cigs      eY/eX -0.0411654476 0.0083578475  -4.925365
## 354      354 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 355      355 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 356      356 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 357      357 response    cigs      eY/eX -0.0401723294 0.0081993096  -4.899477
## 358      358 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
## 359      359 response    cigs      eY/eX  0.0000000000 0.0000000000        NaN
```

```
## 360     360 response    cigs      eY/eX -0.0853521132 0.0180888281 -4.718499
## 361     361 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 362     362 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 363     363 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 364     364 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 365     365 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 366     366 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 367     367 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 368     368 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 369     369 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 370     370 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 371     371 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 372     372 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 373     373 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 374     374 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 375     375 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 376     376 response    cigs      eY/eX -0.0410639316 0.0083411958 -4.923027
## 377     377 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 378     378 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 379     379 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 380     380 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 381     381 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 382     382 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 383     383 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 384     384 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 385     385 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 386     386 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 387     387 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 388     388 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 389     389 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 390     390 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 391     391 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 392     392 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 393     393 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 394     394 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 395     395 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 396     396 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 397     397 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 398     398 response    cigs      eY/eX  0.0000000000 0.0000000000      NaN
```

```
## 399     399 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 400     400 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 401     401 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 402     402 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 403     403 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 404     404 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 405     405 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 406     406 response    cigs    eY/eX -0.0857182534 0.0181548725 -4.721501
## 407     407 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 408     408 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 409     409 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 410     410 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 411     411 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 412     412 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 413     413 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 414     414 response    cigs    eY/eX -0.0859394493 0.0181950855 -4.723223
## 415     415 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 416     416 response    cigs    eY/eX -0.0160563673 0.0031819372 -5.046098
## 417     417 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 418     418 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 419     419 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 420     420 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 421     421 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 422     422 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 423     423 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 424     424 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 425     425 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 426     426 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 427     427 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 428     428 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 429     429 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 430     430 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 431     431 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 432     432 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 433     433 response    cigs    eY/eX -0.0857182534 0.0181548725 -4.721501
## 434     434 response    cigs    eY/eX -0.0408623943 0.0083084461 -4.918175
## 435     435 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 436     436 response    cigs    eY/eX -0.1304753663 0.0289747892 -4.503065
## 437     437 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
```

```
## 438     438 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 439     439 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 440     440 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 441     441 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 442     442 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 443     443 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 444     444 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 445     445 response   cigs     eY/eX -0.0612423726  0.0127674380  -4.796763
## 446     446 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 447     447 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 448     448 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 449     449 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 450     450 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 451     451 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 452     452 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 453     453 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 454     454 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 455     455 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 456     456 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 457     457 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 458     458 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 459     459 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 460     460 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 461     461 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 462     462 response   cigs     eY/eX -0.0617470300  0.0128498368  -4.805277
## 463     463 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 464     464 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 465     465 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 466     466 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 467     467 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 468     468 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 469     469 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 470     470 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 471     471 response   cigs     eY/eX -0.0200865270  0.0039994730  -5.022293
## 472     472 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 473     473 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 474     474 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 475     475 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
## 476     476 response   cigs     eY/eX  0.0000000000  0.0000000000        NaN
```

```
## 477      477 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 478      478 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 479      479 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 480      480 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 481      481 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 482      482 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 483      483 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 484      484 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 485      485 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 486      486 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 487      487 response    cigs    eY/eX -0.0849890876 0.0180239756 -4.715335
## 488      488 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 489      489 response    cigs    eY/eX -0.0849168527 0.0180111451 -4.714684
## 490      490 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 491      491 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 492      492 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 493      493 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 494      494 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 495      495 response    cigs    eY/eX -0.0201513485 0.0040095426 -5.025847
## 496      496 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 497      497 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 498      498 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 499      499 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 500      500 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 501      501 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 502      502 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 503      503 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 504      504 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 505      505 response    cigs    eY/eX -0.0851339267 0.0180497758 -4.716620
## 506      506 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 507      507 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 508      508 response    cigs    eY/eX -0.0196133457 0.0039285140 -4.992561
## 509      509 response    cigs    eY/eX -0.0199103994 0.0039725469 -5.011999
## 510      510 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 511      511 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 512      512 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 513      513 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 514      514 response    cigs    eY/eX -0.1334972145 0.0295587847 -4.516330
## 515      515 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
```

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## 516       516 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 517       517 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 518       518 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 519       519 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 520       520 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 521       521 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 522       522 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 523       523 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 524       524 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 525       525 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 526       526 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 527       527 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 528       528 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 529       529 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 530       530 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 531       531 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 532       532 response    cigs    eY/eX -0.0391491482 0.0080454311 -4.866010
## 533       533 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 534       534 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 535       535 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 536       536 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 537       537 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 538       538 response    cigs    eY/eX -0.0235359319 0.0047378441 -4.967646
## 539       539 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 540       540 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 541       541 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 542       542 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 543       543 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 544       544 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 545       545 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 546       546 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 547       547 response    cigs    eY/eX -0.0853521132 0.0180888281 -4.718499
## 548       548 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 549       549 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 550       550 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 551       551 response    cigs    eY/eX -0.0195366411 0.0039174131 -4.987128
## 552       552 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 553       553 response    cigs    eY/eX -0.0814885019 0.0174286356 -4.675553
## 554       554 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
```

```
## 555      555 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 556      556 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 557      557 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 558      558 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 559      559 response    cigs    eY/eX -0.0405967352 0.0082658909 -4.911356
## 560      560 response    cigs    eY/eX -0.0075920518 0.0015128504 -5.018376
## 561      561 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 562      562 response    cigs    eY/eX -0.0196133457 0.0039285140 -4.992561
## 563      563 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 564      564 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 565      565 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 566      566 response    cigs    eY/eX -0.0038620706 0.0007616174 -5.070880
## 567      567 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 568      568 response    cigs    eY/eX -0.0840595152 0.0178606971 -4.706396
## 569      569 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 570      570 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 571      571 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 572      572 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 573      573 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 574      574 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 575      575 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 576      576 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 577      577 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 578      578 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 579      579 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 580      580 response    cigs    eY/eX -0.0406959516 0.0082817035 -4.913959
## 581      581 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 582      582 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 583      583 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 584      584 response    cigs    eY/eX -0.0407956541 0.0082976901 -4.916507
## 585      585 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 586      586 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 587      587 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 588      588 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 589      589 response    cigs    eY/eX -0.0855714210 0.0181283095 -4.720320
## 590      590 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 591      591 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 592      592 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 593      593 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
```

```
## 594        594 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 595        595 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 596        596 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 597        597 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 598        598 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 599        599 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 600        600 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 601        601 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 602        602 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 603        603 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 604        604 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 605        605 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 606        606 response    cigs    eY/eX -0.0852065315 0.0180627460 -4.717252
## 607        607 response    cigs    eY/eX -0.0856447743 0.0181415666 -4.720914
## 608        608 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 609        609 response    cigs    eY/eX -0.0120037368 0.0023688808 -5.067261
## 610        610 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 611        611 response    cigs    eY/eX -0.0401723294 0.0081993096 -4.899477
## 612        612 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 613        613 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 614        614 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 615        615 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 616        616 response    cigs    eY/eX -0.0852065315 0.0180627460 -4.717252
## 617        617 response    cigs    eY/eX -0.1843948775 0.0427586507 -4.312458
## 618        618 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 619        619 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 620        620 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 621        621 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 622        622 response    cigs    eY/eX -0.0837073792 0.0177998626 -4.702698
## 623        623 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 624        624 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 625        625 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 626        626 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 627        627 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 628        628 response    cigs    eY/eX -0.0325835436 0.0065646973 -4.963449
## 629        629 response    cigs    eY/eX -0.0844146264 0.0179226064 -4.709953
## 630        630 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 631        631 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 632        632 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
```

```
## 633    633 response    cigs     eY/eX -0.0410977146 0.0083467256 -4.923813
## 634    634 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 635    635 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 636    636 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 637    637 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 638    638 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 639    639 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 640    640 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 641    641 response    cigs     eY/eX -0.0277857649 0.0056036513 -4.958511
## 642    642 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 643    643 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 644    644 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 645    645 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 646    646 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 647    647 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 648    648 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 649    649 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 650    650 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 651    651 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 652    652 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 653    653 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 654    654 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 655    655 response    cigs     eY/eX -0.0321380954 0.0064945786 -4.948450
## 656    656 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 657    657 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 658    658 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 659    659 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 660    660 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 661    661 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 662    662 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 663    663 response    cigs     eY/eX -0.0855714210 0.0181283095 -4.720320
## 664    664 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 665    665 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 666    666 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 667    667 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 668    668 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 669    669 response    cigs     eY/eX -0.0403345080 0.0082245527 -4.904158
## 670    670 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 671    671 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
```

```
## 672       672 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 673       673 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 674       674 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 675       675 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 676       676 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 677       677 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 678       678 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 679       679 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 680       680 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 681       681 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 682       682 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 683       683 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 684       684 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 685       685 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 686       686 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 687       687 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 688       688 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 689       689 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 690       690 response    cigs     eY/eX -0.0847727507 0.0179856220 -4.713362
## 691       691 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 692       692 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 693       693 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 694       694 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 695       695 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 696       696 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 697       697 response    cigs     eY/eX -0.0196906549 0.0039398121 -4.997866
## 698       698 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 699       699 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 700       700 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 701       701 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 702       702 response    cigs     eY/eX -0.0404980014 0.0082502495 -4.908700
## 703       703 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 704       704 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 705       705 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 706       706 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 707       707 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 708       708 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 709       709 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 710       710 response    cigs     eY/eX -0.0837073792 0.0177998626 -4.702698
```

```
## 711      711 response     cigs      eY/eX -0.0612423726 0.0127674380 -4.796763
## 712      712 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 713      713 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 714      714 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 715      715 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 716      716 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 717      717 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 718      718 response     cigs      eY/eX -0.0277857649 0.0056036513 -4.958511
## 719      719 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 720      720 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 721      721 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 722      722 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 723      723 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 724      724 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 725      725 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 726      726 response     cigs      eY/eX -0.0620024905 0.0128921356 -4.809327
## 727      727 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 728      728 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 729      729 response     cigs      eY/eX -0.0038620706 0.0007616174 -5.070880
## 730      730 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 731      731 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 732      732 response     cigs      eY/eX -0.0609931248 0.0127272967 -4.792308
## 733      733 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 734      734 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 735      735 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 736      736 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 737      737 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 738      738 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 739      739 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 740      740 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 741      741 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 742      742 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 743      743 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 744      744 response     cigs      eY/eX -0.0199421925 0.0039773612 -5.013925
## 745      745 response     cigs      eY/eX -0.0391491482 0.0080454311 -4.866010
## 746      746 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 747      747 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 748      748 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
## 749      749 response     cigs      eY/eX  0.0000000000 0.0000000000      NaN
```

```
## 750        750 response    cigs    eY/eX -0.0473497181 0.0098074805 -4.827919
## 751        751 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 752        752 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 753        753 response    cigs    eY/eX -0.0391491482 0.0080454311 -4.866010
## 754        754 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 755        755 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 756        756 response    cigs    eY/eX -0.0844146264 0.0179226064 -4.709953
## 757        757 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 758        758 response    cigs    eY/eX -0.0396935254 0.0081261754 -4.884650
## 759        759 response    cigs    eY/eX -0.0403345080 0.0082245527 -4.904158
## 760        760 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 761        761 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 762        762 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 763        763 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 764        764 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 765        765 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 766        766 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 767        767 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 768        768 response    cigs    eY/eX -0.0156293677 0.0031183018 -5.012141
## 769        769 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 770        770 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 771        771 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 772        772 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 773        773 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 774        774 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 775        775 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 776        776 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 777        777 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 778        778 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 779        779 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 780        780 response    cigs    eY/eX -0.0160177546 0.0031759940 -5.043383
## 781        781 response    cigs    eY/eX -0.0620024905 0.0128921356 -4.809327
## 782        782 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 783        783 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 784        784 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 785        785 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 786        786 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 787        787 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 788        788 response    cigs    eY/eX -0.0116764021 0.0023205585 -5.031721
```

```
## 789        789 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 790        790 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 791        791 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 792        792 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 793        793 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 794        794 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 795        795 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 796        796 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 797        797 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 798        798 response    cigs    eY/eX -0.0396935254 0.0081261754 -4.884650
## 799        799 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 800        800 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 801        801 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 802        802 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 803        803 response    cigs    eY/eX -0.0408958463 0.0083138539 -4.919000
## 804        804 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 805        805 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 806        806 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 807        807 response    cigs    eY/eX -0.0844146264 0.0179226064 -4.709953
## 808        808 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 809        809 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 810        810 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 811        811 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 812        812 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 813        813 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 814        814 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 815        815 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 816        816 response    cigs    eY/eX -0.0079579017 0.0015647721 -5.085662
## 817        817 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 818        818 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 819        819 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 820        820 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 821        821 response    cigs    eY/eX -0.0405967352 0.0082658909 -4.911356
## 822        822 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 823        823 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 824        824 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 825        825 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 826        826 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 827        827 response    cigs    eY/eX  0.0000000000 0.0000000000        NaN
```

27

```
## 828      828 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 829      829 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 830      830 response   cigs    eY/eX -0.0837073792 0.0177998626 -4.702698
## 831      831 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 832      832 response   cigs    eY/eX -0.0396935254 0.0081261754 -4.884650
## 833      833 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 834      834 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 835      835 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 836      836 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 837      837 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 838      838 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 839      839 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 840      840 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 841      841 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 842      842 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 843      843 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 844      844 response   cigs    eY/eX -0.0194605341 0.0039065039 -4.981573
## 845      845 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 846      846 response   cigs    eY/eX -0.0401723294 0.0081993096 -4.899477
## 847      847 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 848      848 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 849      849 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 850      850 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 851      851 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 852      852 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 853      853 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 854      854 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 855      855 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 856      856 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 857      857 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 858      858 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 859      859 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 860      860 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 861      861 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 862      862 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 863      863 response   cigs    eY/eX -0.0851339267 0.0180497758 -4.716620
## 864      864 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 865      865 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 866      866 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
```

```
## 867     867 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 868     868 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 869     869 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 870     870 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 871     871 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 872     872 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 873     873 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 874     874 response   cigs    eY/eX -0.0406959516  0.0082817035  -4.913959
## 875     875 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 876     876 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 877     877 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 878     878 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 879     879 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 880     880 response   cigs    eY/eX -0.0408289969  0.0083030582  -4.917344
## 881     881 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 882     882 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 883     883 response   cigs    eY/eX -0.1322018234  0.0293052124  -4.511205
## 884     884 response   cigs    eY/eX -0.0403345080  0.0082245527  -4.904158
## 885     885 response   cigs    eY/eX -0.0852065315  0.0180627460  -4.717252
## 886     886 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 887     887 response   cigs    eY/eX -0.0405967352  0.0082658909  -4.911356
## 888     888 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 889     889 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 890     890 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 891     891 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 892     892 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 893     893 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 894     894 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 895     895 response   cigs    eY/eX -0.1345761147  0.0297738243  -4.519947
## 896     896 response   cigs    eY/eX -0.1344553765  0.0297495823  -4.519572
## 897     897 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 898     898 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 899     899 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 900     900 response   cigs    eY/eX -0.0160434757  0.0031799486  -5.045200
## 901     901 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 902     902 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 903     903 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 904     904 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
## 905     905 response   cigs    eY/eX  0.0000000000  0.0000000000        NaN
```

```
## 906     906 response    cigs     eY/eX -0.0409293532 0.0083192818 -4.919818
## 907     907 response    cigs     eY/eX -0.0118988998 0.0023530140 -5.056876
## 908     908 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 909     909 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 910     910 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 911     911 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 912     912 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 913     913 response    cigs     eY/eX -0.0857918588 0.0181682274 -4.722082
## 914     914 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 915     915 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 916     916 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 917     917 response    cigs     eY/eX -0.0119558556 0.0023615868 -5.062637
## 918     918 response    cigs     eY/eX -0.0844146264 0.0179226064 -4.709953
## 919     919 response    cigs     eY/eX -0.0280083167 0.0056373768 -4.968324
## 920     920 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 921     921 response    cigs     eY/eX -0.0840595152 0.0178606971 -4.706396
## 922     922 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 923     923 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 924     924 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 925     925 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 926     926 response    cigs     eY/eX -0.0079452448 0.0015628660 -5.083766
## 927     927 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 928     928 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 929     929 response    cigs     eY/eX -0.0407623657 0.0082923417 -4.915664
## 930     930 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 931     931 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 932     932 response    cigs     eY/eX -0.0851339267 0.0180497758 -4.716620
## 933     933 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 934     934 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 935     935 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 936     936 response    cigs     eY/eX -0.0200221212 0.0039895539 -5.018637
## 937     937 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 938     938 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 939     939 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 940     940 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 941     941 response    cigs     eY/eX -0.0404980014 0.0082502495 -4.908700
## 942     942 response    cigs     eY/eX -0.0844146264 0.0179226064 -4.709953
## 943     943 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 944     944 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
```

```
## 945     945 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 946     946 response    cigs    eY/eX -0.0840595152 0.0178606971 -4.706396
## 947     947 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 948     948 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 949     949 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 950     950 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 951     951 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 952     952 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 953     953 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 954     954 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 955     955 response    cigs    eY/eX -0.0196133457 0.0039285140 -4.992561
## 956     956 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 957     957 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 958     958 response    cigs    eY/eX -0.0281209349 0.0056547021 -4.973018
## 959     959 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 960     960 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 961     961 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 962     962 response    cigs    eY/eX -0.0620024905 0.0128921356 -4.809327
## 963     963 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 964     964 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 965     965 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 966     966 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 967     967 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 968     968 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 969     969 response    cigs    eY/eX -0.0160563673 0.0031819372 -5.046098
## 970     970 response    cigs    eY/eX -0.0409629150 0.0083247298 -4.920630
## 971     971 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 972     972 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 973     973 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 974     974 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 975     975 response    cigs    eY/eX -0.0622600736 0.0129351960 -4.813230
## 976     976 response    cigs    eY/eX -0.0622083859 0.0129265220 -4.812461
## 977     977 response    cigs    eY/eX -0.1873337012 0.0433975502 -4.316688
## 978     978 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 979     979 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 980     980 response    cigs    eY/eX -0.0405967352 0.0082658909 -4.911356
## 981     981 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 982     982 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 983     983 response    cigs    eY/eX  0.0000000000 0.0000000000       NaN
```

```
## 984    984 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 985    985 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 986    986 response    cigs    eY/eX -0.0852792602 0.0180757634 -4.717879
## 987    987 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 988    988 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 989    989 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 990    990 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 991    991 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 992    992 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 993    993 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 994    994 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 995    995 response    cigs    eY/eX -0.0844146264 0.0179226064 -4.709953
## 996    996 response    cigs    eY/eX -0.0846291370 0.0179602810 -4.712016
## 997    997 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 998    998 response    cigs    eY/eX -0.0412334042 0.0083690533 -4.926890
## 999    999 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1000  1000 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1001  1001 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1002  1002 response    cigs    eY/eX -0.0406628256 0.0082764134 -4.913097
## 1003  1003 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1004  1004 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1005  1005 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1006  1006 response    cigs    eY/eX -0.0411654476 0.0083578475 -4.925365
## 1007  1007 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1008  1008 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1009  1009 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1010  1010 response    cigs    eY/eX -0.0621567840 0.0129178791 -4.811686
## 1011  1011 response    cigs    eY/eX -0.0614936660 0.0128082779 -4.801088
## 1012  1012 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1013  1013 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1014  1014 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1015  1015 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1016  1016 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1017  1017 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1018  1018 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1019  1019 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1020  1020 response    cigs    eY/eX -0.0849168527 0.0180111451 -4.714684
## 1021  1021 response    cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1022  1022 response    cigs    eY/eX -0.0198945409 0.0039701531 -5.011026
```

```
## 1023   1023 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1024   1024 response   cigs    eY/eX -0.0240650402 0.0048170589 -4.995795
## 1025   1025 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1026   1026 response   cigs    eY/eX -0.0856447743 0.0181415666 -4.720914
## 1027   1027 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1028   1028 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1029   1029 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1030   1030 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1031   1031 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1032   1032 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1033   1033 response   cigs    eY/eX -0.0403345080 0.0082245527 -4.904158
## 1034   1034 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1035   1035 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1036   1036 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1037   1037 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1038   1038 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1039   1039 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1040   1040 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1041   1041 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1042   1042 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1043   1043 response   cigs    eY/eX -0.0847727507 0.0179856220 -4.713362
## 1044   1044 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1045   1045 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1046   1046 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1047   1047 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1048   1048 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1049   1049 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1050   1050 response   cigs    eY/eX -0.0411654476 0.0083578475 -4.925365
## 1051   1051 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1052   1052 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1053   1053 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1054   1054 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1055   1055 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1056   1056 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1057   1057 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1058   1058 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1059   1059 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1060   1060 response   cigs    eY/eX  0.0000000000 0.0000000000      NaN
## 1061   1061 response   cigs    eY/eX -0.0855714210 0.0181283095 -4.720320
```

```
## 1062  1062 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1063  1063 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1064  1064 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1065  1065 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1066  1066 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1067  1067 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1068  1068 response     cigs      eY/eX  -0.0830118844  0.0176812986  -4.694897
## 1069  1069 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1070  1070 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1071  1071 response     cigs      eY/eX  -0.0405967352  0.0082658909  -4.911356
## 1072  1072 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1073  1073 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1074  1074 response     cigs      eY/eX  -0.0849890876  0.0180239756  -4.715335
## 1075  1075 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1076  1076 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1077  1077 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1078  1078 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1079  1079 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1080  1080 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1081  1081 response     cigs      eY/eX  -0.0840595152  0.0178606971  -4.706396
## 1082  1082 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1083  1083 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1084  1084 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1085  1085 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1086  1086 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1087  1087 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1088  1088 response     cigs      eY/eX  -0.0406297535  0.0082711426  -4.912230
## 1089  1089 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1090  1090 response     cigs      eY/eX  -0.0235359319  0.0047378441  -4.967646
## 1091  1091 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1092  1092 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1093  1093 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1094  1094 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1095  1095 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1096  1096 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1097  1097 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1098  1098 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1099  1099 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
## 1100  1100 response     cigs      eY/eX   0.0000000000  0.0000000000         NaN
```

```
## 1101   1101 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1102   1102 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1103   1103 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1104   1104 response    cigs     eY/eX -0.0079642452 0.0015657306 -5.086600
## 1105   1105 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1106   1106 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1107   1107 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1108   1108 response    cigs     eY/eX -0.0853521132 0.0180888281 -4.718499
## 1109   1109 response    cigs     eY/eX -0.0410977146 0.0083467256 -4.923813
## 1110   1110 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1111   1111 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1112   1112 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1113   1113 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1114   1114 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1115   1115 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1116   1116 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1117   1117 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1118   1118 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1119   1119 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1120   1120 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1121   1121 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1122   1122 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1123   1123 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1124   1124 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1125   1125 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1126   1126 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1127   1127 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1128   1128 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1129   1129 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1130   1130 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1131   1131 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1132   1132 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1133   1133 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1134   1134 response    cigs     eY/eX -0.0158777497 0.0031547673 -5.032938
## 1135   1135 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1136   1136 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1137   1137 response    cigs     eY/eX -0.0235359319 0.0047378441 -4.967646
## 1138   1138 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1139   1139 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
```

```
## 1140  1140 response    cigs     eY/eX -0.0404980014 0.0082502495 -4.908700
## 1141  1141 response    cigs     eY/eX -0.0118144765 0.0023405091 -5.047823
## 1142  1142 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1143  1143 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1144  1144 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1145  1145 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1146  1146 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1147  1147 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1148  1148 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1149  1149 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1150  1150 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1151  1151 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1152  1152 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1153  1153 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1154  1154 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1155  1155 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1156  1156 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1157  1157 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1158  1158 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1159  1159 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1160  1160 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1161  1161 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1162  1162 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1163  1163 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1164  1164 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1165  1165 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1166  1166 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1167  1167 response    cigs     eY/eX -0.0199740873 0.0039822111 -5.015828
## 1168  1168 response    cigs     eY/eX -0.0196906549 0.0039398121 -4.997866
## 1169  1169 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1170  1170 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1171  1171 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1172  1172 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1173  1173 response    cigs     eY/eX -0.0814885019 0.0174286356 -4.675553
## 1174  1174 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1175  1175 response    cigs     eY/eX -0.0239114544 0.0047936047 -4.988199
## 1176  1176 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1177  1177 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
## 1178  1178 response    cigs     eY/eX  0.0000000000 0.0000000000      NaN
```

```
## 1179 1179 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1180 1180 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1181 1181 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1182 1182 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1183 1183 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1184 1184 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1185 1185 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1186 1186 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1187 1187 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1188 1188 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1189 1189 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1190 1190 response   cigs   eY/eX -0.0853521132 0.0180888281 -4.718499
## 1191 1191 response   cigs   eY/eX -0.0621567840 0.0129178791 -4.811686
## 1192 1192 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1193 1193 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1194 1194 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1195 1195 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1196 1196 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1197 1197 response   cigs   eY/eX -0.0326101313 0.0065689613 -4.964275
## 1198 1198 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1199 1199 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1200 1200 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1201 1201 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1202 1202 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1203 1203 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1204 1204 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1205 1205 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1206 1206 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1207 1207 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1208 1208 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1209 1209 response   cigs   eY/eX -0.0201351039 0.0040070109 -5.024969
## 1210 1210 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1211 1211 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1212 1212 response   cigs   eY/eX -0.0411993979 0.0083634398 -4.926131
## 1213 1213 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1214 1214 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1215 1215 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1216 1216 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
## 1217 1217 response   cigs   eY/eX  0.0000000000 0.0000000000       NaN
```

```
## 1218   1218 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1219   1219 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1220   1220 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1221   1221 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1222   1222 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1223   1223 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1224   1224 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1225   1225 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1226   1226 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1227   1227 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1228   1228 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1229   1229 response   cigs    eY/eX -0.0627291571 0.0130146953 -4.819871
## 1230   1230 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1231   1231 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1232   1232 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1233   1233 response   cigs    eY/eX -0.0473497181 0.0098074805 -4.827919
## 1234   1234 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1235   1235 response   cigs    eY/eX -0.0404980014 0.0082502495 -4.908700
## 1236   1236 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1237   1237 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1238   1238 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1239   1239 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1240   1240 response   cigs    eY/eX -0.2227367610 0.0530868176 -4.195708
## 1241   1241 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1242   1242 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1243   1243 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1244   1244 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1245   1245 response   cigs    eY/eX -0.0852792602 0.0180757634 -4.717879
## 1246   1246 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1247   1247 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1248   1248 response   cigs    eY/eX -0.0198471164 0.0039630238 -5.008074
## 1249   1249 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1250   1250 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1251   1251 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1252   1252 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1253   1253 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1254   1254 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1255   1255 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
## 1256   1256 response   cigs    eY/eX  0.0000000000 0.0000000000        NaN
```

```
## 1257  1257 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1258  1258 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1259  1259 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1260  1260 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1261  1261 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1262  1262 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1263  1263 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1264  1264 response   cigs   eY/eX -0.1843948775 0.0427586507 -4.312458
## 1265  1265 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1266  1266 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1267  1267 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1268  1268 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1269  1269 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1270  1270 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1271  1271 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1272  1272 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1273  1273 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1274  1274 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1275  1275 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1276  1276 response   cigs   eY/eX -0.0855714210 0.0181283095 -4.720320
## 1277  1277 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1278  1278 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1279  1279 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1280  1280 response   cigs   eY/eX -0.0482064474 0.0099379287 -4.850754
## 1281  1281 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1282  1282 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1283  1283 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1284  1284 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1285  1285 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1286  1286 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1287  1287 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1288  1288 response   cigs   eY/eX -0.0403345080 0.0082245527 -4.904158
## 1289  1289 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1290  1290 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1291  1291 response   cigs   eY/eX -0.0857182534 0.0181548725 -4.721501
## 1292  1292 response   cigs   eY/eX -0.0200060843 0.0039870972 -5.017707
## 1293  1293 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1294  1294 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1295  1295 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
```

```
## 1296  1296 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1297  1297 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1298  1298 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1299  1299 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1300  1300 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1301  1301 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1302  1302 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1303  1303 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1304  1304 response    cigs     eY/eX -0.2404693997 0.0584641282 -4.113110
## 1305  1305 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1306  1306 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1307  1307 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1308  1308 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1309  1309 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1310  1310 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1311  1311 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1312  1312 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1313  1313 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1314  1314 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1315  1315 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1316  1316 response    cigs     eY/eX -0.0844146264 0.0179226064 -4.709953
## 1317  1317 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1318  1318 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1319  1319 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1320  1320 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1321  1321 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1322  1322 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1323  1323 response    cigs     eY/eX -0.0191987664 0.0038697526 -4.961239
## 1324  1324 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1325  1325 response    cigs     eY/eX -0.0620024905 0.0128921356 -4.809327
## 1326  1326 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1327  1327 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1328  1328 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1329  1329 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1330  1330 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1331  1331 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
## 1332  1332 response    cigs     eY/eX -0.0404980014 0.0082502495 -4.908700
## 1333  1333 response    cigs     eY/eX -0.0368365533 0.0074506931 -4.944044
## 1334  1334 response    cigs     eY/eX  0.0000000000 0.0000000000         NaN
```

```
## 1335   1335 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1336   1336 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1337   1337 response   cigs   eY/eX -0.0628870930 0.0130417827 -4.821971
## 1338   1338 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1339   1339 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1340   1340 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1341   1341 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1342   1342 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1343   1343 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1344   1344 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1345   1345 response   cigs   eY/eX -0.0410302041 0.0083356867 -4.922234
## 1346   1346 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1347   1347 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1348   1348 response   cigs   eY/eX -0.0626766880 0.0130057325 -4.819159
## 1349   1349 response   cigs   eY/eX -0.0837073792 0.0177998626 -4.702698
## 1350   1350 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1351   1351 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1352   1352 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1353   1353 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1354   1354 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1355   1355 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1356   1356 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1357   1357 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1358   1358 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1359   1359 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1360   1360 response   cigs   eY/eX -0.0119083547 0.0023544294 -5.057852
## 1361   1361 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1362   1362 response   cigs   eY/eX -0.0410639316 0.0083411958 -4.923027
## 1363   1363 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1364   1364 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1365   1365 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1366   1366 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1367   1367 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1368   1368 response   cigs   eY/eX -0.0625198058 0.0129790402 -4.816982
## 1369   1369 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1370   1370 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1371   1371 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1372   1372 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
## 1373   1373 response   cigs   eY/eX  0.0000000000 0.0000000000        NaN
```

```
## 1374 1374 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1375 1375 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1376 1376 response   cigs    eY/eX -0.0847727507 0.0179856220 -4.713362
## 1377 1377 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1378 1378 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1379 1379 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1380 1380 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1381 1381 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1382 1382 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1383 1383 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1384 1384 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1385 1385 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1386 1386 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1387 1387 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1388 1388 response   cigs    eY/eX  0.0000000000 0.0000000000       NaN
## 1389    1 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
## 1390    2 response faminc    eY/eX  0.0059126058 0.0018938044  3.122078
## 1391    3 response faminc    eY/eX  0.0003963610 0.0001276594  3.104831
## 1392    4 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 1393    5 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1394    6 response faminc    eY/eX  0.0059126058 0.0018938044  3.122078
## 1395    7 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1396    8 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1397    9 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1398   10 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1399   11 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1400   12 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1401   13 response faminc    eY/eX  0.0051283013 0.0016438894  3.119615
## 1402   14 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 1403   15 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 1404   16 response faminc    eY/eX  0.0136881700 0.0043499845  3.146717
## 1405   17 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1406   18 response faminc    eY/eX  0.0035559735 0.0011416793  3.114687
## 1407   19 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1408   20 response faminc    eY/eX  0.0051283013 0.0016438894  3.119615
## 1409   21 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 1410   22 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1411   23 response faminc    eY/eX  0.0124347861 0.0039488756  3.148944
## 1412   24 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
```

```
## 1413   25 response faminc    eY/eX   0.0288800049 0.0090363133   3.195994
## 1414   26 response faminc    eY/eX   0.0019786680 0.0006362769   3.109759
## 1415   27 response faminc    eY/eX   0.0019786680 0.0006362769   3.109759
## 1416   28 response faminc    eY/eX   0.0251260898 0.0078921656   3.183675
## 1417   29 response faminc    eY/eX   0.0175305155 0.0055493237   3.159036
## 1418   30 response faminc    eY/eX   0.0003963610 0.0001276594   3.104831
## 1419   31 response faminc    eY/eX   0.0490204864 0.0150196804   3.263750
## 1420   32 response faminc    eY/eX   0.0490204864 0.0150196804   3.263750
## 1421   33 response faminc    eY/eX   0.0490204864 0.0150196804   3.263750
## 1422   34 response faminc    eY/eX   0.0213430401 0.0067299422   3.171356
## 1423   35 response faminc    eY/eX   0.0059126058 0.0018938044   3.122078
## 1424   36 response faminc    eY/eX   0.0363017675 0.0112716258   3.220633
## 1425   37 response faminc    eY/eX   0.0490204864 0.0150196804   3.263750
## 1426   38 response faminc    eY/eX   0.0490204864 0.0150196804   3.263750
## 1427   39 response faminc    eY/eX   0.0251260898 0.0078921656   3.183675
## 1428   40 response faminc    eY/eX   0.0105925867 0.0033768103   3.136862
## 1429   41 response faminc    eY/eX   0.0490204864 0.0150196804   3.263750
## 1430   42 response faminc    eY/eX   0.0363017675 0.0112716258   3.220633
## 1431   43 response faminc    eY/eX   0.0288800049 0.0090363133   3.195994
## 1432   44 response faminc    eY/eX   0.0251260898 0.0078921656   3.183675
## 1433   45 response faminc    eY/eX   0.0144590415 0.0045913659   3.149181
## 1434   46 response faminc    eY/eX   0.0490204864 0.0150196804   3.263750
## 1435   47 response faminc    eY/eX   0.0490204864 0.0150196804   3.263750
## 1436   48 response faminc    eY/eX   0.0090374969 0.0028855963   3.131934
## 1437   49 response faminc    eY/eX   0.0251260898 0.0078921656   3.183675
## 1438   50 response faminc    eY/eX   0.0490204864 0.0150196804   3.263750
## 1439   51 response faminc    eY/eX   0.0136881700 0.0043499845   3.146717
## 1440   52 response faminc    eY/eX   0.0129160916 0.0041078407   3.144253
## 1441   53 response faminc    eY/eX   0.0175305155 0.0055493237   3.159036
## 1442   54 response faminc    eY/eX   0.0326051207 0.0101626981   3.208313
## 1443   55 response faminc    eY/eX   0.0251260898 0.0078921656   3.183675
## 1444   56 response faminc    eY/eX   0.0090374969 0.0028855963   3.131934
## 1445   57 response faminc    eY/eX   0.0490204864 0.0150196804   3.263750
## 1446   58 response faminc    eY/eX   0.0213430401 0.0067299422   3.171356
## 1447   59 response faminc    eY/eX   0.0213430401 0.0067299422   3.171356
## 1448   60 response faminc    eY/eX   0.0136881700 0.0043499845   3.146717
## 1449   61 response faminc    eY/eX   0.0490204864 0.0150196804   3.263750
## 1450   62 response faminc    eY/eX   0.0027679445 0.0008893786   3.112223
## 1451   63 response faminc    eY/eX   0.0003963610 0.0001276594   3.104831
```

```
## 1452   64 response faminc   eY/eX  0.0004127043 0.0001324927  3.114922
## 1453   65 response faminc   eY/eX  0.0027679445 0.0008893786  3.112223
## 1454   66 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 1455   67 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 1456   68 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 1457   69 response faminc   eY/eX  0.0064181230 0.0020422950  3.142603
## 1458   70 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 1459   71 response faminc   eY/eX  0.0144590415 0.0045913659  3.149181
## 1460   72 response faminc   eY/eX  0.0288800049 0.0090363133  3.195994
## 1461   73 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 1462   74 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 1463   75 response faminc   eY/eX  0.0171350926 0.0053738709  3.188594
## 1464   76 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 1465   77 response faminc   eY/eX  0.0003963610 0.0001276594  3.104831
## 1466   78 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 1467   79 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 1468   80 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 1469   81 response faminc   eY/eX  0.0121428034 0.0038649323  3.141789
## 1470   82 response faminc   eY/eX  0.0129160916 0.0041078407  3.144253
## 1471   83 response faminc   eY/eX  0.0152287090 0.0048319879  3.151645
## 1472   84 response faminc   eY/eX  0.0121428034 0.0038649323  3.141789
## 1473   85 response faminc   eY/eX  0.0113683028 0.0036212565  3.139325
## 1474   86 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 1475   87 response faminc   eY/eX  0.0113683028 0.0036212565  3.139325
## 1476   88 response faminc   eY/eX  0.0066956748 0.0021429298  3.124542
## 1477   89 response faminc   eY/eX  0.0066956748 0.0021429298  3.124542
## 1478   90 response faminc   eY/eX  0.0059126058 0.0018938044  3.122078
## 1479   91 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 1480   92 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 1481   93 response faminc   eY/eX  0.0061550022 0.0019646102  3.132938
## 1482   94 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 1483   95 response faminc   eY/eX  0.0110247182 0.0035017104  3.148381
## 1484   96 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 1485   97 response faminc   eY/eX  0.0144590415 0.0045913659  3.149181
## 1486   98 response faminc   eY/eX  0.0190103474 0.0059724902  3.182985
## 1487   99 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 1488  100 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 1489  101 response faminc   eY/eX  0.0326051207 0.0101626981  3.208313
## 1490  102 response faminc   eY/eX  0.0288800049 0.0090363133  3.195994
```

```
## 1491   103 response faminc    eY/eX  0.0091452042 0.0029167400  3.135420
## 1492   104 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1493   105 response faminc    eY/eX  0.0059126058 0.0018938044  3.122078
## 1494   106 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1495   107 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1496   108 response faminc    eY/eX  0.0222039012 0.0069726802  3.184414
## 1497   109 response faminc    eY/eX  0.0059126058 0.0018938044  3.122078
## 1498   110 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1499   111 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 1500   112 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 1501   113 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1502   114 response faminc    eY/eX  0.0113683028 0.0036212565  3.139325
## 1503   115 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1504   116 response faminc    eY/eX  0.0312873896 0.0097064321  3.223367
## 1505   117 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1506   118 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1507   119 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1508   120 response faminc    eY/eX  0.0051283013 0.0016438894  3.119615
## 1509   121 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1510   122 response faminc    eY/eX  0.0060881051 0.0019308212  3.153117
## 1511   123 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1512   124 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1513   125 response faminc    eY/eX  0.0059126058 0.0018938044  3.122078
## 1514   126 response faminc    eY/eX  0.0136881700 0.0043499845  3.146717
## 1515   127 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1516   128 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1517   129 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1518   130 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1519   131 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1520   132 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1521   133 response faminc    eY/eX  0.0019786680 0.0006362769  3.109759
## 1522   134 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 1523   135 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1524   136 response faminc    eY/eX  0.0113683028 0.0036212565  3.139325
## 1525   137 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1526   138 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1527   139 response faminc    eY/eX  0.0027679445 0.0008893786  3.112223
## 1528   140 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1529   141 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
```

```
## 1530    142 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1531    143 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 1532    144 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1533    145 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1534    146 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
## 1535    147 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1536    148 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1537    149 response faminc    eY/eX  0.0043427582 0.0013931819  3.117151
## 1538    150 response faminc    eY/eX  0.0043427582 0.0013931819  3.117151
## 1539    151 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1540    152 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1541    153 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 1542    154 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1543    155 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1544    156 response faminc    eY/eX  0.0255203365 0.0080020891  3.189209
## 1545    157 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1546    158 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1547    159 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1548    160 response faminc    eY/eX  0.0011881412 0.0003823715  3.107295
## 1549    161 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1550    162 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 1551    163 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1552    164 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1553    165 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 1554    166 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1555    167 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1556    168 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1557    169 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1558    170 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1559    171 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1560    172 response faminc    eY/eX  0.0068300596 0.0021820247  3.130148
## 1561    173 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1562    174 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1563    175 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 1564    176 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1565    177 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1566    178 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1567    179 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1568    180 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
```

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## 1569   181 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
## 1570   182 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 1571   183 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1572   184 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1573   185 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1574   186 response faminc    eY/eX  0.0261354633 0.0081742726  3.197283
## 1575   187 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1576   188 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1577   189 response faminc    eY/eX  0.0393027784 0.0120920920  3.250288
## 1578   190 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1579   191 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1580   192 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 1581   193 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1582   194 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1583   195 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1584   196 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1585   197 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 1586   198 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1587   199 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1588   200 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1589   201 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 1590   202 response faminc    eY/eX  0.0259271525 0.0081158640  3.194626
## 1591   203 response faminc    eY/eX  0.0051283013 0.0016438894  3.119615
## 1592   204 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 1593   205 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 1594   206 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 1595   207 response faminc    eY/eX  0.0059126058 0.0018938044  3.122078
## 1596   208 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 1597   209 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 1598   210 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1599   211 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1600   212 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1601   213 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 1602   214 response faminc    eY/eX  0.0136881700 0.0043499845  3.146717
## 1603   215 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1604   216 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 1605   217 response faminc    eY/eX  0.0216792481 0.0068245095  3.176675
## 1606   218 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1607   219 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
```

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## 1608    220 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 1609    221 response faminc    eY/eX  0.0272293289 0.0084829051  3.209906
## 1610    222 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1611    223 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1612    224 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1613    225 response faminc    eY/eX  0.0074775110 0.0023912683  3.127006
## 1614    226 response faminc    eY/eX  0.0126373693 0.0040073742  3.153529
## 1615    227 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1616    228 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1617    229 response faminc    eY/eX  0.0183894132 0.0057938879  3.173933
## 1618    230 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1619    231 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1620    232 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1621    233 response faminc    eY/eX  0.0043427582 0.0013931819  3.117151
## 1622    234 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1623    235 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
## 1624    236 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1625    237 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1626    238 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1627    239 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1628    240 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1629    241 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 1630    242 response faminc    eY/eX  0.0074775110 0.0023912683  3.127006
## 1631    243 response faminc    eY/eX  0.0003963610 0.0001276594  3.104831
## 1632    244 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1633    245 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 1634    246 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1635    247 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1636    248 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1637    249 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1638    250 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1639    251 response faminc    eY/eX  0.0051283013 0.0016438894  3.119615
## 1640    252 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1641    253 response faminc    eY/eX  0.0011881412 0.0003823715  3.107295
## 1642    254 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1643    255 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1644    256 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1645    257 response faminc    eY/eX  0.0148485538 0.0046847892  3.169524
## 1646    258 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
```

```
## 1647   259 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
## 1648   260 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 1649   261 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 1650   262 response faminc    eY/eX  0.0110247182 0.0035017104  3.148381
## 1651   263 response faminc    eY/eX  0.0261354633 0.0081742726  3.197283
## 1652   264 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 1653   265 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 1654   266 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1655   267 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
## 1656   268 response faminc    eY/eX  0.0129160916 0.0041078407  3.144253
## 1657   269 response faminc    eY/eX  0.0055671373 0.0017730238  3.139911
## 1658   270 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 1659   271 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1660   272 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1661   273 response faminc    eY/eX  0.0106512974 0.0033748674  3.156064
## 1662   274 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 1663   275 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1664   276 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1665   277 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 1666   278 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1667   279 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 1668   280 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 1669   281 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1670   282 response faminc    eY/eX  0.0255203365 0.0080020891  3.189209
## 1671   283 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1672   284 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1673   285 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1674   286 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1675   287 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1676   288 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1677   289 response faminc    eY/eX  0.0136881700 0.0043499845  3.146717
## 1678   290 response faminc    eY/eX  0.0252235051 0.0079192982  3.185068
## 1679   291 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1680   292 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1681   293 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1682   294 response faminc    eY/eX  0.0113683028 0.0036212565  3.139325
## 1683   295 response faminc    eY/eX  0.0156837351 0.0049440935  3.172217
## 1684   296 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1685   297 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
```

```
## 1686   298 response faminc    eY/eX   0.0213430401 0.0067299422  3.171356
## 1687   299 response faminc    eY/eX   0.0252605122 0.0078565869  3.215202
## 1688   300 response faminc    eY/eX   0.0213430401 0.0067299422  3.171356
## 1689   301 response faminc    eY/eX   0.0175305155 0.0055493237  3.159036
## 1690   302 response faminc    eY/eX   0.0251260898 0.0078921656  3.183675
## 1691   303 response faminc    eY/eX   0.0030054116 0.0009596328  3.131835
## 1692   304 response faminc    eY/eX   0.0150465088 0.0047596709  3.161250
## 1693   305 response faminc    eY/eX   0.0152287090 0.0048319879  3.151645
## 1694   306 response faminc    eY/eX   0.0251260898 0.0078921656  3.183675
## 1695   307 response faminc    eY/eX   0.0175305155 0.0055493237  3.159036
## 1696   308 response faminc    eY/eX   0.0490204864 0.0150196804  3.263750
## 1697   309 response faminc    eY/eX   0.0490204864 0.0150196804  3.263750
## 1698   310 response faminc    eY/eX   0.0113683028 0.0036212565  3.139325
## 1699   311 response faminc    eY/eX   0.0490204864 0.0150196804  3.263750
## 1700   312 response faminc    eY/eX   0.0118317017 0.0037549577  3.150955
## 1701   313 response faminc    eY/eX   0.0288800049 0.0090363133  3.195994
## 1702   314 response faminc    eY/eX   0.0105925867 0.0033768103  3.136862
## 1703   315 response faminc    eY/eX   0.0038607854 0.0012316963  3.134527
## 1704   316 response faminc    eY/eX   0.0175305155 0.0055493237  3.159036
## 1705   317 response faminc    eY/eX   0.0288800049 0.0090363133  3.195994
## 1706   318 response faminc    eY/eX   0.0490204864 0.0150196804  3.263750
## 1707   319 response faminc    eY/eX   0.0090374969 0.0028855963  3.131934
## 1708   320 response faminc    eY/eX   0.0175305155 0.0055493237  3.159036
## 1709   321 response faminc    eY/eX   0.0490204864 0.0150196804  3.263750
## 1710   322 response faminc    eY/eX   0.0288800049 0.0090363133  3.195994
## 1711   323 response faminc    eY/eX   0.0082581174 0.0026388230  3.129470
## 1712   324 response faminc    eY/eX   0.0288800049 0.0090363133  3.195994
## 1713   325 response faminc    eY/eX   0.0175305155 0.0055493237  3.159036
## 1714   326 response faminc    eY/eX   0.0121428034 0.0038649323  3.141789
## 1715   327 response faminc    eY/eX   0.0490204864 0.0150196804  3.263750
## 1716   328 response faminc    eY/eX   0.0004213920 0.0001350820  3.119527
## 1717   329 response faminc    eY/eX   0.0251260898 0.0078921656  3.183675
## 1718   330 response faminc    eY/eX   0.0082581174 0.0026388230  3.129470
## 1719   331 response faminc    eY/eX   0.0175305155 0.0055493237  3.159036
## 1720   332 response faminc    eY/eX   0.0363017675 0.0112716258  3.220633
## 1721   333 response faminc    eY/eX   0.0213430401 0.0067299422  3.171356
## 1722   334 response faminc    eY/eX   0.0490204864 0.0150196804  3.263750
## 1723   335 response faminc    eY/eX   0.0363017675 0.0112716258  3.220633
## 1724   336 response faminc    eY/eX   0.0035559735 0.0011416793  3.114687
```

```
## 1725   337 response faminc   eY/eX  0.0066956748 0.0021429298  3.124542
## 1726   338 response faminc   eY/eX  0.0363017675 0.0112716258  3.220633
## 1727   339 response faminc   eY/eX  0.0106512974 0.0033748674  3.156064
## 1728   340 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 1729   341 response faminc   eY/eX  0.0074775110 0.0023912683  3.127006
## 1730   342 response faminc   eY/eX  0.0312873896 0.0097064321  3.223367
## 1731   343 response faminc   eY/eX  0.0223844745 0.0070238649  3.186917
## 1732   344 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 1733   345 response faminc   eY/eX  0.0061049459 0.0019499341  3.130847
## 1734   346 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 1735   347 response faminc   eY/eX  0.0363017675 0.0112716258  3.220633
## 1736   348 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 1737   349 response faminc   eY/eX  0.0326051207 0.0101626981  3.208313
## 1738   350 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 1739   351 response faminc   eY/eX  0.0306486849 0.0095273806  3.216906
## 1740   352 response faminc   eY/eX  0.0363017675 0.0112716258  3.220633
## 1741   353 response faminc   eY/eX  0.0020601208 0.0006602805  3.120069
## 1742   354 response faminc   eY/eX  0.0059126058 0.0018938044  3.122078
## 1743   355 response faminc   eY/eX  0.0051283013 0.0016438894  3.119615
## 1744   356 response faminc   eY/eX  0.0288800049 0.0090363133  3.195994
## 1745   357 response faminc   eY/eX  0.0261354633 0.0081742726  3.197283
## 1746   358 response faminc   eY/eX  0.0363017675 0.0112716258  3.220633
## 1747   359 response faminc   eY/eX  0.0326051207 0.0101626981  3.208313
## 1748   360 response faminc   eY/eX  0.0081157324 0.0025780699  3.147988
## 1749   361 response faminc   eY/eX  0.0363017675 0.0112716258  3.220633
## 1750   362 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 1751   363 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 1752   364 response faminc   eY/eX  0.0326051207 0.0101626981  3.208313
## 1753   365 response faminc   eY/eX  0.0288800049 0.0090363133  3.195994
## 1754   366 response faminc   eY/eX  0.0152287090 0.0048319879  3.151645
## 1755   367 response faminc   eY/eX  0.0326051207 0.0101626981  3.208313
## 1756   368 response faminc   eY/eX  0.0113683028 0.0036212565  3.139325
## 1757   369 response faminc   eY/eX  0.0288800049 0.0090363133  3.195994
## 1758   370 response faminc   eY/eX  0.0059126058 0.0018938044  3.122078
## 1759   371 response faminc   eY/eX  0.0288800049 0.0090363133  3.195994
## 1760   372 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 1761   373 response faminc   eY/eX  0.0074775110 0.0023912683  3.127006
## 1762   374 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 1763   375 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
```

```
## 1764    376 response faminc     eY/eX  0.0045210889 0.0014454577   3.127791
## 1765    377 response faminc     eY/eX  0.0326051207 0.0101626981   3.208313
## 1766    378 response faminc     eY/eX  0.0175305155 0.0055493237   3.159036
## 1767    379 response faminc     eY/eX  0.0326051207 0.0101626981   3.208313
## 1768    380 response faminc     eY/eX  0.0059126058 0.0018938044   3.122078
## 1769    381 response faminc     eY/eX  0.0105925867 0.0033768103   3.136862
## 1770    382 response faminc     eY/eX  0.0213430401 0.0067299422   3.171356
## 1771    383 response faminc     eY/eX  0.0326051207 0.0101626981   3.208313
## 1772    384 response faminc     eY/eX  0.0251260898 0.0078921656   3.183675
## 1773    385 response faminc     eY/eX  0.0251260898 0.0078921656   3.183675
## 1774    386 response faminc     eY/eX  0.0043427582 0.0013931819   3.117151
## 1775    387 response faminc     eY/eX  0.0363017675 0.0112716258   3.220633
## 1776    388 response faminc     eY/eX  0.0363017675 0.0112716258   3.220633
## 1777    389 response faminc     eY/eX  0.0326051207 0.0101626981   3.208313
## 1778    390 response faminc     eY/eX  0.0288800049 0.0090363133   3.195994
## 1779    391 response faminc     eY/eX  0.0251260898 0.0078921656   3.183675
## 1780    392 response faminc     eY/eX  0.0490204864 0.0150196804   3.263750
## 1781    393 response faminc     eY/eX  0.0363017675 0.0112716258   3.220633
## 1782    394 response faminc     eY/eX  0.0326051207 0.0101626981   3.208313
## 1783    395 response faminc     eY/eX  0.0213430401 0.0067299422   3.171356
## 1784    396 response faminc     eY/eX  0.0136881700 0.0043499845   3.146717
## 1785    397 response faminc     eY/eX  0.0144590415 0.0045913659   3.149181
## 1786    398 response faminc     eY/eX  0.0326051207 0.0101626981   3.208313
## 1787    399 response faminc     eY/eX  0.0288800049 0.0090363133   3.195994
## 1788    400 response faminc     eY/eX  0.0326051207 0.0101626981   3.208313
## 1789    401 response faminc     eY/eX  0.0251260898 0.0078921656   3.183675
## 1790    402 response faminc     eY/eX  0.0019786680 0.0006362769   3.109759
## 1791    403 response faminc     eY/eX  0.0144590415 0.0045913659   3.149181
## 1792    404 response faminc     eY/eX  0.0035559735 0.0011416793   3.114687
## 1793    405 response faminc     eY/eX  0.0175305155 0.0055493237   3.159036
## 1794    406 response faminc     eY/eX  0.0038607854 0.0012316963   3.134527
## 1795    407 response faminc     eY/eX  0.0213430401 0.0067299422   3.171356
## 1796    408 response faminc     eY/eX  0.0152287090 0.0048319879   3.151645
## 1797    409 response faminc     eY/eX  0.0213430401 0.0067299422   3.171356
## 1798    410 response faminc     eY/eX  0.0152287090 0.0048319879   3.151645
## 1799    411 response faminc     eY/eX  0.0144590415 0.0045913659   3.149181
## 1800    412 response faminc     eY/eX  0.0175305155 0.0055493237   3.159036
## 1801    413 response faminc     eY/eX  0.0175305155 0.0055493237   3.159036
## 1802    414 response faminc     eY/eX  0.0012902494 0.0004126882   3.126451
```

```
## 1803     415 response faminc     eY/eX  0.0035559735 0.0011416793  3.114687
## 1804     416 response faminc     eY/eX  0.0028123876 0.0009024157  3.116510
## 1805     417 response faminc     eY/eX  0.0027679445 0.0008893786  3.112223
## 1806     418 response faminc     eY/eX  0.0326051207 0.0101626981  3.208313
## 1807     419 response faminc     eY/eX  0.0288800049 0.0090363133  3.195994
## 1808     420 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1809     421 response faminc     eY/eX  0.0288800049 0.0090363133  3.195994
## 1810     422 response faminc     eY/eX  0.0121428034 0.0038649323  3.141789
## 1811     423 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 1812     424 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 1813     425 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1814     426 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 1815     427 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 1816     428 response faminc     eY/eX  0.0035559735 0.0011416793  3.114687
## 1817     429 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 1818     430 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1819     431 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 1820     432 response faminc     eY/eX  0.0152287090 0.0048319879  3.151645
## 1821     433 response faminc     eY/eX  0.0038607854 0.0012316963  3.134527
## 1822     434 response faminc     eY/eX  0.0094067906 0.0029927115  3.143233
## 1823     435 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 1824     436 response faminc     eY/eX  0.0326481341 0.0100917562  3.235129
## 1825     437 response faminc     eY/eX  0.0051283013 0.0016438894  3.119615
## 1826     438 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 1827     439 response faminc     eY/eX  0.0144590415 0.0045913659  3.149181
## 1828     440 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 1829     441 response faminc     eY/eX  0.0326051207 0.0101626981  3.208313
## 1830     442 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1831     443 response faminc     eY/eX  0.0129160916 0.0041078407  3.144253
## 1832     444 response faminc     eY/eX  0.0326051207 0.0101626981  3.208313
## 1833     445 response faminc     eY/eX  0.0306486849 0.0095273806  3.216906
## 1834     446 response faminc     eY/eX  0.0105925867 0.0033768103  3.136862
## 1835     447 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1836     448 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1837     449 response faminc     eY/eX  0.0288800049 0.0090363133  3.195994
## 1838     450 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 1839     451 response faminc     eY/eX  0.0129160916 0.0041078407  3.144253
## 1840     452 response faminc     eY/eX  0.0363017675 0.0112716258  3.220633
## 1841     453 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
```

```
## 1842    454 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1843    455 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 1844    456 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1845    457 response faminc    eY/eX  0.0113683028 0.0036212565  3.139325
## 1846    458 response faminc    eY/eX  0.0129160916 0.0041078407  3.144253
## 1847    459 response faminc    eY/eX  0.0113683028 0.0036212565  3.139325
## 1848    460 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 1849    461 response faminc    eY/eX  0.0027679445 0.0008893786  3.112223
## 1850    462 response faminc    eY/eX  0.0226609095 0.0071024263  3.190587
## 1851    463 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1852    464 response faminc    eY/eX  0.0136881700 0.0043499845  3.146717
## 1853    465 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 1854    466 response faminc    eY/eX  0.0003963610 0.0001276594  3.104831
## 1855    467 response faminc    eY/eX  0.0136881700 0.0043499845  3.146717
## 1856    468 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 1857    469 response faminc    eY/eX  0.0003963610 0.0001276594  3.104831
## 1858    470 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1859    471 response faminc    eY/eX  0.0060313696 0.0019284154  3.127630
## 1860    472 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 1861    473 response faminc    eY/eX  0.0035559735 0.0011416793  3.114687
## 1862    474 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1863    475 response faminc    eY/eX  0.0051283013 0.0016438894  3.119615
## 1864    476 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1865    477 response faminc    eY/eX  0.0090374969 0.0028855963  3.131934
## 1866    478 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1867    479 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1868    480 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 1869    481 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1870    482 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1871    483 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1872    484 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1873    485 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1874    486 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 1875    487 response faminc    eY/eX  0.0123344844 0.0039015299  3.161448
## 1876    488 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1877    489 response faminc    eY/eX  0.0131739321 0.0041635107  3.164140
## 1878    490 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1879    491 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 1880    492 response faminc    eY/eX  0.0019786680 0.0006362769  3.109759
```

```
## 1881    493 response faminc     eY/eX  0.0043427582 0.0013931819  3.117151
## 1882    494 response faminc     eY/eX  0.0363017675 0.0112716258  3.220633
## 1883    495 response faminc     eY/eX  0.0028237223 0.0009057479  3.117559
## 1884    496 response faminc     eY/eX  0.0326051207 0.0101626981  3.208313
## 1885    497 response faminc     eY/eX  0.0051283013 0.0016438894  3.119615
## 1886    498 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 1887    499 response faminc     eY/eX  0.0363017675 0.0112716258  3.220633
## 1888    500 response faminc     eY/eX  0.0027679445 0.0008893786  3.112223
## 1889    501 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 1890    502 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1891    503 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 1892    504 response faminc     eY/eX  0.0144590415 0.0045913659  3.149181
## 1893    505 response faminc     eY/eX  0.0106512974 0.0033748674  3.156064
## 1894    506 response faminc     eY/eX  0.0003963610 0.0001276594  3.104831
## 1895    507 response faminc     eY/eX  0.0011881412 0.0003823715  3.107295
## 1896    508 response faminc     eY/eX  0.0294464384 0.0091929208  3.203165
## 1897    509 response faminc     eY/eX  0.0147469268 0.0046736621  3.155326
## 1898    510 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1899    511 response faminc     eY/eX  0.0363017675 0.0112716258  3.220633
## 1900    512 response faminc     eY/eX  0.0490204864 0.0150196804  3.263750
## 1901    513 response faminc     eY/eX  0.0490204864 0.0150196804  3.263750
## 1902    514 response faminc     eY/eX  0.0102439775 0.0032398954  3.161824
## 1903    515 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 1904    516 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1905    517 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 1906    518 response faminc     eY/eX  0.0490204864 0.0150196804  3.263750
## 1907    519 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 1908    520 response faminc     eY/eX  0.0144590415 0.0045913659  3.149181
## 1909    521 response faminc     eY/eX  0.0288800049 0.0090363133  3.195994
## 1910    522 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 1911    523 response faminc     eY/eX  0.0152287090 0.0048319879  3.151645
## 1912    524 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1913    525 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 1914    526 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1915    527 response faminc     eY/eX  0.0363017675 0.0112716258  3.220633
## 1916    528 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 1917    529 response faminc     eY/eX  0.0144590415 0.0045913659  3.149181
## 1918    530 response faminc     eY/eX  0.0136881700 0.0043499845  3.146717
## 1919    531 response faminc     eY/eX  0.0144590415 0.0045913659  3.149181
```

```
## 1920   532 response faminc      eY/eX   0.0509395967 0.0155259561  3.280931
## 1921   533 response faminc      eY/eX   0.0251260898 0.0078921656  3.183675
## 1922   534 response faminc      eY/eX   0.0363017675 0.0112716258  3.220633
## 1923   535 response faminc      eY/eX   0.0105925867 0.0033768103  3.136862
## 1924   536 response faminc      eY/eX   0.0251260898 0.0078921656  3.183675
## 1925   537 response faminc      eY/eX   0.0490204864 0.0150196804  3.263750
## 1926   538 response faminc      eY/eX   0.0333725126 0.0103730823  3.217222
## 1927   539 response faminc      eY/eX   0.0251260898 0.0078921656  3.183675
## 1928   540 response faminc      eY/eX   0.0326051207 0.0101626981  3.208313
## 1929   541 response faminc      eY/eX   0.0288800049 0.0090363133  3.195994
## 1930   542 response faminc      eY/eX   0.0074775110 0.0023912683  3.127006
## 1931   543 response faminc      eY/eX   0.0288800049 0.0090363133  3.195994
## 1932   544 response faminc      eY/eX   0.0490204864 0.0150196804  3.263750
## 1933   545 response faminc      eY/eX   0.0326051207 0.0101626981  3.208313
## 1934   546 response faminc      eY/eX   0.0288800049 0.0090363133  3.195994
## 1935   547 response faminc      eY/eX   0.0081157324 0.0025780699  3.147988
## 1936   548 response faminc      eY/eX   0.0152287090 0.0048319879  3.151645
## 1937   549 response faminc      eY/eX   0.0152287090 0.0048319879  3.151645
## 1938   550 response faminc      eY/eX   0.0363017675 0.0112716258  3.220633
## 1939   551 response faminc      eY/eX   0.0332421153 0.0103372707  3.215754
## 1940   552 response faminc      eY/eX   0.0213430401 0.0067299422  3.171356
## 1941   553 response faminc      eY/eX   0.0530150924 0.0160778486  3.297400
## 1942   554 response faminc      eY/eX   0.0251260898 0.0078921656  3.183675
## 1943   555 response faminc      eY/eX   0.0363017675 0.0112716258  3.220633
## 1944   556 response faminc      eY/eX   0.0490204864 0.0150196804  3.263750
## 1945   557 response faminc      eY/eX   0.0051283013 0.0016438894  3.119615
## 1946   558 response faminc      eY/eX   0.0326051207 0.0101626981  3.208313
## 1947   559 response faminc      eY/eX   0.0158469449 0.0050087953  3.163824
## 1948   560 response faminc      eY/eX   0.0493926525 0.0151176185  3.267224
## 1949   561 response faminc      eY/eX   0.0213430401 0.0067299422  3.171356
## 1950   562 response faminc      eY/eX   0.0294464384 0.0091929208  3.203165
## 1951   563 response faminc      eY/eX   0.0213430401 0.0067299422  3.171356
## 1952   564 response faminc      eY/eX   0.0175305155 0.0055493237  3.159036
## 1953   565 response faminc      eY/eX   0.0213430401 0.0067299422  3.171356
## 1954   566 response faminc      eY/eX   0.0289915415 0.0090671085  3.197441
## 1955   567 response faminc      eY/eX   0.0175305155 0.0055493237  3.159036
## 1956   568 response faminc      eY/eX   0.0231371258 0.0072383919  3.196446
## 1957   569 response faminc      eY/eX   0.0251260898 0.0078921656  3.183675
## 1958   570 response faminc      eY/eX   0.0251260898 0.0078921656  3.183675
```

```
## 1959   571 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1960   572 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1961   573 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 1962   574 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1963   575 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1964   576 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1965   577 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1966   578 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1967   579 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1968   580 response faminc    eY/eX  0.0134417242 0.0042589633  3.156102
## 1969   581 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1970   582 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1971   583 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1972   584 response faminc    eY/eX  0.0110247182 0.0035017104  3.148381
## 1973   585 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1974   586 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1975   587 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 1976   588 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1977   589 response faminc    eY/eX  0.0055671373 0.0017730238  3.139911
## 1978   590 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 1979   591 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 1980   592 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1981   593 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1982   594 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 1983   595 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 1984   596 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 1985   597 response faminc    eY/eX  0.0011881412 0.0003823715  3.107295
## 1986   598 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1987   599 response faminc    eY/eX  0.0011881412 0.0003823715  3.107295
## 1988   600 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1989   601 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 1990   602 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 1991   603 response faminc    eY/eX  0.0003963610 0.0001276594  3.104831
## 1992   604 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 1993   605 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1994   606 response faminc    eY/eX  0.0098075506 0.0031101789  3.153372
## 1995   607 response faminc    eY/eX  0.0047146927 0.0015028254  3.137219
## 1996   608 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1997   609 response faminc    eY/eX  0.0020024194 0.0006432534  3.112956
```

```
## 1998    610 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 1999    611 response faminc    eY/eX  0.0261354633 0.0081742726  3.197283
## 2000    612 response faminc    eY/eX  0.0019786680 0.0006362769  3.109759
## 2001    613 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2002    614 response faminc    eY/eX  0.0043427582 0.0013931819  3.117151
## 2003    615 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2004    616 response faminc    eY/eX  0.0098075506 0.0031101789  3.153372
## 2005    617 response faminc    eY/eX  0.0207630527 0.0064876029  3.200420
## 2006    618 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2007    619 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
## 2008    620 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2009    621 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2010    622 response faminc    eY/eX  0.0272293289 0.0084829051  3.209906
## 2011    623 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2012    624 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 2013    625 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2014    626 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2015    627 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2016    628 response faminc    eY/eX  0.0044842606 0.0014346214  3.125745
## 2017    629 response faminc    eY/eX  0.0190103474 0.0059724902  3.182985
## 2018    630 response faminc    eY/eX  0.0043427582 0.0013931819  3.117151
## 2019    631 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2020    632 response faminc    eY/eX  0.0059126058 0.0018938044  3.122078
## 2021    633 response faminc    eY/eX  0.0037021159 0.0011845949  3.125217
## 2022    634 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2023    635 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2024    636 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2025    637 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2026    638 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2027    639 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2028    640 response faminc    eY/eX  0.0027679445 0.0008893786  3.112223
## 2029    641 response faminc    eY/eX  0.0258242374 0.0080870460  3.193284
## 2030    642 response faminc    eY/eX  0.0074775110 0.0023912683  3.127006
## 2031    643 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2032    644 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2033    645 response faminc    eY/eX  0.0074775110 0.0023912683  3.127006
## 2034    646 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 2035    647 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2036    648 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
```

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## 2037   649 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2038   650 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 2039   651 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2040   652 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2041   653 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2042   654 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2043   655 response faminc    eY/eX  0.0180939129 0.0057094533  3.169115
## 2044   656 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2045   657 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2046   658 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2047   659 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2048   660 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2049   661 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 2050   662 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 2051   663 response faminc    eY/eX  0.0055671373 0.0017730238  3.139911
## 2052   664 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2053   665 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2054   666 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2055   667 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2056   668 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2057   669 response faminc    eY/eX  0.0222039012 0.0069726802  3.184414
## 2058   670 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2059   671 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2060   672 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2061   673 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2062   674 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2063   675 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2064   676 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2065   677 response faminc    eY/eX  0.0113683028 0.0036212565  3.139325
## 2066   678 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2067   679 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 2068   680 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 2069   681 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2070   682 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2071   683 response faminc    eY/eX  0.0035559735 0.0011416793  3.114687
## 2072   684 response faminc    eY/eX  0.0051283013 0.0016438894  3.119615
## 2073   685 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 2074   686 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2075   687 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
```

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## 2076   688 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 2077   689 response faminc   eY/eX  0.0363017675 0.0112716258  3.220633
## 2078   690 response faminc   eY/eX  0.0148485538 0.0046847892  3.169524
## 2079   691 response faminc   eY/eX  0.0288800049 0.0090363133  3.195994
## 2080   692 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 2081   693 response faminc   eY/eX  0.0059126058 0.0018938044  3.122078
## 2082   694 response faminc   eY/eX  0.0082581174 0.0026388230  3.129470
## 2083   695 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2084   696 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 2085   697 response faminc   eY/eX  0.0256208389 0.0080301624  3.190575
## 2086   698 response faminc   eY/eX  0.0288800049 0.0090363133  3.195994
## 2087   699 response faminc   eY/eX  0.0035559735 0.0011416793  3.114687
## 2088   700 response faminc   eY/eX  0.0019786680 0.0006362769  3.109759
## 2089   701 response faminc   eY/eX  0.0363017675 0.0112716258  3.220633
## 2090   702 response faminc   eY/eX  0.0182404663 0.0057512869  3.171545
## 2091   703 response faminc   eY/eX  0.0011881412 0.0003823715  3.107295
## 2092   704 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2093   705 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 2094   706 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 2095   707 response faminc   eY/eX  0.0326051207 0.0101626981  3.208313
## 2096   708 response faminc   eY/eX  0.0098156524 0.0031315912  3.134398
## 2097   709 response faminc   eY/eX  0.0363017675 0.0112716258  3.220633
## 2098   710 response faminc   eY/eX  0.0272293289 0.0084829051  3.209906
## 2099   711 response faminc   eY/eX  0.0306486849 0.0095273806  3.216906
## 2100   712 response faminc   eY/eX  0.0326051207 0.0101626981  3.208313
## 2101   713 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2102   714 response faminc   eY/eX  0.0136881700 0.0043499845  3.146717
## 2103   715 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 2104   716 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2105   717 response faminc   eY/eX  0.0144590415 0.0045913659  3.149181
## 2106   718 response faminc   eY/eX  0.0258242374 0.0080870460  3.193284
## 2107   719 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 2108   720 response faminc   eY/eX  0.0027679445 0.0008893786  3.112223
## 2109   721 response faminc   eY/eX  0.0121428034 0.0038649323  3.141789
## 2110   722 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 2111   723 response faminc   eY/eX  0.0288800049 0.0090363133  3.195994
## 2112   724 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 2113   725 response faminc   eY/eX  0.0074775110 0.0023912683  3.127006
## 2114   726 response faminc   eY/eX  0.0186174511 0.0058592838  3.177428
```

```
## 2115   727 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2116   728 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2117   729 response faminc    eY/eX  0.0289915415 0.0090671085  3.197441
## 2118   730 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2119   731 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 2120   732 response faminc    eY/eX  0.0345938089 0.0107099422  3.230065
## 2121   733 response faminc    eY/eX  0.0113683028 0.0036212565  3.139325
## 2122   734 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2123   735 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2124   736 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2125   737 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2126   738 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 2127   739 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2128   740 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2129   741 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2130   742 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2131   743 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2132   744 response faminc    eY/eX  0.0131736667 0.0041817310  3.150290
## 2133   745 response faminc    eY/eX  0.0509395967 0.0155259561  3.280931
## 2134   746 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2135   747 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 2136   748 response faminc    eY/eX  0.0090374969 0.0028855963  3.131934
## 2137   749 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2138   750 response faminc    eY/eX  0.0513415926 0.0156324511  3.284296
## 2139   751 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2140   752 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2141   753 response faminc    eY/eX  0.0509395967 0.0155259561  3.280931
## 2142   754 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2143   755 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2144   756 response faminc    eY/eX  0.0190103474 0.0059724902  3.182985
## 2145   757 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2146   758 response faminc    eY/eX  0.0377427126 0.0116637810  3.235890
## 2147   759 response faminc    eY/eX  0.0222039012 0.0069726802  3.184414
## 2148   760 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2149   761 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2150   762 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2151   763 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2152   764 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2153   765 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
```

```
## 2154    766 response faminc      eY/eX  0.0051283013 0.0016438894   3.119615
## 2155    767 response faminc      eY/eX  0.0490204864 0.0150196804   3.263750
## 2156    768 response faminc      eY/eX  0.0293313811 0.0091610648   3.201744
## 2157    769 response faminc      eY/eX  0.0490204864 0.0150196804   3.263750
## 2158    770 response faminc      eY/eX  0.0251260898 0.0078921656   3.183675
## 2159    771 response faminc      eY/eX  0.0213430401 0.0067299422   3.171356
## 2160    772 response faminc      eY/eX  0.0490204864 0.0150196804   3.263750
## 2161    773 response faminc      eY/eX  0.0213430401 0.0067299422   3.171356
## 2162    774 response faminc      eY/eX  0.0175305155 0.0055493237   3.159036
## 2163    775 response faminc      eY/eX  0.0175305155 0.0055493237   3.159036
## 2164    776 response faminc      eY/eX  0.0105925867 0.0033768103   3.136862
## 2165    777 response faminc      eY/eX  0.0175305155 0.0055493237   3.159036
## 2166    778 response faminc      eY/eX  0.0251260898 0.0078921656   3.183675
## 2167    779 response faminc      eY/eX  0.0098156524 0.0031315912   3.134398
## 2168    780 response faminc      eY/eX  0.0052104452 0.0016678599   3.124031
## 2169    781 response faminc      eY/eX  0.0186174511 0.0058592838   3.177428
## 2170    782 response faminc      eY/eX  0.0326051207 0.0101626981   3.208313
## 2171    783 response faminc      eY/eX  0.0326051207 0.0101626981   3.208313
## 2172    784 response faminc      eY/eX  0.0490204864 0.0150196804   3.263750
## 2173    785 response faminc      eY/eX  0.0213430401 0.0067299422   3.171356
## 2174    786 response faminc      eY/eX  0.0175305155 0.0055493237   3.159036
## 2175    787 response faminc      eY/eX  0.0490204864 0.0150196804   3.263750
## 2176    788 response faminc      eY/eX  0.0292172194 0.0091294801   3.200316
## 2177    789 response faminc      eY/eX  0.0490204864 0.0150196804   3.263750
## 2178    790 response faminc      eY/eX  0.0251260898 0.0078921656   3.183675
## 2179    791 response faminc      eY/eX  0.0490204864 0.0150196804   3.263750
## 2180    792 response faminc      eY/eX  0.0490204864 0.0150196804   3.263750
## 2181    793 response faminc      eY/eX  0.0175305155 0.0055493237   3.159036
## 2182    794 response faminc      eY/eX  0.0175305155 0.0055493237   3.159036
## 2183    795 response faminc      eY/eX  0.0136881700 0.0043499845   3.146717
## 2184    796 response faminc      eY/eX  0.0152287090 0.0048319879   3.151645
## 2185    797 response faminc      eY/eX  0.0213430401 0.0067299422   3.171356
## 2186    798 response faminc      eY/eX  0.0377427126 0.0116637810   3.235890
## 2187    799 response faminc      eY/eX  0.0363017675 0.0112716258   3.220633
## 2188    800 response faminc      eY/eX  0.0175305155 0.0055493237   3.159036
## 2189    801 response faminc      eY/eX  0.0074775110 0.0023912683   3.127006
## 2190    802 response faminc      eY/eX  0.0326051207 0.0101626981   3.208313
## 2191    803 response faminc      eY/eX  0.0085958401 0.0027369538   3.140660
## 2192    804 response faminc      eY/eX  0.0490204864 0.0150196804   3.263750
```

```
## 2193   805 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2194   806 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2195   807 response faminc    eY/eX  0.0190103474 0.0059724902  3.182985
## 2196   808 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2197   809 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2198   810 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 2199   811 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2200   812 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 2201   813 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 2202   814 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2203   815 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 2204   816 response faminc    eY/eX  0.0035842716 0.0011499588  3.116869
## 2205   817 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2206   818 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2207   819 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 2208   820 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2209   821 response faminc    eY/eX  0.0158469449 0.0050087953  3.163824
## 2210   822 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2211   823 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2212   824 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 2213   825 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 2214   826 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2215   827 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
## 2216   828 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2217   829 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2218   830 response faminc    eY/eX  0.0272293289 0.0084829051  3.209906
## 2219   831 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2220   832 response faminc    eY/eX  0.0377427126 0.0116637810  3.235890
## 2221   833 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2222   834 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2223   835 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2224   836 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2225   837 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2226   838 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 2227   839 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 2228   840 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2229   841 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2230   842 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2231   843 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
```

```
## 2232   844 response faminc   eY/eX  0.0370082193 0.0114635347  3.228343
## 2233   845 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 2234   846 response faminc   eY/eX  0.0261354633 0.0081742726  3.197283
## 2235   847 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 2236   848 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2237   849 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 2238   850 response faminc   eY/eX  0.0326051207 0.0101626981  3.208313
## 2239   851 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 2240   852 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 2241   853 response faminc   eY/eX  0.0326051207 0.0101626981  3.208313
## 2242   854 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 2243   855 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 2244   856 response faminc   eY/eX  0.0043427582 0.0013931819  3.117151
## 2245   857 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2246   858 response faminc   eY/eX  0.0288800049 0.0090363133  3.195994
## 2247   859 response faminc   eY/eX  0.0019786680 0.0006362769  3.109759
## 2248   860 response faminc   eY/eX  0.0051283013 0.0016438894  3.119615
## 2249   861 response faminc   eY/eX  0.0144590415 0.0045913659  3.149181
## 2250   862 response faminc   eY/eX  0.0105925867 0.0033768103  3.136862
## 2251   863 response faminc   eY/eX  0.0106512974 0.0033748674  3.156064
## 2252   864 response faminc   eY/eX  0.0152287090 0.0048319879  3.151645
## 2253   865 response faminc   eY/eX  0.0074775110 0.0023912683  3.127006
## 2254   866 response faminc   eY/eX  0.0074775110 0.0023912683  3.127006
## 2255   867 response faminc   eY/eX  0.0105925867 0.0033768103  3.136862
## 2256   868 response faminc   eY/eX  0.0363017675 0.0112716258  3.220633
## 2257   869 response faminc   eY/eX  0.0082581174 0.0026388230  3.129470
## 2258   870 response faminc   eY/eX  0.0288800049 0.0090363133  3.195994
## 2259   871 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 2260   872 response faminc   eY/eX  0.0152287090 0.0048319879  3.151645
## 2261   873 response faminc   eY/eX  0.0121428034 0.0038649323  3.141789
## 2262   874 response faminc   eY/eX  0.0134417242 0.0042589633  3.156102
## 2263   875 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 2264   876 response faminc   eY/eX  0.0090374969 0.0028855963  3.131934
## 2265   877 response faminc   eY/eX  0.0082581174 0.0026388230  3.129470
## 2266   878 response faminc   eY/eX  0.0129160916 0.0041078407  3.144253
## 2267   879 response faminc   eY/eX  0.0074775110 0.0023912683  3.127006
## 2268   880 response faminc   eY/eX  0.0102164156 0.0032476294  3.145807
## 2269   881 response faminc   eY/eX  0.0074775110 0.0023912683  3.127006
## 2270   882 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
```

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## 2271   883 response faminc   eY/eX 0.0198480816 0.0062164397  3.192837
## 2272   884 response faminc   eY/eX 0.0222039012 0.0069726802  3.184414
## 2273   885 response faminc   eY/eX 0.0098075506 0.0031101789  3.153372
## 2274   886 response faminc   eY/eX 0.0043427582 0.0013931819  3.117151
## 2275   887 response faminc   eY/eX 0.0158469449 0.0050087953  3.163824
## 2276   888 response faminc   eY/eX 0.0090374969 0.0028855963  3.131934
## 2277   889 response faminc   eY/eX 0.0213430401 0.0067299422  3.171356
## 2278   890 response faminc   eY/eX 0.0326051207 0.0101626981  3.208313
## 2279   891 response faminc   eY/eX 0.0027679445 0.0008893786  3.112223
## 2280   892 response faminc   eY/eX 0.0490204864 0.0150196804  3.263750
## 2281   893 response faminc   eY/eX 0.0129160916 0.0041078407  3.144253
## 2282   894 response faminc   eY/eX 0.0326051207 0.0101626981  3.208313
## 2283   895 response faminc   eY/eX 0.0022449495 0.0007157616  3.136449
## 2284   896 response faminc   eY/eX 0.0031401095 0.0010002680  3.139268
## 2285   897 response faminc   eY/eX 0.0066956748 0.0021429298  3.124542
## 2286   898 response faminc   eY/eX 0.0213430401 0.0067299422  3.171356
## 2287   899 response faminc   eY/eX 0.0098156524 0.0031315912  3.134398
## 2288   900 response faminc   eY/eX 0.0036130237 0.0011583854  3.119017
## 2289   901 response faminc   eY/eX 0.0288800049 0.0090363133  3.195994
## 2290   902 response faminc   eY/eX 0.0251260898 0.0078921656  3.183675
## 2291   903 response faminc   eY/eX 0.0175305155 0.0055493237  3.159036
## 2292   904 response faminc   eY/eX 0.0288800049 0.0090363133  3.195994
## 2293   905 response faminc   eY/eX 0.0152287090 0.0048319879  3.151645
## 2294   906 response faminc   eY/eX 0.0077835607 0.0024803530  3.138086
## 2295   907 response faminc   eY/eX 0.0107186268 0.0034131279  3.140412
## 2296   908 response faminc   eY/eX 0.0019786680 0.0006362769  3.109759
## 2297   909 response faminc   eY/eX 0.0003963610 0.0001276594  3.104831
## 2298   910 response faminc   eY/eX 0.0082581174 0.0026388230  3.129470
## 2299   911 response faminc   eY/eX 0.0363017675 0.0112716258  3.220633
## 2300   912 response faminc   eY/eX 0.0326051207 0.0101626981  3.208313
## 2301   913 response faminc   eY/eX 0.0030054116 0.0009596328  3.131835
## 2302   914 response faminc   eY/eX 0.0213430401 0.0067299422  3.171356
## 2303   915 response faminc   eY/eX 0.0152287090 0.0048319879  3.151645
## 2304   916 response faminc   eY/eX 0.0288800049 0.0090363133  3.195994
## 2305   917 response faminc   eY/eX 0.0059832961 0.0019143879  3.125436
## 2306   918 response faminc   eY/eX 0.0190103474 0.0059724902  3.182985
## 2307   919 response faminc   eY/eX 0.0180215157 0.0056888167  3.167885
## 2308   920 response faminc   eY/eX 0.0363017675 0.0112716258  3.220633
## 2309   921 response faminc   eY/eX 0.0231371258 0.0072383919  3.196446
```

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## 2310    922 response faminc    eY/eX  0.0035559735 0.0011416793  3.114687
## 2311    923 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 2312    924 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2313    925 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2314    926 response faminc    eY/eX  0.0051690469 0.0016557694  3.121840
## 2315    927 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2316    928 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2317    929 response faminc    eY/eX  0.0118317017 0.0037549577  3.150955
## 2318    930 response faminc    eY/eX  0.0035559735 0.0011416793  3.114687
## 2319    931 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2320    932 response faminc    eY/eX  0.0106512974 0.0033748674  3.156064
## 2321    933 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2322    934 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2323    935 response faminc    eY/eX  0.0051283013 0.0016438894  3.119615
## 2324    936 response faminc    eY/eX  0.0092184467 0.0029379620  3.137701
## 2325    937 response faminc    eY/eX  0.0113683028 0.0036212565  3.139325
## 2326    938 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2327    939 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2328    940 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 2329    941 response faminc    eY/eX  0.0182404663 0.0057512869  3.171545
## 2330    942 response faminc    eY/eX  0.0190103474 0.0059724902  3.182985
## 2331    943 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2332    944 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2333    945 response faminc    eY/eX  0.0136881700 0.0043499845  3.146717
## 2334    946 response faminc    eY/eX  0.0231371258 0.0072383919  3.196446
## 2335    947 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2336    948 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2337    949 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2338    950 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2339    951 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2340    952 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 2341    953 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2342    954 response faminc    eY/eX  0.0059126058 0.0018938044  3.122078
## 2343    955 response faminc    eY/eX  0.0294464384 0.0091929208  3.203165
## 2344    956 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2345    957 response faminc    eY/eX  0.0011881412 0.0003823715  3.107295
## 2346    958 response faminc    eY/eX  0.0140730941 0.0044603074  3.155185
## 2347    959 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2348    960 response faminc    eY/eX  0.0027679445 0.0008893786  3.112223
```

```
## 2349   961 response faminc      eY/eX  0.0035559735 0.0011416793  3.114687
## 2350   962 response faminc      eY/eX  0.0186174511 0.0058592838  3.177428
## 2351   963 response faminc      eY/eX  0.0175305155 0.0055493237  3.159036
## 2352   964 response faminc      eY/eX  0.0027679445 0.0008893786  3.112223
## 2353   965 response faminc      eY/eX  0.0136881700 0.0043499845  3.146717
## 2354   966 response faminc      eY/eX  0.0129160916 0.0041078407  3.144253
## 2355   967 response faminc      eY/eX  0.0082581174 0.0026388230  3.129470
## 2356   968 response faminc      eY/eX  0.0175305155 0.0055493237  3.159036
## 2357   969 response faminc      eY/eX  0.0028123876 0.0009024157  3.116510
## 2358   970 response faminc      eY/eX  0.0069699491 0.0022229063  3.135512
## 2359   971 response faminc      eY/eX  0.0011881412 0.0003823715  3.107295
## 2360   972 response faminc      eY/eX  0.0490204864 0.0150196804  3.263750
## 2361   973 response faminc      eY/eX  0.0326051207 0.0101626981  3.208313
## 2362   974 response faminc      eY/eX  0.0175305155 0.0055493237  3.159036
## 2363   975 response faminc      eY/eX  0.0145403964 0.0045951844  3.164268
## 2364   976 response faminc      eY/eX  0.0153585152 0.0048496998  3.166900
## 2365   977 response faminc      eY/eX  0.0051563031 0.0016368381  3.150161
## 2366   978 response faminc      eY/eX  0.0105925867 0.0033768103  3.136862
## 2367   979 response faminc      eY/eX  0.0136881700 0.0043499845  3.146717
## 2368   980 response faminc      eY/eX  0.0158469449 0.0050087953  3.163824
## 2369   981 response faminc      eY/eX  0.0490204864 0.0150196804  3.263750
## 2370   982 response faminc      eY/eX  0.0090374969 0.0028855963  3.131934
## 2371   983 response faminc      eY/eX  0.0490204864 0.0150196804  3.263750
## 2372   984 response faminc      eY/eX  0.0019786680 0.0006362769  3.109759
## 2373   985 response faminc      eY/eX  0.0490204864 0.0150196804  3.263750
## 2374   986 response faminc      eY/eX  0.0089623635 0.0028445810  3.150680
## 2375   987 response faminc      eY/eX  0.0326051207 0.0101626981  3.208313
## 2376   988 response faminc      eY/eX  0.0152287090 0.0048319879  3.151645
## 2377   989 response faminc      eY/eX  0.0043427582 0.0013931819  3.117151
## 2378   990 response faminc      eY/eX  0.0003963610 0.0001276594  3.104831
## 2379   991 response faminc      eY/eX  0.0490204864 0.0150196804  3.263750
## 2380   992 response faminc      eY/eX  0.0363017675 0.0112716258  3.220633
## 2381   993 response faminc      eY/eX  0.0113683028 0.0036212565  3.139325
## 2382   994 response faminc      eY/eX  0.0213430401 0.0067299422  3.171356
## 2383   995 response faminc      eY/eX  0.0190103474 0.0059724902  3.182985
## 2384   996 response faminc      eY/eX  0.0165175015 0.0052025124  3.174909
## 2385   997 response faminc      eY/eX  0.0121428034 0.0038649323  3.141789
## 2386   998 response faminc      eY/eX  0.0004127043 0.0001324927  3.114922
## 2387   999 response faminc      eY/eX  0.0363017675 0.0112716258  3.220633
```

```
## 2388  1000 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2389  1001 response faminc   eY/eX  0.0121428034 0.0038649323  3.141789
## 2390  1002 response faminc   eY/eX  0.0142447696 0.0045097279  3.158676
## 2391  1003 response faminc   eY/eX  0.0363017675 0.0112716258  3.220633
## 2392  1004 response faminc   eY/eX  0.0121428034 0.0038649323  3.141789
## 2393  1005 response faminc   eY/eX  0.0144590415 0.0045913659  3.149181
## 2394  1006 response faminc   eY/eX  0.0020601208 0.0006602805  3.120069
## 2395  1007 response faminc   eY/eX  0.0144590415 0.0045913659  3.149181
## 2396  1008 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 2397  1009 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 2398  1010 response faminc   eY/eX  0.0161752766 0.0051033642  3.169532
## 2399  1011 response faminc   eY/eX  0.0266711852 0.0083249989  3.203746
## 2400  1012 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2401  1013 response faminc   eY/eX  0.0152287090 0.0048319879  3.151645
## 2402  1014 response faminc   eY/eX  0.0051283013 0.0016438894  3.119615
## 2403  1015 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 2404  1016 response faminc   eY/eX  0.0082581174 0.0026388230  3.129470
## 2405  1017 response faminc   eY/eX  0.0363017675 0.0112716258  3.220633
## 2406  1018 response faminc   eY/eX  0.0152287090 0.0048319879  3.151645
## 2407  1019 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2408  1020 response faminc   eY/eX  0.0131739321 0.0041635107  3.164140
## 2409  1021 response faminc   eY/eX  0.0066956748 0.0021429298  3.124542
## 2410  1022 response faminc   eY/eX  0.0155316772 0.0049184440  3.157844
## 2411  1023 response faminc   eY/eX  0.0011881412 0.0003823715  3.107295
## 2412  1024 response faminc   eY/eX  0.0116418814 0.0037000469  3.146415
## 2413  1025 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 2414  1026 response faminc   eY/eX  0.0047146927 0.0015028254  3.137219
## 2415  1027 response faminc   eY/eX  0.0043427582 0.0013931819  3.117151
## 2416  1028 response faminc   eY/eX  0.0113683028 0.0036212565  3.139325
## 2417  1029 response faminc   eY/eX  0.0251260898 0.0078921656  3.183675
## 2418  1030 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2419  1031 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2420  1032 response faminc   eY/eX  0.0213430401 0.0067299422  3.171356
## 2421  1033 response faminc   eY/eX  0.0222039012 0.0069726802  3.184414
## 2422  1034 response faminc   eY/eX  0.0105925867 0.0033768103  3.136862
## 2423  1035 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2424  1036 response faminc   eY/eX  0.0175305155 0.0055493237  3.159036
## 2425  1037 response faminc   eY/eX  0.0490204864 0.0150196804  3.263750
## 2426  1038 response faminc   eY/eX  0.0152287090 0.0048319879  3.151645
```

```
## 2427  1039 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2428  1040 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2429  1041 response faminc    eY/eX  0.0090374969 0.0028855963  3.131934
## 2430  1042 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2431  1043 response faminc    eY/eX  0.0148485538 0.0046847892  3.169524
## 2432  1044 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2433  1045 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 2434  1046 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2435  1047 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2436  1048 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2437  1049 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2438  1050 response faminc    eY/eX  0.0020601208 0.0006602805  3.120069
## 2439  1051 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 2440  1052 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2441  1053 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2442  1054 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2443  1055 response faminc    eY/eX  0.0019786680 0.0006362769  3.109759
## 2444  1056 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2445  1057 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2446  1058 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 2447  1059 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2448  1060 response faminc    eY/eX  0.0019786680 0.0006362769  3.109759
## 2449  1061 response faminc    eY/eX  0.0055671373 0.0017730238  3.139911
## 2450  1062 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2451  1063 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2452  1064 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2453  1065 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2454  1066 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2455  1067 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2456  1068 response faminc    eY/eX  0.0353117333 0.0109093664  3.236827
## 2457  1069 response faminc    eY/eX  0.0136881700 0.0043499845  3.146717
## 2458  1070 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2459  1071 response faminc    eY/eX  0.0158469449 0.0050087953  3.163824
## 2460  1072 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2461  1073 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2462  1074 response faminc    eY/eX  0.0123344844 0.0039015299  3.161448
## 2463  1075 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 2464  1076 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2465  1077 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
```

```
## 2466   1078 response faminc     eY/eX  0.0051283013 0.0016438894  3.119615
## 2467   1079 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 2468   1080 response faminc     eY/eX  0.0326051207 0.0101626981  3.208313
## 2469   1081 response faminc     eY/eX  0.0231371258 0.0072383919  3.196446
## 2470   1082 response faminc     eY/eX  0.0490204864 0.0150196804  3.263750
## 2471   1083 response faminc     eY/eX  0.0490204864 0.0150196804  3.263750
## 2472   1084 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 2473   1085 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 2474   1086 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 2475   1087 response faminc     eY/eX  0.0288800049 0.0090363133  3.195994
## 2476   1088 response faminc     eY/eX  0.0150465088 0.0047596709  3.161250
## 2477   1089 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 2478   1090 response faminc     eY/eX  0.0333725126 0.0103730823  3.217222
## 2479   1091 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 2480   1092 response faminc     eY/eX  0.0288800049 0.0090363133  3.195994
## 2481   1093 response faminc     eY/eX  0.0090374969 0.0028855963  3.131934
## 2482   1094 response faminc     eY/eX  0.0144590415 0.0045913659  3.149181
## 2483   1095 response faminc     eY/eX  0.0027679445 0.0008893786  3.112223
## 2484   1096 response faminc     eY/eX  0.0144590415 0.0045913659  3.149181
## 2485   1097 response faminc     eY/eX  0.0105925867 0.0033768103  3.136862
## 2486   1098 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 2487   1099 response faminc     eY/eX  0.0490204864 0.0150196804  3.263750
## 2488   1100 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 2489   1101 response faminc     eY/eX  0.0129160916 0.0041078407  3.144253
## 2490   1102 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 2491   1103 response faminc     eY/eX  0.0326051207 0.0101626981  3.208313
## 2492   1104 response faminc     eY/eX  0.0027899891 0.0008958397  3.114384
## 2493   1105 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 2494   1106 response faminc     eY/eX  0.0152287090 0.0048319879  3.151645
## 2495   1107 response faminc     eY/eX  0.0098156524 0.0031315912  3.134398
## 2496   1108 response faminc     eY/eX  0.0081157324 0.0025780699  3.147988
## 2497   1109 response faminc     eY/eX  0.0037021159 0.0011845949  3.125217
## 2498   1110 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 2499   1111 response faminc     eY/eX  0.0363017675 0.0112716258  3.220633
## 2500   1112 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 2501   1113 response faminc     eY/eX  0.0074775110 0.0023912683  3.127006
## 2502   1114 response faminc     eY/eX  0.0490204864 0.0150196804  3.263750
## 2503   1115 response faminc     eY/eX  0.0059126058 0.0018938044  3.122078
## 2504   1116 response faminc     eY/eX  0.0490204864 0.0150196804  3.263750
```

```
## 2505  1117 response faminc      eY/eX  0.0035559735 0.0011416793  3.114687
## 2506  1118 response faminc      eY/eX  0.0213430401 0.0067299422  3.171356
## 2507  1119 response faminc      eY/eX  0.0152287090 0.0048319879  3.151645
## 2508  1120 response faminc      eY/eX  0.0051283013 0.0016438894  3.119615
## 2509  1121 response faminc      eY/eX  0.0129160916 0.0041078407  3.144253
## 2510  1122 response faminc      eY/eX  0.0490204864 0.0150196804  3.263750
## 2511  1123 response faminc      eY/eX  0.0175305155 0.0055493237  3.159036
## 2512  1124 response faminc      eY/eX  0.0019786680 0.0006362769  3.109759
## 2513  1125 response faminc      eY/eX  0.0175305155 0.0055493237  3.159036
## 2514  1126 response faminc      eY/eX  0.0251260898 0.0078921656  3.183675
## 2515  1127 response faminc      eY/eX  0.0074775110 0.0023912683  3.127006
## 2516  1128 response faminc      eY/eX  0.0129160916 0.0041078407  3.144253
## 2517  1129 response faminc      eY/eX  0.0251260898 0.0078921656  3.183675
## 2518  1130 response faminc      eY/eX  0.0136881700 0.0043499845  3.146717
## 2519  1131 response faminc      eY/eX  0.0051283013 0.0016438894  3.119615
## 2520  1132 response faminc      eY/eX  0.0490204864 0.0150196804  3.263750
## 2521  1133 response faminc      eY/eX  0.0288800049 0.0090363133  3.195994
## 2522  1134 response faminc      eY/eX  0.0139055073 0.0044121971  3.151606
## 2523  1135 response faminc      eY/eX  0.0152287090 0.0048319879  3.151645
## 2524  1136 response faminc      eY/eX  0.0251260898 0.0078921656  3.183675
## 2525  1137 response faminc      eY/eX  0.0333725126 0.0103730823  3.217222
## 2526  1138 response faminc      eY/eX  0.0251260898 0.0078921656  3.183675
## 2527  1139 response faminc      eY/eX  0.0144590415 0.0045913659  3.149181
## 2528  1140 response faminc      eY/eX  0.0182404663 0.0057512869  3.171545
## 2529  1141 response faminc      eY/eX  0.0177376293 0.0056080701  3.162876
## 2530  1142 response faminc      eY/eX  0.0251260898 0.0078921656  3.183675
## 2531  1143 response faminc      eY/eX  0.0144590415 0.0045913659  3.149181
## 2532  1144 response faminc      eY/eX  0.0098156524 0.0031315912  3.134398
## 2533  1145 response faminc      eY/eX  0.0074775110 0.0023912683  3.127006
## 2534  1146 response faminc      eY/eX  0.0175305155 0.0055493237  3.159036
## 2535  1147 response faminc      eY/eX  0.0213430401 0.0067299422  3.171356
## 2536  1148 response faminc      eY/eX  0.0003963610 0.0001276594  3.104831
## 2537  1149 response faminc      eY/eX  0.0175305155 0.0055493237  3.159036
## 2538  1150 response faminc      eY/eX  0.0051283013 0.0016438894  3.119615
## 2539  1151 response faminc      eY/eX  0.0490204864 0.0150196804  3.263750
## 2540  1152 response faminc      eY/eX  0.0152287090 0.0048319879  3.151645
## 2541  1153 response faminc      eY/eX  0.0213430401 0.0067299422  3.171356
## 2542  1154 response faminc      eY/eX  0.0098156524 0.0031315912  3.134398
## 2543  1155 response faminc      eY/eX  0.0326051207 0.0101626981  3.208313
```

```
## 2544 1156 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
## 2545 1157 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2546 1158 response faminc    eY/eX  0.0019786680 0.0006362769  3.109759
## 2547 1159 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2548 1160 response faminc    eY/eX  0.0074775110 0.0023912683  3.127006
## 2549 1161 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2550 1162 response faminc    eY/eX  0.0152287090 0.0048319879  3.151645
## 2551 1163 response faminc    eY/eX  0.0136881700 0.0043499845  3.146717
## 2552 1164 response faminc    eY/eX  0.0074775110 0.0023912683  3.127006
## 2553 1165 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2554 1166 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2555 1167 response faminc    eY/eX  0.0115953742 0.0036866249  3.145255
## 2556 1168 response faminc    eY/eX  0.0256208389 0.0080301624  3.190575
## 2557 1169 response faminc    eY/eX  0.0136881700 0.0043499845  3.146717
## 2558 1170 response faminc    eY/eX  0.0019786680 0.0006362769  3.109759
## 2559 1171 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 2560 1172 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2561 1173 response faminc    eY/eX  0.0530150924 0.0160778486  3.297400
## 2562 1174 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2563 1175 response faminc    eY/eX  0.0179496956 0.0056683629  3.166645
## 2564 1176 response faminc    eY/eX  0.0003963610 0.0001276594  3.104831
## 2565 1177 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2566 1178 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2567 1179 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2568 1180 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2569 1181 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2570 1182 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2571 1183 response faminc    eY/eX  0.0003963610 0.0001276594  3.104831
## 2572 1184 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2573 1185 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2574 1186 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
## 2575 1187 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2576 1188 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2577 1189 response faminc    eY/eX  0.0129160916 0.0041078407  3.144253
## 2578 1190 response faminc    eY/eX  0.0081157324 0.0025780699  3.147988
## 2579 1191 response faminc    eY/eX  0.0161752766 0.0051033642  3.169532
## 2580 1192 response faminc    eY/eX  0.0090374969 0.0028855963  3.131934
## 2581 1193 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 2582 1194 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
```

```
## 2583  1195 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2584  1196 response faminc    eY/eX  0.0113683028 0.0036212565  3.139325
## 2585  1197 response faminc    eY/eX  0.0036719343 0.0011756985  3.123194
## 2586  1198 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 2587  1199 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2588  1200 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2589  1201 response faminc    eY/eX  0.0129160916 0.0041078407  3.144253
## 2590  1202 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2591  1203 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2592  1204 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2593  1205 response faminc    eY/eX  0.0059126058 0.0018938044  3.122078
## 2594  1206 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2595  1207 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2596  1208 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2597  1209 response faminc    eY/eX  0.0036275734 0.0011626553  3.120076
## 2598  1210 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2599  1211 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 2600  1212 response faminc    eY/eX  0.0012370919 0.0003968224  3.117495
## 2601  1213 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2602  1214 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2603  1215 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 2604  1216 response faminc    eY/eX  0.0129160916 0.0041078407  3.144253
## 2605  1217 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2606  1218 response faminc    eY/eX  0.0003963610 0.0001276594  3.104831
## 2607  1219 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 2608  1220 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2609  1221 response faminc    eY/eX  0.0105925867 0.0033768103  3.136862
## 2610  1222 response faminc    eY/eX  0.0019786680 0.0006362769  3.109759
## 2611  1223 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2612  1224 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2613  1225 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2614  1226 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2615  1227 response faminc    eY/eX  0.0074775110 0.0023912683  3.127006
## 2616  1228 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2617  1229 response faminc    eY/eX  0.0071156888 0.0022657232  3.140582
## 2618  1230 response faminc    eY/eX  0.0074775110 0.0023912683  3.127006
## 2619  1231 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2620  1232 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2621  1233 response faminc    eY/eX  0.0513415926 0.0156324511  3.284296
```

```
## 2622  1234 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2623  1235 response faminc    eY/eX  0.0182404663 0.0057512869  3.171545
## 2624  1236 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 2625  1237 response faminc    eY/eX  0.0019786680 0.0006362769  3.109759
## 2626  1238 response faminc    eY/eX  0.0074775110 0.0023912683  3.127006
## 2627  1239 response faminc    eY/eX  0.0035559735 0.0011416793  3.114687
## 2628  1240 response faminc    eY/eX  0.0004846452 0.0001545148  3.136562
## 2629  1241 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2630  1242 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2631  1243 response faminc    eY/eX  0.0043427582 0.0013931819  3.117151
## 2632  1244 response faminc    eY/eX  0.0136881700 0.0043499845  3.146717
## 2633  1245 response faminc    eY/eX  0.0089623635 0.0028445810  3.150680
## 2634  1246 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 2635  1247 response faminc    eY/eX  0.0074775110 0.0023912683  3.127006
## 2636  1248 response faminc    eY/eX  0.0178784457 0.0056480890  3.165397
## 2637  1249 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2638  1250 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2639  1251 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 2640  1252 response faminc    eY/eX  0.0011881412 0.0003823715  3.107295
## 2641  1253 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2642  1254 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 2643  1255 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2644  1256 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2645  1257 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2646  1258 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2647  1259 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2648  1260 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2649  1261 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2650  1262 response faminc    eY/eX  0.0059126058 0.0018938044  3.122078
## 2651  1263 response faminc    eY/eX  0.0035559735 0.0011416793  3.114687
## 2652  1264 response faminc    eY/eX  0.0207630527 0.0064876029  3.200420
## 2653  1265 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 2654  1266 response faminc    eY/eX  0.0051283013 0.0016438894  3.119615
## 2655  1267 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2656  1268 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 2657  1269 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2658  1270 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2659  1271 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2660  1272 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
```

```
## 2661   1273 response faminc      eY/eX   0.0152287090 0.0048319879   3.151645
## 2662   1274 response faminc      eY/eX   0.0213430401 0.0067299422   3.171356
## 2663   1275 response faminc      eY/eX   0.0288800049 0.0090363133   3.195994
## 2664   1276 response faminc      eY/eX   0.0055671373 0.0017730238   3.139911
## 2665   1277 response faminc      eY/eX   0.0251260898 0.0078921656   3.183675
## 2666   1278 response faminc      eY/eX   0.0121428034 0.0038649323   3.141789
## 2667   1279 response faminc      eY/eX   0.0213430401 0.0067299422   3.171356
## 2668   1280 response faminc      eY/eX   0.0341768978 0.0105946347   3.225868
## 2669   1281 response faminc      eY/eX   0.0251260898 0.0078921656   3.183675
## 2670   1282 response faminc      eY/eX   0.0363017675 0.0112716258   3.220633
## 2671   1283 response faminc      eY/eX   0.0129160916 0.0041078407   3.144253
## 2672   1284 response faminc      eY/eX   0.0326051207 0.0101626981   3.208313
## 2673   1285 response faminc      eY/eX   0.0043427582 0.0013931819   3.117151
## 2674   1286 response faminc      eY/eX   0.0175305155 0.0055493237   3.159036
## 2675   1287 response faminc      eY/eX   0.0490204864 0.0150196804   3.263750
## 2676   1288 response faminc      eY/eX   0.0222039012 0.0069726802   3.184414
## 2677   1289 response faminc      eY/eX   0.0326051207 0.0101626981   3.208313
## 2678   1290 response faminc      eY/eX   0.0251260898 0.0078921656   3.183675
## 2679   1291 response faminc      eY/eX   0.0038607854 0.0012316963   3.134527
## 2680   1292 response faminc      eY/eX   0.0100120251 0.0031883207   3.140219
## 2681   1293 response faminc      eY/eX   0.0490204864 0.0150196804   3.263750
## 2682   1294 response faminc      eY/eX   0.0490204864 0.0150196804   3.263750
## 2683   1295 response faminc      eY/eX   0.0175305155 0.0055493237   3.159036
## 2684   1296 response faminc      eY/eX   0.0251260898 0.0078921656   3.183675
## 2685   1297 response faminc      eY/eX   0.0490204864 0.0150196804   3.263750
## 2686   1298 response faminc      eY/eX   0.0490204864 0.0150196804   3.263750
## 2687   1299 response faminc      eY/eX   0.0066956748 0.0021429298   3.124542
## 2688   1300 response faminc      eY/eX   0.0363017675 0.0112716258   3.220633
## 2689   1301 response faminc      eY/eX   0.0027679445 0.0008893786   3.112223
## 2690   1302 response faminc      eY/eX   0.0175305155 0.0055493237   3.159036
## 2691   1303 response faminc      eY/eX   0.0490204864 0.0150196804   3.263750
## 2692   1304 response faminc      eY/eX   0.0264753882 0.0082212607   3.220356
## 2693   1305 response faminc      eY/eX   0.0490204864 0.0150196804   3.263750
## 2694   1306 response faminc      eY/eX   0.0082581174 0.0026388230   3.129470
## 2695   1307 response faminc      eY/eX   0.0490204864 0.0150196804   3.263750
## 2696   1308 response faminc      eY/eX   0.0152287090 0.0048319879   3.151645
## 2697   1309 response faminc      eY/eX   0.0175305155 0.0055493237   3.159036
## 2698   1310 response faminc      eY/eX   0.0144590415 0.0045913659   3.149181
## 2699   1311 response faminc      eY/eX   0.0152287090 0.0048319879   3.151645
```

```
## 2700   1312 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 2701   1313 response faminc     eY/eX  0.0129160916 0.0041078407  3.144253
## 2702   1314 response faminc     eY/eX  0.0490204864 0.0150196804  3.263750
## 2703   1315 response faminc     eY/eX  0.0490204864 0.0150196804  3.263750
## 2704   1316 response faminc     eY/eX  0.0190103474 0.0059724902  3.182985
## 2705   1317 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 2706   1318 response faminc     eY/eX  0.0326051207 0.0101626981  3.208313
## 2707   1319 response faminc     eY/eX  0.0051283013 0.0016438894  3.119615
## 2708   1320 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 2709   1321 response faminc     eY/eX  0.0113683028 0.0036212565  3.139325
## 2710   1322 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 2711   1323 response faminc     eY/eX  0.0499616193 0.0152675559  3.272405
## 2712   1324 response faminc     eY/eX  0.0121428034 0.0038649323  3.141789
## 2713   1325 response faminc     eY/eX  0.0186174511 0.0058592838  3.177428
## 2714   1326 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 2715   1327 response faminc     eY/eX  0.0051283013 0.0016438894  3.119615
## 2716   1328 response faminc     eY/eX  0.0121428034 0.0038649323  3.141789
## 2717   1329 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 2718   1330 response faminc     eY/eX  0.0136881700 0.0043499845  3.146717
## 2719   1331 response faminc     eY/eX  0.0288800049 0.0090363133  3.195994
## 2720   1332 response faminc     eY/eX  0.0182404663 0.0057512869  3.171545
## 2721   1333 response faminc     eY/eX  0.0036869633 0.0011801262  3.124211
## 2722   1334 response faminc     eY/eX  0.0144590415 0.0045913659  3.149181
## 2723   1335 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 2724   1336 response faminc     eY/eX  0.0288800049 0.0090363133  3.195994
## 2725   1337 response faminc     eY/eX  0.0046158616 0.0014734517  3.132686
## 2726   1338 response faminc     eY/eX  0.0129160916 0.0041078407  3.144253
## 2727   1339 response faminc     eY/eX  0.0136881700 0.0043499845  3.146717
## 2728   1340 response faminc     eY/eX  0.0051283013 0.0016438894  3.119615
## 2729   1341 response faminc     eY/eX  0.0051283013 0.0016438894  3.119615
## 2730   1342 response faminc     eY/eX  0.0251260898 0.0078921656  3.183675
## 2731   1343 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
## 2732   1344 response faminc     eY/eX  0.0121428034 0.0038649323  3.141789
## 2733   1345 response faminc     eY/eX  0.0053387165 0.0017054617  3.130364
## 2734   1346 response faminc     eY/eX  0.0213430401 0.0067299422  3.171356
## 2735   1347 response faminc     eY/eX  0.0326051207 0.0101626981  3.208313
## 2736   1348 response faminc     eY/eX  0.0079461766 0.0025280422  3.143214
## 2737   1349 response faminc     eY/eX  0.0272293289 0.0084829051  3.209906
## 2738   1350 response faminc     eY/eX  0.0175305155 0.0055493237  3.159036
```

```
## 2739  1351 response faminc    eY/eX  0.0035559735 0.0011416793  3.114687
## 2740  1352 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2741  1353 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2742  1354 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 2743  1355 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2744  1356 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2745  1357 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2746  1358 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2747  1359 response faminc    eY/eX  0.0051283013 0.0016438894  3.119615
## 2748  1360 response faminc    eY/eX  0.0099325406 0.0031653306  3.137916
## 2749  1361 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2750  1362 response faminc    eY/eX  0.0045210889 0.0014454577  3.127791
## 2751  1363 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2752  1364 response faminc    eY/eX  0.0082581174 0.0026388230  3.129470
## 2753  1365 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2754  1366 response faminc    eY/eX  0.0251260898 0.0078921656  3.183675
## 2755  1367 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2756  1368 response faminc    eY/eX  0.0104293250 0.0033097315  3.151109
## 2757  1369 response faminc    eY/eX  0.0066956748 0.0021429298  3.124542
## 2758  1370 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2759  1371 response faminc    eY/eX  0.0035559735 0.0011416793  3.114687
## 2760  1372 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
## 2761  1373 response faminc    eY/eX  0.0144590415 0.0045913659  3.149181
## 2762  1374 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2763  1375 response faminc    eY/eX  0.0326051207 0.0101626981  3.208313
## 2764  1376 response faminc    eY/eX  0.0148485538 0.0046847892  3.169524
## 2765  1377 response faminc    eY/eX  0.0363017675 0.0112716258  3.220633
## 2766  1378 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2767  1379 response faminc    eY/eX  0.0121428034 0.0038649323  3.141789
## 2768  1380 response faminc    eY/eX  0.0011881412 0.0003823715  3.107295
## 2769  1381 response faminc    eY/eX  0.0043427582 0.0013931819  3.117151
## 2770  1382 response faminc    eY/eX  0.0098156524 0.0031315912  3.134398
## 2771  1383 response faminc    eY/eX  0.0175305155 0.0055493237  3.159036
## 2772  1384 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2773  1385 response faminc    eY/eX  0.0043427582 0.0013931819  3.117151
## 2774  1386 response faminc    eY/eX  0.0490204864 0.0150196804  3.263750
## 2775  1387 response faminc    eY/eX  0.0213430401 0.0067299422  3.171356
## 2776  1388 response faminc    eY/eX  0.0288800049 0.0090363133  3.195994
##          p.value    conf.low    conf.high predicted_lo predicted_hi bwght
```

```
## 1          NaN  0.0000000000  0.0000000000  118.22645  118.22414  109
## 2          NaN  0.0000000000  0.0000000000  117.66987  117.66755  133
## 3          NaN  0.0000000000  0.0000000000  117.02051  117.01820  129
## 4          NaN  0.0000000000  0.0000000000  118.41198  118.40967  126
## 5          NaN  0.0000000000  0.0000000000  119.52516  119.52284  134
## 6          NaN  0.0000000000  0.0000000000  117.66987  117.66755  118
## 7          NaN  0.0000000000  0.0000000000  123.00384  123.00152  140
## 8          NaN  0.0000000000  0.0000000000  119.52516  119.52284   86
## 9          NaN  0.0000000000  0.0000000000  119.52516  119.52284  121
## 10         NaN  0.0000000000  0.0000000000  120.45281  120.45049  129
## 11         NaN  0.0000000000  0.0000000000  119.52516  119.52284  101
## 12         NaN  0.0000000000  0.0000000000  119.52516  119.52284  133
## 13         NaN  0.0000000000  0.0000000000  117.57710  117.57478   61
## 14         NaN  0.0000000000  0.0000000000  117.94816  117.94584  104
## 15         NaN  0.0000000000  0.0000000000  118.13369  118.13137   92
## 16         NaN  0.0000000000  0.0000000000  118.59751  118.59520  122
## 17         NaN  0.0000000000  0.0000000000  120.91663  120.91431  159
## 18         NaN  0.0000000000  0.0000000000  117.39157  117.38925  154
## 19         NaN  0.0000000000  0.0000000000  119.98898  119.98667  120
## 20         NaN  0.0000000000  0.0000000000  117.57710  117.57478  138
## 21         NaN  0.0000000000  0.0000000000  121.38046  121.37814  127
## 22         NaN  0.0000000000  0.0000000000  119.06134  119.05902  107
## 23 5.887642e-07 -0.0334811757 -0.0146102926  115.63154  115.62922  129
## 24         NaN  0.0000000000  0.0000000000  118.22645  118.22414  129
## 25         NaN  0.0000000000  0.0000000000  120.45281  120.45049  156
## 26         NaN  0.0000000000  0.0000000000  117.20604  117.20373  124
## 27         NaN  0.0000000000  0.0000000000  117.20604  117.20373   79
## 28         NaN  0.0000000000  0.0000000000  119.98898  119.98667  112
## 29         NaN  0.0000000000  0.0000000000  119.06134  119.05902  124
## 30         NaN  0.0000000000  0.0000000000  117.02051  117.01820  134
## 31         NaN  0.0000000000  0.0000000000  123.00384  123.00152  114
## 32         NaN  0.0000000000  0.0000000000  123.00384  123.00152  124
## 33         NaN  0.0000000000  0.0000000000  123.00384  123.00152  122
## 34         NaN  0.0000000000  0.0000000000  119.52516  119.52284  104
## 35         NaN  0.0000000000  0.0000000000  117.66987  117.66755  105
## 36         NaN  0.0000000000  0.0000000000  121.38046  121.37814  113
## 37         NaN  0.0000000000  0.0000000000  123.00384  123.00152  131
## 38         NaN  0.0000000000  0.0000000000  123.00384  123.00152  107
## 39         NaN  0.0000000000  0.0000000000  119.98898  119.98667  115
```

```
## 40          NaN  0.0000000000   0.0000000000   118.22645   118.22414    97
## 41          NaN  0.0000000000   0.0000000000   123.00384   123.00152   106
## 42          NaN  0.0000000000   0.0000000000   121.38046   121.37814   132
## 43          NaN  0.0000000000   0.0000000000   120.45281   120.45049   108
## 44          NaN  0.0000000000   0.0000000000   119.98898   119.98667   114
## 45          NaN  0.0000000000   0.0000000000   118.69028   118.68796   134
## 46          NaN  0.0000000000   0.0000000000   123.00384   123.00152   134
## 47          NaN  0.0000000000   0.0000000000   123.00384   123.00152   141
## 48          NaN  0.0000000000   0.0000000000   118.04092   118.03861    84
## 49          NaN  0.0000000000   0.0000000000   119.98898   119.98667    88
## 50          NaN  0.0000000000   0.0000000000   123.00384   123.00152   130
## 51          NaN  0.0000000000   0.0000000000   118.59751   118.59520   132
## 52          NaN  0.0000000000   0.0000000000   118.50475   118.50243   133
## 53          NaN  0.0000000000   0.0000000000   119.06134   119.05902   108
## 54          NaN  0.0000000000   0.0000000000   120.91663   120.91431    92
## 55          NaN  0.0000000000   0.0000000000   119.98898   119.98667   127
## 56          NaN  0.0000000000   0.0000000000   118.04092   118.03861   131
## 57          NaN  0.0000000000   0.0000000000   123.00384   123.00152   104
## 58          NaN  0.0000000000   0.0000000000   119.52516   119.52284   122
## 59          NaN  0.0000000000   0.0000000000   119.52516   119.52284    97
## 60          NaN  0.0000000000   0.0000000000   118.59751   118.59520   122
## 61          NaN  0.0000000000   0.0000000000   123.00384   123.00152   118
## 62          NaN  0.0000000000   0.0000000000   117.29881   117.29649   140
## 63          NaN  0.0000000000   0.0000000000   117.02051   117.01820   131
## 64 8.354879e-07 -0.0576364472  -0.0248303612   112.38644   112.38412   104
## 65          NaN  0.0000000000   0.0000000000   117.29881   117.29649   114
## 66          NaN  0.0000000000   0.0000000000   123.00384   123.00152   141
## 67          NaN  0.0000000000   0.0000000000   119.06134   119.05902   107
## 68          NaN  0.0000000000   0.0000000000   119.06134   119.05902   152
## 69 2.361702e-06 -0.1210031387  -0.0499932479   108.40172   108.39940   119
## 70          NaN  0.0000000000   0.0000000000   119.52516   119.52284   135
## 71          NaN  0.0000000000   0.0000000000   118.69028   118.68796   138
## 72          NaN  0.0000000000   0.0000000000   120.45281   120.45049   108
## 73          NaN  0.0000000000   0.0000000000   119.06134   119.05902    97
## 74          NaN  0.0000000000   0.0000000000   119.52516   119.52284   131
## 75 1.606046e-05 -0.2691713270  -0.1009847517   100.15398   100.15166   115
## 76          NaN  0.0000000000   0.0000000000   119.06134   119.05902   123
## 77          NaN  0.0000000000   0.0000000000   117.02051   117.01820   115
## 78          NaN  0.0000000000   0.0000000000   119.98898   119.98667   132
```

79

```
## 79              NaN  0.0000000000   0.0000000000   119.52516   119.52284   133
## 80              NaN  0.0000000000   0.0000000000   119.98898   119.98667   125
## 81              NaN  0.0000000000   0.0000000000   118.41198   118.40967   117
## 82              NaN  0.0000000000   0.0000000000   118.50475   118.50243   116
## 83              NaN  0.0000000000   0.0000000000   118.78304   118.78073   152
## 84              NaN  0.0000000000   0.0000000000   118.41198   118.40967   101
## 85              NaN  0.0000000000   0.0000000000   118.31922   118.31690   107
## 86              NaN  0.0000000000   0.0000000000   119.98898   119.98667   136
## 87              NaN  0.0000000000   0.0000000000   118.31922   118.31690   120
## 88              NaN  0.0000000000   0.0000000000   117.76263   117.76031   127
## 89              NaN  0.0000000000   0.0000000000   117.76263   117.76031   123
## 90              NaN  0.0000000000   0.0000000000   117.66987   117.66755   135
## 91              NaN  0.0000000000   0.0000000000   119.98898   119.98667    86
## 92              NaN  0.0000000000   0.0000000000   123.00384   123.00152    97
## 93    8.591174e-07 -0.0573234201  -0.0246696438   113.03579   113.03347    93
## 94              NaN  0.0000000000   0.0000000000   119.52516   119.52284    96
## 95    8.810191e-07 -0.0570588279  -0.0245324803   113.59238   113.59006   109
## 96              NaN  0.0000000000   0.0000000000   119.52516   119.52284   117
## 97              NaN  0.0000000000   0.0000000000   118.69028   118.68796   115
## 98    2.477744e-06 -0.1195422896  -0.0492869633   109.79319   109.79087   121
## 99              NaN  0.0000000000   0.0000000000   123.00384   123.00152   114
## 100             NaN  0.0000000000   0.0000000000   119.06134   119.05902   118
## 101             NaN  0.0000000000   0.0000000000   120.91663   120.91431   134
## 102             NaN  0.0000000000   0.0000000000   120.45281   120.45049   156
## 103   4.218562e-07 -0.0165352061  -0.0073004433   116.65070   116.64839   139
## 104             NaN  0.0000000000   0.0000000000   123.00384   123.00152   136
## 105             NaN  0.0000000000   0.0000000000   117.66987   117.66755   115
## 106             NaN  0.0000000000   0.0000000000   119.06134   119.05902    23
## 107             NaN  0.0000000000   0.0000000000   123.00384   123.00152   135
## 108   9.382882e-07 -0.0564543350  -0.0242146809   114.89109   114.88877   106
## 109             NaN  0.0000000000   0.0000000000   117.66987   117.66755   116
## 110             NaN  0.0000000000   0.0000000000   123.00384   123.00152   147
## 111             NaN  0.0000000000   0.0000000000   117.76263   117.76031   115
## 112             NaN  0.0000000000   0.0000000000   118.13369   118.13137    85
## 113             NaN  0.0000000000   0.0000000000   120.45281   120.45049   102
## 114             NaN  0.0000000000   0.0000000000   118.31922   118.31690   122
## 115             NaN  0.0000000000   0.0000000000   123.00384   123.00152   109
## 116   2.616132e-06 -0.1181280852  -0.0485882771   111.18466   111.18234    97
## 117             NaN  0.0000000000   0.0000000000   119.52516   119.52284   136
```

```
## 118          NaN  0.0000000000  0.0000000000  123.00384  123.00152  131
## 119          NaN  0.0000000000  0.0000000000  119.98898  119.98667  116
## 120          NaN  0.0000000000  0.0000000000  117.57710  117.57478   86
## 121          NaN  0.0000000000  0.0000000000  123.00384  123.00152  155
## 122 1.585288e-05 -0.2721400839 -0.1021763932   99.04080   99.03848  122
## 123          NaN  0.0000000000  0.0000000000  123.00384  123.00152  105
## 124          NaN  0.0000000000  0.0000000000  123.00384  123.00152  131
## 125          NaN  0.0000000000  0.0000000000  117.66987  117.66755  126
## 126          NaN  0.0000000000  0.0000000000  118.59751  118.59520  127
## 127          NaN  0.0000000000  0.0000000000  119.52516  119.52284  125
## 128          NaN  0.0000000000  0.0000000000  120.45281  120.45049   98
## 129          NaN  0.0000000000  0.0000000000  119.06134  119.05902  144
## 130          NaN  0.0000000000  0.0000000000  119.06134  119.05902   91
## 131          NaN  0.0000000000  0.0000000000  123.00384  123.00152  106
## 132          NaN  0.0000000000  0.0000000000  120.91663  120.91431  128
## 133          NaN  0.0000000000  0.0000000000  117.20604  117.20373  144
## 134          NaN  0.0000000000  0.0000000000  117.94816  117.94584   91
## 135          NaN  0.0000000000  0.0000000000  120.91663  120.91431  122
## 136          NaN  0.0000000000  0.0000000000  118.31922  118.31690  139
## 137          NaN  0.0000000000  0.0000000000  120.91663  120.91431  126
## 138          NaN  0.0000000000  0.0000000000  119.98898  119.98667  107
## 139          NaN  0.0000000000  0.0000000000  117.29881  117.29649   79
## 140          NaN  0.0000000000  0.0000000000  120.91663  120.91431  102
## 141          NaN  0.0000000000  0.0000000000  118.41198  118.40967  126
## 142          NaN  0.0000000000  0.0000000000  119.98898  119.98667  120
## 143          NaN  0.0000000000  0.0000000000  118.78304  118.78073  101
## 144          NaN  0.0000000000  0.0000000000  120.91663  120.91431  131
## 145          NaN  0.0000000000  0.0000000000  123.00384  123.00152  128
## 146          NaN  0.0000000000  0.0000000000  118.22645  118.22414  142
## 147          NaN  0.0000000000  0.0000000000  119.52516  119.52284  144
## 148          NaN  0.0000000000  0.0000000000  120.91663  120.91431   58
## 149          NaN  0.0000000000  0.0000000000  117.48434  117.48202   88
## 150          NaN  0.0000000000  0.0000000000  117.48434  117.48202  123
## 151          NaN  0.0000000000  0.0000000000  123.00384  123.00152  146
## 152          NaN  0.0000000000  0.0000000000  119.06134  119.05902  135
## 153          NaN  0.0000000000  0.0000000000  118.69028  118.68796  125
## 154          NaN  0.0000000000  0.0000000000  119.52516  119.52284  125
## 155          NaN  0.0000000000  0.0000000000  123.00384  123.00152   99
## 156 5.233611e-07 -0.0218198792 -0.0095615844  118.13535  118.13304  120
```

```
## 157            NaN  0.0000000000   0.0000000000  119.06134  119.05902  114
## 158            NaN  0.0000000000   0.0000000000  120.45281  120.45049   88
## 159            NaN  0.0000000000   0.0000000000  123.00384  123.00152  106
## 160            NaN  0.0000000000   0.0000000000  117.11328  117.11096  123
## 161            NaN  0.0000000000   0.0000000000  119.52516  119.52284  135
## 162            NaN  0.0000000000   0.0000000000  121.38046  121.37814  116
## 163            NaN  0.0000000000   0.0000000000  119.98898  119.98667  128
## 164            NaN  0.0000000000   0.0000000000  123.00384  123.00152  111
## 165            NaN  0.0000000000   0.0000000000  117.76263  117.76031  123
## 166            NaN  0.0000000000   0.0000000000  123.00384  123.00152  115
## 167            NaN  0.0000000000   0.0000000000  119.52516  119.52284  167
## 168            NaN  0.0000000000   0.0000000000  120.45281  120.45049   82
## 169            NaN  0.0000000000   0.0000000000  120.45281  120.45049  121
## 170            NaN  0.0000000000   0.0000000000  119.06134  119.05902  114
## 171            NaN  0.0000000000   0.0000000000  120.45281  120.45049  116
## 172   5.129921e-07 -0.0279043221  -0.0122364514  115.44559  115.44328  141
## 173            NaN  0.0000000000   0.0000000000  120.91663  120.91431  141
## 174            NaN  0.0000000000   0.0000000000  123.00384  123.00152  120
## 175            NaN  0.0000000000   0.0000000000  118.13369  118.13137  110
## 176            NaN  0.0000000000   0.0000000000  119.52516  119.52284  120
## 177            NaN  0.0000000000   0.0000000000  119.52516  119.52284  125
## 178            NaN  0.0000000000   0.0000000000  123.00384  123.00152   82
## 179            NaN  0.0000000000   0.0000000000  119.06134  119.05902  141
## 180            NaN  0.0000000000   0.0000000000  118.69028  118.68796  144
## 181            NaN  0.0000000000   0.0000000000  118.22645  118.22414  102
## 182            NaN  0.0000000000   0.0000000000  118.69028  118.68796  121
## 183            NaN  0.0000000000   0.0000000000  119.52516  119.52284   80
## 184            NaN  0.0000000000   0.0000000000  119.06134  119.05902  106
## 185            NaN  0.0000000000   0.0000000000  123.00384  123.00152  116
## 186   9.609207e-07 -0.0562426809  -0.0241019778  115.35491  115.35259  116
## 187            NaN  0.0000000000   0.0000000000  119.06134  119.05902  123
## 188            NaN  0.0000000000   0.0000000000  120.45281  120.45049  132
## 189   2.721323e-06 -0.1172099002  -0.0481270060  112.11230  112.10999  118
## 190            NaN  0.0000000000   0.0000000000  123.00384  123.00152  131
## 191            NaN  0.0000000000   0.0000000000  119.98898  119.98667  152
## 192            NaN  0.0000000000   0.0000000000  117.94816  117.94584  120
## 193            NaN  0.0000000000   0.0000000000  119.06134  119.05902  145
## 194            NaN  0.0000000000   0.0000000000  120.45281  120.45049  124
## 195            NaN  0.0000000000   0.0000000000  123.00384  123.00152  142
```

```
## 196          NaN  0.0000000000   0.0000000000    123.00384   123.00152   117
## 197          NaN  0.0000000000   0.0000000000    117.94816   117.94584   100
## 198          NaN  0.0000000000   0.0000000000    119.98898   119.98667   120
## 199          NaN  0.0000000000   0.0000000000    119.98898   119.98667   145
## 200          NaN  0.0000000000   0.0000000000    123.00384   123.00152   123
## 201          NaN  0.0000000000   0.0000000000    121.38046   121.37814   166
## 202 7.859155e-07 -0.0445338916  -0.0192295303    116.28172   116.27941   103
## 203          NaN  0.0000000000   0.0000000000    117.57710   117.57478   133
## 204          NaN  0.0000000000   0.0000000000    118.13369   118.13137   112
## 205          NaN  0.0000000000   0.0000000000    121.38046   121.37814   119
## 206          NaN  0.0000000000   0.0000000000    118.78304   118.78073   123
## 207          NaN  0.0000000000   0.0000000000    117.66987   117.66755   107
## 208          NaN  0.0000000000   0.0000000000    117.76263   117.76031   145
## 209          NaN  0.0000000000   0.0000000000    118.78304   118.78073   133
## 210          NaN  0.0000000000   0.0000000000    123.00384   123.00152   146
## 211          NaN  0.0000000000   0.0000000000    119.98898   119.98667   134
## 212          NaN  0.0000000000   0.0000000000    123.00384   123.00152   140
## 213          NaN  0.0000000000   0.0000000000    118.78304   118.78073    95
## 214          NaN  0.0000000000   0.0000000000    118.59751   118.59520   126
## 215          NaN  0.0000000000   0.0000000000    119.52516   119.52284   134
## 216          NaN  0.0000000000   0.0000000000    118.13369   118.13137    64
## 217 5.091946e-07 -0.0218994288  -0.0096057306    117.67153   117.66921   119
## 218          NaN  0.0000000000   0.0000000000    119.98898   119.98667   140
## 219          NaN  0.0000000000   0.0000000000    119.06134   119.05902   120
## 220          NaN  0.0000000000   0.0000000000    118.69028   118.68796   103
## 221 2.567460e-06 -0.1185944688  -0.0488202895    110.72083   110.71852    68
## 222          NaN  0.0000000000   0.0000000000    120.91663   120.91431    97
## 223          NaN  0.0000000000   0.0000000000    120.45281   120.45049   120
## 224          NaN  0.0000000000   0.0000000000    119.98898   119.98667   121
## 225          NaN  0.0000000000   0.0000000000    117.85540   117.85308   130
## 226 8.886653e-07 -0.0569713783  -0.0244868848    113.77791   113.77559   115
## 227          NaN  0.0000000000   0.0000000000    123.00384   123.00152   112
## 228          NaN  0.0000000000   0.0000000000    123.00384   123.00152   120
## 229 1.121923e-06 -0.0687168239  -0.0292720501    113.50045   113.49813   103
## 230          NaN  0.0000000000   0.0000000000    119.98898   119.98667   100
## 231          NaN  0.0000000000   0.0000000000    123.00384   123.00152   117
## 232          NaN  0.0000000000   0.0000000000    123.00384   123.00152   126
## 233          NaN  0.0000000000   0.0000000000    117.48434   117.48202   142
## 234          NaN  0.0000000000   0.0000000000    119.06134   119.05902   120
```

```
## 235        NaN  0.0000000000  0.0000000000  118.22645  118.22414  111
## 236        NaN  0.0000000000  0.0000000000  123.00384  123.00152  152
## 237        NaN  0.0000000000  0.0000000000  123.00384  123.00152  124
## 238        NaN  0.0000000000  0.0000000000  119.52516  119.52284  146
## 239        NaN  0.0000000000  0.0000000000  119.52516  119.52284  102
## 240        NaN  0.0000000000  0.0000000000  119.52516  119.52284  129
## 241        NaN  0.0000000000  0.0000000000  117.94816  117.94584  125
## 242        NaN  0.0000000000  0.0000000000  117.85540  117.85308  126
## 243        NaN  0.0000000000  0.0000000000  117.02051  117.01820  101
## 244        NaN  0.0000000000  0.0000000000  119.98898  119.98667  113
## 245        NaN  0.0000000000  0.0000000000  118.78304  118.78073  136
## 246        NaN  0.0000000000  0.0000000000  120.91663  120.91431  101
## 247        NaN  0.0000000000  0.0000000000  123.00384  123.00152  106
## 248        NaN  0.0000000000  0.0000000000  123.00384  123.00152  100
## 249        NaN  0.0000000000  0.0000000000  120.91663  120.91431  130
## 250        NaN  0.0000000000  0.0000000000  120.45281  120.45049  136
## 251        NaN  0.0000000000  0.0000000000  117.57710  117.57478  100
## 252        NaN  0.0000000000  0.0000000000  123.00384  123.00152  122
## 253        NaN  0.0000000000  0.0000000000  117.11328  117.11096   90
## 254        NaN  0.0000000000  0.0000000000  123.00384  123.00152   94
## 255        NaN  0.0000000000  0.0000000000  119.98898  119.98667  108
## 256        NaN  0.0000000000  0.0000000000  123.00384  123.00152  107
## 257 2.436625e-06 -0.1200239220 -0.0495215794  109.32936  109.32705  119
## 258        NaN  0.0000000000  0.0000000000  118.69028  118.68796  106
## 259        NaN  0.0000000000  0.0000000000  118.22645  118.22414  113
## 260        NaN  0.0000000000  0.0000000000  117.94816  117.94584  132
## 261        NaN  0.0000000000  0.0000000000  118.69028  118.68796   99
## 262 8.810191e-07 -0.0570588279 -0.0245324803  113.59238  113.59006  110
## 263 9.609207e-07 -0.0562426809 -0.0241019778  115.35491  115.35259   76
## 264        NaN  0.0000000000  0.0000000000  118.41198  118.40967  123
## 265        NaN  0.0000000000  0.0000000000  117.94816  117.94584  123
## 266        NaN  0.0000000000  0.0000000000  119.98898  119.98667  129
## 267        NaN  0.0000000000  0.0000000000  118.22645  118.22414   95
## 268        NaN  0.0000000000  0.0000000000  118.50475  118.50243  118
## 269 2.354740e-06 -0.1211022548 -0.0500405873  108.30895  108.30663  115
## 270        NaN  0.0000000000  0.0000000000  117.76263  117.76031  133
## 271        NaN  0.0000000000  0.0000000000  119.06134  119.05902  139
## 272        NaN  0.0000000000  0.0000000000  119.52516  119.52284  124
## 273 2.397954e-06 -0.1205108371 -0.0497570162  108.86554  108.86322   60
```

```
## 274           NaN  0.0000000000  0.0000000000  118.78304  118.78073   87
## 275           NaN  0.0000000000  0.0000000000  123.00384  123.00152  130
## 276           NaN  0.0000000000  0.0000000000  123.00384  123.00152  110
## 277           NaN  0.0000000000  0.0000000000  118.41198  118.40967   73
## 278           NaN  0.0000000000  0.0000000000  120.45281  120.45049  126
## 279           NaN  0.0000000000  0.0000000000  121.38046  121.37814  125
## 280           NaN  0.0000000000  0.0000000000  121.38046  121.37814  166
## 281           NaN  0.0000000000  0.0000000000  120.45281  120.45049  122
## 282  5.233611e-07 -0.0218198792 -0.0095615844  118.13535  118.13304  120
## 283           NaN  0.0000000000  0.0000000000  123.00384  123.00152  143
## 284           NaN  0.0000000000  0.0000000000  119.52516  119.52284  122
## 285           NaN  0.0000000000  0.0000000000  123.00384  123.00152  106
## 286           NaN  0.0000000000  0.0000000000  123.00384  123.00152  126
## 287           NaN  0.0000000000  0.0000000000  119.98898  119.98667  156
## 288           NaN  0.0000000000  0.0000000000  119.06134  119.05902  129
## 289           NaN  0.0000000000  0.0000000000  118.59751  118.59520  120
## 290  3.842930e-07 -0.0053739110 -0.0023802041  119.52558  119.52326  113
## 291           NaN  0.0000000000  0.0000000000  123.00384  123.00152   81
## 292           NaN  0.0000000000  0.0000000000  120.45281  120.45049   83
## 293           NaN  0.0000000000  0.0000000000  120.45281  120.45049  129
## 294           NaN  0.0000000000  0.0000000000  118.31922  118.31690  133
## 295  2.444652e-06 -0.1199271762 -0.0494745898  109.42213  109.41981  112
## 296           NaN  0.0000000000  0.0000000000  123.00384  123.00152  119
## 297           NaN  0.0000000000  0.0000000000  121.38046  121.37814  139
## 298           NaN  0.0000000000  0.0000000000  119.52516  119.52284  111
## 299  1.626118e-05 -0.2669991791 -0.1000967909  100.98886  100.98654   81
## 300           NaN  0.0000000000  0.0000000000  119.52516  119.52284  127
## 301           NaN  0.0000000000  0.0000000000  119.06134  119.05902  119
## 302           NaN  0.0000000000  0.0000000000  119.98898  119.98667  107
## 303  2.334426e-06 -0.1214009301 -0.0501827874  108.03066  108.02834   98
## 304  9.004642e-07 -0.0568408952 -0.0244186118  114.05620  114.05389  113
## 305           NaN  0.0000000000  0.0000000000  118.78304  118.78073  104
## 306           NaN  0.0000000000  0.0000000000  119.98898  119.98667  108
## 307           NaN  0.0000000000  0.0000000000  119.06134  119.05902  144
## 308           NaN  0.0000000000  0.0000000000  123.00384  123.00152  110
## 309           NaN  0.0000000000  0.0000000000  123.00384  123.00152  138
## 310           NaN  0.0000000000  0.0000000000  118.31922  118.31690  107
## 311           NaN  0.0000000000  0.0000000000  123.00384  123.00152  128
## 312  8.848204e-07 -0.0570150568 -0.0245096746  113.68514  113.68283  144
```

```
## 313          NaN  0.0000000000  0.0000000000  120.45281  120.45049  136
## 314          NaN  0.0000000000  0.0000000000  118.22645  118.22414  110
## 315 2.341102e-06 -0.1213011496 -0.0501353573  108.12342  108.12110  105
## 316          NaN  0.0000000000  0.0000000000  119.06134  119.05902  124
## 317          NaN  0.0000000000  0.0000000000  120.45281  120.45049  117
## 318          NaN  0.0000000000  0.0000000000  123.00384  123.00152  145
## 319          NaN  0.0000000000  0.0000000000  118.04092  118.03861   96
## 320          NaN  0.0000000000  0.0000000000  119.06134  119.05902  140
## 321          NaN  0.0000000000  0.0000000000  123.00384  123.00152  101
## 322          NaN  0.0000000000  0.0000000000  120.45281  120.45049  148
## 323          NaN  0.0000000000  0.0000000000  117.94816  117.94584  135
## 324          NaN  0.0000000000  0.0000000000  120.45281  120.45049  120
## 325          NaN  0.0000000000  0.0000000000  119.06134  119.05902  130
## 326          NaN  0.0000000000  0.0000000000  118.41198  118.40967  134
## 327          NaN  0.0000000000  0.0000000000  123.00384  123.00152  128
## 328 1.397668e-06 -0.0888033247 -0.0375008637  110.06940  110.06708  111
## 329          NaN  0.0000000000  0.0000000000  119.98898  119.98667  128
## 330          NaN  0.0000000000  0.0000000000  117.94816  117.94584  134
## 331          NaN  0.0000000000  0.0000000000  119.06134  119.05902  141
## 332          NaN  0.0000000000  0.0000000000  121.38046  121.37814  115
## 333          NaN  0.0000000000  0.0000000000  119.52516  119.52284   98
## 334          NaN  0.0000000000  0.0000000000  123.00384  123.00152  118
## 335          NaN  0.0000000000  0.0000000000  121.38046  121.37814  130
## 336          NaN  0.0000000000  0.0000000000  117.39157  117.38925  136
## 337          NaN  0.0000000000  0.0000000000  117.76263  117.76031  129
## 338          NaN  0.0000000000  0.0000000000  121.38046  121.37814   93
## 339 2.397954e-06 -0.1205108371 -0.0497570162  108.86554  108.86322   91
## 340          NaN  0.0000000000  0.0000000000  123.00384  123.00152  110
## 341          NaN  0.0000000000  0.0000000000  117.85540  117.85308  112
## 342 2.616132e-06 -0.1181280852 -0.0485882771  111.18466  111.18234  112
## 343 1.146850e-06 -0.0684546964 -0.0291353723  113.96427  113.96195   98
## 344          NaN  0.0000000000  0.0000000000  123.00384  123.00152  147
## 345 6.985057e-07 -0.0453804475 -0.0196805486  113.96261  113.96029   92
## 346          NaN  0.0000000000  0.0000000000  123.00384  123.00152   98
## 347          NaN  0.0000000000  0.0000000000  121.38046  121.37814   98
## 348          NaN  0.0000000000  0.0000000000  123.00384  123.00152  137
## 349          NaN  0.0000000000  0.0000000000  120.91663  120.91431  113
## 350          NaN  0.0000000000  0.0000000000  119.52516  119.52284  137
## 351 1.612503e-06 -0.0862660912 -0.0362186540  113.50170  113.49938   71
```

```
## 352           NaN  0.0000000000   0.0000000000   121.38046   121.37814  129
## 353  8.420312e-07 -0.0575465276  -0.0247843676   112.57197   112.56965  149
## 354           NaN  0.0000000000   0.0000000000   117.66987   117.66755  124
## 355           NaN  0.0000000000   0.0000000000   117.57710   117.57478  138
## 356           NaN  0.0000000000   0.0000000000   120.45281   120.45049  128
## 357  9.609207e-07 -0.0562426809  -0.0241019778   115.35491   115.35259  122
## 358           NaN  0.0000000000   0.0000000000   121.38046   121.37814  118
## 359           NaN  0.0000000000   0.0000000000   120.91663   120.91431  128
## 360  2.375914e-06 -0.1208055649  -0.0498986616   108.58724   108.58493  142
## 361           NaN  0.0000000000   0.0000000000   121.38046   121.37814  127
## 362           NaN  0.0000000000   0.0000000000   123.00384   123.00152  112
## 363           NaN  0.0000000000   0.0000000000   119.06134   119.05902  113
## 364           NaN  0.0000000000   0.0000000000   120.91663   120.91431  112
## 365           NaN  0.0000000000   0.0000000000   120.45281   120.45049   82
## 366           NaN  0.0000000000   0.0000000000   118.78304   118.78073  141
## 367           NaN  0.0000000000   0.0000000000   120.91663   120.91431  107
## 368           NaN  0.0000000000   0.0000000000   118.31922   118.31690  117
## 369           NaN  0.0000000000   0.0000000000   120.45281   120.45049  127
## 370           NaN  0.0000000000   0.0000000000   117.66987   117.66755  133
## 371           NaN  0.0000000000   0.0000000000   120.45281   120.45049  118
## 372           NaN  0.0000000000   0.0000000000   119.98898   119.98667  144
## 373           NaN  0.0000000000   0.0000000000   117.85540   117.85308  109
## 374           NaN  0.0000000000   0.0000000000   123.00384   123.00152   79
## 375           NaN  0.0000000000   0.0000000000   119.98898   119.98667  124
## 376  8.521572e-07 -0.0574123750  -0.0247154882   112.85026   112.84794  130
## 377           NaN  0.0000000000   0.0000000000   120.91663   120.91431  271
## 378           NaN  0.0000000000   0.0000000000   119.06134   119.05902  160
## 379           NaN  0.0000000000   0.0000000000   120.91663   120.91431  127
## 380           NaN  0.0000000000   0.0000000000   117.66987   117.66755  108
## 381           NaN  0.0000000000   0.0000000000   118.22645   118.22414   90
## 382           NaN  0.0000000000   0.0000000000   119.52516   119.52284  140
## 383           NaN  0.0000000000   0.0000000000   120.91663   120.91431  126
## 384           NaN  0.0000000000   0.0000000000   119.98898   119.98667  110
## 385           NaN  0.0000000000   0.0000000000   119.98898   119.98667  127
## 386           NaN  0.0000000000   0.0000000000   117.48434   117.48202  101
## 387           NaN  0.0000000000   0.0000000000   121.38046   121.37814   92
## 388           NaN  0.0000000000   0.0000000000   121.38046   121.37814  121
## 389           NaN  0.0000000000   0.0000000000   120.91663   120.91431  102
## 390           NaN  0.0000000000   0.0000000000   120.45281   120.45049  125
```

```
## 391          NaN  0.0000000000   0.0000000000  119.98898  119.98667  141
## 392          NaN  0.0000000000   0.0000000000  123.00384  123.00152  121
## 393          NaN  0.0000000000   0.0000000000  121.38046  121.37814  127
## 394          NaN  0.0000000000   0.0000000000  120.91663  120.91431  119
## 395          NaN  0.0000000000   0.0000000000  119.52516  119.52284  106
## 396          NaN  0.0000000000   0.0000000000  118.59751  118.59520  105
## 397          NaN  0.0000000000   0.0000000000  118.69028  118.68796  104
## 398          NaN  0.0000000000   0.0000000000  120.91663  120.91431  131
## 399          NaN  0.0000000000   0.0000000000  120.45281  120.45049   96
## 400          NaN  0.0000000000   0.0000000000  120.91663  120.91431  141
## 401          NaN  0.0000000000   0.0000000000  119.98898  119.98667   93
## 402          NaN  0.0000000000   0.0000000000  117.20604  117.20373  114
## 403          NaN  0.0000000000   0.0000000000  118.69028  118.68796  112
## 404          NaN  0.0000000000   0.0000000000  117.39157  117.38925  138
## 405          NaN  0.0000000000   0.0000000000  119.06134  119.05902  136
## 406 2.341102e-06 -0.1213011496  -0.0501353573  108.12342  108.12110  113
## 407          NaN  0.0000000000   0.0000000000  119.52516  119.52284  105
## 408          NaN  0.0000000000   0.0000000000  118.78304  118.78073  120
## 409          NaN  0.0000000000   0.0000000000  119.52516  119.52284   35
## 410          NaN  0.0000000000   0.0000000000  118.78304  118.78073  149
## 411          NaN  0.0000000000   0.0000000000  118.69028  118.68796  122
## 412          NaN  0.0000000000   0.0000000000  119.06134  119.05902  146
## 413          NaN  0.0000000000   0.0000000000  119.06134  119.05902  161
## 414 2.321359e-06 -0.1216011616  -0.0502777370  107.84513  107.84281  142
## 415          NaN  0.0000000000   0.0000000000  117.39157  117.38925  119
## 416 4.509238e-07 -0.0222928495  -0.0098198850  115.44518  115.44286   83
## 417          NaN  0.0000000000   0.0000000000  117.29881  117.29649  136
## 418          NaN  0.0000000000   0.0000000000  120.91663  120.91431  116
## 419          NaN  0.0000000000   0.0000000000  120.45281  120.45049   93
## 420          NaN  0.0000000000   0.0000000000  119.06134  119.05902  110
## 421          NaN  0.0000000000   0.0000000000  120.45281  120.45049  124
## 422          NaN  0.0000000000   0.0000000000  118.41198  118.40967  123
## 423          NaN  0.0000000000   0.0000000000  119.52516  119.52284  129
## 424          NaN  0.0000000000   0.0000000000  119.98898  119.98667  106
## 425          NaN  0.0000000000   0.0000000000  119.06134  119.05902  130
## 426          NaN  0.0000000000   0.0000000000  119.52516  119.52284  111
## 427          NaN  0.0000000000   0.0000000000  119.52516  119.52284  115
## 428          NaN  0.0000000000   0.0000000000  117.39157  117.38925  110
## 429          NaN  0.0000000000   0.0000000000  119.52516  119.52284  117
```

```
## 430         NaN  0.0000000000   0.0000000000   119.06134   119.05902   113
## 431         NaN  0.0000000000   0.0000000000   119.52516   119.52284   114
## 432         NaN  0.0000000000   0.0000000000   118.78304   118.78073   146
## 433  2.341102e-06 -0.1213011496  -0.0501353573  108.12342   108.12110    98
## 434  8.735468e-07 -0.0571466495  -0.0245781391  113.40685   113.40453   143
## 435         NaN  0.0000000000   0.0000000000   119.52516   119.52284   116
## 436  6.698031e-06 -0.1872649095  -0.0736858230  106.55058   106.54826   116
## 437         NaN  0.0000000000   0.0000000000   117.57710   117.57478    75
## 438         NaN  0.0000000000   0.0000000000   119.98898   119.98667   139
## 439         NaN  0.0000000000   0.0000000000   118.69028   118.68796   120
## 440         NaN  0.0000000000   0.0000000000   119.98898   119.98667   146
## 441         NaN  0.0000000000   0.0000000000   120.91663   120.91431   145
## 442         NaN  0.0000000000   0.0000000000   119.06134   119.05902   136
## 443         NaN  0.0000000000   0.0000000000   118.50475   118.50243   120
## 444         NaN  0.0000000000   0.0000000000   120.91663   120.91431   106
## 445  1.612503e-06 -0.0862660912  -0.0362186540  113.50170   113.49938   109
## 446         NaN  0.0000000000   0.0000000000   118.22645   118.22414    97
## 447         NaN  0.0000000000   0.0000000000   119.06134   119.05902    30
## 448         NaN  0.0000000000   0.0000000000   119.06134   119.05902   122
## 449         NaN  0.0000000000   0.0000000000   120.45281   120.45049   130
## 450         NaN  0.0000000000   0.0000000000   119.52516   119.52284   115
## 451         NaN  0.0000000000   0.0000000000   118.50475   118.50243   116
## 452         NaN  0.0000000000   0.0000000000   121.38046   121.37814   134
## 453         NaN  0.0000000000   0.0000000000   119.06134   119.05902   127
## 454         NaN  0.0000000000   0.0000000000   119.06134   119.05902   101
## 455         NaN  0.0000000000   0.0000000000   121.38046   121.37814   145
## 456         NaN  0.0000000000   0.0000000000   119.06134   119.05902   128
## 457         NaN  0.0000000000   0.0000000000   118.31922   118.31690   130
## 458         NaN  0.0000000000   0.0000000000   118.50475   118.50243   138
## 459         NaN  0.0000000000   0.0000000000   118.31922   118.31690   133
## 460         NaN  0.0000000000   0.0000000000   118.69028   118.68796   106
## 461         NaN  0.0000000000   0.0000000000   117.29881   117.29649   135
## 462  1.545371e-06 -0.0869322473  -0.0365618127  112.57405   112.57173   104
## 463         NaN  0.0000000000   0.0000000000   119.06134   119.05902   107
## 464         NaN  0.0000000000   0.0000000000   118.59751   118.59520    98
## 465         NaN  0.0000000000   0.0000000000   118.69028   118.68796   123
## 466         NaN  0.0000000000   0.0000000000   117.02051   117.01820    96
## 467         NaN  0.0000000000   0.0000000000   118.59751   118.59520   119
## 468         NaN  0.0000000000   0.0000000000   118.69028   118.68796   134
```

```
## 469        NaN  0.0000000000  0.0000000000  117.02051  117.01820   83
## 470        NaN  0.0000000000  0.0000000000  120.45281  120.45049  161
## 471  5.105810e-07 -0.0279253501 -0.0122477039  115.35283  115.35051  109
## 472        NaN  0.0000000000  0.0000000000  118.69028  118.68796  113
## 473        NaN  0.0000000000  0.0000000000  117.39157  117.38925   98
## 474        NaN  0.0000000000  0.0000000000  119.52516  119.52284  138
## 475        NaN  0.0000000000  0.0000000000  117.57710  117.57478  120
## 476        NaN  0.0000000000  0.0000000000  119.52516  119.52284  112
## 477        NaN  0.0000000000  0.0000000000  118.04092  118.03861  104
## 478        NaN  0.0000000000  0.0000000000  120.91663  120.91431  103
## 479        NaN  0.0000000000  0.0000000000  119.06134  119.05902  156
## 480        NaN  0.0000000000  0.0000000000  118.78304  118.78073  119
## 481        NaN  0.0000000000  0.0000000000  123.00384  123.00152  134
## 482        NaN  0.0000000000  0.0000000000  120.45281  120.45049  149
## 483        NaN  0.0000000000  0.0000000000  120.91663  120.91431  106
## 484        NaN  0.0000000000  0.0000000000  120.91663  120.91431  112
## 485        NaN  0.0000000000  0.0000000000  120.45281  120.45049  139
## 486        NaN  0.0000000000  0.0000000000  121.38046  121.37814  137
## 487  2.413131e-06 -0.1203154306 -0.0496627447  109.05107  109.04875   90
## 488        NaN  0.0000000000  0.0000000000  119.98898  119.98667  137
## 489  2.420865e-06 -0.1202180484 -0.0496156571  109.14383  109.14152  140
## 490        NaN  0.0000000000  0.0000000000  119.98898  119.98667  126
## 491        NaN  0.0000000000  0.0000000000  118.69028  118.68796  112
## 492        NaN  0.0000000000  0.0000000000  117.20604  117.20373   60
## 493        NaN  0.0000000000  0.0000000000  117.48434  117.48202  109
## 494        NaN  0.0000000000  0.0000000000  121.38046  121.37814  129
## 495  5.012149e-07 -0.0280099076 -0.0122927893  114.98177  114.97945  104
## 496        NaN  0.0000000000  0.0000000000  120.91663  120.91431   71
## 497        NaN  0.0000000000  0.0000000000  117.57710  117.57478   86
## 498        NaN  0.0000000000  0.0000000000  119.98898  119.98667  124
## 499        NaN  0.0000000000  0.0000000000  121.38046  121.37814  112
## 500        NaN  0.0000000000  0.0000000000  117.29881  117.29649   79
## 501        NaN  0.0000000000  0.0000000000  119.52516  119.52284   95
## 502        NaN  0.0000000000  0.0000000000  119.06134  119.05902  100
## 503        NaN  0.0000000000  0.0000000000  119.52516  119.52284  100
## 504        NaN  0.0000000000  0.0000000000  118.69028  118.68796  105
## 505  2.397954e-06 -0.1205108371 -0.0497570162  108.86554  108.86322  107
## 506        NaN  0.0000000000  0.0000000000  117.02051  117.01820  141
## 507        NaN  0.0000000000  0.0000000000  117.11328  117.11096  142
```

```
## 508 5.958388e-07 -0.0273130915 -0.0119135998    118.13577    118.13345    99
## 509 5.386761e-07 -0.0276964484 -0.0121243505    116.37324    116.37092   112
## 510          NaN  0.0000000000  0.0000000000    119.06134    119.05902   107
## 511          NaN  0.0000000000  0.0000000000    121.38046    121.37814   147
## 512          NaN  0.0000000000  0.0000000000    123.00384    123.00152    94
## 513          NaN  0.0000000000  0.0000000000    123.00384    123.00152   148
## 514 6.292070e-06 -0.1914313679 -0.0755630611    104.13870    104.13638    91
## 515          NaN  0.0000000000  0.0000000000    119.98898    119.98667   131
## 516          NaN  0.0000000000  0.0000000000    119.06134    119.05902   102
## 517          NaN  0.0000000000  0.0000000000    119.98898    119.98667   161
## 518          NaN  0.0000000000  0.0000000000    123.00384    123.00152   120
## 519          NaN  0.0000000000  0.0000000000    119.52516    119.52284   105
## 520          NaN  0.0000000000  0.0000000000    118.69028    118.68796   112
## 521          NaN  0.0000000000  0.0000000000    120.45281    120.45049   130
## 522          NaN  0.0000000000  0.0000000000    119.98898    119.98667   136
## 523          NaN  0.0000000000  0.0000000000    118.78304    118.78073   110
## 524          NaN  0.0000000000  0.0000000000    119.06134    119.05902   124
## 525          NaN  0.0000000000  0.0000000000    119.52516    119.52284   124
## 526          NaN  0.0000000000  0.0000000000    119.06134    119.05902   134
## 527          NaN  0.0000000000  0.0000000000    121.38046    121.37814   136
## 528          NaN  0.0000000000  0.0000000000    119.06134    119.05902   120
## 529          NaN  0.0000000000  0.0000000000    118.69028    118.68796   108
## 530          NaN  0.0000000000  0.0000000000    118.59751    118.59520   122
## 531          NaN  0.0000000000  0.0000000000    118.69028    118.68796   137
## 532 1.138738e-06 -0.0549179034 -0.0233803930    118.36976    118.36745   119
## 533          NaN  0.0000000000  0.0000000000    119.98898    119.98667   144
## 534          NaN  0.0000000000  0.0000000000    121.38046    121.37814   128
## 535          NaN  0.0000000000  0.0000000000    118.22645    118.22414   104
## 536          NaN  0.0000000000  0.0000000000    119.98898    119.98667   118
## 537          NaN  0.0000000000  0.0000000000    123.00384    123.00152    93
## 538 6.777055e-07 -0.0328219356 -0.0142499282    118.13619    118.13387   138
## 539          NaN  0.0000000000  0.0000000000    119.98898    119.98667   135
## 540          NaN  0.0000000000  0.0000000000    120.91663    120.91431   128
## 541          NaN  0.0000000000  0.0000000000    120.45281    120.45049   118
## 542          NaN  0.0000000000  0.0000000000    117.85540    117.85308   114
## 543          NaN  0.0000000000  0.0000000000    120.45281    120.45049   120
## 544          NaN  0.0000000000  0.0000000000    123.00384    123.00152   113
## 545          NaN  0.0000000000  0.0000000000    120.91663    120.91431   110
## 546          NaN  0.0000000000  0.0000000000    120.45281    120.45049   106
```

```
## 547  2.375914e-06 -0.1208055649 -0.0498986616   108.58724   108.58493  125
## 548           NaN  0.0000000000  0.0000000000   118.78304   118.78073  107
## 549           NaN  0.0000000000  0.0000000000   118.78304   118.78073  130
## 550           NaN  0.0000000000  0.0000000000   121.38046   121.37814  116
## 551  6.128342e-07 -0.0272146296 -0.0118586525   118.59959   118.59728  102
## 552           NaN  0.0000000000  0.0000000000   119.52516   119.52284  112
## 553  2.931632e-06 -0.1156480000 -0.0473290038   113.73569   113.73337  124
## 554           NaN  0.0000000000  0.0000000000   119.98898   119.98667  118
## 555           NaN  0.0000000000  0.0000000000   121.38046   121.37814  125
## 556           NaN  0.0000000000  0.0000000000   123.00384   123.00152  103
## 557           NaN  0.0000000000  0.0000000000   117.57710   117.57478  115
## 558           NaN  0.0000000000  0.0000000000   120.91663   120.91431  136
## 559  9.044858e-07 -0.0567975837 -0.0243958866   114.14897   114.14665  120
## 560  5.211018e-07 -0.0105571841 -0.0046269195   122.07702   122.07471  139
## 561           NaN  0.0000000000  0.0000000000   119.52516   119.52284  137
## 562  5.958388e-07 -0.0273130915 -0.0119135998   118.13577   118.13345  120
## 563           NaN  0.0000000000  0.0000000000   119.52516   119.52284  113
## 564           NaN  0.0000000000  0.0000000000   119.06134   119.05902  102
## 565           NaN  0.0000000000  0.0000000000   119.52516   119.52284  132
## 566  3.959797e-07 -0.0053548133 -0.0023693280   119.98940   119.98708  141
## 567           NaN  0.0000000000  0.0000000000   119.06134   119.05902  119
## 568  2.521344e-06 -0.1190658382 -0.0490531922   110.25701   110.25469  103
## 569           NaN  0.0000000000  0.0000000000   119.98898   119.98667  117
## 570           NaN  0.0000000000  0.0000000000   119.98898   119.98667  113
## 571           NaN  0.0000000000  0.0000000000   120.45281   120.45049  136
## 572           NaN  0.0000000000  0.0000000000   120.45281   120.45049  128
## 573           NaN  0.0000000000  0.0000000000   118.78304   118.78073  110
## 574           NaN  0.0000000000  0.0000000000   123.00384   123.00152  110
## 575           NaN  0.0000000000  0.0000000000   123.00384   123.00152  123
## 576           NaN  0.0000000000  0.0000000000   119.98898   119.98667  150
## 577           NaN  0.0000000000  0.0000000000   120.91663   120.91431  117
## 578           NaN  0.0000000000  0.0000000000   119.06134   119.05902  142
## 579           NaN  0.0000000000  0.0000000000   119.06134   119.05902  111
## 580  8.925541e-07 -0.0569277921 -0.0244641110   113.87067   113.86836  101
## 581           NaN  0.0000000000  0.0000000000   119.06134   119.05902  124
## 582           NaN  0.0000000000  0.0000000000   119.06134   119.05902  120
## 583           NaN  0.0000000000  0.0000000000   123.00384   123.00152  123
## 584  8.810191e-07 -0.0570588279 -0.0245324803   113.59238   113.59006   94
## 585           NaN  0.0000000000  0.0000000000   119.98898   119.98667  110
```

```
## 586          NaN   0.0000000000   0.0000000000   120.45281   120.45049    87
## 587          NaN   0.0000000000   0.0000000000   120.45281   120.45049   109
## 588          NaN   0.0000000000   0.0000000000   119.52516   119.52284   112
## 589 2.354740e-06  -0.1211022548  -0.0500405873   108.30895   108.30663   108
## 590          NaN   0.0000000000   0.0000000000   118.78304   118.78073   139
## 591          NaN   0.0000000000   0.0000000000   119.98898   119.98667   104
## 592          NaN   0.0000000000   0.0000000000   119.06134   119.05902   121
## 593          NaN   0.0000000000   0.0000000000   123.00384   123.00152   110
## 594          NaN   0.0000000000   0.0000000000   119.52516   119.52284   155
## 595          NaN   0.0000000000   0.0000000000   118.69028   118.68796   147
## 596          NaN   0.0000000000   0.0000000000   121.38046   121.37814   117
## 597          NaN   0.0000000000   0.0000000000   117.11328   117.11096   113
## 598          NaN   0.0000000000   0.0000000000   120.91663   120.91431   136
## 599          NaN   0.0000000000   0.0000000000   117.11328   117.11096   105
## 600          NaN   0.0000000000   0.0000000000   123.00384   123.00152   129
## 601          NaN   0.0000000000   0.0000000000   119.06134   119.05902   114
## 602          NaN   0.0000000000   0.0000000000   120.91663   120.91431   109
## 603          NaN   0.0000000000   0.0000000000   117.02051   117.01820   108
## 604          NaN   0.0000000000   0.0000000000   121.38046   121.37814   142
## 605          NaN   0.0000000000   0.0000000000   123.00384   123.00152    99
## 606 2.390511e-06  -0.1206088631  -0.0498041998   108.77277   108.77046    79
## 607 2.347873e-06  -0.1212015915  -0.0500879571   108.21619   108.21387   102
## 608          NaN   0.0000000000   0.0000000000   123.00384   123.00152    74
## 609 4.035810e-07  -0.0166466578  -0.0073608159   115.81582   115.81350   109
## 610          NaN   0.0000000000   0.0000000000   123.00384   123.00152   142
## 611 9.609207e-07  -0.0562426809  -0.0241019778   115.35491   115.35259    98
## 612          NaN   0.0000000000   0.0000000000   117.20604   117.20373   128
## 613          NaN   0.0000000000   0.0000000000   121.38046   121.37814   107
## 614          NaN   0.0000000000   0.0000000000   117.48434   117.48202    97
## 615          NaN   0.0000000000   0.0000000000   123.00384   123.00152   125
## 616 2.390511e-06  -0.1206088631  -0.0498041998   108.77277   108.77046    75
## 617 1.614497e-05  -0.2682002930  -0.1005894621   100.52504   100.52272   136
## 618          NaN   0.0000000000   0.0000000000   123.00384   123.00152   106
## 619          NaN   0.0000000000   0.0000000000   118.22645   118.22414   104
## 620          NaN   0.0000000000   0.0000000000   119.52516   119.52284    72
## 621          NaN   0.0000000000   0.0000000000   123.00384   123.00152   112
## 622 2.567460e-06  -0.1185944688  -0.0488202895   110.72083   110.71852   120
## 623          NaN   0.0000000000   0.0000000000   123.00384   123.00152   103
## 624          NaN   0.0000000000   0.0000000000   117.76263   117.76031   122
```

```
## 625         NaN  0.0000000000   0.0000000000   119.52516   119.52284   136
## 626         NaN  0.0000000000   0.0000000000   123.00384   123.00152   123
## 627         NaN  0.0000000000   0.0000000000   119.98898   119.98667   138
## 628  6.925205e-07 -0.0454501139  -0.0197169733   113.77708   113.77476    50
## 629  2.477744e-06 -0.1195422896  -0.0492869633   109.79319   109.79087    75
## 630         NaN  0.0000000000   0.0000000000   117.48434   117.48202    93
## 631         NaN  0.0000000000   0.0000000000   119.52516   119.52284   119
## 632         NaN  0.0000000000   0.0000000000   117.66987   117.66755   117
## 633  8.487402e-07 -0.0574569961  -0.0247384330   112.75750   112.75518   102
## 634         NaN  0.0000000000   0.0000000000   120.91663   120.91431   112
## 635         NaN  0.0000000000   0.0000000000   119.98898   119.98667   106
## 636         NaN  0.0000000000   0.0000000000   119.06134   119.05902   108
## 637         NaN  0.0000000000   0.0000000000   119.52516   119.52284   112
## 638         NaN  0.0000000000   0.0000000000   121.38046   121.37814   145
## 639         NaN  0.0000000000   0.0000000000   119.98898   119.98667   134
## 640         NaN  0.0000000000   0.0000000000   117.29881   117.29649   117
## 641  7.103562e-07 -0.0387687196  -0.0168028102   116.74513   116.74281   114
## 642         NaN  0.0000000000   0.0000000000   117.85540   117.85308    52
## 643         NaN  0.0000000000   0.0000000000   121.38046   121.37814   125
## 644         NaN  0.0000000000   0.0000000000   120.91663   120.91431   127
## 645         NaN  0.0000000000   0.0000000000   117.85540   117.85308   132
## 646         NaN  0.0000000000   0.0000000000   118.69028   118.68796   100
## 647         NaN  0.0000000000   0.0000000000   120.45281   120.45049    80
## 648         NaN  0.0000000000   0.0000000000   119.52516   119.52284   124
## 649         NaN  0.0000000000   0.0000000000   120.45281   120.45049   123
## 650         NaN  0.0000000000   0.0000000000   118.69028   118.68796   121
## 651         NaN  0.0000000000   0.0000000000   123.00384   123.00152   136
## 652         NaN  0.0000000000   0.0000000000   119.98898   119.98667   152
## 653         NaN  0.0000000000   0.0000000000   119.52516   119.52284   132
## 654         NaN  0.0000000000   0.0000000000   123.00384   123.00152   143
## 655  7.480692e-07 -0.0448672355  -0.0194089553   115.35408   115.35176   114
## 656         NaN  0.0000000000   0.0000000000   123.00384   123.00152    88
## 657         NaN  0.0000000000   0.0000000000   120.45281   120.45049    81
## 658         NaN  0.0000000000   0.0000000000   119.06134   119.05902   115
## 659         NaN  0.0000000000   0.0000000000   121.38046   121.37814   150
## 660         NaN  0.0000000000   0.0000000000   120.91663   120.91431   141
## 661         NaN  0.0000000000   0.0000000000   118.13369   118.13137   125
## 662         NaN  0.0000000000   0.0000000000   118.69028   118.68796   135
## 663  2.354740e-06 -0.1211022548  -0.0500405873   108.30895   108.30663   120
```

```
## 664        NaN  0.0000000000   0.0000000000    120.91663    120.91431     83
## 665        NaN  0.0000000000   0.0000000000    119.52516    119.52284    143
## 666        NaN  0.0000000000   0.0000000000    123.00384    123.00152    153
## 667        NaN  0.0000000000   0.0000000000    123.00384    123.00152    150
## 668        NaN  0.0000000000   0.0000000000    119.52516    119.52284    152
## 669 9.382882e-07 -0.0564543350  -0.0242146809    114.89109    114.88877    148
## 670        NaN  0.0000000000   0.0000000000    120.91663    120.91431    123
## 671        NaN  0.0000000000   0.0000000000    119.52516    119.52284    117
## 672        NaN  0.0000000000   0.0000000000    123.00384    123.00152    128
## 673        NaN  0.0000000000   0.0000000000    123.00384    123.00152     92
## 674        NaN  0.0000000000   0.0000000000    119.52516    119.52284    115
## 675        NaN  0.0000000000   0.0000000000    119.52516    119.52284    105
## 676        NaN  0.0000000000   0.0000000000    123.00384    123.00152    141
## 677        NaN  0.0000000000   0.0000000000    118.31922    118.31690    104
## 678        NaN  0.0000000000   0.0000000000    119.06134    119.05902    156
## 679        NaN  0.0000000000   0.0000000000    117.94816    117.94584    131
## 680        NaN  0.0000000000   0.0000000000    118.41198    118.40967    117
## 681        NaN  0.0000000000   0.0000000000    119.98898    119.98667    141
## 682        NaN  0.0000000000   0.0000000000    119.98898    119.98667    138
## 683        NaN  0.0000000000   0.0000000000    117.39157    117.38925    136
## 684        NaN  0.0000000000   0.0000000000    117.57710    117.57478    149
## 685        NaN  0.0000000000   0.0000000000    117.76263    117.76031    144
## 686        NaN  0.0000000000   0.0000000000    119.98898    119.98667    123
## 687        NaN  0.0000000000   0.0000000000    119.98898    119.98667    114
## 688        NaN  0.0000000000   0.0000000000    119.98898    119.98667    100
## 689        NaN  0.0000000000   0.0000000000    121.38046    121.37814    127
## 690 2.436625e-06 -0.1200239220  -0.0495215794    109.32936    109.32705     92
## 691        NaN  0.0000000000   0.0000000000    120.45281    120.45049    138
## 692        NaN  0.0000000000   0.0000000000    119.52516    119.52284    139
## 693        NaN  0.0000000000   0.0000000000    117.66987    117.66755    124
## 694        NaN  0.0000000000   0.0000000000    117.94816    117.94584    132
## 695        NaN  0.0000000000   0.0000000000    119.06134    119.05902    151
## 696        NaN  0.0000000000   0.0000000000    119.52516    119.52284    126
## 697 5.796809e-07 -0.0274125448  -0.0119687651    117.67195    117.66963     95
## 698        NaN  0.0000000000   0.0000000000    120.45281    120.45049    115
## 699        NaN  0.0000000000   0.0000000000    117.39157    117.38925    109
## 700        NaN  0.0000000000   0.0000000000    117.20604    117.20373     86
## 701        NaN  0.0000000000   0.0000000000    121.38046    121.37814    128
## 702 9.168201e-07 -0.0566681933  -0.0243278095    114.42726    114.42494     94
```

95

```
## 703        NaN  0.0000000000   0.0000000000   117.11328   117.11096   144
## 704        NaN  0.0000000000   0.0000000000   119.06134   119.05902    92
## 705        NaN  0.0000000000   0.0000000000   119.52516   119.52284   117
## 706        NaN  0.0000000000   0.0000000000   123.00384   123.00152   130
## 707        NaN  0.0000000000   0.0000000000   120.91663   120.91431    82
## 708        NaN  0.0000000000   0.0000000000   118.13369   118.13137   121
## 709        NaN  0.0000000000   0.0000000000   121.38046   121.37814    98
## 710  2.567460e-06 -0.1185944688  -0.0488202895   110.72083   110.71852   137
## 711  1.612503e-06 -0.0862660912  -0.0362186540   113.50170   113.49938   114
## 712        NaN  0.0000000000   0.0000000000   120.91663   120.91431   121
## 713        NaN  0.0000000000   0.0000000000   119.06134   119.05902   124
## 714        NaN  0.0000000000   0.0000000000   118.59751   118.59520   119
## 715        NaN  0.0000000000   0.0000000000   119.98898   119.98667   151
## 716        NaN  0.0000000000   0.0000000000   119.06134   119.05902   144
## 717        NaN  0.0000000000   0.0000000000   118.69028   118.68796   124
## 718  7.103562e-07 -0.0387687196  -0.0168028102   116.74513   116.74281   100
## 719        NaN  0.0000000000   0.0000000000   119.52516   119.52284   160
## 720        NaN  0.0000000000   0.0000000000   117.29881   117.29649   109
## 721        NaN  0.0000000000   0.0000000000   118.41198   118.40967   138
## 722        NaN  0.0000000000   0.0000000000   123.00384   123.00152   122
## 723        NaN  0.0000000000   0.0000000000   120.45281   120.45049   109
## 724        NaN  0.0000000000   0.0000000000   119.98898   119.98667   139
## 725        NaN  0.0000000000   0.0000000000   117.85540   117.85308   125
## 726  1.514396e-06 -0.0872706121  -0.0367343690   112.11022   112.10791   118
## 727        NaN  0.0000000000   0.0000000000   120.91663   120.91431   114
## 728        NaN  0.0000000000   0.0000000000   123.00384   123.00152   152
## 729  3.959797e-07 -0.0053548133  -0.0023693280   119.98940   119.98708   114
## 730        NaN  0.0000000000   0.0000000000   119.06134   119.05902   119
## 731        NaN  0.0000000000   0.0000000000   118.41198   118.40967   149
## 732  1.648736e-06 -0.0859381679  -0.0360480816   113.96552   113.96320   126
## 733        NaN  0.0000000000   0.0000000000   118.31922   118.31690   114
## 734        NaN  0.0000000000   0.0000000000   120.45281   120.45049   126
## 735        NaN  0.0000000000   0.0000000000   119.06134   119.05902   115
## 736        NaN  0.0000000000   0.0000000000   123.00384   123.00152   123
## 737        NaN  0.0000000000   0.0000000000   121.38046   121.37814   160
## 738        NaN  0.0000000000   0.0000000000   117.94816   117.94584    58
## 739        NaN  0.0000000000   0.0000000000   123.00384   123.00152   108
## 740        NaN  0.0000000000   0.0000000000   119.52516   119.52284   113
## 741        NaN  0.0000000000   0.0000000000   123.00384   123.00152   140
```

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## 742          NaN  0.0000000000  0.0000000000   119.52516   119.52284  118
## 743          NaN  0.0000000000  0.0000000000   123.00384   123.00152  111
## 744 5.333065e-07 -0.0277376772 -0.0121467078   116.18771   116.18539   88
## 745 1.138738e-06 -0.0549179034 -0.0233803930   118.36976   118.36745  133
## 746          NaN  0.0000000000  0.0000000000   120.91663   120.91431  106
## 747          NaN  0.0000000000  0.0000000000   118.13369   118.13137  137
## 748          NaN  0.0000000000  0.0000000000   118.04092   118.03861  129
## 749          NaN  0.0000000000  0.0000000000   120.45281   120.45049  132
## 750 1.379674e-06 -0.0665720266 -0.0281274096   117.44295   117.44063  112
## 751          NaN  0.0000000000  0.0000000000   119.98898   119.98667  122
## 752          NaN  0.0000000000  0.0000000000   123.00384   123.00152   76
## 753 1.138738e-06 -0.0549179034 -0.0233803930   118.36976   118.36745  122
## 754          NaN  0.0000000000  0.0000000000   123.00384   123.00152  159
## 755          NaN  0.0000000000  0.0000000000   123.00384   123.00152  116
## 756 2.477744e-06 -0.1195422896 -0.0492869633   109.79319   109.79087  104
## 757          NaN  0.0000000000  0.0000000000   123.00384   123.00152  116
## 758 1.036126e-06 -0.0556205365 -0.0237665143   116.74638   116.74406  115
## 759 9.382882e-07 -0.0564543350 -0.0242146809   114.89109   114.88877  159
## 760          NaN  0.0000000000  0.0000000000   123.00384   123.00152  145
## 761          NaN  0.0000000000  0.0000000000   123.00384   123.00152  121
## 762          NaN  0.0000000000  0.0000000000   119.98898   119.98667  112
## 763          NaN  0.0000000000  0.0000000000   119.06134   119.05902  107
## 764          NaN  0.0000000000  0.0000000000   123.00384   123.00152  133
## 765          NaN  0.0000000000  0.0000000000   123.00384   123.00152  136
## 766          NaN  0.0000000000  0.0000000000   117.57710   117.57478  148
## 767          NaN  0.0000000000  0.0000000000   123.00384   123.00152  133
## 768 5.382778e-07 -0.0217411269 -0.0095176085   118.59918   118.59686  108
## 769          NaN  0.0000000000  0.0000000000   123.00384   123.00152   91
## 770          NaN  0.0000000000  0.0000000000   119.98898   119.98667   94
## 771          NaN  0.0000000000  0.0000000000   119.52516   119.52284  123
## 772          NaN  0.0000000000  0.0000000000   123.00384   123.00152  129
## 773          NaN  0.0000000000  0.0000000000   119.52516   119.52284  108
## 774          NaN  0.0000000000  0.0000000000   119.06134   119.05902  144
## 775          NaN  0.0000000000  0.0000000000   119.06134   119.05902  132
## 776          NaN  0.0000000000  0.0000000000   118.22645   118.22414  130
## 777          NaN  0.0000000000  0.0000000000   119.06134   119.05902  105
## 778          NaN  0.0000000000  0.0000000000   119.98898   119.98667   90
## 779          NaN  0.0000000000  0.0000000000   118.13369   118.13137  154
## 780 4.573723e-07 -0.0222425885 -0.0097929207   115.72347   115.72115  103
```

```
## 781  1.514396e-06 -0.0872706121 -0.0367343690   112.11022   112.10791    87
## 782          NaN  0.0000000000  0.0000000000   120.91663   120.91431   133
## 783          NaN  0.0000000000  0.0000000000   120.91663   120.91431   117
## 784          NaN  0.0000000000  0.0000000000   123.00384   123.00152   152
## 785          NaN  0.0000000000  0.0000000000   119.52516   119.52284   119
## 786          NaN  0.0000000000  0.0000000000   119.06134   119.05902   108
## 787          NaN  0.0000000000  0.0000000000   123.00384   123.00152   114
## 788  4.860971e-07 -0.0162246131 -0.0071281910   119.06259   119.06027    89
## 789          NaN  0.0000000000  0.0000000000   123.00384   123.00152   132
## 790          NaN  0.0000000000  0.0000000000   119.98898   119.98667   130
## 791          NaN  0.0000000000  0.0000000000   123.00384   123.00152   124
## 792          NaN  0.0000000000  0.0000000000   123.00384   123.00152   107
## 793          NaN  0.0000000000  0.0000000000   119.06134   119.05902   125
## 794          NaN  0.0000000000  0.0000000000   119.06134   119.05902   117
## 795          NaN  0.0000000000  0.0000000000   118.59751   118.59520   117
## 796          NaN  0.0000000000  0.0000000000   118.78304   118.78073   125
## 797          NaN  0.0000000000  0.0000000000   119.52516   119.52284   106
## 798  1.036126e-06 -0.0556205365 -0.0237665143   116.74638   116.74406   130
## 799          NaN  0.0000000000  0.0000000000   121.38046   121.37814   129
## 800          NaN  0.0000000000  0.0000000000   119.06134   119.05902   144
## 801          NaN  0.0000000000  0.0000000000   117.85540   117.85308   104
## 802          NaN  0.0000000000  0.0000000000   120.91663   120.91431   110
## 803  8.698753e-07 -0.0571907006 -0.0246009921   113.31408   113.31177   113
## 804          NaN  0.0000000000  0.0000000000   123.00384   123.00152    93
## 805          NaN  0.0000000000  0.0000000000   121.38046   121.37814   106
## 806          NaN  0.0000000000  0.0000000000   120.91663   120.91431   113
## 807  2.477744e-06 -0.1195422896 -0.0492869633   109.79319   109.79087   120
## 808          NaN  0.0000000000  0.0000000000   119.52516   119.52284   116
## 809          NaN  0.0000000000  0.0000000000   123.00384   123.00152   129
## 810          NaN  0.0000000000  0.0000000000   117.76263   117.76031   106
## 811          NaN  0.0000000000  0.0000000000   119.06134   119.05902   119
## 812          NaN  0.0000000000  0.0000000000   118.78304   118.78073   112
## 813          NaN  0.0000000000  0.0000000000   117.76263   117.76031   123
## 814          NaN  0.0000000000  0.0000000000   121.38046   121.37814   129
## 815          NaN  0.0000000000  0.0000000000   117.76263   117.76031   100
## 816  3.663463e-07 -0.0110247986 -0.0048910047   116.46476   116.46244    97
## 817          NaN  0.0000000000  0.0000000000   123.00384   123.00152   127
## 818          NaN  0.0000000000  0.0000000000   119.98898   119.98667   128
## 819          NaN  0.0000000000  0.0000000000   118.13369   118.13137   122
```

```
## 820        NaN  0.0000000000  0.0000000000    123.00384   123.00152    93
## 821  9.044858e-07 -0.0567975837 -0.0243958866  114.14897   114.14665    90
## 822        NaN  0.0000000000  0.0000000000    119.06134   119.05902    73
## 823        NaN  0.0000000000  0.0000000000    119.52516   119.52284   133
## 824        NaN  0.0000000000  0.0000000000    118.78304   118.78073   112
## 825        NaN  0.0000000000  0.0000000000    118.41198   118.40967    98
## 826        NaN  0.0000000000  0.0000000000    120.45281   120.45049   136
## 827        NaN  0.0000000000  0.0000000000    118.22645   118.22414    78
## 828        NaN  0.0000000000  0.0000000000    120.91663   120.91431   107
## 829        NaN  0.0000000000  0.0000000000    123.00384   123.00152   147
## 830  2.567460e-06 -0.1185944688 -0.0488202895  110.72083   110.71852   149
## 831        NaN  0.0000000000  0.0000000000    120.45281   120.45049   106
## 832  1.036126e-06 -0.0556205365 -0.0237665143  116.74638   116.74406    97
## 833        NaN  0.0000000000  0.0000000000    123.00384   123.00152   134
## 834        NaN  0.0000000000  0.0000000000    119.06134   119.05902   136
## 835        NaN  0.0000000000  0.0000000000    119.52516   119.52284   136
## 836        NaN  0.0000000000  0.0000000000    119.06134   119.05902   131
## 837        NaN  0.0000000000  0.0000000000    119.52516   119.52284   112
## 838        NaN  0.0000000000  0.0000000000    118.13369   118.13137   105
## 839        NaN  0.0000000000  0.0000000000    118.78304   118.78073   120
## 840        NaN  0.0000000000  0.0000000000    120.91663   120.91431   120
## 841        NaN  0.0000000000  0.0000000000    119.52516   119.52284   115
## 842        NaN  0.0000000000  0.0000000000    119.98898   119.98667   120
## 843        NaN  0.0000000000  0.0000000000    123.00384   123.00152   141
## 844  6.306949e-07 -0.0271171410 -0.0118039272  119.06342   119.06110   119
## 845        NaN  0.0000000000  0.0000000000    119.52516   119.52284   114
## 846  9.609207e-07 -0.0562426809 -0.0241019778  115.35491   115.35259   143
## 847        NaN  0.0000000000  0.0000000000    123.00384   123.00152   113
## 848        NaN  0.0000000000  0.0000000000    119.06134   119.05902   118
## 849        NaN  0.0000000000  0.0000000000    123.00384   123.00152   126
## 850        NaN  0.0000000000  0.0000000000    120.91663   120.91431   120
## 851        NaN  0.0000000000  0.0000000000    119.98898   119.98667   139
## 852        NaN  0.0000000000  0.0000000000    123.00384   123.00152   104
## 853        NaN  0.0000000000  0.0000000000    120.91663   120.91431   141
## 854        NaN  0.0000000000  0.0000000000    119.52516   119.52284   114
## 855        NaN  0.0000000000  0.0000000000    123.00384   123.00152   111
## 856        NaN  0.0000000000  0.0000000000    117.48434   117.48202    94
## 857        NaN  0.0000000000  0.0000000000    119.06134   119.05902   134
## 858        NaN  0.0000000000  0.0000000000    120.45281   120.45049   113
```

```
## 859           NaN  0.0000000000  0.0000000000   117.20604   117.20373  116
## 860           NaN  0.0000000000  0.0000000000   117.57710   117.57478  114
## 861           NaN  0.0000000000  0.0000000000   118.69028   118.68796  115
## 862           NaN  0.0000000000  0.0000000000   118.22645   118.22414  122
## 863  2.397954e-06 -0.1205108371 -0.0497570162   108.86554   108.86322  118
## 864           NaN  0.0000000000  0.0000000000   118.78304   118.78073  115
## 865           NaN  0.0000000000  0.0000000000   117.85540   117.85308  104
## 866           NaN  0.0000000000  0.0000000000   117.85540   117.85308  134
## 867           NaN  0.0000000000  0.0000000000   118.22645   118.22414  143
## 868           NaN  0.0000000000  0.0000000000   121.38046   121.37814  143
## 869           NaN  0.0000000000  0.0000000000   117.94816   117.94584  106
## 870           NaN  0.0000000000  0.0000000000   120.45281   120.45049  127
## 871           NaN  0.0000000000  0.0000000000   119.52516   119.52284  122
## 872           NaN  0.0000000000  0.0000000000   118.78304   118.78073  115
## 873           NaN  0.0000000000  0.0000000000   118.41198   118.40967  139
## 874  8.925541e-07 -0.0569277921 -0.0244641110   113.87067   113.86836  114
## 875           NaN  0.0000000000  0.0000000000   119.98898   119.98667  108
## 876           NaN  0.0000000000  0.0000000000   118.04092   118.03861  127
## 877           NaN  0.0000000000  0.0000000000   117.94816   117.94584  111
## 878           NaN  0.0000000000  0.0000000000   118.50475   118.50243   91
## 879           NaN  0.0000000000  0.0000000000   117.85540   117.85308   96
## 880  8.772613e-07 -0.0571026920 -0.0245553018   113.49961   113.49730  103
## 881           NaN  0.0000000000  0.0000000000   117.85540   117.85308   78
## 882           NaN  0.0000000000  0.0000000000   119.06134   119.05902   98
## 883  6.446036e-06 -0.1896389843 -0.0747646625   105.15911   105.15679   94
## 884  9.382882e-07 -0.0564543350 -0.0242146809   114.89109   114.88877  135
## 885  2.390511e-06 -0.1206088631 -0.0498041998   108.77277   108.77046  124
## 886           NaN  0.0000000000  0.0000000000   117.48434   117.48202  108
## 887  9.044858e-07 -0.0567975837 -0.0243958866   114.14897   114.14665  128
## 888           NaN  0.0000000000  0.0000000000   118.04092   118.03861  139
## 889           NaN  0.0000000000  0.0000000000   119.52516   119.52284  128
## 890           NaN  0.0000000000  0.0000000000   120.91663   120.91431  102
## 891           NaN  0.0000000000  0.0000000000   117.29881   117.29649  136
## 892           NaN  0.0000000000  0.0000000000   123.00384   123.00152  146
## 893           NaN  0.0000000000  0.0000000000   118.50475   118.50243  136
## 894           NaN  0.0000000000  0.0000000000   120.91663   120.91431   89
## 895  6.185505e-06 -0.1929317381 -0.0762204913   103.30382   103.30150  102
## 896  6.196480e-06 -0.1927634863 -0.0761472667   103.39658   103.39426  138
## 897           NaN  0.0000000000  0.0000000000   117.76263   117.76031  128
```

```
## 898        NaN  0.0000000000   0.0000000000    119.52516    119.52284   124
## 899        NaN  0.0000000000   0.0000000000    118.13369    118.13137   122
## 900  4.530479e-07 -0.0222760604  -0.0098108910    115.53794    115.53562   101
## 901        NaN  0.0000000000   0.0000000000    120.45281    120.45049   118
## 902        NaN  0.0000000000   0.0000000000    119.98898    119.98667    70
## 903        NaN  0.0000000000   0.0000000000    119.06134    119.05902   136
## 904        NaN  0.0000000000   0.0000000000    120.45281    120.45049   152
## 905        NaN  0.0000000000   0.0000000000    118.78304    118.78073    98
## 906  8.662467e-07 -0.0572348459  -0.0246238605    113.22132    113.21900    68
## 907  4.261803e-07 -0.0165107225  -0.0072870771    116.83623    116.83391   101
## 908        NaN  0.0000000000   0.0000000000    117.20604    117.20373    94
## 909        NaN  0.0000000000   0.0000000000    117.02051    117.01820   117
## 910        NaN  0.0000000000   0.0000000000    117.94816    117.94584    96
## 911        NaN  0.0000000000   0.0000000000    121.38046    121.37814   122
## 912        NaN  0.0000000000   0.0000000000    120.91663    120.91431   132
## 913  2.334426e-06 -0.1214009301  -0.0501827874    108.03066    108.02834   104
## 914        NaN  0.0000000000   0.0000000000    119.52516    119.52284   130
## 915        NaN  0.0000000000   0.0000000000    118.78304    118.78073    84
## 916        NaN  0.0000000000   0.0000000000    120.45281    120.45049   159
## 917  4.134976e-07 -0.0165844805  -0.0073272306    116.27964    116.27733   115
## 918  2.477744e-06 -0.1195422896  -0.0492869633    109.79319    109.79087   126
## 919  6.753390e-07 -0.0390573721  -0.0169592613    115.81748    115.81517   132
## 920        NaN  0.0000000000   0.0000000000    121.38046    121.37814   101
## 921  2.521344e-06 -0.1190658382  -0.0490531922    110.25701    110.25469    87
## 922        NaN  0.0000000000   0.0000000000    117.39157    117.38925   147
## 923        NaN  0.0000000000   0.0000000000    118.69028    118.68796   108
## 924        NaN  0.0000000000   0.0000000000    119.98898    119.98667   103
## 925        NaN  0.0000000000   0.0000000000    120.45281    120.45049   128
## 926  3.700242e-07 -0.0110084059  -0.0048820837    116.65029    116.64797    97
## 927        NaN  0.0000000000   0.0000000000    120.91663    120.91431   113
## 928        NaN  0.0000000000   0.0000000000    121.38046    121.37814   128
## 929  8.848204e-07 -0.0570150568  -0.0245096746    113.68514    113.68283    74
## 930        NaN  0.0000000000   0.0000000000    117.39157    117.38925    95
## 931        NaN  0.0000000000   0.0000000000    123.00384    123.00152   128
## 932  2.397954e-06 -0.1205108371  -0.0497570162    108.86554    108.86322   129
## 933        NaN  0.0000000000   0.0000000000    120.45281    120.45049   117
## 934        NaN  0.0000000000   0.0000000000    119.98898    119.98667   109
## 935        NaN  0.0000000000   0.0000000000    117.57710    117.57478   109
## 936  5.203947e-07 -0.0278415031  -0.0122027394    115.72389    115.72157   129
```

```
## 937        NaN  0.0000000000  0.0000000000  118.31922  118.31690  144
## 938        NaN  0.0000000000  0.0000000000  119.52516  119.52284  131
## 939        NaN  0.0000000000  0.0000000000  119.98898  119.98667  104
## 940        NaN  0.0000000000  0.0000000000  118.41198  118.40967  120
## 941  9.168201e-07 -0.0566681933 -0.0243278095  114.42726  114.42494   99
## 942  2.477744e-06 -0.1195422896 -0.0492869633  109.79319  109.79087  103
## 943        NaN  0.0000000000  0.0000000000  123.00384  123.00152  123
## 944        NaN  0.0000000000  0.0000000000  121.38046  121.37814  134
## 945        NaN  0.0000000000  0.0000000000  118.59751  118.59520  147
## 946  2.521344e-06 -0.1190658382 -0.0490531922  110.25701  110.25469   83
## 947        NaN  0.0000000000  0.0000000000  119.98898  119.98667   91
## 948        NaN  0.0000000000  0.0000000000  123.00384  123.00152  124
## 949        NaN  0.0000000000  0.0000000000  123.00384  123.00152  141
## 950        NaN  0.0000000000  0.0000000000  123.00384  123.00152   56
## 951        NaN  0.0000000000  0.0000000000  119.98898  119.98667  139
## 952        NaN  0.0000000000  0.0000000000  118.69028  118.68796  133
## 953        NaN  0.0000000000  0.0000000000  120.91663  120.91431  144
## 954        NaN  0.0000000000  0.0000000000  117.66987  117.66755  130
## 955  5.958388e-07 -0.0273130915 -0.0119135998  118.13577  118.13345  102
## 956        NaN  0.0000000000  0.0000000000  120.45281  120.45049  109
## 957        NaN  0.0000000000  0.0000000000  117.11328  117.11096  104
## 958  6.591855e-07 -0.0392039473 -0.0170379225  115.35366  115.35134  134
## 959        NaN  0.0000000000  0.0000000000  123.00384  123.00152   91
## 960        NaN  0.0000000000  0.0000000000  117.29881  117.29649  159
## 961        NaN  0.0000000000  0.0000000000  117.39157  117.38925   93
## 962  1.514396e-06 -0.0872706121 -0.0367343690  112.11022  112.10791  131
## 963        NaN  0.0000000000  0.0000000000  119.06134  119.05902  119
## 964        NaN  0.0000000000  0.0000000000  117.29881  117.29649  126
## 965        NaN  0.0000000000  0.0000000000  118.59751  118.59520  107
## 966        NaN  0.0000000000  0.0000000000  118.50475  118.50243   76
## 967        NaN  0.0000000000  0.0000000000  117.94816  117.94584  122
## 968        NaN  0.0000000000  0.0000000000  119.06134  119.05902  104
## 969  4.509238e-07 -0.0222928495 -0.0098198850  115.44518  115.44286   92
## 970  8.626608e-07 -0.0572790856 -0.0246467445  113.12856  113.12624  101
## 971        NaN  0.0000000000  0.0000000000  117.11328  117.11096  109
## 972        NaN  0.0000000000  0.0000000000  123.00384  123.00152  113
## 973        NaN  0.0000000000  0.0000000000  120.91663  120.91431  136
## 974        NaN  0.0000000000  0.0000000000  119.06134  119.05902  147
## 975  1.485102e-06 -0.0876125920 -0.0369075553  111.64640  111.64408  104
```

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## 976  1.490828e-06 -0.0875439034 -0.0368728685   111.73917   111.73685  117
## 977  1.583875e-05 -0.2723913366 -0.1022760658    98.94803    98.94572   89
## 978          NaN  0.0000000000  0.0000000000   118.22645   118.22414  101
## 979          NaN  0.0000000000  0.0000000000   118.59751   118.59520  121
## 980  9.044858e-07 -0.0567975837 -0.0243958866   114.14897   114.14665  120
## 981          NaN  0.0000000000  0.0000000000   123.00384   123.00152  116
## 982          NaN  0.0000000000  0.0000000000   118.04092   118.03861  112
## 983          NaN  0.0000000000  0.0000000000   123.00384   123.00152  125
## 984          NaN  0.0000000000  0.0000000000   117.20604   117.20373  128
## 985          NaN  0.0000000000  0.0000000000   123.00384   123.00152  114
## 986  2.383164e-06 -0.1207071054 -0.0498514150   108.68001   108.67769  104
## 987          NaN  0.0000000000  0.0000000000   120.91663   120.91431  123
## 988          NaN  0.0000000000  0.0000000000   118.78304   118.78073  123
## 989          NaN  0.0000000000  0.0000000000   117.48434   117.48202  164
## 990          NaN  0.0000000000  0.0000000000   117.02051   117.01820  113
## 991          NaN  0.0000000000  0.0000000000   123.00384   123.00152  102
## 992          NaN  0.0000000000  0.0000000000   121.38046   121.37814  113
## 993          NaN  0.0000000000  0.0000000000   118.31922   118.31690   99
## 994          NaN  0.0000000000  0.0000000000   119.52516   119.52284  127
## 995  2.477744e-06 -0.1195422896 -0.0492869633   109.79319   109.79087  132
## 996  2.452777e-06 -0.1198306409 -0.0494276331   109.51489   109.51258  121
## 997          NaN  0.0000000000  0.0000000000   118.41198   118.40967   91
## 998  8.354879e-07 -0.0576364472 -0.0248303612   112.38644   112.38412  109
## 999          NaN  0.0000000000  0.0000000000   121.38046   121.37814  112
## 1000         NaN  0.0000000000  0.0000000000   119.06134   119.05902  124
## 1001         NaN  0.0000000000  0.0000000000   118.41198   118.40967  149
## 1002 8.964870e-07 -0.0568842978 -0.0244413533   113.96344   113.96112  103
## 1003         NaN  0.0000000000  0.0000000000   121.38046   121.37814  120
## 1004         NaN  0.0000000000  0.0000000000   118.41198   118.40967  144
## 1005         NaN  0.0000000000  0.0000000000   118.69028   118.68796  116
## 1006 8.420312e-07 -0.0575465276 -0.0247843676   112.57197   112.56965  112
## 1007         NaN  0.0000000000  0.0000000000   118.69028   118.68796  128
## 1008         NaN  0.0000000000  0.0000000000   119.52516   119.52284  137
## 1009         NaN  0.0000000000  0.0000000000   119.98898   119.98667  127
## 1010 1.496620e-06 -0.0874753617 -0.0368382063   111.83193   111.82961  101
## 1011 1.578061e-06 -0.0865974293 -0.0363899026   113.03787   113.03555   92
## 1012         NaN  0.0000000000  0.0000000000   119.06134   119.05902  101
## 1013         NaN  0.0000000000  0.0000000000   118.78304   118.78073  121
## 1014         NaN  0.0000000000  0.0000000000   117.57710   117.57478  116
```

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## 1015        NaN  0.0000000000   0.0000000000   119.52516   119.52284   127
## 1016        NaN  0.0000000000   0.0000000000   117.94816   117.94584   133
## 1017        NaN  0.0000000000   0.0000000000   121.38046   121.37814   128
## 1018        NaN  0.0000000000   0.0000000000   118.78304   118.78073   123
## 1019        NaN  0.0000000000   0.0000000000   119.06134   119.05902   122
## 1020 2.420865e-06 -0.1202180484  -0.0496156571  109.14383   109.14152   113
## 1021        NaN  0.0000000000   0.0000000000   117.76263   117.76031   128
## 1022 5.414055e-07 -0.0276758979  -0.0121131839  116.46601   116.46369   139
## 1023        NaN  0.0000000000   0.0000000000   117.11328   117.11096   141
## 1024 5.859378e-07 -0.0335063022  -0.0146237783  115.53877   115.53646   121
## 1025        NaN  0.0000000000   0.0000000000   119.52516   119.52284   123
## 1026 2.347873e-06 -0.1212015915  -0.0500879571  108.21619   108.21387   151
## 1027        NaN  0.0000000000   0.0000000000   117.48434   117.48202   119
## 1028        NaN  0.0000000000   0.0000000000   118.31922   118.31690   105
## 1029        NaN  0.0000000000   0.0000000000   119.98898   119.98667   133
## 1030        NaN  0.0000000000   0.0000000000   119.06134   119.05902   123
## 1031        NaN  0.0000000000   0.0000000000   119.06134   119.05902   111
## 1032        NaN  0.0000000000   0.0000000000   119.52516   119.52284   123
## 1033 9.382882e-07 -0.0564543350  -0.0242146809  114.89109   114.88877   123
## 1034        NaN  0.0000000000   0.0000000000   118.22645   118.22414   130
## 1035        NaN  0.0000000000   0.0000000000   119.06134   119.05902   154
## 1036        NaN  0.0000000000   0.0000000000   119.06134   119.05902   120
## 1037        NaN  0.0000000000   0.0000000000   123.00384   123.00152    90
## 1038        NaN  0.0000000000   0.0000000000   118.78304   118.78073   114
## 1039        NaN  0.0000000000   0.0000000000   120.45281   120.45049   123
## 1040        NaN  0.0000000000   0.0000000000   119.98898   119.98667   123
## 1041        NaN  0.0000000000   0.0000000000   118.04092   118.03861   136
## 1042        NaN  0.0000000000   0.0000000000   119.52516   119.52284   104
## 1043 2.436625e-06 -0.1200239220  -0.0495215794  109.32936   109.32705   128
## 1044        NaN  0.0000000000   0.0000000000   120.45281   120.45049   128
## 1045        NaN  0.0000000000   0.0000000000   117.94816   117.94584   160
## 1046        NaN  0.0000000000   0.0000000000   119.98898   119.98667   111
## 1047        NaN  0.0000000000   0.0000000000   120.45281   120.45049   141
## 1048        NaN  0.0000000000   0.0000000000   119.98898   119.98667   122
## 1049        NaN  0.0000000000   0.0000000000   120.45281   120.45049    98
## 1050 8.420312e-07 -0.0575465276  -0.0247843676  112.57197   112.56965    96
## 1051        NaN  0.0000000000   0.0000000000   118.41198   118.40967   127
## 1052        NaN  0.0000000000   0.0000000000   120.91663   120.91431   119
## 1053        NaN  0.0000000000   0.0000000000   119.06134   119.05902    43
```

```
## 1054          NaN  0.0000000000   0.0000000000   119.06134   119.05902   100
## 1055          NaN  0.0000000000   0.0000000000   117.20604   117.20373   139
## 1056          NaN  0.0000000000   0.0000000000   119.98898   119.98667   128
## 1057          NaN  0.0000000000   0.0000000000   119.98898   119.98667   115
## 1058          NaN  0.0000000000   0.0000000000   118.69028   118.68796   121
## 1059          NaN  0.0000000000   0.0000000000   119.52516   119.52284   134
## 1060          NaN  0.0000000000   0.0000000000   117.20604   117.20373   120
## 1061 2.354740e-06 -0.1211022548  -0.0500405873   108.30895   108.30663   104
## 1062          NaN  0.0000000000   0.0000000000   120.45281   120.45049   170
## 1063          NaN  0.0000000000   0.0000000000   123.00384   123.00152   132
## 1064          NaN  0.0000000000   0.0000000000   121.38046   121.37814   126
## 1065          NaN  0.0000000000   0.0000000000   120.91663   120.91431   142
## 1066          NaN  0.0000000000   0.0000000000   119.52516   119.52284   103
## 1067          NaN  0.0000000000   0.0000000000   119.98898   119.98667   112
## 1068 2.667404e-06 -0.1176665928  -0.0483571760   111.64848   111.64616   117
## 1069          NaN  0.0000000000   0.0000000000   118.59751   118.59520   131
## 1070          NaN  0.0000000000   0.0000000000   120.91663   120.91431   115
## 1071 9.044858e-07 -0.0567975837  -0.0243958866   114.14897   114.14665   118
## 1072          NaN  0.0000000000   0.0000000000   119.98898   119.98667   106
## 1073          NaN  0.0000000000   0.0000000000   120.91663   120.91431   126
## 1074 2.413131e-06 -0.1203154306  -0.0496627447   109.05107   109.04875   104
## 1075          NaN  0.0000000000   0.0000000000   118.41198   118.40967   143
## 1076          NaN  0.0000000000   0.0000000000   119.98898   119.98667   156
## 1077          NaN  0.0000000000   0.0000000000   120.45281   120.45049   137
## 1078          NaN  0.0000000000   0.0000000000   117.57710   117.57478   126
## 1079          NaN  0.0000000000   0.0000000000   119.98898   119.98667   134
## 1080          NaN  0.0000000000   0.0000000000   120.91663   120.91431    89
## 1081 2.521344e-06 -0.1190658382  -0.0490531922   110.25701   110.25469    64
## 1082          NaN  0.0000000000   0.0000000000   123.00384   123.00152   114
## 1083          NaN  0.0000000000   0.0000000000   123.00384   123.00152   121
## 1084          NaN  0.0000000000   0.0000000000   119.52516   119.52284   109
## 1085          NaN  0.0000000000   0.0000000000   119.98898   119.98667    38
## 1086          NaN  0.0000000000   0.0000000000   119.98898   119.98667   128
## 1087          NaN  0.0000000000   0.0000000000   120.45281   120.45049   132
## 1088 9.004642e-07 -0.0568408952  -0.0244186118   114.05620   114.05389   143
## 1089          NaN  0.0000000000   0.0000000000   119.06134   119.05902   100
## 1090 6.777055e-07 -0.0328219356  -0.0142499282   118.13619   118.13387   107
## 1091          NaN  0.0000000000   0.0000000000   119.52516   119.52284   103
## 1092          NaN  0.0000000000   0.0000000000   120.45281   120.45049   157
```

```
## 1093         NaN  0.0000000000   0.0000000000   118.04092   118.03861   126
## 1094         NaN  0.0000000000   0.0000000000   118.69028   118.68796   125
## 1095         NaN  0.0000000000   0.0000000000   117.29881   117.29649   102
## 1096         NaN  0.0000000000   0.0000000000   118.69028   118.68796    98
## 1097         NaN  0.0000000000   0.0000000000   118.22645   118.22414    96
## 1098         NaN  0.0000000000   0.0000000000   119.06134   119.05902   134
## 1099         NaN  0.0000000000   0.0000000000   123.00384   123.00152    94
## 1100         NaN  0.0000000000   0.0000000000   119.06134   119.05902    84
## 1101         NaN  0.0000000000   0.0000000000   118.50475   118.50243   155
## 1102         NaN  0.0000000000   0.0000000000   119.52516   119.52284   117
## 1103         NaN  0.0000000000   0.0000000000   120.91663   120.91431   169
## 1104 3.645395e-07 -0.0110330208  -0.0048954697   116.37199   116.36967   105
## 1105         NaN  0.0000000000   0.0000000000   119.06134   119.05902   118
## 1106         NaN  0.0000000000   0.0000000000   118.78304   118.78073   113
## 1107         NaN  0.0000000000   0.0000000000   118.13369   118.13137   114
## 1108 2.375914e-06 -0.1208055649  -0.0498986616   108.58724   108.58493   116
## 1109 8.487402e-07 -0.0574569961  -0.0247384330   112.75750   112.75518    79
## 1110         NaN  0.0000000000   0.0000000000   119.52516   119.52284   109
## 1111         NaN  0.0000000000   0.0000000000   121.38046   121.37814   146
## 1112         NaN  0.0000000000   0.0000000000   119.06134   119.05902   116
## 1113         NaN  0.0000000000   0.0000000000   117.85540   117.85308    93
## 1114         NaN  0.0000000000   0.0000000000   123.00384   123.00152   108
## 1115         NaN  0.0000000000   0.0000000000   117.66987   117.66755   115
## 1116         NaN  0.0000000000   0.0000000000   123.00384   123.00152   115
## 1117         NaN  0.0000000000   0.0000000000   117.39157   117.38925   119
## 1118         NaN  0.0000000000   0.0000000000   119.52516   119.52284   128
## 1119         NaN  0.0000000000   0.0000000000   118.78304   118.78073   119
## 1120         NaN  0.0000000000   0.0000000000   117.57710   117.57478   102
## 1121         NaN  0.0000000000   0.0000000000   118.50475   118.50243   130
## 1122         NaN  0.0000000000   0.0000000000   123.00384   123.00152   140
## 1123         NaN  0.0000000000   0.0000000000   119.06134   119.05902   107
## 1124         NaN  0.0000000000   0.0000000000   117.20604   117.20373   134
## 1125         NaN  0.0000000000   0.0000000000   119.06134   119.05902   126
## 1126         NaN  0.0000000000   0.0000000000   119.98898   119.98667   143
## 1127         NaN  0.0000000000   0.0000000000   117.85540   117.85308   122
## 1128         NaN  0.0000000000   0.0000000000   118.50475   118.50243   112
## 1129         NaN  0.0000000000   0.0000000000   119.98898   119.98667   151
## 1130         NaN  0.0000000000   0.0000000000   118.59751   118.59520   127
## 1131         NaN  0.0000000000   0.0000000000   117.57710   117.57478   158
```

```
## 1132        NaN  0.0000000000   0.0000000000  123.00384   123.00152    90
## 1133        NaN  0.0000000000   0.0000000000  120.45281   120.45049   114
## 1134 4.830181e-07 -0.0220609800  -0.0096945195  116.74388   116.74157   143
## 1135        NaN  0.0000000000   0.0000000000  118.78304   118.78073   109
## 1136        NaN  0.0000000000   0.0000000000  119.98898   119.98667   126
## 1137 6.777055e-07 -0.0328219356  -0.0142499282  118.13619   118.13387   153
## 1138        NaN  0.0000000000   0.0000000000  119.98898   119.98667   123
## 1139        NaN  0.0000000000   0.0000000000  118.69028   118.68796    72
## 1140 9.168201e-07 -0.0566681933  -0.0243278095  114.42726   114.42494   121
## 1141 4.468718e-07 -0.0164017900  -0.0072271631  117.67111   117.66880   137
## 1142        NaN  0.0000000000   0.0000000000  119.98898   119.98667    64
## 1143        NaN  0.0000000000   0.0000000000  118.69028   118.68796   119
## 1144        NaN  0.0000000000   0.0000000000  118.13369   118.13137   137
## 1145        NaN  0.0000000000   0.0000000000  117.85540   117.85308    98
## 1146        NaN  0.0000000000   0.0000000000  119.06134   119.05902   126
## 1147        NaN  0.0000000000   0.0000000000  119.52516   119.52284   142
## 1148        NaN  0.0000000000   0.0000000000  117.02051   117.01820   122
## 1149        NaN  0.0000000000   0.0000000000  119.06134   119.05902   112
## 1150        NaN  0.0000000000   0.0000000000  117.57710   117.57478   142
## 1151        NaN  0.0000000000   0.0000000000  123.00384   123.00152   108
## 1152        NaN  0.0000000000   0.0000000000  118.78304   118.78073   128
## 1153        NaN  0.0000000000   0.0000000000  119.52516   119.52284   124
## 1154        NaN  0.0000000000   0.0000000000  118.13369   118.13137   104
## 1155        NaN  0.0000000000   0.0000000000  120.91663   120.91431   118
## 1156        NaN  0.0000000000   0.0000000000  118.22645   118.22414    96
## 1157        NaN  0.0000000000   0.0000000000  123.00384   123.00152   106
## 1158        NaN  0.0000000000   0.0000000000  117.20604   117.20373   114
## 1159        NaN  0.0000000000   0.0000000000  123.00384   123.00152   142
## 1160        NaN  0.0000000000   0.0000000000  117.85540   117.85308    74
## 1161        NaN  0.0000000000   0.0000000000  120.45281   120.45049   146
## 1162        NaN  0.0000000000   0.0000000000  118.78304   118.78073   128
## 1163        NaN  0.0000000000   0.0000000000  118.59751   118.59520   115
## 1164        NaN  0.0000000000   0.0000000000  117.85540   117.85308   139
## 1165        NaN  0.0000000000   0.0000000000  123.00384   123.00152   143
## 1166        NaN  0.0000000000   0.0000000000  123.00384   123.00152   125
## 1167 5.280547e-07 -0.0277790777  -0.0121690969  116.00218   115.99986   120
## 1168 5.796809e-07 -0.0274125448  -0.0119687651  117.67195   117.66963   120
## 1169        NaN  0.0000000000   0.0000000000  118.59751   118.59520   135
## 1170        NaN  0.0000000000   0.0000000000  117.20604   117.20373    91
```

```
## 1171        NaN  0.0000000000  0.0000000000     118.69028    118.68796   117
## 1172        NaN  0.0000000000  0.0000000000     119.06134    119.05902   119
## 1173 2.931632e-06 -0.1156480000 -0.0473290038    113.73569    113.73337   128
## 1174        NaN  0.0000000000  0.0000000000     123.00384    123.00152   135
## 1175 6.094476e-07 -0.0333067469 -0.0145161618    116.28089    116.27857    91
## 1176        NaN  0.0000000000  0.0000000000     117.02051    117.01820   108
## 1177        NaN  0.0000000000  0.0000000000     119.06134    119.05902   110
## 1178        NaN  0.0000000000  0.0000000000     121.38046    121.37814   136
## 1179        NaN  0.0000000000  0.0000000000     123.00384    123.00152   126
## 1180        NaN  0.0000000000  0.0000000000     123.00384    123.00152   115
## 1181        NaN  0.0000000000  0.0000000000     119.98898    119.98667   136
## 1182        NaN  0.0000000000  0.0000000000     123.00384    123.00152   116
## 1183        NaN  0.0000000000  0.0000000000     117.02051    117.01820   117
## 1184        NaN  0.0000000000  0.0000000000     123.00384    123.00152   152
## 1185        NaN  0.0000000000  0.0000000000     120.91663    120.91431   124
## 1186        NaN  0.0000000000  0.0000000000     118.22645    118.22414   115
## 1187        NaN  0.0000000000  0.0000000000     119.06134    119.05902   134
## 1188        NaN  0.0000000000  0.0000000000     123.00384    123.00152   146
## 1189        NaN  0.0000000000  0.0000000000     118.50475    118.50243   125
## 1190 2.375914e-06 -0.1208055649 -0.0498986616    108.58724    108.58493    89
## 1191 1.496620e-06 -0.0874753617 -0.0368382063    111.83193    111.82961   128
## 1192        NaN  0.0000000000  0.0000000000     118.04092    118.03861   133
## 1193        NaN  0.0000000000  0.0000000000     117.76263    117.76031   112
## 1194        NaN  0.0000000000  0.0000000000     120.91663    120.91431   143
## 1195        NaN  0.0000000000  0.0000000000     119.52516    119.52284   157
## 1196        NaN  0.0000000000  0.0000000000     118.31922    118.31690    99
## 1197 6.895813e-07 -0.0454850589 -0.0197352037    113.68431    113.68199    96
## 1198        NaN  0.0000000000  0.0000000000     118.41198    118.40967   128
## 1199        NaN  0.0000000000  0.0000000000     119.52516    119.52284   122
## 1200        NaN  0.0000000000  0.0000000000     123.00384    123.00152   119
## 1201        NaN  0.0000000000  0.0000000000     118.50475    118.50243   160
## 1202        NaN  0.0000000000  0.0000000000     120.45281    120.45049   108
## 1203        NaN  0.0000000000  0.0000000000     123.00384    123.00152   114
## 1204        NaN  0.0000000000  0.0000000000     120.45281    120.45049   115
## 1205        NaN  0.0000000000  0.0000000000     117.66987    117.66755   131
## 1206        NaN  0.0000000000  0.0000000000     119.06134    119.05902   118
## 1207        NaN  0.0000000000  0.0000000000     121.38046    121.37814   149
## 1208        NaN  0.0000000000  0.0000000000     119.98898    119.98667   114
## 1209 5.035150e-07 -0.0279887010 -0.0122815068    115.07453    115.07222   133
```

```
## 1210        NaN  0.0000000000  0.0000000000   119.98898   119.98667  112
## 1211        NaN  0.0000000000  0.0000000000   118.41198   118.40967  101
## 1212 8.387389e-07 -0.0575914387 -0.0248073570   112.47920   112.47689   86
## 1213        NaN  0.0000000000  0.0000000000   123.00384   123.00152  125
## 1214        NaN  0.0000000000  0.0000000000   120.45281   120.45049  135
## 1215        NaN  0.0000000000  0.0000000000   118.13369   118.13137  105
## 1216        NaN  0.0000000000  0.0000000000   118.50475   118.50243  107
## 1217        NaN  0.0000000000  0.0000000000   121.38046   121.37814   97
## 1218        NaN  0.0000000000  0.0000000000   117.02051   117.01820  158
## 1219        NaN  0.0000000000  0.0000000000   118.69028   118.68796  123
## 1220        NaN  0.0000000000  0.0000000000   119.98898   119.98667  110
## 1221        NaN  0.0000000000  0.0000000000   118.22645   118.22414   74
## 1222        NaN  0.0000000000  0.0000000000   117.20604   117.20373   93
## 1223        NaN  0.0000000000  0.0000000000   121.38046   121.37814  159
## 1224        NaN  0.0000000000  0.0000000000   119.98898   119.98667  114
## 1225        NaN  0.0000000000  0.0000000000   119.06134   119.05902  142
## 1226        NaN  0.0000000000  0.0000000000   123.00384   123.00152  139
## 1227        NaN  0.0000000000  0.0000000000   117.85540   117.85308  132
## 1228        NaN  0.0000000000  0.0000000000   123.00384   123.00152  151
## 1229 1.436508e-06 -0.0882374912 -0.0372208230   110.81152   110.80920  111
## 1230        NaN  0.0000000000  0.0000000000   117.85540   117.85308  115
## 1231        NaN  0.0000000000  0.0000000000   119.06134   119.05902  120
## 1232        NaN  0.0000000000  0.0000000000   119.06134   119.05902  155
## 1233 1.379674e-06 -0.0665720266 -0.0281274096   117.44295   117.44063  131
## 1234        NaN  0.0000000000  0.0000000000   119.06134   119.05902  124
## 1235 9.168201e-07 -0.0566681933 -0.0243278095   114.42726   114.42494  127
## 1236        NaN  0.0000000000  0.0000000000   117.94816   117.94584  125
## 1237        NaN  0.0000000000  0.0000000000   117.20604   117.20373  106
## 1238        NaN  0.0000000000  0.0000000000   117.85540   117.85308  144
## 1239        NaN  0.0000000000  0.0000000000   117.39157   117.38925  109
## 1240 2.720211e-05 -0.3267850114 -0.1186885105    95.70377    95.70145  121
## 1241        NaN  0.0000000000  0.0000000000   119.98898   119.98667  111
## 1242        NaN  0.0000000000  0.0000000000   121.38046   121.37814  145
## 1243        NaN  0.0000000000  0.0000000000   117.48434   117.48202  131
## 1244        NaN  0.0000000000  0.0000000000   118.59751   118.59520  129
## 1245 2.383164e-06 -0.1207071054 -0.0498514150   108.68001   108.67769   92
## 1246        NaN  0.0000000000  0.0000000000   118.13369   118.13137  111
## 1247        NaN  0.0000000000  0.0000000000   117.85540   117.85308   91
## 1248 5.497741e-07 -0.0276145004 -0.0120797324   116.74430   116.74198  124
```

```
## 1249          NaN  0.0000000000   0.0000000000   119.98898   119.98667   130
## 1250          NaN  0.0000000000   0.0000000000   119.06134   119.05902   137
## 1251          NaN  0.0000000000   0.0000000000   117.76263   117.76031   128
## 1252          NaN  0.0000000000   0.0000000000   117.11328   117.11096   133
## 1253          NaN  0.0000000000   0.0000000000   119.98898   119.98667    68
## 1254          NaN  0.0000000000   0.0000000000   118.41198   118.40967    97
## 1255          NaN  0.0000000000   0.0000000000   120.45281   120.45049   124
## 1256          NaN  0.0000000000   0.0000000000   121.38046   121.37814   129
## 1257          NaN  0.0000000000   0.0000000000   123.00384   123.00152   117
## 1258          NaN  0.0000000000   0.0000000000   119.52516   119.52284    93
## 1259          NaN  0.0000000000   0.0000000000   119.52516   119.52284   103
## 1260          NaN  0.0000000000   0.0000000000   123.00384   123.00152   134
## 1261          NaN  0.0000000000   0.0000000000   119.98898   119.98667   101
## 1262          NaN  0.0000000000   0.0000000000   117.66987   117.66755   137
## 1263          NaN  0.0000000000   0.0000000000   117.39157   117.38925   153
## 1264 1.614497e-05 -0.2682002930  -0.1005894621   100.52504   100.52272    96
## 1265          NaN  0.0000000000   0.0000000000   117.76263   117.76031   103
## 1266          NaN  0.0000000000   0.0000000000   117.57710   117.57478   112
## 1267          NaN  0.0000000000   0.0000000000   119.52516   119.52284   108
## 1268          NaN  0.0000000000   0.0000000000   118.69028   118.68796    97
## 1269          NaN  0.0000000000   0.0000000000   119.52516   119.52284    99
## 1270          NaN  0.0000000000   0.0000000000   119.52516   119.52284   130
## 1271          NaN  0.0000000000   0.0000000000   119.06134   119.05902   148
## 1272          NaN  0.0000000000   0.0000000000   119.52516   119.52284   119
## 1273          NaN  0.0000000000   0.0000000000   118.78304   118.78073    89
## 1274          NaN  0.0000000000   0.0000000000   119.52516   119.52284   128
## 1275          NaN  0.0000000000   0.0000000000   120.45281   120.45049   130
## 1276 2.354740e-06 -0.1211022548  -0.0500405873   108.30895   108.30663   120
## 1277          NaN  0.0000000000   0.0000000000   119.98898   119.98667   146
## 1278          NaN  0.0000000000   0.0000000000   118.41198   118.40967   102
## 1279          NaN  0.0000000000   0.0000000000   119.52516   119.52284   132
## 1280 1.229930e-06 -0.0676844297  -0.0287284652   115.35574   115.35342    90
## 1281          NaN  0.0000000000   0.0000000000   119.98898   119.98667   112
## 1282          NaN  0.0000000000   0.0000000000   121.38046   121.37814   119
## 1283          NaN  0.0000000000   0.0000000000   118.50475   118.50243   145
## 1284          NaN  0.0000000000   0.0000000000   120.91663   120.91431   125
## 1285          NaN  0.0000000000   0.0000000000   117.48434   117.48202   127
## 1286          NaN  0.0000000000   0.0000000000   119.06134   119.05902   134
## 1287          NaN  0.0000000000   0.0000000000   123.00384   123.00152   139
```

```
## 1288 9.382882e-07 -0.0564543350 -0.0242146809     114.89109     114.88877   106
## 1289          NaN  0.0000000000  0.0000000000     120.91663     120.91431    69
## 1290          NaN  0.0000000000  0.0000000000     119.98898     119.98667   114
## 1291 2.341102e-06 -0.1213011496 -0.0501353573     108.12342     108.12110   111
## 1292 5.229192e-07 -0.0278206511 -0.0121915174     115.81665     115.81433   123
## 1293          NaN  0.0000000000  0.0000000000     123.00384     123.00152   172
## 1294          NaN  0.0000000000  0.0000000000     123.00384     123.00152   128
## 1295          NaN  0.0000000000  0.0000000000     119.06134     119.05902   138
## 1296          NaN  0.0000000000  0.0000000000     119.98898     119.98667    77
## 1297          NaN  0.0000000000  0.0000000000     123.00384     123.00152   137
## 1298          NaN  0.0000000000  0.0000000000     123.00384     123.00152    93
## 1299          NaN  0.0000000000  0.0000000000     117.76263     117.76031   160
## 1300          NaN  0.0000000000  0.0000000000     121.38046     121.37814   104
## 1301          NaN  0.0000000000  0.0000000000     117.29881     117.29649   115
## 1302          NaN  0.0000000000  0.0000000000     119.06134     119.05902   176
## 1303          NaN  0.0000000000  0.0000000000     123.00384     123.00152    87
## 1304 3.903640e-05 -0.3550569854 -0.1258818140      96.35478      96.35247    90
## 1305          NaN  0.0000000000  0.0000000000     123.00384     123.00152   116
## 1306          NaN  0.0000000000  0.0000000000     117.94816     117.94584   134
## 1307          NaN  0.0000000000  0.0000000000     123.00384     123.00152    86
## 1308          NaN  0.0000000000  0.0000000000     118.78304     118.78073   110
## 1309          NaN  0.0000000000  0.0000000000     119.06134     119.05902    97
## 1310          NaN  0.0000000000  0.0000000000     118.69028     118.68796   109
## 1311          NaN  0.0000000000  0.0000000000     118.78304     118.78073   108
## 1312          NaN  0.0000000000  0.0000000000     119.06134     119.05902   126
## 1313          NaN  0.0000000000  0.0000000000     118.50475     118.50243   100
## 1314          NaN  0.0000000000  0.0000000000     123.00384     123.00152   137
## 1315          NaN  0.0000000000  0.0000000000     123.00384     123.00152   115
## 1316 2.477744e-06 -0.1195422896 -0.0492869633     109.79319     109.79087   128
## 1317          NaN  0.0000000000  0.0000000000     119.98898     119.98667   131
## 1318          NaN  0.0000000000  0.0000000000     120.91663     120.91431   130
## 1319          NaN  0.0000000000  0.0000000000     117.57710     117.57478   129
## 1320          NaN  0.0000000000  0.0000000000     119.52516     119.52284   114
## 1321          NaN  0.0000000000  0.0000000000     118.31922     118.31690   111
## 1322          NaN  0.0000000000  0.0000000000     119.98898     119.98667   192
## 1323 7.004506e-07 -0.0267833422 -0.0116141907     120.68680     120.68448    87
## 1324          NaN  0.0000000000  0.0000000000     118.41198     118.40967    98
## 1325 1.514396e-06 -0.0872706121 -0.0367343690     112.11022     112.10791   115
## 1326          NaN  0.0000000000  0.0000000000     119.98898     119.98667   151
```

```
## 1327         NaN  0.0000000000  0.0000000000    117.57710    117.57478    96
## 1328         NaN  0.0000000000  0.0000000000    118.41198    118.40967    54
## 1329         NaN  0.0000000000  0.0000000000    119.52516    119.52284   110
## 1330         NaN  0.0000000000  0.0000000000    118.59751    118.59520   125
## 1331         NaN  0.0000000000  0.0000000000    120.45281    120.45049   108
## 1332 9.168201e-07 -0.0566681933 -0.0243278095    114.42726    114.42494   112
## 1333 7.651848e-07 -0.0514396434 -0.0222334632    113.22090    113.21859   128
## 1334         NaN  0.0000000000  0.0000000000    118.69028    118.68796   131
## 1335         NaN  0.0000000000  0.0000000000    119.06134    119.05902    87
## 1336         NaN  0.0000000000  0.0000000000    120.45281    120.45049   125
## 1337 1.421469e-06 -0.0884485174 -0.0373256686    110.53322    110.53091   104
## 1338         NaN  0.0000000000  0.0000000000    118.50475    118.50243   149
## 1339         NaN  0.0000000000  0.0000000000    118.59751    118.59520   166
## 1340         NaN  0.0000000000  0.0000000000    117.57710    117.57478   113
## 1341         NaN  0.0000000000  0.0000000000    117.57710    117.57478   139
## 1342         NaN  0.0000000000  0.0000000000    119.98898    119.98667   102
## 1343         NaN  0.0000000000  0.0000000000    119.06134    119.05902   139
## 1344         NaN  0.0000000000  0.0000000000    118.41198    118.40967   119
## 1345 8.556162e-07 -0.0573678498 -0.0246925584    112.94303    112.94071    91
## 1346         NaN  0.0000000000  0.0000000000    119.52516    119.52284   153
## 1347         NaN  0.0000000000  0.0000000000    120.91663    120.91431    87
## 1348 1.441649e-06 -0.0881674552 -0.0371859207    110.90428    110.90197    80
## 1349 2.567460e-06 -0.1185944688 -0.0488202895    110.72083    110.71852   124
## 1350         NaN  0.0000000000  0.0000000000    119.06134    119.05902   149
## 1351         NaN  0.0000000000  0.0000000000    117.39157    117.38925   135
## 1352         NaN  0.0000000000  0.0000000000    119.52516    119.52284   132
## 1353         NaN  0.0000000000  0.0000000000    120.45281    120.45049   142
## 1354         NaN  0.0000000000  0.0000000000    117.76263    117.76031   130
## 1355         NaN  0.0000000000  0.0000000000    119.52516    119.52284   123
## 1356         NaN  0.0000000000  0.0000000000    121.38046    121.37814   126
## 1357         NaN  0.0000000000  0.0000000000    119.98898    119.98667   116
## 1358         NaN  0.0000000000  0.0000000000    119.52516    119.52284   116
## 1359         NaN  0.0000000000  0.0000000000    117.57710    117.57478    99
## 1360 4.240060e-07 -0.0165229516 -0.0072937579    116.74347    116.74115   119
## 1361         NaN  0.0000000000  0.0000000000    119.98898    119.98667   122
## 1362 8.521572e-07 -0.0574123750 -0.0247154882    112.85026    112.84794   115
## 1363         NaN  0.0000000000  0.0000000000    119.06134    119.05902   111
## 1364         NaN  0.0000000000  0.0000000000    117.94816    117.94584   108
## 1365         NaN  0.0000000000  0.0000000000    119.98898    119.98667   140
```

```
## 1366          NaN  0.0000000000   0.0000000000      119.98898      119.98667   119
## 1367          NaN  0.0000000000   0.0000000000      119.52516      119.52284   134
## 1368 1.457457e-06 -0.0879582572  -0.0370813545      111.18258      111.18026   130
## 1369          NaN  0.0000000000   0.0000000000      117.76263      117.76031   107
## 1370          NaN  0.0000000000   0.0000000000      120.91663      120.91431   147
## 1371          NaN  0.0000000000   0.0000000000      117.39157      117.38925   109
## 1372          NaN  0.0000000000   0.0000000000      120.45281      120.45049   114
## 1373          NaN  0.0000000000   0.0000000000      118.69028      118.68796   118
## 1374          NaN  0.0000000000   0.0000000000      120.91663      120.91431   110
## 1375          NaN  0.0000000000   0.0000000000      120.91663      120.91431   127
## 1376 2.436625e-06 -0.1200239220  -0.0495215794      109.32936      109.32705   102
## 1377          NaN  0.0000000000   0.0000000000      121.38046      121.37814   158
## 1378          NaN  0.0000000000   0.0000000000      119.06134      119.05902   113
## 1379          NaN  0.0000000000   0.0000000000      118.41198      118.40967   121
## 1380          NaN  0.0000000000   0.0000000000      117.11328      117.11096   130
## 1381          NaN  0.0000000000   0.0000000000      117.48434      117.48202    85
## 1382          NaN  0.0000000000   0.0000000000      118.13369      118.13137    87
## 1383          NaN  0.0000000000   0.0000000000      119.06134      119.05902   135
## 1384          NaN  0.0000000000   0.0000000000      119.52516      119.52284   110
## 1385          NaN  0.0000000000   0.0000000000      117.48434      117.48202   146
## 1386          NaN  0.0000000000   0.0000000000      123.00384      123.00152   135
## 1387          NaN  0.0000000000   0.0000000000      119.52516      119.52284   118
## 1388          NaN  0.0000000000   0.0000000000      120.45281      120.45049   111
## 1389 1.707667e-03  0.0039741601   0.0172110133      118.22645      118.22705   109
## 1390 1.795791e-03  0.0022008174   0.0096243943      117.66987      117.67046   133
## 1391 1.903875e-03  0.0001461531   0.0006465689      117.02051      117.02111   129
## 1392 1.679188e-03  0.0045676753   0.0197179316      118.41198      118.41258   126
## 1393 1.517293e-03  0.0081525958   0.0345334845      119.52516      119.52576   134
## 1394 1.795791e-03  0.0022008174   0.0096243943      117.66987      117.67046   118
## 1395 1.099480e-03  0.0195824537   0.0784585191      123.00384      123.00444   140
## 1396 1.517293e-03  0.0081525958   0.0345334845      119.52516      119.52576    86
## 1397 1.517293e-03  0.0081525958   0.0345334845      119.52516      119.52576   121
## 1398 1.393499e-03  0.0111691563   0.0465908535      120.45281      120.45341   129
## 1399 1.517293e-03  0.0081525958   0.0345334845      119.52516      119.52576   101
## 1400 1.517293e-03  0.0081525958   0.0345334845      119.52516      119.52576   133
## 1401 1.810878e-03  0.0019063373   0.0083502653      117.57710      117.57770    61
## 1402 1.751219e-03  0.0030861194   0.0134301153      117.94816      117.94876   104
## 1403 1.722073e-03  0.0036778464   0.0159534583      118.13369      118.13429    92
## 1404 1.651147e-03  0.0051623571   0.0222139829      118.59751      118.59811   122
```

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## 1405 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  159
## 1406 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  154
## 1407 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  120
## 1408 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  138
## 1409 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  127
## 1410 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  107
## 1411 1.638619e-03  0.0046951322  0.0201744399  115.63154  115.63214  129
## 1412 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  129
## 1413 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  156
## 1414 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664  124
## 1415 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664   79
## 1416 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  112
## 1417 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  124
## 1418 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111  134
## 1419 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  114
## 1420 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  124
## 1421 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  122
## 1422 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  104
## 1423 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  105
## 1424 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  113
## 1425 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  131
## 1426 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  107
## 1427 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  115
## 1428 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705   97
## 1429 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  106
## 1430 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  132
## 1431 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  108
## 1432 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  114
## 1433 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  134
## 1434 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  134
## 1435 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  141
## 1436 1.736590e-03  0.0033818321  0.0146931617  118.04092  118.04152   84
## 1437 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958   88
## 1438 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  130
## 1439 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  132
## 1440 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  133
## 1441 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  108
## 1442 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723   92
## 1443 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  127
```

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## 1444 1.736590e-03  0.0033818321  0.0146931617  118.04092  118.04152  131
## 1445 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  104
## 1446 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  122
## 1447 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576   97
## 1448 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  122
## 1449 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  118
## 1450 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941  140
## 1451 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111  131
## 1452 1.839938e-03  0.0001530234  0.0006723852  112.38644  112.38704  104
## 1453 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941  114
## 1454 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  141
## 1455 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  107
## 1456 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  152
## 1457 1.674526e-03  0.0024152984  0.0104209475  108.40172  108.40231  119
## 1458 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  135
## 1459 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  138
## 1460 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  108
## 1461 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194   97
## 1462 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  131
## 1463 1.429665e-03  0.0066024991  0.0276676861  100.15398  100.15457  115
## 1464 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  123
## 1465 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111  115
## 1466 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  132
## 1467 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  133
## 1468 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  125
## 1469 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  117
## 1470 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  116
## 1471 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  152
## 1472 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  101
## 1473 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  107
## 1474 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  136
## 1475 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  120
## 1476 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  127
## 1477 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  123
## 1478 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  135
## 1479 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958   86
## 1480 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   97
## 1481 1.730659e-03  0.0023044369  0.0100055675  113.03579  113.03639   93
## 1482 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576   96
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115

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## 1483 1.641776e-03  0.0041614920  0.0178879444  113.59238  113.59298  109
## 1484 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  117
## 1485 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  115
## 1486 1.457651e-03  0.0073044817  0.0307162131  109.79319  109.79378  121
## 1487 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  114
## 1488 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  118
## 1489 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  134
## 1490 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  156
## 1491 1.716084e-03  0.0034284988  0.0148619095  116.65070  116.65130  139
## 1492 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  136
## 1493 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  115
## 1494 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194   23
## 1495 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  135
## 1496 1.450474e-03  0.0085376990  0.0358701033  114.89109  114.89168  106
## 1497 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  116
## 1498 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  147
## 1499 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  115
## 1500 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429   85
## 1501 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  102
## 1502 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  122
## 1503 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  109
## 1504 1.266933e-03  0.0122631323  0.0503116469  111.18466  111.18526   97
## 1505 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  136
## 1506 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  131
## 1507 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  116
## 1508 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770   86
## 1509 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  155
## 1510 1.615370e-03  0.0023037652  0.0098724450   99.04080   99.04140  122
## 1511 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  105
## 1512 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  131
## 1513 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  126
## 1514 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  127
## 1515 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  125
## 1516 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341   98
## 1517 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  144
## 1518 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194   91
## 1519 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  106
## 1520 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  128
## 1521 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664  144
```

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## 1522 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876   91
## 1523 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  122
## 1524 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  139
## 1525 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  126
## 1526 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  107
## 1527 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941   79
## 1528 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  102
## 1529 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  126
## 1530 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  120
## 1531 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  101
## 1532 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  131
## 1533 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  128
## 1534 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  142
## 1535 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  144
## 1536 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723   58
## 1537 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493   88
## 1538 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493  123
## 1539 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  146
## 1540 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  135
## 1541 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  125
## 1542 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  125
## 1543 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   99
## 1544 1.426626e-03  0.0098365301  0.0412041430  118.13535  118.13595  120
## 1545 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  114
## 1546 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341   88
## 1547 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  106
## 1548 1.888077e-03  0.0004387068  0.0019375755  117.11328  117.11388  123
## 1549 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  135
## 1550 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  116
## 1551 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  128
## 1552 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  111
## 1553 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  123
## 1554 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  115
## 1555 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  167
## 1556 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341   82
## 1557 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  121
## 1558 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  114
## 1559 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  116
## 1560 1.747185e-03  0.0025533696  0.0111067495  115.44559  115.44619  141
```

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## 1561 1.335159e-03   0.0126865985   0.0525236430   120.91663   120.91723   141
## 1562 1.099480e-03   0.0195824537   0.0784585191   123.00384   123.00444   120
## 1563 1.722073e-03   0.0036778464   0.0159534583   118.13369   118.13429   110
## 1564 1.517293e-03   0.0081525958   0.0345334845   119.52516   119.52576   120
## 1565 1.517293e-03   0.0081525958   0.0345334845   119.52516   119.52576   125
## 1566 1.099480e-03   0.0195824537   0.0784585191   123.00384   123.00444    82
## 1567 1.582917e-03   0.0066540410   0.0284069900   119.06134   119.06194   141
## 1568 1.637288e-03   0.0054601297   0.0234579533   118.69028   118.69088   144
## 1569 1.707667e-03   0.0039741601   0.0172110133   118.22645   118.22705   102
## 1570 1.637288e-03   0.0054601297   0.0234579533   118.69028   118.69088   121
## 1571 1.517293e-03   0.0081525958   0.0345334845   119.52516   119.52576    80
## 1572 1.582917e-03   0.0066540410   0.0284069900   119.06134   119.06194   106
## 1573 1.099480e-03   0.0195824537   0.0784585191   123.00384   123.00444   116
## 1574 1.387287e-03   0.0101141835   0.0421567432   115.35491   115.35551   116
## 1575 1.582917e-03   0.0066540410   0.0284069900   119.06134   119.06194   123
## 1576 1.393499e-03   0.0111691563   0.0465908535   120.45281   120.45341   132
## 1577 1.152883e-03   0.0156027136   0.0630028432   112.11230   112.11290   118
## 1578 1.099480e-03   0.0195824537   0.0784585191   123.00384   123.00444   131
## 1579 1.454182e-03   0.0096577294   0.0405944502   119.98898   119.98958   152
## 1580 1.751219e-03   0.0030861194   0.0134301153   117.94816   117.94876   120
## 1581 1.582917e-03   0.0066540410   0.0284069900   119.06134   119.06194   145
## 1582 1.393499e-03   0.0111691563   0.0465908535   120.45281   120.45341   124
## 1583 1.099480e-03   0.0195824537   0.0784585191   123.00384   123.00444   142
## 1584 1.099480e-03   0.0195824537   0.0784585191   123.00384   123.00444   117
## 1585 1.751219e-03   0.0030861194   0.0134301153   117.94816   117.94876   100
## 1586 1.454182e-03   0.0096577294   0.0405944502   119.98898   119.98958   120
## 1587 1.454182e-03   0.0096577294   0.0405944502   119.98898   119.98958   145
## 1588 1.099480e-03   0.0195824537   0.0784585191   123.00384   123.00444   123
## 1589 1.279079e-03   0.0142097869   0.0583937480   121.38046   121.38105   166
## 1590 1.400120e-03   0.0100203513   0.0418339537   116.28172   116.28232   103
## 1591 1.810878e-03   0.0019063373   0.0083502653   117.57710   117.57770   133
## 1592 1.722073e-03   0.0036778464   0.0159534583   118.13369   118.13429   112
## 1593 1.279079e-03   0.0142097869   0.0583937480   121.38046   121.38105   119
## 1594 1.623537e-03   0.0057581868   0.0246992313   118.78304   118.78364   123
## 1595 1.795791e-03   0.0022008174   0.0096243943   117.66987   117.67046   107
## 1596 1.780819e-03   0.0024956096   0.0108957399   117.76263   117.76323   145
## 1597 1.623537e-03   0.0057581868   0.0246992313   118.78304   118.78364   133
## 1598 1.099480e-03   0.0195824537   0.0784585191   123.00384   123.00444   146
## 1599 1.454182e-03   0.0096577294   0.0405944502   119.98898   119.98958   134
```

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## 1600 1.099480e-03  0.0195824537  0.0784585191      123.00384      123.00444   140
## 1601 1.623537e-03  0.0057581868  0.0246992313      118.78304      118.78364    95
## 1602 1.651147e-03  0.0051623571  0.0222139829      118.59751      118.59811   126
## 1603 1.517293e-03  0.0081525958  0.0345334845      119.52516      119.52576   134
## 1604 1.722073e-03  0.0036778464  0.0159534583      118.13369      118.13429    64
## 1605 1.489739e-03  0.0083034552  0.0350550410      117.67153      117.67213   119
## 1606 1.454182e-03  0.0096577294  0.0405944502      119.98898      119.98958   140
## 1607 1.582917e-03  0.0066540410  0.0284069900      119.06134      119.06194   120
## 1608 1.637288e-03  0.0054601297  0.0234579533      118.69028      118.69088   103
## 1609 1.327783e-03  0.0106031405  0.0438555174      110.72083      110.72143    68
## 1610 1.335159e-03  0.0126865985  0.0525236430      120.91663      120.91723    97
## 1611 1.393499e-03  0.0111691563  0.0465908535      120.45281      120.45341   120
## 1612 1.454182e-03  0.0096577294  0.0405944502      119.98898      119.98958   121
## 1613 1.765962e-03  0.0027907112  0.0121643108      117.85540      117.85599   130
## 1614 1.613094e-03  0.0047830601  0.0204916785      113.77791      113.77851   115
## 1615 1.099480e-03  0.0195824537  0.0784585191      123.00384      123.00444   112
## 1616 1.099480e-03  0.0195824537  0.0784585191      123.00384      123.00444   120
## 1617 1.503883e-03  0.0070336017  0.0297452248      113.50045      113.50104   103
## 1618 1.454182e-03  0.0096577294  0.0405944502      119.98898      119.98958   100
## 1619 1.099480e-03  0.0195824537  0.0784585191      123.00384      123.00444   117
## 1620 1.099480e-03  0.0195824537  0.0784585191      123.00384      123.00444   126
## 1621 1.826082e-03  0.0016121717  0.0070733446      117.48434      117.48493   142
## 1622 1.582917e-03  0.0066540410  0.0284069900      119.06134      119.06194   120
## 1623 1.707667e-03  0.0039741601  0.0172110133      118.22645      118.22705   111
## 1624 1.099480e-03  0.0195824537  0.0784585191      123.00384      123.00444   152
## 1625 1.099480e-03  0.0195824537  0.0784585191      123.00384      123.00444   124
## 1626 1.517293e-03  0.0081525958  0.0345334845      119.52516      119.52576   146
## 1627 1.517293e-03  0.0081525958  0.0345334845      119.52516      119.52576   102
## 1628 1.517293e-03  0.0081525958  0.0345334845      119.52516      119.52576   129
## 1629 1.751219e-03  0.0030861194  0.0134301153      117.94816      117.94876   125
## 1630 1.765962e-03  0.0027907112  0.0121643108      117.85540      117.85599   126
## 1631 1.903875e-03  0.0001461531  0.0006465689      117.02051      117.02111   101
## 1632 1.454182e-03  0.0096577294  0.0405944502      119.98898      119.98958   113
## 1633 1.623537e-03  0.0057581868  0.0246992313      118.78304      118.78364   136
## 1634 1.335159e-03  0.0126865985  0.0525236430      120.91663      120.91723   101
## 1635 1.099480e-03  0.0195824537  0.0784585191      123.00384      123.00444   106
## 1636 1.099480e-03  0.0195824537  0.0784585191      123.00384      123.00444   100
## 1637 1.335159e-03  0.0126865985  0.0525236430      120.91663      120.91723   130
## 1638 1.393499e-03  0.0111691563  0.0465908535      120.45281      120.45341   136
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## 1639 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  100
## 1640 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  122
## 1641 1.888077e-03  0.0004387068  0.0019375755  117.11328  117.11388   90
## 1642 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   94
## 1643 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  108
## 1644 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  107
## 1645 1.526886e-03  0.0056665357  0.0240305719  109.32936  109.32996  119
## 1646 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  106
## 1647 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  113
## 1648 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  132
## 1649 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088   99
## 1650 1.641776e-03  0.0041614920  0.0178879444  113.59238  113.59298  110
## 1651 1.387287e-03  0.0101141835  0.0421567432  115.35491  115.35551   76
## 1652 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  123
## 1653 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  123
## 1654 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  129
## 1655 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705   95
## 1656 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  118
## 1657 1.689990e-03  0.0020920745  0.0090422001  108.30895  108.30955  115
## 1658 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  133
## 1659 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  139
## 1660 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  124
## 1661 1.599138e-03  0.0040366788  0.0172659160  108.86554  108.86614   60
## 1662 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364   87
## 1663 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  130
## 1664 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  110
## 1665 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258   73
## 1666 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  126
## 1667 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  125
## 1668 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  166
## 1669 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  122
## 1670 1.426626e-03  0.0098365301  0.0412041430  118.13535  118.13595  120
## 1671 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  143
## 1672 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  122
## 1673 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  106
## 1674 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  126
## 1675 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  156
## 1676 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  129
## 1677 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  120
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## 1678 1.447199e-03  0.0097019658  0.0407450444  119.52558  119.52618  113
## 1679 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   81
## 1680 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341   83
## 1681 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  129
## 1682 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  133
## 1683 1.512802e-03  0.0059934899  0.0253739803  109.42213  109.42273  112
## 1684 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  119
## 1685 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  139
## 1686 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  111
## 1687 1.303529e-03  0.0098618847  0.0406591396  100.98886  100.98946   81
## 1688 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  127
## 1689 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  119
## 1690 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  107
## 1691 1.737175e-03  0.0011245658  0.0048862573  108.03066  108.03125   98
## 1692 1.570937e-03  0.0057177253  0.0243752923  114.05620  114.05680  113
## 1693 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  104
## 1694 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  108
## 1695 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  144
## 1696 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  110
## 1697 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  138
## 1698 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  107
## 1699 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  128
## 1700 1.627377e-03  0.0044721198  0.0191912835  113.68514  113.68574  144
## 1701 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  136
## 1702 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  110
## 1703 1.721314e-03  0.0014467050  0.0062748658  108.12342  108.12402  105
## 1704 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  124
## 1705 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  117
## 1706 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  145
## 1707 1.736590e-03  0.0033818321  0.0146931617  118.04092  118.04152   96
## 1708 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  140
## 1709 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  101
## 1710 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  148
## 1711 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  135
## 1712 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  120
## 1713 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  130
## 1714 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  134
## 1715 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  128
## 1716 1.811418e-03  0.0001566361  0.0006861480  110.06940  110.07000  111
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## 1717 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  128
## 1718 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  134
## 1719 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  141
## 1720 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  115
## 1721 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576   98
## 1722 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  118
## 1723 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  130
## 1724 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  136
## 1725 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  129
## 1726 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105   93
## 1727 1.599138e-03  0.0040366788  0.0172659160  108.86554  108.86614   91
## 1728 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  110
## 1729 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  112
## 1730 1.266933e-03  0.0122631323  0.0503116469  111.18466  111.18526  112
## 1731 1.437980e-03  0.0086179523  0.0361509968  113.96427  113.96487   98
## 1732 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  147
## 1733 1.743028e-03  0.0022831452  0.0099267465  113.96261  113.96320   92
## 1734 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   98
## 1735 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105   98
## 1736 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  137
## 1737 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  113
## 1738 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  137
## 1739 1.295812e-03  0.0119753622  0.0493220077  113.50170  113.50229   71
## 1740 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  129
## 1741 1.808085e-03  0.0007659948  0.0033542467  112.57197  112.57257  149
## 1742 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  124
## 1743 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  138
## 1744 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  128
## 1745 1.387287e-03  0.0101141835  0.0421567432  115.35491  115.35551  122
## 1746 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  118
## 1747 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  128
## 1748 1.643986e-03  0.0030628082  0.0131686565  108.58724  108.58784  142
## 1749 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  127
## 1750 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  112
## 1751 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  113
## 1752 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  112
## 1753 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341   82
## 1754 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  141
## 1755 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  107
```

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## 1756 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  117
## 1757 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  127
## 1758 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  133
## 1759 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  118
## 1760 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  144
## 1761 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  109
## 1762 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   79
## 1763 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  124
## 1764 1.761256e-03  0.0016880439  0.0073541339  112.85026  112.85086  130
## 1765 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  271
## 1766 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  160
## 1767 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  127
## 1768 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  108
## 1769 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705   90
## 1770 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  140
## 1771 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  126
## 1772 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  110
## 1773 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  127
## 1774 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493  101
## 1775 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105   92
## 1776 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  121
## 1777 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  102
## 1778 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  125
## 1779 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  141
## 1780 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  121
## 1781 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  127
## 1782 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  119
## 1783 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  106
## 1784 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  105
## 1785 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  104
## 1786 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  131
## 1787 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341   96
## 1788 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  141
## 1789 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958   93
## 1790 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664  114
## 1791 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  112
## 1792 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  138
## 1793 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  136
## 1794 1.721314e-03  0.0014467050  0.0062748658  108.12342  108.12402  113
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## 1795 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  105
## 1796 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  120
## 1797 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576   35
## 1798 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  149
## 1799 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  122
## 1800 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  146
## 1801 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  161
## 1802 1.769301e-03  0.0004813953  0.0020991034  107.84513  107.84573  142
## 1803 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  119
## 1804 1.830055e-03  0.0010436853  0.0045810899  115.44518  115.44578   83
## 1805 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941  136
## 1806 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  116
## 1807 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341   93
## 1808 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  110
## 1809 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  124
## 1810 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  123
## 1811 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  129
## 1812 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  106
## 1813 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  130
## 1814 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  111
## 1815 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  115
## 1816 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  110
## 1817 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  117
## 1818 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  113
## 1819 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  114
## 1820 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  146
## 1821 1.721314e-03  0.0014467050  0.0062748658  108.12342  108.12402   98
## 1822 1.670926e-03  0.0035411838  0.0152723975  113.40685  113.40745  143
## 1823 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  116
## 1824 1.215877e-03  0.0128686555  0.0524276127  106.55058  106.55118  116
## 1825 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770   75
## 1826 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  139
## 1827 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  120
## 1828 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  146
## 1829 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  145
## 1830 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  136
## 1831 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  120
## 1832 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  106
## 1833 1.295812e-03  0.0119753622  0.0493220077  113.50170  113.50229  109
```

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## 1834 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705   97
## 1835 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194   30
## 1836 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  122
## 1837 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  130
## 1838 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  115
## 1839 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  116
## 1840 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  134
## 1841 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  127
## 1842 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  101
## 1843 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  145
## 1844 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  128
## 1845 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  130
## 1846 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  138
## 1847 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  133
## 1848 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  106
## 1849 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941  135
## 1850 1.419841e-03  0.0087404097  0.0365814093  112.57405  112.57465  104
## 1851 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  107
## 1852 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811   98
## 1853 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  123
## 1854 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111   96
## 1855 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  119
## 1856 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  134
## 1857 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111   83
## 1858 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  161
## 1859 1.762220e-03  0.0022517448  0.0098109943  115.35283  115.35343  109
## 1860 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  113
## 1861 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217   98
## 1862 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  138
## 1863 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  120
## 1864 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  112
## 1865 1.736590e-03  0.0033818321  0.0146931617  118.04092  118.04152  104
## 1866 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  103
## 1867 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  156
## 1868 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  119
## 1869 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  134
## 1870 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  149
## 1871 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  106
## 1872 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  112
```

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## 1873 1.393499e-03 0.0111691563 0.0465908535 120.45281 120.45341 139
## 1874 1.279079e-03 0.0142097869 0.0583937480 121.38046 121.38105 137
## 1875 1.569868e-03 0.0046876264 0.0199813425 109.05107 109.05167  90
## 1876 1.454182e-03 0.0096577294 0.0405944502 119.98898 119.98958 137
## 1877 1.555418e-03 0.0050136011 0.0213342631 109.14383 109.14443 140
## 1878 1.454182e-03 0.0096577294 0.0405944502 119.98898 119.98958 126
## 1879 1.637288e-03 0.0054601297 0.0234579533 118.69028 118.69088 112
## 1880 1.872399e-03 0.0007315882 0.0032257478 117.20604 117.20664  60
## 1881 1.826082e-03 0.0016121717 0.0070733446 117.48434 117.48493 109
## 1882 1.279079e-03 0.0142097869 0.0583937480 121.38046 121.38105 129
## 1883 1.823557e-03 0.0010484889 0.0045989556 114.98177 114.98237 104
## 1884 1.335159e-03 0.0126865985 0.0525236430 120.91663 120.91723  71
## 1885 1.810878e-03 0.0019063373 0.0083502653 117.57710 117.57770  86
## 1886 1.454182e-03 0.0096577294 0.0405944502 119.98898 119.98958 124
## 1887 1.279079e-03 0.0142097869 0.0583937480 121.38046 121.38105 112
## 1888 1.856842e-03 0.0010247945 0.0045110944 117.29881 117.29941  79
## 1889 1.517293e-03 0.0081525958 0.0345334845 119.52516 119.52576  95
## 1890 1.582917e-03 0.0066540410 0.0284069900 119.06134 119.06194 100
## 1891 1.517293e-03 0.0081525958 0.0345334845 119.52516 119.52576 100
## 1892 1.637288e-03 0.0054601297 0.0234579533 118.69028 118.69088 105
## 1893 1.599138e-03 0.0040366788 0.0172659160 108.86554 108.86614 107
## 1894 1.903875e-03 0.0001461531 0.0006465689 117.02051 117.02111 141
## 1895 1.888077e-03 0.0004387068 0.0019375755 117.11328 117.11388 142
## 1896 1.359263e-03 0.0114286448 0.0474642320 118.13577 118.13637  99
## 1897 1.603189e-03 0.0055867175 0.0239071361 116.37324 116.37384 112
## 1898 1.582917e-03 0.0066540410 0.0284069900 119.06134 119.06194 107
## 1899 1.279079e-03 0.0142097869 0.0583937480 121.38046 121.38105 147
## 1900 1.099480e-03 0.0195824537 0.0784585191 123.00384 123.00444  94
## 1901 1.099480e-03 0.0195824537 0.0784585191 123.00384 123.00444 148
## 1902 1.567845e-03 0.0038938993 0.0165940558 104.13870 104.13930  91
## 1903 1.454182e-03 0.0096577294 0.0405944502 119.98898 119.98958 131
## 1904 1.582917e-03 0.0066540410 0.0284069900 119.06134 119.06194 102
## 1905 1.454182e-03 0.0096577294 0.0405944502 119.98898 119.98958 161
## 1906 1.099480e-03 0.0195824537 0.0784585191 123.00384 123.00444 120
## 1907 1.517293e-03 0.0081525958 0.0345334845 119.52516 119.52576 105
## 1908 1.637288e-03 0.0054601297 0.0234579533 118.69028 118.69088 112
## 1909 1.393499e-03 0.0111691563 0.0465908535 120.45281 120.45341 130
## 1910 1.454182e-03 0.0096577294 0.0405944502 119.98898 119.98958 136
## 1911 1.623537e-03 0.0057581868 0.0246992313 118.78304 118.78364 110
```

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## 1912 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  124
## 1913 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  124
## 1914 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  134
## 1915 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  136
## 1916 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  120
## 1917 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  108
## 1918 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  122
## 1919 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  137
## 1920 1.034649e-03  0.0205092819  0.0813699116  118.36976  118.37036  119
## 1921 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  144
## 1922 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  128
## 1923 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  104
## 1924 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  118
## 1925 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   93
## 1926 1.294382e-03  0.0130416449  0.0537033804  118.13619  118.13678  138
## 1927 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  135
## 1928 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  128
## 1929 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  118
## 1930 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  114
## 1931 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  120
## 1932 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  113
## 1933 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  110
## 1934 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  106
## 1935 1.643986e-03  0.0030628082  0.0131686565  108.58724  108.58784  125
## 1936 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  107
## 1937 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  130
## 1938 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  116
## 1939 1.301025e-03  0.0129814370  0.0535027936  118.59959  118.60019  102
## 1940 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  112
## 1941 9.758454e-04  0.0215030882  0.0845270967  113.73569  113.73629  124
## 1942 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  118
## 1943 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  125
## 1944 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  103
## 1945 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  115
## 1946 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  136
## 1947 1.557111e-03  0.0060298866  0.0256640032  114.14897  114.14957  120
## 1948 1.086075e-03  0.0197626647  0.0790226403  122.07702  122.07762  139
## 1949 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  137
## 1950 1.359263e-03  0.0114286448  0.0474642320  118.13577  118.13637  120
```

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## 1951 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  113
## 1952 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  102
## 1953 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  132
## 1954 1.386529e-03  0.0112203355  0.0467627475  119.98940  119.99000  141
## 1955 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  119
## 1956 1.391321e-03  0.0089501383  0.0373241132  110.25701  110.25761  103
## 1957 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  117
## 1958 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  113
## 1959 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  136
## 1960 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  128
## 1961 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  110
## 1962 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  110
## 1963 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  123
## 1964 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  150
## 1965 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  117
## 1966 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  142
## 1967 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  111
## 1968 1.598927e-03  0.0050943095  0.0217891388  113.87067  113.87127  101
## 1969 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  124
## 1970 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  120
## 1971 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  123
## 1972 1.641776e-03  0.0041614920  0.0178879444  113.59238  113.59298   94
## 1973 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  110
## 1974 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341   87
## 1975 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  109
## 1976 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  112
## 1977 1.689990e-03  0.0020920745  0.0090422001  108.30895  108.30955  108
## 1978 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  139
## 1979 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  104
## 1980 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  121
## 1981 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  110
## 1982 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  155
## 1983 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  147
## 1984 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  117
## 1985 1.888077e-03  0.0004387068  0.0019375755  117.11328  117.11388  113
## 1986 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  136
## 1987 1.888077e-03  0.0004387068  0.0019375755  117.11328  117.11388  105
## 1988 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  129
## 1989 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  114
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## 1990 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  109
## 1991 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111  108
## 1992 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  142
## 1993 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   99
## 1994 1.613961e-03  0.0037117120  0.0159033893  108.77277  108.77337   79
## 1995 1.705586e-03  0.0017692090  0.0076601764  108.21619  108.21678  102
## 1996 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   74
## 1997 1.852237e-03  0.0007416659  0.0032631729  115.81582  115.81642  109
## 1998 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  142
## 1999 1.387287e-03  0.0101141835  0.0421567432  115.35491  115.35551   98
## 2000 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664  128
## 2001 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  107
## 2002 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493   97
## 2003 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  125
## 2004 1.613961e-03  0.0037117120  0.0159033893  108.77277  108.77337   75
## 2005 1.372276e-03  0.0080475846  0.0334785209  100.52504  100.52563  136
## 2006 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  106
## 2007 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  104
## 2008 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576   72
## 2009 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  112
## 2010 1.327783e-03  0.0106031405  0.0438555174  110.72083  110.72143  120
## 2011 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  103
## 2012 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  122
## 2013 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  136
## 2014 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  123
## 2015 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  138
## 2016 1.773553e-03  0.0016724543  0.0072960669  113.77708  113.77767   50
## 2017 1.457651e-03  0.0073044817  0.0307162131  109.79319  109.79378   75
## 2018 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493   93
## 2019 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  119
## 2020 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  117
## 2021 1.776741e-03  0.0013803525  0.0060238793  112.75750  112.75809  102
## 2022 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  112
## 2023 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  106
## 2024 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  108
## 2025 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  112
## 2026 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  145
## 2027 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  134
## 2028 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941  117
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## 2029 1.406644e-03  0.0099739185  0.0416745563  116.74513  116.74573  114
## 2030 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599   52
## 2031 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  125
## 2032 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  127
## 2033 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  132
## 2034 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  100
## 2035 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341   80
## 2036 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  124
## 2037 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  123
## 2038 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  121
## 2039 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  136
## 2040 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  152
## 2041 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  132
## 2042 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  143
## 2043 1.529040e-03  0.0069035899  0.0292842358  115.35408  115.35468  114
## 2044 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   88
## 2045 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341   81
## 2046 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  115
## 2047 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  150
## 2048 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  141
## 2049 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429  125
## 2050 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  135
## 2051 1.689990e-03  0.0020920745  0.0090422001  108.30895  108.30955  120
## 2052 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723   83
## 2053 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  143
## 2054 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  153
## 2055 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  150
## 2056 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  152
## 2057 1.450474e-03  0.0085376990  0.0358701033  114.89109  114.89168  148
## 2058 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  123
## 2059 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  117
## 2060 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  128
## 2061 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   92
## 2062 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  115
## 2063 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  105
## 2064 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  141
## 2065 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  104
## 2066 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  156
## 2067 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  131
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## 2068 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  117
## 2069 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  141
## 2070 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  138
## 2071 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  136
## 2072 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  149
## 2073 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  144
## 2074 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  123
## 2075 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  114
## 2076 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  100
## 2077 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  127
## 2078 1.526886e-03  0.0056665357  0.0240305719  109.32936  109.32996   92
## 2079 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  138
## 2080 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  139
## 2081 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  124
## 2082 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  132
## 2083 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  151
## 2084 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  126
## 2085 1.419898e-03  0.0098820098  0.0413596681  117.67195  117.67255   95
## 2086 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  115
## 2087 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  109
## 2088 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664   86
## 2089 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  128
## 2090 1.516303e-03  0.0069681511  0.0295127816  114.42726  114.42786   94
## 2091 1.888077e-03  0.0004387068  0.0019375755  117.11328  117.11388  144
## 2092 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194   92
## 2093 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  117
## 2094 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  130
## 2095 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723   82
## 2096 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429  121
## 2097 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105   98
## 2098 1.327783e-03  0.0106031405  0.0438555174  110.72083  110.72143  137
## 2099 1.295812e-03  0.0119753622  0.0493220077  113.50170  113.50229  114
## 2100 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  121
## 2101 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  124
## 2102 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  119
## 2103 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  151
## 2104 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  144
## 2105 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  124
## 2106 1.406644e-03  0.0099739185  0.0416745563  116.74513  116.74573  100
```

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## 2107 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  160
## 2108 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941  109
## 2109 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  138
## 2110 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  122
## 2111 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  109
## 2112 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  139
## 2113 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  125
## 2114 1.485877e-03  0.0071334660  0.0301014362  112.11022  112.11082  118
## 2115 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  114
## 2116 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  152
## 2117 1.386529e-03  0.0112203355  0.0467627475  119.98940  119.99000  114
## 2118 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  119
## 2119 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  149
## 2120 1.237621e-03  0.0136027080  0.0555849098  113.96552  113.96612  126
## 2121 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  114
## 2122 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  126
## 2123 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  115
## 2124 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  123
## 2125 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  160
## 2126 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876   58
## 2127 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  108
## 2128 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  113
## 2129 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  140
## 2130 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  118
## 2131 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  111
## 2132 1.631083e-03  0.0049776247  0.0213697088  116.18771  116.18831   88
## 2133 1.034649e-03  0.0205092819  0.0813699116  118.36976  118.37036  133
## 2134 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  106
## 2135 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429  137
## 2136 1.736590e-03  0.0033818321  0.0146931617  118.04092  118.04152  129
## 2137 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  132
## 2138 1.022376e-03  0.0207025514  0.0819806339  117.44295  117.44355  112
## 2139 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  122
## 2140 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   76
## 2141 1.034649e-03  0.0205092819  0.0813699116  118.36976  118.37036  122
## 2142 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  159
## 2143 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  116
## 2144 1.457651e-03  0.0073044817  0.0307162131  109.79319  109.79378  104
## 2145 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  116
```

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## 2146 1.212641e-03  0.0148821218  0.0606033034  116.74638  116.74698  115
## 2147 1.450474e-03  0.0085376990  0.0358701033  114.89109  114.89168  159
## 2148 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  145
## 2149 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  121
## 2150 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  112
## 2151 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  107
## 2152 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  133
## 2153 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  136
## 2154 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  148
## 2155 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  133
## 2156 1.365985e-03  0.0113760241  0.0472867381  118.59918  118.59978  108
## 2157 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   91
## 2158 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958   94
## 2159 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  123
## 2160 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  129
## 2161 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  108
## 2162 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  144
## 2163 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  132
## 2164 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  130
## 2165 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  105
## 2166 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958   90
## 2167 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429  154
## 2168 1.783919e-03  0.0019414999  0.0084793904  115.72347  115.72407  103
## 2169 1.485877e-03  0.0071334660  0.0301014362  112.11022  112.11082   87
## 2170 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  133
## 2171 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  117
## 2172 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  152
## 2173 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  119
## 2174 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  108
## 2175 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  114
## 2176 1.372771e-03  0.0113237672  0.0471106717  119.06259  119.06318   89
## 2177 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  132
## 2178 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  130
## 2179 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  124
## 2180 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  107
## 2181 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  125
## 2182 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  117
## 2183 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  117
## 2184 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  125
```

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## 2185 1.517293e-03  0.0081525958  0.0345334845   119.52516   119.52576   106
## 2186 1.212641e-03  0.0148821218  0.0606033034   116.74638   116.74698   130
## 2187 1.279079e-03  0.0142097869  0.0583937480   121.38046   121.38105   129
## 2188 1.582917e-03  0.0066540410  0.0284069900   119.06134   119.06194   144
## 2189 1.765962e-03  0.0027907112  0.0121643108   117.85540   117.85599   104
## 2190 1.335159e-03  0.0126865985  0.0525236430   120.91663   120.91723   110
## 2191 1.685679e-03  0.0032315092  0.0139601710   113.31408   113.31468   113
## 2192 1.099480e-03  0.0195824537  0.0784585191   123.00384   123.00444    93
## 2193 1.279079e-03  0.0142097869  0.0583937480   121.38046   121.38105   106
## 2194 1.335159e-03  0.0126865985  0.0525236430   120.91663   120.91723   113
## 2195 1.457651e-03  0.0073044817  0.0307162131   109.79319   109.79378   120
## 2196 1.517293e-03  0.0081525958  0.0345334845   119.52516   119.52576   116
## 2197 1.099480e-03  0.0195824537  0.0784585191   123.00384   123.00444   129
## 2198 1.780819e-03  0.0024956096  0.0108957399   117.76263   117.76323   106
## 2199 1.582917e-03  0.0066540410  0.0284069900   119.06134   119.06194   119
## 2200 1.623537e-03  0.0057581868  0.0246992313   118.78304   118.78364   112
## 2201 1.780819e-03  0.0024956096  0.0108957399   117.76263   117.76323   123
## 2202 1.279079e-03  0.0142097869  0.0583937480   121.38046   121.38105   129
## 2203 1.780819e-03  0.0024956096  0.0108957399   117.76263   117.76323   100
## 2204 1.827825e-03  0.0013303937  0.0058381495   116.46476   116.46536    97
## 2205 1.099480e-03  0.0195824537  0.0784585191   123.00384   123.00444   127
## 2206 1.454182e-03  0.0096577294  0.0405944502   119.98898   119.98958   128
## 2207 1.722073e-03  0.0036778464  0.0159534583   118.13369   118.13429   122
## 2208 1.099480e-03  0.0195824537  0.0784585191   123.00384   123.00444    93
## 2209 1.557111e-03  0.0060298866  0.0256640032   114.14897   114.14957    90
## 2210 1.582917e-03  0.0066540410  0.0284069900   119.06134   119.06194    73
## 2211 1.517293e-03  0.0081525958  0.0345334845   119.52516   119.52576   133
## 2212 1.623537e-03  0.0057581868  0.0246992313   118.78304   118.78364   112
## 2213 1.679188e-03  0.0045676753  0.0197179316   118.41198   118.41258    98
## 2214 1.393499e-03  0.0111691563  0.0465908535   120.45281   120.45341   136
## 2215 1.707667e-03  0.0039741601  0.0172110133   118.22645   118.22705    78
## 2216 1.335159e-03  0.0126865985  0.0525236430   120.91663   120.91723   107
## 2217 1.099480e-03  0.0195824537  0.0784585191   123.00384   123.00444   147
## 2218 1.327783e-03  0.0106031405  0.0438555174   110.72083   110.72143   149
## 2219 1.393499e-03  0.0111691563  0.0465908535   120.45281   120.45341   106
## 2220 1.212641e-03  0.0148821218  0.0606033034   116.74638   116.74698    97
## 2221 1.099480e-03  0.0195824537  0.0784585191   123.00384   123.00444   134
## 2222 1.582917e-03  0.0066540410  0.0284069900   119.06134   119.06194   136
## 2223 1.517293e-03  0.0081525958  0.0345334845   119.52516   119.52576   136
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## 2224 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  131
## 2225 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  112
## 2226 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429  105
## 2227 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  120
## 2228 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  120
## 2229 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  115
## 2230 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  120
## 2231 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  141
## 2232 1.245097e-03  0.0145401040  0.0594763345  119.06342  119.06402  119
## 2233 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  114
## 2234 1.387287e-03  0.0101141835  0.0421567432  115.35491  115.35551  143
## 2235 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  113
## 2236 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  118
## 2237 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  126
## 2238 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  120
## 2239 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  139
## 2240 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  104
## 2241 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  141
## 2242 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  114
## 2243 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  111
## 2244 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493   94
## 2245 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  134
## 2246 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  113
## 2247 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664  116
## 2248 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  114
## 2249 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  115
## 2250 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  122
## 2251 1.599138e-03  0.0040366788  0.0172659160  108.86554  108.86614  118
## 2252 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  115
## 2253 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  104
## 2254 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  134
## 2255 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  143
## 2256 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  143
## 2257 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  106
## 2258 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  127
## 2259 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  122
## 2260 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  115
## 2261 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  139
## 2262 1.598927e-03  0.0050943095  0.0217891388  113.87067  113.87127  114
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## 2263 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  108
## 2264 1.736590e-03  0.0033818321  0.0146931617  118.04092  118.04152  127
## 2265 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  111
## 2266 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535   91
## 2267 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599   96
## 2268 1.656292e-03  0.0038511790  0.0165816522  113.49961  113.50021  103
## 2269 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599   78
## 2270 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194   98
## 2271 1.408822e-03  0.0076640837  0.0320320795  105.15911  105.15971   94
## 2272 1.450474e-03  0.0085376990  0.0358701033  114.89109  114.89168  135
## 2273 1.613961e-03  0.0037117120  0.0159033893  108.77277  108.77337  124
## 2274 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493  108
## 2275 1.557111e-03  0.0060298866  0.0256640032  114.14897  114.14957  128
## 2276 1.736590e-03  0.0033818321  0.0146931617  118.04092  118.04152  139
## 2277 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  128
## 2278 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  102
## 2279 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941  136
## 2280 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  146
## 2281 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  136
## 2282 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723   89
## 2283 1.710074e-03  0.0008420825  0.0036478164  103.30382  103.30441  102
## 2284 1.693705e-03  0.0011796201  0.0051005988  103.39658  103.39718  138
## 2285 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  128
## 2286 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  124
## 2287 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429  122
## 2288 1.814556e-03  0.0013426300  0.0058834174  115.53794  115.53854  101
## 2289 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  118
## 2290 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958   70
## 2291 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  136
## 2292 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  152
## 2293 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364   98
## 2294 1.700551e-03  0.0029221581  0.0126449633  113.22132  113.22192   68
## 2295 1.687105e-03  0.0040290191  0.0174082345  116.83623  116.83683  101
## 2296 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664   94
## 2297 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111  117
## 2298 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876   96
## 2299 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  122
## 2300 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  132
## 2301 1.737175e-03  0.0011245658  0.0048862573  108.03066  108.03125  104
```

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## 2302 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  130
## 2303 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364   84
## 2304 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  159
## 2305 1.775419e-03  0.0022311649  0.0097354273  116.27964  116.28024  115
## 2306 1.457651e-03  0.0073044817  0.0307162131  109.79319  109.79378  126
## 2307 1.535524e-03  0.0068716399  0.0291713915  115.81748  115.81808  132
## 2308 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  101
## 2309 1.391321e-03  0.0089501383  0.0373241132  110.25701  110.25761   87
## 2310 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  147
## 2311 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  108
## 2312 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  103
## 2313 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  128
## 2314 1.797247e-03  0.0019237985  0.0084142953  116.65029  116.65088   97
## 2315 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  113
## 2316 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  128
## 2317 1.627377e-03  0.0044721198  0.0191912835  113.68514  113.68574   74
## 2318 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217   95
## 2319 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  128
## 2320 1.599138e-03  0.0040366788  0.0172659160  108.86554  108.86614  129
## 2321 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  117
## 2322 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  109
## 2323 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  109
## 2324 1.702784e-03  0.0034601471  0.0149767464  115.72389  115.72449  129
## 2325 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  144
## 2326 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  131
## 2327 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  104
## 2328 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  120
## 2329 1.516303e-03  0.0069681511  0.0295127816  114.42726  114.42786   99
## 2330 1.457651e-03  0.0073044817  0.0307162131  109.79319  109.79378  103
## 2331 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  123
## 2332 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  134
## 2333 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  147
## 2334 1.391321e-03  0.0089501383  0.0373241132  110.25701  110.25761   83
## 2335 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958   91
## 2336 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  124
## 2337 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  141
## 2338 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   56
## 2339 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  139
## 2340 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  133
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## 2341 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  144
## 2342 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  130
## 2343 1.359263e-03  0.0114286448  0.0474642320  118.13577  118.13637  102
## 2344 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  109
## 2345 1.888077e-03  0.0004387068  0.0019375755  117.11328  117.11388  104
## 2346 1.603965e-03  0.0053310522  0.0228151360  115.35366  115.35426  134
## 2347 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   91
## 2348 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941  159
## 2349 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217   93
## 2350 1.485877e-03  0.0071334660  0.0301014362  112.11022  112.11082  131
## 2351 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  119
## 2352 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941  126
## 2353 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  107
## 2354 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535   76
## 2355 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  122
## 2356 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  104
## 2357 1.830055e-03  0.0010436853  0.0045810899  115.44518  115.44578   92
## 2358 1.715545e-03  0.0026131328  0.0113267654  113.12856  113.12915  101
## 2359 1.888077e-03  0.0004387068  0.0019375755  117.11328  117.11388  109
## 2360 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  113
## 2361 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  136
## 2362 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  147
## 2363 1.554734e-03  0.0055340005  0.0235467923  111.64640  111.64700  104
## 2364 1.540732e-03  0.0058532783  0.0248637520  111.73917  111.73976  117
## 2365 1.631807e-03  0.0019481594  0.0083644469   98.94803   98.94863   89
## 2366 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  101
## 2367 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  121
## 2368 1.557111e-03  0.0060298866  0.0256640032  114.14897  114.14957  120
## 2369 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  116
## 2370 1.736590e-03  0.0033818321  0.0146931617  118.04092  118.04152  112
## 2371 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  125
## 2372 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664  128
## 2373 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  114
## 2374 1.628910e-03  0.0033870873  0.0145376397  108.68001  108.68061  104
## 2375 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  123
## 2376 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  123
## 2377 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493  164
## 2378 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111  113
## 2379 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  102
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## 2380 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  113
## 2381 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982   99
## 2382 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  127
## 2383 1.457651e-03  0.0073044817  0.0307162131  109.79319  109.79378  132
## 2384 1.498837e-03  0.0063207646  0.0267142385  109.51489  109.51549  121
## 2385 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258   91
## 2386 1.839938e-03  0.0001530234  0.0006723852  112.38644  112.38704  109
## 2387 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  112
## 2388 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  124
## 2389 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  149
## 2390 1.584876e-03  0.0054058653  0.0230836740  113.96344  113.96404  103
## 2391 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  120
## 2392 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  144
## 2393 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  116
## 2394 1.808085e-03  0.0007659948  0.0033542467  112.57197  112.57257  112
## 2395 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  128
## 2396 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  137
## 2397 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  127
## 2398 1.526846e-03  0.0061728665  0.0261776867  111.83193  111.83253  101
## 2399 1.356519e-03  0.0103544871  0.0429878832  113.03787  113.03847   92
## 2400 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  101
## 2401 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  121
## 2402 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  116
## 2403 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  127
## 2404 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  133
## 2405 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  128
## 2406 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  123
## 2407 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  122
## 2408 1.555418e-03  0.0050136011  0.0213342631  109.14383  109.14443  113
## 2409 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  128
## 2410 1.589408e-03  0.0058917042  0.0251716502  116.46601  116.46660  139
## 2411 1.888077e-03  0.0004387068  0.0019375755  117.11328  117.11388  141
## 2412 1.652855e-03  0.0043899228  0.0188938400  115.53877  115.53937  121
## 2413 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  123
## 2414 1.705586e-03  0.0017692090  0.0076601764  108.21619  108.21678  151
## 2415 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493  119
## 2416 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982  105
## 2417 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  133
## 2418 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  123
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## 2419 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  111
## 2420 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  123
## 2421 1.450474e-03  0.0085376990  0.0358701033  114.89109  114.89168  123
## 2422 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  130
## 2423 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  154
## 2424 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  120
## 2425 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   90
## 2426 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  114
## 2427 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  123
## 2428 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  123
## 2429 1.736590e-03  0.0033818321  0.0146931617  118.04092  118.04152  136
## 2430 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  104
## 2431 1.526886e-03  0.0056665357  0.0240305719  109.32936  109.32996  128
## 2432 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  128
## 2433 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  160
## 2434 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  111
## 2435 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  141
## 2436 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  122
## 2437 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341   98
## 2438 1.808085e-03  0.0007659948  0.0033542467  112.57197  112.57257   96
## 2439 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  127
## 2440 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  119
## 2441 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194   43
## 2442 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  100
## 2443 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664  139
## 2444 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  128
## 2445 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  115
## 2446 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  121
## 2447 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  134
## 2448 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664  120
## 2449 1.689990e-03  0.0020920745  0.0090422001  108.30895  108.30955  104
## 2450 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  170
## 2451 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  132
## 2452 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  126
## 2453 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  142
## 2454 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  103
## 2455 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  112
## 2456 1.208666e-03  0.0139297680  0.0566936985  111.64848  111.64908  117
## 2457 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  131
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## 2458 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  115
## 2459 1.557111e-03  0.0060298866  0.0256640032  114.14897  114.14957  118
## 2460 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  106
## 2461 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  126
## 2462 1.569868e-03  0.0046876264  0.0199813425  109.05107  109.05167  104
## 2463 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  143
## 2464 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  156
## 2465 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  137
## 2466 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  126
## 2467 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  134
## 2468 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723   89
## 2469 1.391321e-03  0.0089501383  0.0373241132  110.25701  110.25761   64
## 2470 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  114
## 2471 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  121
## 2472 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  109
## 2473 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958   38
## 2474 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  128
## 2475 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  132
## 2476 1.570937e-03  0.0057177253  0.0243752923  114.05620  114.05680  143
## 2477 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  100
## 2478 1.294382e-03  0.0130416449  0.0537033804  118.13619  118.13678  107
## 2479 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  103
## 2480 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  157
## 2481 1.736590e-03  0.0033818321  0.0146931617  118.04092  118.04152  126
## 2482 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  125
## 2483 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941  102
## 2484 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088   98
## 2485 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705   96
## 2486 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  134
## 2487 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   94
## 2488 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194   84
## 2489 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  155
## 2490 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  117
## 2491 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  169
## 2492 1.843293e-03  0.0010341755  0.0045458026  116.37199  116.37259  105
## 2493 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  118
## 2494 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  113
## 2495 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429  114
## 2496 1.643986e-03  0.0030628082  0.0131686565  108.58724  108.58784  116
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## 2497 1.776741e-03  0.0013803525  0.0060238793  112.75750  112.75809   79
## 2498 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  109
## 2499 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  146
## 2500 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  116
## 2501 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599   93
## 2502 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  108
## 2503 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  115
## 2504 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  115
## 2505 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  119
## 2506 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  128
## 2507 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  119
## 2508 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  102
## 2509 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  130
## 2510 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  140
## 2511 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  107
## 2512 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664  134
## 2513 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  126
## 2514 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  143
## 2515 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  122
## 2516 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  112
## 2517 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  151
## 2518 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  127
## 2519 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  158
## 2520 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   90
## 2521 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  114
## 2522 1.623751e-03  0.0052577599  0.0225532547  116.74388  116.74448  143
## 2523 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  109
## 2524 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  126
## 2525 1.294382e-03  0.0130416449  0.0537033804  118.13619  118.13678  153
## 2526 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  123
## 2527 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088   72
## 2528 1.516303e-03  0.0069681511  0.0295127816  114.42726  114.42786  121
## 2529 1.562190e-03  0.0067460139  0.0287292448  117.67111  117.67171  137
## 2530 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958   64
## 2531 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  119
## 2532 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429  137
## 2533 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599   98
## 2534 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  126
## 2535 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  142
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## 2536 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111  122
## 2537 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  112
## 2538 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  142
## 2539 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  108
## 2540 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  128
## 2541 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  124
## 2542 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429  104
## 2543 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  118
## 2544 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705   96
## 2545 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  106
## 2546 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664  114
## 2547 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  142
## 2548 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599   74
## 2549 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  146
## 2550 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364  128
## 2551 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  115
## 2552 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  139
## 2553 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  143
## 2554 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  125
## 2555 1.659423e-03  0.0043697221  0.0188210263  116.00218  116.00278  120
## 2556 1.419898e-03  0.0098820098  0.0413596681  117.67195  117.67255  120
## 2557 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  135
## 2558 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664   91
## 2559 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  117
## 2560 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  119
## 2561 9.758454e-04  0.0215030882  0.0845270967  113.73569  113.73629  128
## 2562 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  135
## 2563 1.542082e-03  0.0068399085  0.0290594827  116.28089  116.28149   91
## 2564 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111  108
## 2565 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  110
## 2566 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  136
## 2567 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  126
## 2568 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  115
## 2569 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  136
## 2570 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  116
## 2571 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111  117
## 2572 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  152
## 2573 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  124
## 2574 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705  115
```

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## 2575 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  134
## 2576 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  146
## 2577 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  125
## 2578 1.643986e-03  0.0030628082  0.0131686565  108.58724  108.58784   89
## 2579 1.526846e-03  0.0061728665  0.0261776867  111.83193  111.83253  128
## 2580 1.736590e-03  0.0033818321  0.0146931617  118.04092  118.04152  133
## 2581 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  112
## 2582 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  143
## 2583 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  157
## 2584 1.693373e-03  0.0042707705  0.0184658351  118.31922  118.31982   99
## 2585 1.788999e-03  0.0013676076  0.0059762610  113.68431  113.68491   96
## 2586 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  128
## 2587 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  122
## 2588 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  119
## 2589 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  160
## 2590 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  108
## 2591 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  114
## 2592 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  115
## 2593 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  131
## 2594 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  118
## 2595 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  149
## 2596 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  114
## 2597 1.808041e-03  0.0013488109  0.0059063360  115.07453  115.07513  133
## 2598 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  112
## 2599 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  101
## 2600 1.823948e-03  0.0004593343  0.0020148494  112.47920  112.47980   86
## 2601 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  125
## 2602 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  135
## 2603 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429  105
## 2604 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  107
## 2605 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105   97
## 2606 1.903875e-03  0.0001461531  0.0006465689  117.02051  117.02111  158
## 2607 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  123
## 2608 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  110
## 2609 1.707667e-03  0.0039741601  0.0172110133  118.22645  118.22705   74
## 2610 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664   93
## 2611 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  159
## 2612 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  114
## 2613 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  142
```

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## 2614 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  139
## 2615 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  132
## 2616 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  151
## 2617 1.686127e-03  0.0026749529  0.0115564247  110.81152  110.81212  111
## 2618 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  115
## 2619 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  120
## 2620 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  155
## 2621 1.022376e-03  0.0207025514  0.0819806339  117.44295  117.44355  131
## 2622 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  124
## 2623 1.516303e-03  0.0069681511  0.0295127816  114.42726  114.42786  127
## 2624 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  125
## 2625 1.872399e-03  0.0007315882  0.0032257478  117.20604  117.20664  106
## 2626 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599  144
## 2627 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  109
## 2628 1.709410e-03  0.0001818018  0.0007874885   95.70377   95.70436  121
## 2629 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  111
## 2630 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  145
## 2631 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493  131
## 2632 1.651147e-03  0.0051623571  0.0222139829  118.59751  118.59811  129
## 2633 1.628910e-03  0.0033870873  0.0145376397  108.68001  108.68061   92
## 2634 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429  111
## 2635 1.765962e-03  0.0027907112  0.0121643108  117.85540  117.85599   91
## 2636 1.548713e-03  0.0068083946  0.0289484967  116.74430  116.74490  124
## 2637 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  130
## 2638 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  137
## 2639 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  128
## 2640 1.888077e-03  0.0004387068  0.0019375755  117.11328  117.11388  133
## 2641 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958   68
## 2642 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258   97
## 2643 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  124
## 2644 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  129
## 2645 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  117
## 2646 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576   93
## 2647 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  103
## 2648 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  134
## 2649 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  101
## 2650 1.795791e-03  0.0022008174  0.0096243943  117.66987  117.67046  137
## 2651 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  153
## 2652 1.372276e-03  0.0080475846  0.0334785209  100.52504  100.52563   96
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## 2653 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  103
## 2654 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770  112
## 2655 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  108
## 2656 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088   97
## 2657 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576   99
## 2658 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  130
## 2659 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  148
## 2660 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  119
## 2661 1.623537e-03  0.0057581868  0.0246992313  118.78304  118.78364   89
## 2662 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  128
## 2663 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  130
## 2664 1.689990e-03  0.0020920745  0.0090422001  108.30895  108.30955  120
## 2665 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  146
## 2666 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  102
## 2667 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  132
## 2668 1.255911e-03  0.0134117954  0.0549420002  115.35574  115.35634   90
## 2669 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  112
## 2670 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  119
## 2671 1.665113e-03  0.0048648717  0.0209673114  118.50475  118.50535  145
## 2672 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  125
## 2673 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493  127
## 2674 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  134
## 2675 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  139
## 2676 1.450474e-03  0.0085376990  0.0358701033  114.89109  114.89168  106
## 2677 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723   69
## 2678 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  114
## 2679 1.721314e-03  0.0014467050  0.0062748658  108.12342  108.12402  111
## 2680 1.688216e-03  0.0037630315  0.0162610188  115.81665  115.81725  123
## 2681 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  172
## 2682 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  128
## 2683 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  138
## 2684 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958   77
## 2685 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  137
## 2686 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   93
## 2687 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  160
## 2688 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  104
## 2689 1.856842e-03  0.0010247945  0.0045110944  117.29881  117.29941  115
## 2690 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  176
## 2691 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444   87
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## 2692 1.280314e-03  0.0103620133  0.0425887631   96.35478    96.35538    90
## 2693 1.099480e-03  0.0195824537  0.0784585191  123.00384   123.00444   116
## 2694 1.751219e-03  0.0030861194  0.0134301153  117.94816   117.94876   134
## 2695 1.099480e-03  0.0195824537  0.0784585191  123.00384   123.00444    86
## 2696 1.623537e-03  0.0057581868  0.0246992313  118.78304   118.78364   110
## 2697 1.582917e-03  0.0066540410  0.0284069900  119.06134   119.06194    97
## 2698 1.637288e-03  0.0054601297  0.0234579533  118.69028   118.69088   109
## 2699 1.623537e-03  0.0057581868  0.0246992313  118.78304   118.78364   108
## 2700 1.582917e-03  0.0066540410  0.0284069900  119.06134   119.06194   126
## 2701 1.665113e-03  0.0048648717  0.0209673114  118.50475   118.50535   100
## 2702 1.099480e-03  0.0195824537  0.0784585191  123.00384   123.00444   137
## 2703 1.099480e-03  0.0195824537  0.0784585191  123.00384   123.00444   115
## 2704 1.457651e-03  0.0073044817  0.0307162131  109.79319   109.79378   128
## 2705 1.454182e-03  0.0096577294  0.0405944502  119.98898   119.98958   131
## 2706 1.335159e-03  0.0126865985  0.0525236430  120.91663   120.91723   130
## 2707 1.810878e-03  0.0019063373  0.0083502653  117.57710   117.57770   129
## 2708 1.517293e-03  0.0081525958  0.0345334845  119.52516   119.52576   114
## 2709 1.693373e-03  0.0042707705  0.0184658351  118.31922   118.31982   111
## 2710 1.454182e-03  0.0096577294  0.0405944502  119.98898   119.98958   192
## 2711 1.066369e-03  0.0200377597  0.0798854789  120.68680   120.68740    87
## 2712 1.679188e-03  0.0045676753  0.0197179316  118.41198   118.41258    98
## 2713 1.485877e-03  0.0071334660  0.0301014362  112.11022   112.11082   115
## 2714 1.454182e-03  0.0096577294  0.0405944502  119.98898   119.98958   151
## 2715 1.810878e-03  0.0019063373  0.0083502653  117.57710   117.57770    96
## 2716 1.679188e-03  0.0045676753  0.0197179316  118.41198   118.41258    54
## 2717 1.517293e-03  0.0081525958  0.0345334845  119.52516   119.52576   110
## 2718 1.651147e-03  0.0051623571  0.0222139829  118.59751   118.59811   125
## 2719 1.393499e-03  0.0111691563  0.0465908535  120.45281   120.45341   108
## 2720 1.516303e-03  0.0069681511  0.0295127816  114.42726   114.42786   112
## 2721 1.782825e-03  0.0013739585  0.0059999682  113.22090   113.22150   128
## 2722 1.637288e-03  0.0054601297  0.0234579533  118.69028   118.69088   131
## 2723 1.582917e-03  0.0066540410  0.0284069900  119.06134   119.06194    87
## 2724 1.393499e-03  0.0111691563  0.0465908535  120.45281   120.45341   125
## 2725 1.732146e-03  0.0017279493  0.0075037739  110.53322   110.53382   104
## 2726 1.665113e-03  0.0048648717  0.0209673114  118.50475   118.50535   149
## 2727 1.651147e-03  0.0051623571  0.0222139829  118.59751   118.59811   166
## 2728 1.810878e-03  0.0019063373  0.0083502653  117.57710   117.57770   113
## 2729 1.810878e-03  0.0019063373  0.0083502653  117.57710   117.57770   139
## 2730 1.454182e-03  0.0096577294  0.0405944502  119.98898   119.98958   102
```

147

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## 2731 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  139
## 2732 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  119
## 2733 1.745896e-03  0.0019960729  0.0086813601  112.94303  112.94362   91
## 2734 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  153
## 2735 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723   87
## 2736 1.671039e-03  0.0029913049  0.0129010483  110.90428  110.90488   80
## 2737 1.327783e-03  0.0106031405  0.0438555174  110.72083  110.72143  124
## 2738 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  149
## 2739 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  135
## 2740 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  132
## 2741 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  142
## 2742 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  130
## 2743 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  123
## 2744 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  126
## 2745 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  116
## 2746 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  116
## 2747 1.810878e-03  0.0019063373  0.0083502653  117.57710  117.57770   99
## 2748 1.701538e-03  0.0037286067  0.0161364745  116.74347  116.74407  119
## 2749 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  122
## 2750 1.761256e-03  0.0016880439  0.0073541339  112.85026  112.85086  115
## 2751 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  111
## 2752 1.751219e-03  0.0030861194  0.0134301153  117.94816  117.94876  108
## 2753 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  140
## 2754 1.454182e-03  0.0096577294  0.0405944502  119.98898  119.98958  119
## 2755 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  134
## 2756 1.626517e-03  0.0039423705  0.0169162796  111.18258  111.18317  130
## 2757 1.780819e-03  0.0024956096  0.0108957399  117.76263  117.76323  107
## 2758 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  147
## 2759 1.841403e-03  0.0013183232  0.0057936238  117.39157  117.39217  109
## 2760 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  114
## 2761 1.637288e-03  0.0054601297  0.0234579533  118.69028  118.69088  118
## 2762 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  110
## 2763 1.335159e-03  0.0126865985  0.0525236430  120.91663  120.91723  127
## 2764 1.526886e-03  0.0056665357  0.0240305719  109.32936  109.32996  102
## 2765 1.279079e-03  0.0142097869  0.0583937480  121.38046  121.38105  158
## 2766 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  113
## 2767 1.679188e-03  0.0045676753  0.0197179316  118.41198  118.41258  121
## 2768 1.888077e-03  0.0004387068  0.0019375755  117.11328  117.11388  130
## 2769 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493   85
```

```
## 2770 1.722073e-03  0.0036778464  0.0159534583  118.13369  118.13429   87
## 2771 1.582917e-03  0.0066540410  0.0284069900  119.06134  119.06194  135
## 2772 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  110
## 2773 1.826082e-03  0.0016121717  0.0070733446  117.48434  117.48493  146
## 2774 1.099480e-03  0.0195824537  0.0784585191  123.00384  123.00444  135
## 2775 1.517293e-03  0.0081525958  0.0345334845  119.52516  119.52576  118
## 2776 1.393499e-03  0.0111691563  0.0465908535  120.45281  120.45341  111
##      cigs faminc    eps
## 1       0   13.5 0.00500
## 2       0    7.5 0.00500
## 3       0    0.5 0.00500
## 4       0   15.5 0.00500
## 5       0   27.5 0.00500
## 6       0    7.5 0.00500
## 7       0   65.0 0.00500
## 8       0   27.5 0.00500
## 9       0   27.5 0.00500
## 10      0   37.5 0.00500
## 11      0   27.5 0.00500
## 12      0   27.5 0.00500
## 13      0    6.5 0.00500
## 14      0   10.5 0.00500
## 15      0   12.5 0.00500
## 16      0   17.5 0.00500
## 17      0   42.5 0.00500
## 18      0    4.5 0.00500
## 19      0   32.5 0.00500
## 20      0    6.5 0.00500
## 21      0   47.5 0.00500
## 22      0   22.5 0.00500
## 23      6   15.5 0.00500
## 24      0   13.5 0.00500
## 25      0   37.5 0.00500
## 26      0    2.5 0.00500
## 27      0    2.5 0.00500
## 28      0   32.5 0.00500
## 29      0   22.5 0.00500
## 30      0    0.5 0.00500
## 31      0   65.0 0.00500
```

```
## 32      0   65.0 0.00500
## 33      0   65.0 0.00500
## 34      0   27.5 0.00500
## 35      0    7.5 0.00500
## 36      0   47.5 0.00500
## 37      0   65.0 0.00500
## 38      0   65.0 0.00500
## 39      0   32.5 0.00500
## 40      0   13.5 0.00500
## 41      0   65.0 0.00500
## 42      0   47.5 0.00500
## 43      0   37.5 0.00500
## 44      0   32.5 0.00500
## 45      0   18.5 0.00500
## 46      0   65.0 0.00500
## 47      0   65.0 0.00500
## 48      0   11.5 0.00500
## 49      0   32.5 0.00500
## 50      0   65.0 0.00500
## 51      0   17.5 0.00500
## 52      0   16.5 0.00500
## 53      0   22.5 0.00500
## 54      0   42.5 0.00500
## 55      0   32.5 0.00500
## 56      0   11.5 0.00500
## 57      0   65.0 0.00500
## 58      0   27.5 0.00500
## 59      0   27.5 0.00500
## 60      0   17.5 0.00500
## 61      0   65.0 0.00500
## 62      0    3.5 0.00500
## 63      0    0.5 0.00500
## 64     10    0.5 0.00500
## 65      0    3.5 0.00500
## 66      0   65.0 0.00500
## 67      0   22.5 0.00500
## 68      0   22.5 0.00500
## 69     20    7.5 0.00500
## 70      0   27.5 0.00500
```

```
## 71       0   18.5 0.00500
## 72       0   37.5 0.00500
## 73       0   22.5 0.00500
## 74       0   27.5 0.00500
## 75      40   18.5 0.00500
## 76       0   22.5 0.00500
## 77       0    0.5 0.00500
## 78       0   32.5 0.00500
## 79       0   27.5 0.00500
## 80       0   32.5 0.00500
## 81       0   15.5 0.00500
## 82       0   16.5 0.00500
## 83       0   19.5 0.00500
## 84       0   15.5 0.00500
## 85       0   14.5 0.00500
## 86       0   32.5 0.00500
## 87       0   14.5 0.00500
## 88       0    8.5 0.00500
## 89       0    8.5 0.00500
## 90       0    7.5 0.00500
## 91       0   32.5 0.00500
## 92       0   65.0 0.00500
## 93      10    7.5 0.00500
## 94       0   27.5 0.00500
## 95      10   13.5 0.00500
## 96       0   27.5 0.00500
## 97       0   18.5 0.00500
## 98      20   22.5 0.00500
## 99       0   65.0 0.00500
## 100      0   22.5 0.00500
## 101      0   42.5 0.00500
## 102      0   37.5 0.00500
## 103      3   11.5 0.00500
## 104      0   65.0 0.00500
## 105      0    7.5 0.00500
## 106      0   22.5 0.00500
## 107      0   65.0 0.00500
## 108     10   27.5 0.00500
## 109      0    7.5 0.00500
```

```
## 110      0   65.0 0.00500
## 111      0    8.5 0.00500
## 112      0   12.5 0.00500
## 113      0   37.5 0.00500
## 114      0   14.5 0.00500
## 115      0   65.0 0.00500
## 116     20   37.5 0.00500
## 117      0   27.5 0.00500
## 118      0   65.0 0.00500
## 119      0   32.5 0.00500
## 120      0    6.5 0.00500
## 121      0   65.0 0.00500
## 122     40    6.5 0.00500
## 123      0   65.0 0.00500
## 124      0   65.0 0.00500
## 125      0    7.5 0.00500
## 126      0   17.5 0.00500
## 127      0   27.5 0.00500
## 128      0   37.5 0.00500
## 129      0   22.5 0.00500
## 130      0   22.5 0.00500
## 131      0   65.0 0.00500
## 132      0   42.5 0.00500
## 133      0    2.5 0.00500
## 134      0   10.5 0.00500
## 135      0   42.5 0.00500
## 136      0   14.5 0.00500
## 137      0   42.5 0.00500
## 138      0   32.5 0.00500
## 139      0    3.5 0.00500
## 140      0   42.5 0.00500
## 141      0   15.5 0.00500
## 142      0   32.5 0.00500
## 143      0   19.5 0.00500
## 144      0   42.5 0.00500
## 145      0   65.0 0.00500
## 146      0   13.5 0.00500
## 147      0   27.5 0.00500
## 148      0   42.5 0.00500
```

```
## 149    0    5.5 0.00500
## 150    0    5.5 0.00500
## 151    0   65.0 0.00500
## 152    0   22.5 0.00500
## 153    0   18.5 0.00500
## 154    0   27.5 0.00500
## 155    0   65.0 0.00500
## 156    4   32.5 0.00500
## 157    0   22.5 0.00500
## 158    0   37.5 0.00500
## 159    0   65.0 0.00500
## 160    0    1.5 0.00500
## 161    0   27.5 0.00500
## 162    0   47.5 0.00500
## 163    0   32.5 0.00500
## 164    0   65.0 0.00500
## 165    0    8.5 0.00500
## 166    0   65.0 0.00500
## 167    0   27.5 0.00500
## 168    0   37.5 0.00500
## 169    0   37.5 0.00500
## 170    0   22.5 0.00500
## 171    0   37.5 0.00500
## 172    5    8.5 0.00500
## 173    0   42.5 0.00500
## 174    0   65.0 0.00500
## 175    0   12.5 0.00500
## 176    0   27.5 0.00500
## 177    0   27.5 0.00500
## 178    0   65.0 0.00500
## 179    0   22.5 0.00500
## 180    0   18.5 0.00500
## 181    0   13.5 0.00500
## 182    0   18.5 0.00500
## 183    0   27.5 0.00500
## 184    0   22.5 0.00500
## 185    0   65.0 0.00500
## 186   10   32.5 0.00500
## 187    0   22.5 0.00500
```

```
## 188    0   37.5 0.00500
## 189   20   47.5 0.00500
## 190    0   65.0 0.00500
## 191    0   32.5 0.00500
## 192    0   10.5 0.00500
## 193    0   22.5 0.00500
## 194    0   37.5 0.00500
## 195    0   65.0 0.00500
## 196    0   65.0 0.00500
## 197    0   10.5 0.00500
## 198    0   32.5 0.00500
## 199    0   32.5 0.00500
## 200    0   65.0 0.00500
## 201    0   47.5 0.00500
## 202    8   32.5 0.00500
## 203    0    6.5 0.00500
## 204    0   12.5 0.00500
## 205    0   47.5 0.00500
## 206    0   19.5 0.00500
## 207    0    7.5 0.00500
## 208    0    8.5 0.00500
## 209    0   19.5 0.00500
## 210    0   65.0 0.00500
## 211    0   32.5 0.00500
## 212    0   65.0 0.00500
## 213    0   19.5 0.00500
## 214    0   17.5 0.00500
## 215    0   27.5 0.00500
## 216    0   12.5 0.00500
## 217    4   27.5 0.00500
## 218    0   32.5 0.00500
## 219    0   22.5 0.00500
## 220    0   18.5 0.00500
## 221   20   32.5 0.00500
## 222    0   42.5 0.00500
## 223    0   37.5 0.00500
## 224    0   32.5 0.00500
## 225    0    9.5 0.00500
## 226   10   15.5 0.00500
```

```
## 227     0   65.0 0.00500
## 228     0   65.0 0.00500
## 229    12   22.5 0.00500
## 230     0   32.5 0.00500
## 231     0   65.0 0.00500
## 232     0   65.0 0.00500
## 233     0    5.5 0.00500
## 234     0   22.5 0.00500
## 235     0   13.5 0.00500
## 236     0   65.0 0.00500
## 237     0   65.0 0.00500
## 238     0   27.5 0.00500
## 239     0   27.5 0.00500
## 240     0   27.5 0.00500
## 241     0   10.5 0.00500
## 242     0    9.5 0.00500
## 243     0    0.5 0.00500
## 244     0   32.5 0.00500
## 245     0   19.5 0.00500
## 246     0   42.5 0.00500
## 247     0   65.0 0.00500
## 248     0   65.0 0.00500
## 249     0   42.5 0.00500
## 250     0   37.5 0.00500
## 251     0    6.5 0.00500
## 252     0   65.0 0.00500
## 253     0    1.5 0.00500
## 254     0   65.0 0.00500
## 255     0   32.5 0.00500
## 256     0   65.0 0.00500
## 257    20   17.5 0.00500
## 258     0   18.5 0.00500
## 259     0   13.5 0.00500
## 260     0   10.5 0.00500
## 261     0   18.5 0.00500
## 262    10   13.5 0.00500
## 263    10   32.5 0.00500
## 264     0   15.5 0.00500
## 265     0   10.5 0.00500
```

```
## 266      0   32.5 0.00500
## 267      0   13.5 0.00500
## 268      0   16.5 0.00500
## 269     20    6.5 0.00500
## 270      0    8.5 0.00500
## 271      0   22.5 0.00500
## 272      0   27.5 0.00500
## 273     20   12.5 0.00500
## 274      0   19.5 0.00500
## 275      0   65.0 0.00500
## 276      0   65.0 0.00500
## 277      0   15.5 0.00500
## 278      0   37.5 0.00500
## 279      0   47.5 0.00500
## 280      0   47.5 0.00500
## 281      0   37.5 0.00500
## 282      4   32.5 0.00500
## 283      0   65.0 0.00500
## 284      0   27.5 0.00500
## 285      0   65.0 0.00500
## 286      0   65.0 0.00500
## 287      0   32.5 0.00500
## 288      0   22.5 0.00500
## 289      0   17.5 0.00500
## 290      1   32.5 0.00500
## 291      0   65.0 0.00500
## 292      0   37.5 0.00500
## 293      0   37.5 0.00500
## 294      0   14.5 0.00500
## 295     20   18.5 0.00500
## 296      0   65.0 0.00500
## 297      0   47.5 0.00500
## 298      0   27.5 0.00500
## 299     40   27.5 0.00500
## 300      0   27.5 0.00500
## 301      0   22.5 0.00500
## 302      0   32.5 0.00500
## 303     20    3.5 0.00500
## 304     10   18.5 0.00500
```

```
## 305      0   19.5 0.00500
## 306      0   32.5 0.00500
## 307      0   22.5 0.00500
## 308      0   65.0 0.00500
## 309      0   65.0 0.00500
## 310      0   14.5 0.00500
## 311      0   65.0 0.00500
## 312     10   14.5 0.00500
## 313      0   37.5 0.00500
## 314      0   13.5 0.00500
## 315     20    4.5 0.00500
## 316      0   22.5 0.00500
## 317      0   37.5 0.00500
## 318      0   65.0 0.00500
## 319      0   11.5 0.00500
## 320      0   22.5 0.00500
## 321      0   65.0 0.00500
## 322      0   37.5 0.00500
## 323      0   10.5 0.00500
## 324      0   37.5 0.00500
## 325      0   22.5 0.00500
## 326      0   15.5 0.00500
## 327      0   65.0 0.00500
## 328     15    0.5 0.00500
## 329      0   32.5 0.00500
## 330      0   10.5 0.00500
## 331      0   22.5 0.00500
## 332      0   47.5 0.00500
## 333      0   27.5 0.00500
## 334      0   65.0 0.00500
## 335      0   47.5 0.00500
## 336      0    4.5 0.00500
## 337      0    8.5 0.00500
## 338      0   47.5 0.00500
## 339     20   12.5 0.00500
## 340      0   65.0 0.00500
## 341      0    9.5 0.00500
## 342     20   37.5 0.00500
## 343     12   27.5 0.00500
```

```
## 344    0   65.0 0.00500
## 345    8    7.5 0.00500
## 346    0   65.0 0.00500
## 347    0   47.5 0.00500
## 348    0   65.0 0.00500
## 349    0   42.5 0.00500
## 350    0   27.5 0.00500
## 351   15   37.5 0.00500
## 352    0   47.5 0.00500
## 353   10    2.5 0.00500
## 354    0    7.5 0.00500
## 355    0    6.5 0.00500
## 356    0   37.5 0.00500
## 357   10   32.5 0.00500
## 358    0   47.5 0.00500
## 359    0   42.5 0.00500
## 360   20    9.5 0.00500
## 361    0   47.5 0.00500
## 362    0   65.0 0.00500
## 363    0   22.5 0.00500
## 364    0   42.5 0.00500
## 365    0   37.5 0.00500
## 366    0   19.5 0.00500
## 367    0   42.5 0.00500
## 368    0   14.5 0.00500
## 369    0   37.5 0.00500
## 370    0    7.5 0.00500
## 371    0   37.5 0.00500
## 372    0   32.5 0.00500
## 373    0    9.5 0.00500
## 374    0   65.0 0.00500
## 375    0   32.5 0.00500
## 376   10    5.5 0.00500
## 377    0   42.5 0.00500
## 378    0   22.5 0.00500
## 379    0   42.5 0.00500
## 380    0    7.5 0.00500
## 381    0   13.5 0.00500
## 382    0   27.5 0.00500
```

```
## 383    0   42.5 0.00500
## 384    0   32.5 0.00500
## 385    0   32.5 0.00500
## 386    0    5.5 0.00500
## 387    0   47.5 0.00500
## 388    0   47.5 0.00500
## 389    0   42.5 0.00500
## 390    0   37.5 0.00500
## 391    0   32.5 0.00500
## 392    0   65.0 0.00500
## 393    0   47.5 0.00500
## 394    0   42.5 0.00500
## 395    0   27.5 0.00500
## 396    0   17.5 0.00500
## 397    0   18.5 0.00500
## 398    0   42.5 0.00500
## 399    0   37.5 0.00500
## 400    0   42.5 0.00500
## 401    0   32.5 0.00500
## 402    0    2.5 0.00500
## 403    0   18.5 0.00500
## 404    0    4.5 0.00500
## 405    0   22.5 0.00500
## 406   20    4.5 0.00500
## 407    0   27.5 0.00500
## 408    0   19.5 0.00500
## 409    0   27.5 0.00500
## 410    0   19.5 0.00500
## 411    0   18.5 0.00500
## 412    0   22.5 0.00500
## 413    0   22.5 0.00500
## 414   20    1.5 0.00500
## 415    0    4.5 0.00500
## 416    4    3.5 0.00500
## 417    0    3.5 0.00500
## 418    0   42.5 0.00500
## 419    0   37.5 0.00500
## 420    0   22.5 0.00500
## 421    0   37.5 0.00500
```

```
## 422    0   15.5 0.00500
## 423    0   27.5 0.00500
## 424    0   32.5 0.00500
## 425    0   22.5 0.00500
## 426    0   27.5 0.00500
## 427    0   27.5 0.00500
## 428    0    4.5 0.00500
## 429    0   27.5 0.00500
## 430    0   22.5 0.00500
## 431    0   27.5 0.00500
## 432    0   19.5 0.00500
## 433   20    4.5 0.00500
## 434   10   11.5 0.00500
## 435    0   27.5 0.00500
## 436   30   37.5 0.00500
## 437    0    6.5 0.00500
## 438    0   32.5 0.00500
## 439    0   18.5 0.00500
## 440    0   32.5 0.00500
## 441    0   42.5 0.00500
## 442    0   22.5 0.00500
## 443    0   16.5 0.00500
## 444    0   42.5 0.00500
## 445   15   37.5 0.00500
## 446    0   13.5 0.00500
## 447    0   22.5 0.00500
## 448    0   22.5 0.00500
## 449    0   37.5 0.00500
## 450    0   27.5 0.00500
## 451    0   16.5 0.00500
## 452    0   47.5 0.00500
## 453    0   22.5 0.00500
## 454    0   22.5 0.00500
## 455    0   47.5 0.00500
## 456    0   22.5 0.00500
## 457    0   14.5 0.00500
## 458    0   16.5 0.00500
## 459    0   14.5 0.00500
## 460    0   18.5 0.00500
```

```
## 461    0    3.5 0.00500
## 462   15   27.5 0.00500
## 463    0   22.5 0.00500
## 464    0   17.5 0.00500
## 465    0   18.5 0.00500
## 466    0    0.5 0.00500
## 467    0   17.5 0.00500
## 468    0   18.5 0.00500
## 469    0    0.5 0.00500
## 470    0   37.5 0.00500
## 471    5    7.5 0.00500
## 472    0   18.5 0.00500
## 473    0    4.5 0.00500
## 474    0   27.5 0.00500
## 475    0    6.5 0.00500
## 476    0   27.5 0.00500
## 477    0   11.5 0.00500
## 478    0   42.5 0.00500
## 479    0   22.5 0.00500
## 480    0   19.5 0.00500
## 481    0   65.0 0.00500
## 482    0   37.5 0.00500
## 483    0   42.5 0.00500
## 484    0   42.5 0.00500
## 485    0   37.5 0.00500
## 486    0   47.5 0.00500
## 487   20   14.5 0.00500
## 488    0   32.5 0.00500
## 489   20   15.5 0.00500
## 490    0   32.5 0.00500
## 491    0   18.5 0.00500
## 492    0    2.5 0.00500
## 493    0    5.5 0.00500
## 494    0   47.5 0.00500
## 495    5    3.5 0.00500
## 496    0   42.5 0.00500
## 497    0    6.5 0.00500
## 498    0   32.5 0.00500
## 499    0   47.5 0.00500
```

```
## 500     0    3.5 0.00500
## 501     0   27.5 0.00500
## 502     0   22.5 0.00500
## 503     0   27.5 0.00500
## 504     0   18.5 0.00500
## 505    20   12.5 0.00500
## 506     0    0.5 0.00500
## 507     0    1.5 0.00500
## 508     5   37.5 0.00500
## 509     5   18.5 0.00500
## 510     0   22.5 0.00500
## 511     0   47.5 0.00500
## 512     0   65.0 0.00500
## 513     0   65.0 0.00500
## 514    30   11.5 0.00500
## 515     0   32.5 0.00500
## 516     0   22.5 0.00500
## 517     0   32.5 0.00500
## 518     0   65.0 0.00500
## 519     0   27.5 0.00500
## 520     0   18.5 0.00500
## 521     0   37.5 0.00500
## 522     0   32.5 0.00500
## 523     0   19.5 0.00500
## 524     0   22.5 0.00500
## 525     0   27.5 0.00500
## 526     0   22.5 0.00500
## 527     0   47.5 0.00500
## 528     0   22.5 0.00500
## 529     0   18.5 0.00500
## 530     0   17.5 0.00500
## 531     0   18.5 0.00500
## 532    10   65.0 0.00500
## 533     0   32.5 0.00500
## 534     0   47.5 0.00500
## 535     0   13.5 0.00500
## 536     0   32.5 0.00500
## 537     0   65.0 0.00500
## 538     6   42.5 0.00500
```

```
## 539     0   32.5 0.00500
## 540     0   42.5 0.00500
## 541     0   37.5 0.00500
## 542     0    9.5 0.00500
## 543     0   37.5 0.00500
## 544     0   65.0 0.00500
## 545     0   42.5 0.00500
## 546     0   37.5 0.00500
## 547    20    9.5 0.00500
## 548     0   19.5 0.00500
## 549     0   19.5 0.00500
## 550     0   47.5 0.00500
## 551     5   42.5 0.00500
## 552     0   27.5 0.00500
## 553    20   65.0 0.00500
## 554     0   32.5 0.00500
## 555     0   47.5 0.00500
## 556     0   65.0 0.00500
## 557     0    6.5 0.00500
## 558     0   42.5 0.00500
## 559    10   19.5 0.00500
## 560     2   65.0 0.00500
## 561     0   27.5 0.00500
## 562     5   37.5 0.00500
## 563     0   27.5 0.00500
## 564     0   22.5 0.00500
## 565     0   27.5 0.00500
## 566     1   37.5 0.00500
## 567     0   22.5 0.00500
## 568    20   27.5 0.00500
## 569     0   32.5 0.00500
## 570     0   32.5 0.00500
## 571     0   37.5 0.00500
## 572     0   37.5 0.00500
## 573     0   19.5 0.00500
## 574     0   65.0 0.00500
## 575     0   65.0 0.00500
## 576     0   32.5 0.00500
## 577     0   42.5 0.00500
```

```
## 578     0   22.5 0.00500
## 579     0   22.5 0.00500
## 580    10   16.5 0.00500
## 581     0   22.5 0.00500
## 582     0   22.5 0.00500
## 583     0   65.0 0.00500
## 584    10   13.5 0.00500
## 585     0   32.5 0.00500
## 586     0   37.5 0.00500
## 587     0   37.5 0.00500
## 588     0   27.5 0.00500
## 589    20    6.5 0.00500
## 590     0   19.5 0.00500
## 591     0   32.5 0.00500
## 592     0   22.5 0.00500
## 593     0   65.0 0.00500
## 594     0   27.5 0.00500
## 595     0   18.5 0.00500
## 596     0   47.5 0.00500
## 597     0    1.5 0.00500
## 598     0   42.5 0.00500
## 599     0    1.5 0.00500
## 600     0   65.0 0.00500
## 601     0   22.5 0.00500
## 602     0   42.5 0.00500
## 603     0    0.5 0.00500
## 604     0   47.5 0.00500
## 605     0   65.0 0.00500
## 606    20   11.5 0.00500
## 607    20    5.5 0.00500
## 608     0   65.0 0.00500
## 609     3    2.5 0.00500
## 610     0   65.0 0.00500
## 611    10   32.5 0.00500
## 612     0    2.5 0.00500
## 613     0   47.5 0.00500
## 614     0    5.5 0.00500
## 615     0   65.0 0.00500
## 616    20   11.5 0.00500
```

```
## 617   40   22.5 0.00500
## 618    0   65.0 0.00500
## 619    0   13.5 0.00500
## 620    0   27.5 0.00500
## 621    0   65.0 0.00500
## 622   20   32.5 0.00500
## 623    0   65.0 0.00500
## 624    0    8.5 0.00500
## 625    0   27.5 0.00500
## 626    0   65.0 0.00500
## 627    0   32.5 0.00500
## 628    8    5.5 0.00500
## 629   20   22.5 0.00500
## 630    0    5.5 0.00500
## 631    0   27.5 0.00500
## 632    0    7.5 0.00500
## 633   10    4.5 0.00500
## 634    0   42.5 0.00500
## 635    0   32.5 0.00500
## 636    0   22.5 0.00500
## 637    0   27.5 0.00500
## 638    0   47.5 0.00500
## 639    0   32.5 0.00500
## 640    0    3.5 0.00500
## 641    7   32.5 0.00500
## 642    0    9.5 0.00500
## 643    0   47.5 0.00500
## 644    0   42.5 0.00500
## 645    0    9.5 0.00500
## 646    0   18.5 0.00500
## 647    0   37.5 0.00500
## 648    0   27.5 0.00500
## 649    0   37.5 0.00500
## 650    0   18.5 0.00500
## 651    0   65.0 0.00500
## 652    0   32.5 0.00500
## 653    0   27.5 0.00500
## 654    0   65.0 0.00500
## 655    8   22.5 0.00500
```

```
## 656      0   65.0 0.00500
## 657      0   37.5 0.00500
## 658      0   22.5 0.00500
## 659      0   47.5 0.00500
## 660      0   42.5 0.00500
## 661      0   12.5 0.00500
## 662      0   18.5 0.00500
## 663     20    6.5 0.00500
## 664      0   42.5 0.00500
## 665      0   27.5 0.00500
## 666      0   65.0 0.00500
## 667      0   65.0 0.00500
## 668      0   27.5 0.00500
## 669     10   27.5 0.00500
## 670      0   42.5 0.00500
## 671      0   27.5 0.00500
## 672      0   65.0 0.00500
## 673      0   65.0 0.00500
## 674      0   27.5 0.00500
## 675      0   27.5 0.00500
## 676      0   65.0 0.00500
## 677      0   14.5 0.00500
## 678      0   22.5 0.00500
## 679      0   10.5 0.00500
## 680      0   15.5 0.00500
## 681      0   32.5 0.00500
## 682      0   32.5 0.00500
## 683      0    4.5 0.00500
## 684      0    6.5 0.00500
## 685      0    8.5 0.00500
## 686      0   32.5 0.00500
## 687      0   32.5 0.00500
## 688      0   32.5 0.00500
## 689      0   47.5 0.00500
## 690     20   17.5 0.00500
## 691      0   37.5 0.00500
## 692      0   27.5 0.00500
## 693      0    7.5 0.00500
## 694      0   10.5 0.00500
```

```
## 695     0   22.5 0.00500
## 696     0   27.5 0.00500
## 697     5   32.5 0.00500
## 698     0   37.5 0.00500
## 699     0    4.5 0.00500
## 700     0    2.5 0.00500
## 701     0   47.5 0.00500
## 702    10   22.5 0.00500
## 703     0    1.5 0.00500
## 704     0   22.5 0.00500
## 705     0   27.5 0.00500
## 706     0   65.0 0.00500
## 707     0   42.5 0.00500
## 708     0   12.5 0.00500
## 709     0   47.5 0.00500
## 710    20   32.5 0.00500
## 711    15   37.5 0.00500
## 712     0   42.5 0.00500
## 713     0   22.5 0.00500
## 714     0   17.5 0.00500
## 715     0   32.5 0.00500
## 716     0   22.5 0.00500
## 717     0   18.5 0.00500
## 718     7   32.5 0.00500
## 719     0   27.5 0.00500
## 720     0    3.5 0.00500
## 721     0   15.5 0.00500
## 722     0   65.0 0.00500
## 723     0   37.5 0.00500
## 724     0   32.5 0.00500
## 725     0    9.5 0.00500
## 726    15   22.5 0.00500
## 727     0   42.5 0.00500
## 728     0   65.0 0.00500
## 729     1   37.5 0.00500
## 730     0   22.5 0.00500
## 731     0   15.5 0.00500
## 732    15   42.5 0.00500
## 733     0   14.5 0.00500
```

```
## 734    0   37.5 0.00500
## 735    0   22.5 0.00500
## 736    0   65.0 0.00500
## 737    0   47.5 0.00500
## 738    0   10.5 0.00500
## 739    0   65.0 0.00500
## 740    0   27.5 0.00500
## 741    0   65.0 0.00500
## 742    0   27.5 0.00500
## 743    0   65.0 0.00500
## 744    5   16.5 0.00500
## 745   10   65.0 0.00500
## 746    0   42.5 0.00500
## 747    0   12.5 0.00500
## 748    0   11.5 0.00500
## 749    0   37.5 0.00500
## 750   12   65.0 0.00500
## 751    0   32.5 0.00500
## 752    0   65.0 0.00500
## 753   10   65.0 0.00500
## 754    0   65.0 0.00500
## 755    0   65.0 0.00500
## 756   20   22.5 0.00500
## 757    0   65.0 0.00500
## 758   10   47.5 0.00500
## 759   10   27.5 0.00500
## 760    0   65.0 0.00500
## 761    0   65.0 0.00500
## 762    0   32.5 0.00500
## 763    0   22.5 0.00500
## 764    0   65.0 0.00500
## 765    0   65.0 0.00500
## 766    0    6.5 0.00500
## 767    0   65.0 0.00500
## 768    4   37.5 0.00500
## 769    0   65.0 0.00500
## 770    0   32.5 0.00500
## 771    0   27.5 0.00500
## 772    0   65.0 0.00500
```

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```
## 773    0   27.5 0.00500
## 774    0   22.5 0.00500
## 775    0   22.5 0.00500
## 776    0   13.5 0.00500
## 777    0   22.5 0.00500
## 778    0   32.5 0.00500
## 779    0   12.5 0.00500
## 780    4    6.5 0.00500
## 781   15   22.5 0.00500
## 782    0   42.5 0.00500
## 783    0   42.5 0.00500
## 784    0   65.0 0.00500
## 785    0   27.5 0.00500
## 786    0   22.5 0.00500
## 787    0   65.0 0.00500
## 788    3   37.5 0.00500
## 789    0   65.0 0.00500
## 790    0   32.5 0.00500
## 791    0   65.0 0.00500
## 792    0   65.0 0.00500
## 793    0   22.5 0.00500
## 794    0   22.5 0.00500
## 795    0   17.5 0.00500
## 796    0   19.5 0.00500
## 797    0   27.5 0.00500
## 798   10   47.5 0.00500
## 799    0   47.5 0.00500
## 800    0   22.5 0.00500
## 801    0    9.5 0.00500
## 802    0   42.5 0.00500
## 803   10   10.5 0.00500
## 804    0   65.0 0.00500
## 805    0   47.5 0.00500
## 806    0   42.5 0.00500
## 807   20   22.5 0.00500
## 808    0   27.5 0.00500
## 809    0   65.0 0.00500
## 810    0    8.5 0.00500
## 811    0   22.5 0.00500
```

```
## 812      0   19.5 0.00500
## 813      0    8.5 0.00500
## 814      0   47.5 0.00500
## 815      0    8.5 0.00500
## 816      2    4.5 0.00500
## 817      0   65.0 0.00500
## 818      0   32.5 0.00500
## 819      0   12.5 0.00500
## 820      0   65.0 0.00500
## 821     10   19.5 0.00500
## 822      0   22.5 0.00500
## 823      0   27.5 0.00500
## 824      0   19.5 0.00500
## 825      0   15.5 0.00500
## 826      0   37.5 0.00500
## 827      0   13.5 0.00500
## 828      0   42.5 0.00500
## 829      0   65.0 0.00500
## 830     20   32.5 0.00500
## 831      0   37.5 0.00500
## 832     10   47.5 0.00500
## 833      0   65.0 0.00500
## 834      0   22.5 0.00500
## 835      0   27.5 0.00500
## 836      0   22.5 0.00500
## 837      0   27.5 0.00500
## 838      0   12.5 0.00500
## 839      0   19.5 0.00500
## 840      0   42.5 0.00500
## 841      0   27.5 0.00500
## 842      0   32.5 0.00500
## 843      0   65.0 0.00500
## 844      5   47.5 0.00500
## 845      0   27.5 0.00500
## 846     10   32.5 0.00500
## 847      0   65.0 0.00500
## 848      0   22.5 0.00500
## 849      0   65.0 0.00500
## 850      0   42.5 0.00500
```

```
## 851    0  32.5 0.00500
## 852    0  65.0 0.00500
## 853    0  42.5 0.00500
## 854    0  27.5 0.00500
## 855    0  65.0 0.00500
## 856    0   5.5 0.00500
## 857    0  22.5 0.00500
## 858    0  37.5 0.00500
## 859    0   2.5 0.00500
## 860    0   6.5 0.00500
## 861    0  18.5 0.00500
## 862    0  13.5 0.00500
## 863   20  12.5 0.00500
## 864    0  19.5 0.00500
## 865    0   9.5 0.00500
## 866    0   9.5 0.00500
## 867    0  13.5 0.00500
## 868    0  47.5 0.00500
## 869    0  10.5 0.00500
## 870    0  37.5 0.00500
## 871    0  27.5 0.00500
## 872    0  19.5 0.00500
## 873    0  15.5 0.00500
## 874   10  16.5 0.00500
## 875    0  32.5 0.00500
## 876    0  11.5 0.00500
## 877    0  10.5 0.00500
## 878    0  16.5 0.00500
## 879    0   9.5 0.00500
## 880   10  12.5 0.00500
## 881    0   9.5 0.00500
## 882    0  22.5 0.00500
## 883   30  22.5 0.00500
## 884   10  27.5 0.00500
## 885   20  11.5 0.00500
## 886    0   5.5 0.00500
## 887   10  19.5 0.00500
## 888    0  11.5 0.00500
## 889    0  27.5 0.00500
```

```
## 890    0   42.5 0.00500
## 891    0    3.5 0.00500
## 892    0   65.0 0.00500
## 893    0   16.5 0.00500
## 894    0   42.5 0.00500
## 895   30    2.5 0.00500
## 896   30    3.5 0.00500
## 897    0    8.5 0.00500
## 898    0   27.5 0.00500
## 899    0   12.5 0.00500
## 900    4    4.5 0.00500
## 901    0   37.5 0.00500
## 902    0   32.5 0.00500
## 903    0   22.5 0.00500
## 904    0   37.5 0.00500
## 905    0   19.5 0.00500
## 906   10    9.5 0.00500
## 907    3   13.5 0.00500
## 908    0    2.5 0.00500
## 909    0    0.5 0.00500
## 910    0   10.5 0.00500
## 911    0   47.5 0.00500
## 912    0   42.5 0.00500
## 913   20    3.5 0.00500
## 914    0   27.5 0.00500
## 915    0   19.5 0.00500
## 916    0   37.5 0.00500
## 917    3    7.5 0.00500
## 918   20   22.5 0.00500
## 919    7   22.5 0.00500
## 920    0   47.5 0.00500
## 921   20   27.5 0.00500
## 922    0    4.5 0.00500
## 923    0   18.5 0.00500
## 924    0   32.5 0.00500
## 925    0   37.5 0.00500
## 926    2    6.5 0.00500
## 927    0   42.5 0.00500
## 928    0   47.5 0.00500
```

```
## 929   10   14.5 0.00500
## 930    0    4.5 0.00500
## 931    0   65.0 0.00500
## 932   20   12.5 0.00500
## 933    0   37.5 0.00500
## 934    0   32.5 0.00500
## 935    0    6.5 0.00500
## 936    5   11.5 0.00500
## 937    0   14.5 0.00500
## 938    0   27.5 0.00500
## 939    0   32.5 0.00500
## 940    0   15.5 0.00500
## 941   10   22.5 0.00500
## 942   20   22.5 0.00500
## 943    0   65.0 0.00500
## 944    0   47.5 0.00500
## 945    0   17.5 0.00500
## 946   20   27.5 0.00500
## 947    0   32.5 0.00500
## 948    0   65.0 0.00500
## 949    0   65.0 0.00500
## 950    0   65.0 0.00500
## 951    0   32.5 0.00500
## 952    0   18.5 0.00500
## 953    0   42.5 0.00500
## 954    0    7.5 0.00500
## 955    5   37.5 0.00500
## 956    0   37.5 0.00500
## 957    0    1.5 0.00500
## 958    7   17.5 0.00500
## 959    0   65.0 0.00500
## 960    0    3.5 0.00500
## 961    0    4.5 0.00500
## 962   15   22.5 0.00500
## 963    0   22.5 0.00500
## 964    0    3.5 0.00500
## 965    0   17.5 0.00500
## 966    0   16.5 0.00500
## 967    0   10.5 0.00500
```

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```
## 968     0   22.5 0.00500
## 969     4    3.5 0.00500
## 970    10    8.5 0.00500
## 971     0    1.5 0.00500
## 972     0   65.0 0.00500
## 973     0   42.5 0.00500
## 974     0   22.5 0.00500
## 975    15   17.5 0.00500
## 976    15   18.5 0.00500
## 977    40    5.5 0.00500
## 978     0   13.5 0.00500
## 979     0   17.5 0.00500
## 980    10   19.5 0.00500
## 981     0   65.0 0.00500
## 982     0   11.5 0.00500
## 983     0   65.0 0.00500
## 984     0    2.5 0.00500
## 985     0   65.0 0.00500
## 986    20   10.5 0.00500
## 987     0   42.5 0.00500
## 988     0   19.5 0.00500
## 989     0    5.5 0.00500
## 990     0    0.5 0.00500
## 991     0   65.0 0.00500
## 992     0   47.5 0.00500
## 993     0   14.5 0.00500
## 994     0   27.5 0.00500
## 995    20   22.5 0.00500
## 996    20   19.5 0.00500
## 997     0   15.5 0.00500
## 998    10    0.5 0.00500
## 999     0   47.5 0.00500
## 1000    0   22.5 0.00500
## 1001    0   15.5 0.00500
## 1002   10   17.5 0.00500
## 1003    0   47.5 0.00500
## 1004    0   15.5 0.00500
## 1005    0   18.5 0.00500
## 1006   10    2.5 0.00500
```

```
## 1007    0   18.5 0.00500
## 1008    0   27.5 0.00500
## 1009    0   32.5 0.00500
## 1010   15   19.5 0.00500
## 1011   15   32.5 0.00500
## 1012    0   22.5 0.00500
## 1013    0   19.5 0.00500
## 1014    0    6.5 0.00500
## 1015    0   27.5 0.00500
## 1016    0   10.5 0.00500
## 1017    0   47.5 0.00500
## 1018    0   19.5 0.00500
## 1019    0   22.5 0.00500
## 1020   20   15.5 0.00500
## 1021    0    8.5 0.00500
## 1022    5   19.5 0.00500
## 1023    0    1.5 0.00500
## 1024    6   14.5 0.00500
## 1025    0   27.5 0.00500
## 1026   20    5.5 0.00500
## 1027    0    5.5 0.00500
## 1028    0   14.5 0.00500
## 1029    0   32.5 0.00500
## 1030    0   22.5 0.00500
## 1031    0   22.5 0.00500
## 1032    0   27.5 0.00500
## 1033   10   27.5 0.00500
## 1034    0   13.5 0.00500
## 1035    0   22.5 0.00500
## 1036    0   22.5 0.00500
## 1037    0   65.0 0.00500
## 1038    0   19.5 0.00500
## 1039    0   37.5 0.00500
## 1040    0   32.5 0.00500
## 1041    0   11.5 0.00500
## 1042    0   27.5 0.00500
## 1043   20   17.5 0.00500
## 1044    0   37.5 0.00500
## 1045    0   10.5 0.00500
```

```
## 1046     0   32.5 0.00500
## 1047     0   37.5 0.00500
## 1048     0   32.5 0.00500
## 1049     0   37.5 0.00500
## 1050    10    2.5 0.00500
## 1051     0   15.5 0.00500
## 1052     0   42.5 0.00500
## 1053     0   22.5 0.00500
## 1054     0   22.5 0.00500
## 1055     0    2.5 0.00500
## 1056     0   32.5 0.00500
## 1057     0   32.5 0.00500
## 1058     0   18.5 0.00500
## 1059     0   27.5 0.00500
## 1060     0    2.5 0.00500
## 1061    20    6.5 0.00500
## 1062     0   37.5 0.00500
## 1063     0   65.0 0.00500
## 1064     0   47.5 0.00500
## 1065     0   42.5 0.00500
## 1066     0   27.5 0.00500
## 1067     0   32.5 0.00500
## 1068    20   42.5 0.00500
## 1069     0   17.5 0.00500
## 1070     0   42.5 0.00500
## 1071    10   19.5 0.00500
## 1072     0   32.5 0.00500
## 1073     0   42.5 0.00500
## 1074    20   14.5 0.00500
## 1075     0   15.5 0.00500
## 1076     0   32.5 0.00500
## 1077     0   37.5 0.00500
## 1078     0    6.5 0.00500
## 1079     0   32.5 0.00500
## 1080     0   42.5 0.00500
## 1081    20   27.5 0.00500
## 1082     0   65.0 0.00500
## 1083     0   65.0 0.00500
## 1084     0   27.5 0.00500
```

```
## 1085     0    32.5 0.00500
## 1086     0    32.5 0.00500
## 1087     0    37.5 0.00500
## 1088    10    18.5 0.00500
## 1089     0    22.5 0.00500
## 1090     6    42.5 0.00500
## 1091     0    27.5 0.00500
## 1092     0    37.5 0.00500
## 1093     0    11.5 0.00500
## 1094     0    18.5 0.00500
## 1095     0     3.5 0.00500
## 1096     0    18.5 0.00500
## 1097     0    13.5 0.00500
## 1098     0    22.5 0.00500
## 1099     0    65.0 0.00500
## 1100     0    22.5 0.00500
## 1101     0    16.5 0.00500
## 1102     0    27.5 0.00500
## 1103     0    42.5 0.00500
## 1104     2     3.5 0.00500
## 1105     0    22.5 0.00500
## 1106     0    19.5 0.00500
## 1107     0    12.5 0.00500
## 1108    20     9.5 0.00500
## 1109    10     4.5 0.00500
## 1110     0    27.5 0.00500
## 1111     0    47.5 0.00500
## 1112     0    22.5 0.00500
## 1113     0     9.5 0.00500
## 1114     0    65.0 0.00500
## 1115     0     7.5 0.00500
## 1116     0    65.0 0.00500
## 1117     0     4.5 0.00500
## 1118     0    27.5 0.00500
## 1119     0    19.5 0.00500
## 1120     0     6.5 0.00500
## 1121     0    16.5 0.00500
## 1122     0    65.0 0.00500
## 1123     0    22.5 0.00500
```

```
## 1124    0    2.5 0.00500
## 1125    0   22.5 0.00500
## 1126    0   32.5 0.00500
## 1127    0    9.5 0.00500
## 1128    0   16.5 0.00500
## 1129    0   32.5 0.00500
## 1130    0   17.5 0.00500
## 1131    0    6.5 0.00500
## 1132    0   65.0 0.00500
## 1133    0   37.5 0.00500
## 1134    4   17.5 0.00500
## 1135    0   19.5 0.00500
## 1136    0   32.5 0.00500
## 1137    6   42.5 0.00500
## 1138    0   32.5 0.00500
## 1139    0   18.5 0.00500
## 1140   10   22.5 0.00500
## 1141    3   22.5 0.00500
## 1142    0   32.5 0.00500
## 1143    0   18.5 0.00500
## 1144    0   12.5 0.00500
## 1145    0    9.5 0.00500
## 1146    0   22.5 0.00500
## 1147    0   27.5 0.00500
## 1148    0    0.5 0.00500
## 1149    0   22.5 0.00500
## 1150    0    6.5 0.00500
## 1151    0   65.0 0.00500
## 1152    0   19.5 0.00500
## 1153    0   27.5 0.00500
## 1154    0   12.5 0.00500
## 1155    0   42.5 0.00500
## 1156    0   13.5 0.00500
## 1157    0   65.0 0.00500
## 1158    0    2.5 0.00500
## 1159    0   65.0 0.00500
## 1160    0    9.5 0.00500
## 1161    0   37.5 0.00500
## 1162    0   19.5 0.00500
```

```
## 1163    0   17.5 0.00500
## 1164    0    9.5 0.00500
## 1165    0   65.0 0.00500
## 1166    0   65.0 0.00500
## 1167    5   14.5 0.00500
## 1168    5   32.5 0.00500
## 1169    0   17.5 0.00500
## 1170    0    2.5 0.00500
## 1171    0   18.5 0.00500
## 1172    0   22.5 0.00500
## 1173   20   65.0 0.00500
## 1174    0   65.0 0.00500
## 1175    6   22.5 0.00500
## 1176    0    0.5 0.00500
## 1177    0   22.5 0.00500
## 1178    0   47.5 0.00500
## 1179    0   65.0 0.00500
## 1180    0   65.0 0.00500
## 1181    0   32.5 0.00500
## 1182    0   65.0 0.00500
## 1183    0    0.5 0.00500
## 1184    0   65.0 0.00500
## 1185    0   42.5 0.00500
## 1186    0   13.5 0.00500
## 1187    0   22.5 0.00500
## 1188    0   65.0 0.00500
## 1189    0   16.5 0.00500
## 1190   20    9.5 0.00500
## 1191   15   19.5 0.00500
## 1192    0   11.5 0.00500
## 1193    0    8.5 0.00500
## 1194    0   42.5 0.00500
## 1195    0   27.5 0.00500
## 1196    0   14.5 0.00500
## 1197    8    4.5 0.00500
## 1198    0   15.5 0.00500
## 1199    0   27.5 0.00500
## 1200    0   65.0 0.00500
## 1201    0   16.5 0.00500
```

```
## 1202    0   37.5 0.00500
## 1203    0   65.0 0.00500
## 1204    0   37.5 0.00500
## 1205    0    7.5 0.00500
## 1206    0   22.5 0.00500
## 1207    0   47.5 0.00500
## 1208    0   32.5 0.00500
## 1209    5    4.5 0.00500
## 1210    0   32.5 0.00500
## 1211    0   15.5 0.00500
## 1212   10    1.5 0.00500
## 1213    0   65.0 0.00500
## 1214    0   37.5 0.00500
## 1215    0   12.5 0.00500
## 1216    0   16.5 0.00500
## 1217    0   47.5 0.00500
## 1218    0    0.5 0.00500
## 1219    0   18.5 0.00500
## 1220    0   32.5 0.00500
## 1221    0   13.5 0.00500
## 1222    0    2.5 0.00500
## 1223    0   47.5 0.00500
## 1224    0   32.5 0.00500
## 1225    0   22.5 0.00500
## 1226    0   65.0 0.00500
## 1227    0    9.5 0.00500
## 1228    0   65.0 0.00500
## 1229   15    8.5 0.00500
## 1230    0    9.5 0.00500
## 1231    0   22.5 0.00500
## 1232    0   22.5 0.00500
## 1233   12   65.0 0.00500
## 1234    0   22.5 0.00500
## 1235   10   22.5 0.00500
## 1236    0   10.5 0.00500
## 1237    0    2.5 0.00500
## 1238    0    9.5 0.00500
## 1239    0    4.5 0.00500
## 1240   46    0.5 0.00500
```

```
## 1241    0   32.5 0.00500
## 1242    0   47.5 0.00500
## 1243    0    5.5 0.00500
## 1244    0   17.5 0.00500
## 1245   20   10.5 0.00500
## 1246    0   12.5 0.00500
## 1247    0    9.5 0.00500
## 1248    5   22.5 0.00500
## 1249    0   32.5 0.00500
## 1250    0   22.5 0.00500
## 1251    0    8.5 0.00500
## 1252    0    1.5 0.00500
## 1253    0   32.5 0.00500
## 1254    0   15.5 0.00500
## 1255    0   37.5 0.00500
## 1256    0   47.5 0.00500
## 1257    0   65.0 0.00500
## 1258    0   27.5 0.00500
## 1259    0   27.5 0.00500
## 1260    0   65.0 0.00500
## 1261    0   32.5 0.00500
## 1262    0    7.5 0.00500
## 1263    0    4.5 0.00500
## 1264   40   22.5 0.00500
## 1265    0    8.5 0.00500
## 1266    0    6.5 0.00500
## 1267    0   27.5 0.00500
## 1268    0   18.5 0.00500
## 1269    0   27.5 0.00500
## 1270    0   27.5 0.00500
## 1271    0   22.5 0.00500
## 1272    0   27.5 0.00500
## 1273    0   19.5 0.00500
## 1274    0   27.5 0.00500
## 1275    0   37.5 0.00500
## 1276   20    6.5 0.00500
## 1277    0   32.5 0.00500
## 1278    0   15.5 0.00500
## 1279    0   27.5 0.00500
```

```
## 1280   12   42.5 0.00500
## 1281    0   32.5 0.00500
## 1282    0   47.5 0.00500
## 1283    0   16.5 0.00500
## 1284    0   42.5 0.00500
## 1285    0    5.5 0.00500
## 1286    0   22.5 0.00500
## 1287    0   65.0 0.00500
## 1288   10   27.5 0.00500
## 1289    0   42.5 0.00500
## 1290    0   32.5 0.00500
## 1291   20    4.5 0.00500
## 1292    5   12.5 0.00500
## 1293    0   65.0 0.00500
## 1294    0   65.0 0.00500
## 1295    0   22.5 0.00500
## 1296    0   32.5 0.00500
## 1297    0   65.0 0.00500
## 1298    0   65.0 0.00500
## 1299    0    8.5 0.00500
## 1300    0   47.5 0.00500
## 1301    0    3.5 0.00500
## 1302    0   22.5 0.00500
## 1303    0   65.0 0.00500
## 1304   50   27.5 0.00500
## 1305    0   65.0 0.00500
## 1306    0   10.5 0.00500
## 1307    0   65.0 0.00500
## 1308    0   19.5 0.00500
## 1309    0   22.5 0.00500
## 1310    0   18.5 0.00500
## 1311    0   19.5 0.00500
## 1312    0   22.5 0.00500
## 1313    0   16.5 0.00500
## 1314    0   65.0 0.00500
## 1315    0   65.0 0.00500
## 1316   20   22.5 0.00500
## 1317    0   32.5 0.00500
## 1318    0   42.5 0.00500
```

```
## 1319    0    6.5 0.00500
## 1320    0   27.5 0.00500
## 1321    0   14.5 0.00500
## 1322    0   32.5 0.00500
## 1323    5   65.0 0.00500
## 1324    0   15.5 0.00500
## 1325   15   22.5 0.00500
## 1326    0   32.5 0.00500
## 1327    0    6.5 0.00500
## 1328    0   15.5 0.00500
## 1329    0   27.5 0.00500
## 1330    0   17.5 0.00500
## 1331    0   37.5 0.00500
## 1332   10   22.5 0.00500
## 1333    9    4.5 0.00500
## 1334    0   18.5 0.00500
## 1335    0   22.5 0.00500
## 1336    0   37.5 0.00500
## 1337   15    5.5 0.00500
## 1338    0   16.5 0.00500
## 1339    0   17.5 0.00500
## 1340    0    6.5 0.00500
## 1341    0    6.5 0.00500
## 1342    0   32.5 0.00500
## 1343    0   22.5 0.00500
## 1344    0   15.5 0.00500
## 1345   10    6.5 0.00500
## 1346    0   27.5 0.00500
## 1347    0   42.5 0.00500
## 1348   15    9.5 0.00500
## 1349   20   32.5 0.00500
## 1350    0   22.5 0.00500
## 1351    0    4.5 0.00500
## 1352    0   27.5 0.00500
## 1353    0   37.5 0.00500
## 1354    0    8.5 0.00500
## 1355    0   27.5 0.00500
## 1356    0   47.5 0.00500
## 1357    0   32.5 0.00500
```

```
## 1358    0   27.5 0.00500
## 1359    0    6.5 0.00500
## 1360    3   12.5 0.00500
## 1361    0   32.5 0.00500
## 1362   10    5.5 0.00500
## 1363    0   22.5 0.00500
## 1364    0   10.5 0.00500
## 1365    0   32.5 0.00500
## 1366    0   32.5 0.00500
## 1367    0   27.5 0.00500
## 1368   15   12.5 0.00500
## 1369    0    8.5 0.00500
## 1370    0   42.5 0.00500
## 1371    0    4.5 0.00500
## 1372    0   37.5 0.00500
## 1373    0   18.5 0.00500
## 1374    0   42.5 0.00500
## 1375    0   42.5 0.00500
## 1376   20   17.5 0.00500
## 1377    0   47.5 0.00500
## 1378    0   22.5 0.00500
## 1379    0   15.5 0.00500
## 1380    0    1.5 0.00500
## 1381    0    5.5 0.00500
## 1382    0   12.5 0.00500
## 1383    0   22.5 0.00500
## 1384    0   27.5 0.00500
## 1385    0    5.5 0.00500
## 1386    0   65.0 0.00500
## 1387    0   27.5 0.00500
## 1388    0   37.5 0.00500
## 1389    0   13.5 0.00645
## 1390    0    7.5 0.00645
## 1391    0    0.5 0.00645
## 1392    0   15.5 0.00645
## 1393    0   27.5 0.00645
## 1394    0    7.5 0.00645
## 1395    0   65.0 0.00645
## 1396    0   27.5 0.00645
```

```
## 1397   0   27.5 0.00645
## 1398   0   37.5 0.00645
## 1399   0   27.5 0.00645
## 1400   0   27.5 0.00645
## 1401   0    6.5 0.00645
## 1402   0   10.5 0.00645
## 1403   0   12.5 0.00645
## 1404   0   17.5 0.00645
## 1405   0   42.5 0.00645
## 1406   0    4.5 0.00645
## 1407   0   32.5 0.00645
## 1408   0    6.5 0.00645
## 1409   0   47.5 0.00645
## 1410   0   22.5 0.00645
## 1411   6   15.5 0.00645
## 1412   0   13.5 0.00645
## 1413   0   37.5 0.00645
## 1414   0    2.5 0.00645
## 1415   0    2.5 0.00645
## 1416   0   32.5 0.00645
## 1417   0   22.5 0.00645
## 1418   0    0.5 0.00645
## 1419   0   65.0 0.00645
## 1420   0   65.0 0.00645
## 1421   0   65.0 0.00645
## 1422   0   27.5 0.00645
## 1423   0    7.5 0.00645
## 1424   0   47.5 0.00645
## 1425   0   65.0 0.00645
## 1426   0   65.0 0.00645
## 1427   0   32.5 0.00645
## 1428   0   13.5 0.00645
## 1429   0   65.0 0.00645
## 1430   0   47.5 0.00645
## 1431   0   37.5 0.00645
## 1432   0   32.5 0.00645
## 1433   0   18.5 0.00645
## 1434   0   65.0 0.00645
## 1435   0   65.0 0.00645
```

```
## 1436    0   11.5 0.00645
## 1437    0   32.5 0.00645
## 1438    0   65.0 0.00645
## 1439    0   17.5 0.00645
## 1440    0   16.5 0.00645
## 1441    0   22.5 0.00645
## 1442    0   42.5 0.00645
## 1443    0   32.5 0.00645
## 1444    0   11.5 0.00645
## 1445    0   65.0 0.00645
## 1446    0   27.5 0.00645
## 1447    0   27.5 0.00645
## 1448    0   17.5 0.00645
## 1449    0   65.0 0.00645
## 1450    0    3.5 0.00645
## 1451    0    0.5 0.00645
## 1452   10    0.5 0.00645
## 1453    0    3.5 0.00645
## 1454    0   65.0 0.00645
## 1455    0   22.5 0.00645
## 1456    0   22.5 0.00645
## 1457   20    7.5 0.00645
## 1458    0   27.5 0.00645
## 1459    0   18.5 0.00645
## 1460    0   37.5 0.00645
## 1461    0   22.5 0.00645
## 1462    0   27.5 0.00645
## 1463   40   18.5 0.00645
## 1464    0   22.5 0.00645
## 1465    0    0.5 0.00645
## 1466    0   32.5 0.00645
## 1467    0   27.5 0.00645
## 1468    0   32.5 0.00645
## 1469    0   15.5 0.00645
## 1470    0   16.5 0.00645
## 1471    0   19.5 0.00645
## 1472    0   15.5 0.00645
## 1473    0   14.5 0.00645
## 1474    0   32.5 0.00645
```

```
## 1475     0   14.5 0.00645
## 1476     0    8.5 0.00645
## 1477     0    8.5 0.00645
## 1478     0    7.5 0.00645
## 1479     0   32.5 0.00645
## 1480     0   65.0 0.00645
## 1481    10    7.5 0.00645
## 1482     0   27.5 0.00645
## 1483    10   13.5 0.00645
## 1484     0   27.5 0.00645
## 1485     0   18.5 0.00645
## 1486    20   22.5 0.00645
## 1487     0   65.0 0.00645
## 1488     0   22.5 0.00645
## 1489     0   42.5 0.00645
## 1490     0   37.5 0.00645
## 1491     3   11.5 0.00645
## 1492     0   65.0 0.00645
## 1493     0    7.5 0.00645
## 1494     0   22.5 0.00645
## 1495     0   65.0 0.00645
## 1496    10   27.5 0.00645
## 1497     0    7.5 0.00645
## 1498     0   65.0 0.00645
## 1499     0    8.5 0.00645
## 1500     0   12.5 0.00645
## 1501     0   37.5 0.00645
## 1502     0   14.5 0.00645
## 1503     0   65.0 0.00645
## 1504    20   37.5 0.00645
## 1505     0   27.5 0.00645
## 1506     0   65.0 0.00645
## 1507     0   32.5 0.00645
## 1508     0    6.5 0.00645
## 1509     0   65.0 0.00645
## 1510    40    6.5 0.00645
## 1511     0   65.0 0.00645
## 1512     0   65.0 0.00645
## 1513     0    7.5 0.00645
```

```
## 1514    0   17.5 0.00645
## 1515    0   27.5 0.00645
## 1516    0   37.5 0.00645
## 1517    0   22.5 0.00645
## 1518    0   22.5 0.00645
## 1519    0   65.0 0.00645
## 1520    0   42.5 0.00645
## 1521    0    2.5 0.00645
## 1522    0   10.5 0.00645
## 1523    0   42.5 0.00645
## 1524    0   14.5 0.00645
## 1525    0   42.5 0.00645
## 1526    0   32.5 0.00645
## 1527    0    3.5 0.00645
## 1528    0   42.5 0.00645
## 1529    0   15.5 0.00645
## 1530    0   32.5 0.00645
## 1531    0   19.5 0.00645
## 1532    0   42.5 0.00645
## 1533    0   65.0 0.00645
## 1534    0   13.5 0.00645
## 1535    0   27.5 0.00645
## 1536    0   42.5 0.00645
## 1537    0    5.5 0.00645
## 1538    0    5.5 0.00645
## 1539    0   65.0 0.00645
## 1540    0   22.5 0.00645
## 1541    0   18.5 0.00645
## 1542    0   27.5 0.00645
## 1543    0   65.0 0.00645
## 1544    4   32.5 0.00645
## 1545    0   22.5 0.00645
## 1546    0   37.5 0.00645
## 1547    0   65.0 0.00645
## 1548    0    1.5 0.00645
## 1549    0   27.5 0.00645
## 1550    0   47.5 0.00645
## 1551    0   32.5 0.00645
## 1552    0   65.0 0.00645
```

```
## 1553    0     8.5 0.00645
## 1554    0    65.0 0.00645
## 1555    0    27.5 0.00645
## 1556    0    37.5 0.00645
## 1557    0    37.5 0.00645
## 1558    0    22.5 0.00645
## 1559    0    37.5 0.00645
## 1560    5     8.5 0.00645
## 1561    0    42.5 0.00645
## 1562    0    65.0 0.00645
## 1563    0    12.5 0.00645
## 1564    0    27.5 0.00645
## 1565    0    27.5 0.00645
## 1566    0    65.0 0.00645
## 1567    0    22.5 0.00645
## 1568    0    18.5 0.00645
## 1569    0    13.5 0.00645
## 1570    0    18.5 0.00645
## 1571    0    27.5 0.00645
## 1572    0    22.5 0.00645
## 1573    0    65.0 0.00645
## 1574   10    32.5 0.00645
## 1575    0    22.5 0.00645
## 1576    0    37.5 0.00645
## 1577   20    47.5 0.00645
## 1578    0    65.0 0.00645
## 1579    0    32.5 0.00645
## 1580    0    10.5 0.00645
## 1581    0    22.5 0.00645
## 1582    0    37.5 0.00645
## 1583    0    65.0 0.00645
## 1584    0    65.0 0.00645
## 1585    0    10.5 0.00645
## 1586    0    32.5 0.00645
## 1587    0    32.5 0.00645
## 1588    0    65.0 0.00645
## 1589    0    47.5 0.00645
## 1590    8    32.5 0.00645
## 1591    0     6.5 0.00645
```

```
## 1592    0   12.5 0.00645
## 1593    0   47.5 0.00645
## 1594    0   19.5 0.00645
## 1595    0    7.5 0.00645
## 1596    0    8.5 0.00645
## 1597    0   19.5 0.00645
## 1598    0   65.0 0.00645
## 1599    0   32.5 0.00645
## 1600    0   65.0 0.00645
## 1601    0   19.5 0.00645
## 1602    0   17.5 0.00645
## 1603    0   27.5 0.00645
## 1604    0   12.5 0.00645
## 1605    4   27.5 0.00645
## 1606    0   32.5 0.00645
## 1607    0   22.5 0.00645
## 1608    0   18.5 0.00645
## 1609   20   32.5 0.00645
## 1610    0   42.5 0.00645
## 1611    0   37.5 0.00645
## 1612    0   32.5 0.00645
## 1613    0    9.5 0.00645
## 1614   10   15.5 0.00645
## 1615    0   65.0 0.00645
## 1616    0   65.0 0.00645
## 1617   12   22.5 0.00645
## 1618    0   32.5 0.00645
## 1619    0   65.0 0.00645
## 1620    0   65.0 0.00645
## 1621    0    5.5 0.00645
## 1622    0   22.5 0.00645
## 1623    0   13.5 0.00645
## 1624    0   65.0 0.00645
## 1625    0   65.0 0.00645
## 1626    0   27.5 0.00645
## 1627    0   27.5 0.00645
## 1628    0   27.5 0.00645
## 1629    0   10.5 0.00645
## 1630    0    9.5 0.00645
```

```
## 1631    0     0.5 0.00645
## 1632    0    32.5 0.00645
## 1633    0    19.5 0.00645
## 1634    0    42.5 0.00645
## 1635    0    65.0 0.00645
## 1636    0    65.0 0.00645
## 1637    0    42.5 0.00645
## 1638    0    37.5 0.00645
## 1639    0     6.5 0.00645
## 1640    0    65.0 0.00645
## 1641    0     1.5 0.00645
## 1642    0    65.0 0.00645
## 1643    0    32.5 0.00645
## 1644    0    65.0 0.00645
## 1645   20    17.5 0.00645
## 1646    0    18.5 0.00645
## 1647    0    13.5 0.00645
## 1648    0    10.5 0.00645
## 1649    0    18.5 0.00645
## 1650   10    13.5 0.00645
## 1651   10    32.5 0.00645
## 1652    0    15.5 0.00645
## 1653    0    10.5 0.00645
## 1654    0    32.5 0.00645
## 1655    0    13.5 0.00645
## 1656    0    16.5 0.00645
## 1657   20     6.5 0.00645
## 1658    0     8.5 0.00645
## 1659    0    22.5 0.00645
## 1660    0    27.5 0.00645
## 1661   20    12.5 0.00645
## 1662    0    19.5 0.00645
## 1663    0    65.0 0.00645
## 1664    0    65.0 0.00645
## 1665    0    15.5 0.00645
## 1666    0    37.5 0.00645
## 1667    0    47.5 0.00645
## 1668    0    47.5 0.00645
## 1669    0    37.5 0.00645
```

```
## 1670    4   32.5 0.00645
## 1671    0   65.0 0.00645
## 1672    0   27.5 0.00645
## 1673    0   65.0 0.00645
## 1674    0   65.0 0.00645
## 1675    0   32.5 0.00645
## 1676    0   22.5 0.00645
## 1677    0   17.5 0.00645
## 1678    1   32.5 0.00645
## 1679    0   65.0 0.00645
## 1680    0   37.5 0.00645
## 1681    0   37.5 0.00645
## 1682    0   14.5 0.00645
## 1683   20   18.5 0.00645
## 1684    0   65.0 0.00645
## 1685    0   47.5 0.00645
## 1686    0   27.5 0.00645
## 1687   40   27.5 0.00645
## 1688    0   27.5 0.00645
## 1689    0   22.5 0.00645
## 1690    0   32.5 0.00645
## 1691   20    3.5 0.00645
## 1692   10   18.5 0.00645
## 1693    0   19.5 0.00645
## 1694    0   32.5 0.00645
## 1695    0   22.5 0.00645
## 1696    0   65.0 0.00645
## 1697    0   65.0 0.00645
## 1698    0   14.5 0.00645
## 1699    0   65.0 0.00645
## 1700   10   14.5 0.00645
## 1701    0   37.5 0.00645
## 1702    0   13.5 0.00645
## 1703   20    4.5 0.00645
## 1704    0   22.5 0.00645
## 1705    0   37.5 0.00645
## 1706    0   65.0 0.00645
## 1707    0   11.5 0.00645
## 1708    0   22.5 0.00645
```

```
## 1709    0   65.0 0.00645
## 1710    0   37.5 0.00645
## 1711    0   10.5 0.00645
## 1712    0   37.5 0.00645
## 1713    0   22.5 0.00645
## 1714    0   15.5 0.00645
## 1715    0   65.0 0.00645
## 1716   15    0.5 0.00645
## 1717    0   32.5 0.00645
## 1718    0   10.5 0.00645
## 1719    0   22.5 0.00645
## 1720    0   47.5 0.00645
## 1721    0   27.5 0.00645
## 1722    0   65.0 0.00645
## 1723    0   47.5 0.00645
## 1724    0    4.5 0.00645
## 1725    0    8.5 0.00645
## 1726    0   47.5 0.00645
## 1727   20   12.5 0.00645
## 1728    0   65.0 0.00645
## 1729    0    9.5 0.00645
## 1730   20   37.5 0.00645
## 1731   12   27.5 0.00645
## 1732    0   65.0 0.00645
## 1733    8    7.5 0.00645
## 1734    0   65.0 0.00645
## 1735    0   47.5 0.00645
## 1736    0   65.0 0.00645
## 1737    0   42.5 0.00645
## 1738    0   27.5 0.00645
## 1739   15   37.5 0.00645
## 1740    0   47.5 0.00645
## 1741   10    2.5 0.00645
## 1742    0    7.5 0.00645
## 1743    0    6.5 0.00645
## 1744    0   37.5 0.00645
## 1745   10   32.5 0.00645
## 1746    0   47.5 0.00645
## 1747    0   42.5 0.00645
```

```
## 1748   20    9.5 0.00645
## 1749    0   47.5 0.00645
## 1750    0   65.0 0.00645
## 1751    0   22.5 0.00645
## 1752    0   42.5 0.00645
## 1753    0   37.5 0.00645
## 1754    0   19.5 0.00645
## 1755    0   42.5 0.00645
## 1756    0   14.5 0.00645
## 1757    0   37.5 0.00645
## 1758    0    7.5 0.00645
## 1759    0   37.5 0.00645
## 1760    0   32.5 0.00645
## 1761    0    9.5 0.00645
## 1762    0   65.0 0.00645
## 1763    0   32.5 0.00645
## 1764   10    5.5 0.00645
## 1765    0   42.5 0.00645
## 1766    0   22.5 0.00645
## 1767    0   42.5 0.00645
## 1768    0    7.5 0.00645
## 1769    0   13.5 0.00645
## 1770    0   27.5 0.00645
## 1771    0   42.5 0.00645
## 1772    0   32.5 0.00645
## 1773    0   32.5 0.00645
## 1774    0    5.5 0.00645
## 1775    0   47.5 0.00645
## 1776    0   47.5 0.00645
## 1777    0   42.5 0.00645
## 1778    0   37.5 0.00645
## 1779    0   32.5 0.00645
## 1780    0   65.0 0.00645
## 1781    0   47.5 0.00645
## 1782    0   42.5 0.00645
## 1783    0   27.5 0.00645
## 1784    0   17.5 0.00645
## 1785    0   18.5 0.00645
## 1786    0   42.5 0.00645
```

```
## 1787    0   37.5 0.00645
## 1788    0   42.5 0.00645
## 1789    0   32.5 0.00645
## 1790    0    2.5 0.00645
## 1791    0   18.5 0.00645
## 1792    0    4.5 0.00645
## 1793    0   22.5 0.00645
## 1794   20    4.5 0.00645
## 1795    0   27.5 0.00645
## 1796    0   19.5 0.00645
## 1797    0   27.5 0.00645
## 1798    0   19.5 0.00645
## 1799    0   18.5 0.00645
## 1800    0   22.5 0.00645
## 1801    0   22.5 0.00645
## 1802   20    1.5 0.00645
## 1803    0    4.5 0.00645
## 1804    4    3.5 0.00645
## 1805    0    3.5 0.00645
## 1806    0   42.5 0.00645
## 1807    0   37.5 0.00645
## 1808    0   22.5 0.00645
## 1809    0   37.5 0.00645
## 1810    0   15.5 0.00645
## 1811    0   27.5 0.00645
## 1812    0   32.5 0.00645
## 1813    0   22.5 0.00645
## 1814    0   27.5 0.00645
## 1815    0   27.5 0.00645
## 1816    0    4.5 0.00645
## 1817    0   27.5 0.00645
## 1818    0   22.5 0.00645
## 1819    0   27.5 0.00645
## 1820    0   19.5 0.00645
## 1821   20    4.5 0.00645
## 1822   10   11.5 0.00645
## 1823    0   27.5 0.00645
## 1824   30   37.5 0.00645
## 1825    0    6.5 0.00645
```

```
## 1826    0   32.5 0.00645
## 1827    0   18.5 0.00645
## 1828    0   32.5 0.00645
## 1829    0   42.5 0.00645
## 1830    0   22.5 0.00645
## 1831    0   16.5 0.00645
## 1832    0   42.5 0.00645
## 1833   15   37.5 0.00645
## 1834    0   13.5 0.00645
## 1835    0   22.5 0.00645
## 1836    0   22.5 0.00645
## 1837    0   37.5 0.00645
## 1838    0   27.5 0.00645
## 1839    0   16.5 0.00645
## 1840    0   47.5 0.00645
## 1841    0   22.5 0.00645
## 1842    0   22.5 0.00645
## 1843    0   47.5 0.00645
## 1844    0   22.5 0.00645
## 1845    0   14.5 0.00645
## 1846    0   16.5 0.00645
## 1847    0   14.5 0.00645
## 1848    0   18.5 0.00645
## 1849    0    3.5 0.00645
## 1850   15   27.5 0.00645
## 1851    0   22.5 0.00645
## 1852    0   17.5 0.00645
## 1853    0   18.5 0.00645
## 1854    0    0.5 0.00645
## 1855    0   17.5 0.00645
## 1856    0   18.5 0.00645
## 1857    0    0.5 0.00645
## 1858    0   37.5 0.00645
## 1859    5    7.5 0.00645
## 1860    0   18.5 0.00645
## 1861    0    4.5 0.00645
## 1862    0   27.5 0.00645
## 1863    0    6.5 0.00645
## 1864    0   27.5 0.00645
```

```
## 1865    0   11.5 0.00645
## 1866    0   42.5 0.00645
## 1867    0   22.5 0.00645
## 1868    0   19.5 0.00645
## 1869    0   65.0 0.00645
## 1870    0   37.5 0.00645
## 1871    0   42.5 0.00645
## 1872    0   42.5 0.00645
## 1873    0   37.5 0.00645
## 1874    0   47.5 0.00645
## 1875   20   14.5 0.00645
## 1876    0   32.5 0.00645
## 1877   20   15.5 0.00645
## 1878    0   32.5 0.00645
## 1879    0   18.5 0.00645
## 1880    0    2.5 0.00645
## 1881    0    5.5 0.00645
## 1882    0   47.5 0.00645
## 1883    5    3.5 0.00645
## 1884    0   42.5 0.00645
## 1885    0    6.5 0.00645
## 1886    0   32.5 0.00645
## 1887    0   47.5 0.00645
## 1888    0    3.5 0.00645
## 1889    0   27.5 0.00645
## 1890    0   22.5 0.00645
## 1891    0   27.5 0.00645
## 1892    0   18.5 0.00645
## 1893   20   12.5 0.00645
## 1894    0    0.5 0.00645
## 1895    0    1.5 0.00645
## 1896    5   37.5 0.00645
## 1897    5   18.5 0.00645
## 1898    0   22.5 0.00645
## 1899    0   47.5 0.00645
## 1900    0   65.0 0.00645
## 1901    0   65.0 0.00645
## 1902   30   11.5 0.00645
## 1903    0   32.5 0.00645
```

```
## 1904    0   22.5 0.00645
## 1905    0   32.5 0.00645
## 1906    0   65.0 0.00645
## 1907    0   27.5 0.00645
## 1908    0   18.5 0.00645
## 1909    0   37.5 0.00645
## 1910    0   32.5 0.00645
## 1911    0   19.5 0.00645
## 1912    0   22.5 0.00645
## 1913    0   27.5 0.00645
## 1914    0   22.5 0.00645
## 1915    0   47.5 0.00645
## 1916    0   22.5 0.00645
## 1917    0   18.5 0.00645
## 1918    0   17.5 0.00645
## 1919    0   18.5 0.00645
## 1920   10   65.0 0.00645
## 1921    0   32.5 0.00645
## 1922    0   47.5 0.00645
## 1923    0   13.5 0.00645
## 1924    0   32.5 0.00645
## 1925    0   65.0 0.00645
## 1926    6   42.5 0.00645
## 1927    0   32.5 0.00645
## 1928    0   42.5 0.00645
## 1929    0   37.5 0.00645
## 1930    0    9.5 0.00645
## 1931    0   37.5 0.00645
## 1932    0   65.0 0.00645
## 1933    0   42.5 0.00645
## 1934    0   37.5 0.00645
## 1935   20    9.5 0.00645
## 1936    0   19.5 0.00645
## 1937    0   19.5 0.00645
## 1938    0   47.5 0.00645
## 1939    5   42.5 0.00645
## 1940    0   27.5 0.00645
## 1941   20   65.0 0.00645
## 1942    0   32.5 0.00645
```

```
## 1943    0   47.5 0.00645
## 1944    0   65.0 0.00645
## 1945    0    6.5 0.00645
## 1946    0   42.5 0.00645
## 1947   10   19.5 0.00645
## 1948    2   65.0 0.00645
## 1949    0   27.5 0.00645
## 1950    5   37.5 0.00645
## 1951    0   27.5 0.00645
## 1952    0   22.5 0.00645
## 1953    0   27.5 0.00645
## 1954    1   37.5 0.00645
## 1955    0   22.5 0.00645
## 1956   20   27.5 0.00645
## 1957    0   32.5 0.00645
## 1958    0   32.5 0.00645
## 1959    0   37.5 0.00645
## 1960    0   37.5 0.00645
## 1961    0   19.5 0.00645
## 1962    0   65.0 0.00645
## 1963    0   65.0 0.00645
## 1964    0   32.5 0.00645
## 1965    0   42.5 0.00645
## 1966    0   22.5 0.00645
## 1967    0   22.5 0.00645
## 1968   10   16.5 0.00645
## 1969    0   22.5 0.00645
## 1970    0   22.5 0.00645
## 1971    0   65.0 0.00645
## 1972   10   13.5 0.00645
## 1973    0   32.5 0.00645
## 1974    0   37.5 0.00645
## 1975    0   37.5 0.00645
## 1976    0   27.5 0.00645
## 1977   20    6.5 0.00645
## 1978    0   19.5 0.00645
## 1979    0   32.5 0.00645
## 1980    0   22.5 0.00645
## 1981    0   65.0 0.00645
```

```
## 1982    0   27.5 0.00645
## 1983    0   18.5 0.00645
## 1984    0   47.5 0.00645
## 1985    0    1.5 0.00645
## 1986    0   42.5 0.00645
## 1987    0    1.5 0.00645
## 1988    0   65.0 0.00645
## 1989    0   22.5 0.00645
## 1990    0   42.5 0.00645
## 1991    0    0.5 0.00645
## 1992    0   47.5 0.00645
## 1993    0   65.0 0.00645
## 1994   20   11.5 0.00645
## 1995   20    5.5 0.00645
## 1996    0   65.0 0.00645
## 1997    3    2.5 0.00645
## 1998    0   65.0 0.00645
## 1999   10   32.5 0.00645
## 2000    0    2.5 0.00645
## 2001    0   47.5 0.00645
## 2002    0    5.5 0.00645
## 2003    0   65.0 0.00645
## 2004   20   11.5 0.00645
## 2005   40   22.5 0.00645
## 2006    0   65.0 0.00645
## 2007    0   13.5 0.00645
## 2008    0   27.5 0.00645
## 2009    0   65.0 0.00645
## 2010   20   32.5 0.00645
## 2011    0   65.0 0.00645
## 2012    0    8.5 0.00645
## 2013    0   27.5 0.00645
## 2014    0   65.0 0.00645
## 2015    0   32.5 0.00645
## 2016    8    5.5 0.00645
## 2017   20   22.5 0.00645
## 2018    0    5.5 0.00645
## 2019    0   27.5 0.00645
## 2020    0    7.5 0.00645
```

```
## 2021   10     4.5 0.00645
## 2022    0    42.5 0.00645
## 2023    0    32.5 0.00645
## 2024    0    22.5 0.00645
## 2025    0    27.5 0.00645
## 2026    0    47.5 0.00645
## 2027    0    32.5 0.00645
## 2028    0     3.5 0.00645
## 2029    7    32.5 0.00645
## 2030    0     9.5 0.00645
## 2031    0    47.5 0.00645
## 2032    0    42.5 0.00645
## 2033    0     9.5 0.00645
## 2034    0    18.5 0.00645
## 2035    0    37.5 0.00645
## 2036    0    27.5 0.00645
## 2037    0    37.5 0.00645
## 2038    0    18.5 0.00645
## 2039    0    65.0 0.00645
## 2040    0    32.5 0.00645
## 2041    0    27.5 0.00645
## 2042    0    65.0 0.00645
## 2043    8    22.5 0.00645
## 2044    0    65.0 0.00645
## 2045    0    37.5 0.00645
## 2046    0    22.5 0.00645
## 2047    0    47.5 0.00645
## 2048    0    42.5 0.00645
## 2049    0    12.5 0.00645
## 2050    0    18.5 0.00645
## 2051   20     6.5 0.00645
## 2052    0    42.5 0.00645
## 2053    0    27.5 0.00645
## 2054    0    65.0 0.00645
## 2055    0    65.0 0.00645
## 2056    0    27.5 0.00645
## 2057   10    27.5 0.00645
## 2058    0    42.5 0.00645
## 2059    0    27.5 0.00645
```

```
## 2060    0   65.0 0.00645
## 2061    0   65.0 0.00645
## 2062    0   27.5 0.00645
## 2063    0   27.5 0.00645
## 2064    0   65.0 0.00645
## 2065    0   14.5 0.00645
## 2066    0   22.5 0.00645
## 2067    0   10.5 0.00645
## 2068    0   15.5 0.00645
## 2069    0   32.5 0.00645
## 2070    0   32.5 0.00645
## 2071    0    4.5 0.00645
## 2072    0    6.5 0.00645
## 2073    0    8.5 0.00645
## 2074    0   32.5 0.00645
## 2075    0   32.5 0.00645
## 2076    0   32.5 0.00645
## 2077    0   47.5 0.00645
## 2078   20   17.5 0.00645
## 2079    0   37.5 0.00645
## 2080    0   27.5 0.00645
## 2081    0    7.5 0.00645
## 2082    0   10.5 0.00645
## 2083    0   22.5 0.00645
## 2084    0   27.5 0.00645
## 2085    5   32.5 0.00645
## 2086    0   37.5 0.00645
## 2087    0    4.5 0.00645
## 2088    0    2.5 0.00645
## 2089    0   47.5 0.00645
## 2090   10   22.5 0.00645
## 2091    0    1.5 0.00645
## 2092    0   22.5 0.00645
## 2093    0   27.5 0.00645
## 2094    0   65.0 0.00645
## 2095    0   42.5 0.00645
## 2096    0   12.5 0.00645
## 2097    0   47.5 0.00645
## 2098   20   32.5 0.00645
```

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## 2099   15   37.5 0.00645
## 2100    0   42.5 0.00645
## 2101    0   22.5 0.00645
## 2102    0   17.5 0.00645
## 2103    0   32.5 0.00645
## 2104    0   22.5 0.00645
## 2105    0   18.5 0.00645
## 2106    7   32.5 0.00645
## 2107    0   27.5 0.00645
## 2108    0    3.5 0.00645
## 2109    0   15.5 0.00645
## 2110    0   65.0 0.00645
## 2111    0   37.5 0.00645
## 2112    0   32.5 0.00645
## 2113    0    9.5 0.00645
## 2114   15   22.5 0.00645
## 2115    0   42.5 0.00645
## 2116    0   65.0 0.00645
## 2117    1   37.5 0.00645
## 2118    0   22.5 0.00645
## 2119    0   15.5 0.00645
## 2120   15   42.5 0.00645
## 2121    0   14.5 0.00645
## 2122    0   37.5 0.00645
## 2123    0   22.5 0.00645
## 2124    0   65.0 0.00645
## 2125    0   47.5 0.00645
## 2126    0   10.5 0.00645
## 2127    0   65.0 0.00645
## 2128    0   27.5 0.00645
## 2129    0   65.0 0.00645
## 2130    0   27.5 0.00645
## 2131    0   65.0 0.00645
## 2132    5   16.5 0.00645
## 2133   10   65.0 0.00645
## 2134    0   42.5 0.00645
## 2135    0   12.5 0.00645
## 2136    0   11.5 0.00645
## 2137    0   37.5 0.00645
```

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## 2138   12   65.0 0.00645
## 2139    0   32.5 0.00645
## 2140    0   65.0 0.00645
## 2141   10   65.0 0.00645
## 2142    0   65.0 0.00645
## 2143    0   65.0 0.00645
## 2144   20   22.5 0.00645
## 2145    0   65.0 0.00645
## 2146   10   47.5 0.00645
## 2147   10   27.5 0.00645
## 2148    0   65.0 0.00645
## 2149    0   65.0 0.00645
## 2150    0   32.5 0.00645
## 2151    0   22.5 0.00645
## 2152    0   65.0 0.00645
## 2153    0   65.0 0.00645
## 2154    0    6.5 0.00645
## 2155    0   65.0 0.00645
## 2156    4   37.5 0.00645
## 2157    0   65.0 0.00645
## 2158    0   32.5 0.00645
## 2159    0   27.5 0.00645
## 2160    0   65.0 0.00645
## 2161    0   27.5 0.00645
## 2162    0   22.5 0.00645
## 2163    0   22.5 0.00645
## 2164    0   13.5 0.00645
## 2165    0   22.5 0.00645
## 2166    0   32.5 0.00645
## 2167    0   12.5 0.00645
## 2168    4    6.5 0.00645
## 2169   15   22.5 0.00645
## 2170    0   42.5 0.00645
## 2171    0   42.5 0.00645
## 2172    0   65.0 0.00645
## 2173    0   27.5 0.00645
## 2174    0   22.5 0.00645
## 2175    0   65.0 0.00645
## 2176    3   37.5 0.00645
```

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## 2177    0   65.0 0.00645
## 2178    0   32.5 0.00645
## 2179    0   65.0 0.00645
## 2180    0   65.0 0.00645
## 2181    0   22.5 0.00645
## 2182    0   22.5 0.00645
## 2183    0   17.5 0.00645
## 2184    0   19.5 0.00645
## 2185    0   27.5 0.00645
## 2186   10   47.5 0.00645
## 2187    0   47.5 0.00645
## 2188    0   22.5 0.00645
## 2189    0    9.5 0.00645
## 2190    0   42.5 0.00645
## 2191   10   10.5 0.00645
## 2192    0   65.0 0.00645
## 2193    0   47.5 0.00645
## 2194    0   42.5 0.00645
## 2195   20   22.5 0.00645
## 2196    0   27.5 0.00645
## 2197    0   65.0 0.00645
## 2198    0    8.5 0.00645
## 2199    0   22.5 0.00645
## 2200    0   19.5 0.00645
## 2201    0    8.5 0.00645
## 2202    0   47.5 0.00645
## 2203    0    8.5 0.00645
## 2204    2    4.5 0.00645
## 2205    0   65.0 0.00645
## 2206    0   32.5 0.00645
## 2207    0   12.5 0.00645
## 2208    0   65.0 0.00645
## 2209   10   19.5 0.00645
## 2210    0   22.5 0.00645
## 2211    0   27.5 0.00645
## 2212    0   19.5 0.00645
## 2213    0   15.5 0.00645
## 2214    0   37.5 0.00645
## 2215    0   13.5 0.00645
```

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## 2216    0   42.5 0.00645
## 2217    0   65.0 0.00645
## 2218   20   32.5 0.00645
## 2219    0   37.5 0.00645
## 2220   10   47.5 0.00645
## 2221    0   65.0 0.00645
## 2222    0   22.5 0.00645
## 2223    0   27.5 0.00645
## 2224    0   22.5 0.00645
## 2225    0   27.5 0.00645
## 2226    0   12.5 0.00645
## 2227    0   19.5 0.00645
## 2228    0   42.5 0.00645
## 2229    0   27.5 0.00645
## 2230    0   32.5 0.00645
## 2231    0   65.0 0.00645
## 2232    5   47.5 0.00645
## 2233    0   27.5 0.00645
## 2234   10   32.5 0.00645
## 2235    0   65.0 0.00645
## 2236    0   22.5 0.00645
## 2237    0   65.0 0.00645
## 2238    0   42.5 0.00645
## 2239    0   32.5 0.00645
## 2240    0   65.0 0.00645
## 2241    0   42.5 0.00645
## 2242    0   27.5 0.00645
## 2243    0   65.0 0.00645
## 2244    0    5.5 0.00645
## 2245    0   22.5 0.00645
## 2246    0   37.5 0.00645
## 2247    0    2.5 0.00645
## 2248    0    6.5 0.00645
## 2249    0   18.5 0.00645
## 2250    0   13.5 0.00645
## 2251   20   12.5 0.00645
## 2252    0   19.5 0.00645
## 2253    0    9.5 0.00645
## 2254    0    9.5 0.00645
```

```
## 2255    0   13.5 0.00645
## 2256    0   47.5 0.00645
## 2257    0   10.5 0.00645
## 2258    0   37.5 0.00645
## 2259    0   27.5 0.00645
## 2260    0   19.5 0.00645
## 2261    0   15.5 0.00645
## 2262   10   16.5 0.00645
## 2263    0   32.5 0.00645
## 2264    0   11.5 0.00645
## 2265    0   10.5 0.00645
## 2266    0   16.5 0.00645
## 2267    0    9.5 0.00645
## 2268   10   12.5 0.00645
## 2269    0    9.5 0.00645
## 2270    0   22.5 0.00645
## 2271   30   22.5 0.00645
## 2272   10   27.5 0.00645
## 2273   20   11.5 0.00645
## 2274    0    5.5 0.00645
## 2275   10   19.5 0.00645
## 2276    0   11.5 0.00645
## 2277    0   27.5 0.00645
## 2278    0   42.5 0.00645
## 2279    0    3.5 0.00645
## 2280    0   65.0 0.00645
## 2281    0   16.5 0.00645
## 2282    0   42.5 0.00645
## 2283   30    2.5 0.00645
## 2284   30    3.5 0.00645
## 2285    0    8.5 0.00645
## 2286    0   27.5 0.00645
## 2287    0   12.5 0.00645
## 2288    4    4.5 0.00645
## 2289    0   37.5 0.00645
## 2290    0   32.5 0.00645
## 2291    0   22.5 0.00645
## 2292    0   37.5 0.00645
## 2293    0   19.5 0.00645
```

```
## 2294   10    9.5 0.00645
## 2295    3   13.5 0.00645
## 2296    0    2.5 0.00645
## 2297    0    0.5 0.00645
## 2298    0   10.5 0.00645
## 2299    0   47.5 0.00645
## 2300    0   42.5 0.00645
## 2301   20    3.5 0.00645
## 2302    0   27.5 0.00645
## 2303    0   19.5 0.00645
## 2304    0   37.5 0.00645
## 2305    3    7.5 0.00645
## 2306   20   22.5 0.00645
## 2307    7   22.5 0.00645
## 2308    0   47.5 0.00645
## 2309   20   27.5 0.00645
## 2310    0    4.5 0.00645
## 2311    0   18.5 0.00645
## 2312    0   32.5 0.00645
## 2313    0   37.5 0.00645
## 2314    2    6.5 0.00645
## 2315    0   42.5 0.00645
## 2316    0   47.5 0.00645
## 2317   10   14.5 0.00645
## 2318    0    4.5 0.00645
## 2319    0   65.0 0.00645
## 2320   20   12.5 0.00645
## 2321    0   37.5 0.00645
## 2322    0   32.5 0.00645
## 2323    0    6.5 0.00645
## 2324    5   11.5 0.00645
## 2325    0   14.5 0.00645
## 2326    0   27.5 0.00645
## 2327    0   32.5 0.00645
## 2328    0   15.5 0.00645
## 2329   10   22.5 0.00645
## 2330   20   22.5 0.00645
## 2331    0   65.0 0.00645
## 2332    0   47.5 0.00645
```

```
## 2333    0   17.5 0.00645
## 2334   20   27.5 0.00645
## 2335    0   32.5 0.00645
## 2336    0   65.0 0.00645
## 2337    0   65.0 0.00645
## 2338    0   65.0 0.00645
## 2339    0   32.5 0.00645
## 2340    0   18.5 0.00645
## 2341    0   42.5 0.00645
## 2342    0    7.5 0.00645
## 2343    5   37.5 0.00645
## 2344    0   37.5 0.00645
## 2345    0    1.5 0.00645
## 2346    7   17.5 0.00645
## 2347    0   65.0 0.00645
## 2348    0    3.5 0.00645
## 2349    0    4.5 0.00645
## 2350   15   22.5 0.00645
## 2351    0   22.5 0.00645
## 2352    0    3.5 0.00645
## 2353    0   17.5 0.00645
## 2354    0   16.5 0.00645
## 2355    0   10.5 0.00645
## 2356    0   22.5 0.00645
## 2357    4    3.5 0.00645
## 2358   10    8.5 0.00645
## 2359    0    1.5 0.00645
## 2360    0   65.0 0.00645
## 2361    0   42.5 0.00645
## 2362    0   22.5 0.00645
## 2363   15   17.5 0.00645
## 2364   15   18.5 0.00645
## 2365   40    5.5 0.00645
## 2366    0   13.5 0.00645
## 2367    0   17.5 0.00645
## 2368   10   19.5 0.00645
## 2369    0   65.0 0.00645
## 2370    0   11.5 0.00645
## 2371    0   65.0 0.00645
```

```
## 2372    0    2.5 0.00645
## 2373    0   65.0 0.00645
## 2374   20   10.5 0.00645
## 2375    0   42.5 0.00645
## 2376    0   19.5 0.00645
## 2377    0    5.5 0.00645
## 2378    0    0.5 0.00645
## 2379    0   65.0 0.00645
## 2380    0   47.5 0.00645
## 2381    0   14.5 0.00645
## 2382    0   27.5 0.00645
## 2383   20   22.5 0.00645
## 2384   20   19.5 0.00645
## 2385    0   15.5 0.00645
## 2386   10    0.5 0.00645
## 2387    0   47.5 0.00645
## 2388    0   22.5 0.00645
## 2389    0   15.5 0.00645
## 2390   10   17.5 0.00645
## 2391    0   47.5 0.00645
## 2392    0   15.5 0.00645
## 2393    0   18.5 0.00645
## 2394   10    2.5 0.00645
## 2395    0   18.5 0.00645
## 2396    0   27.5 0.00645
## 2397    0   32.5 0.00645
## 2398   15   19.5 0.00645
## 2399   15   32.5 0.00645
## 2400    0   22.5 0.00645
## 2401    0   19.5 0.00645
## 2402    0    6.5 0.00645
## 2403    0   27.5 0.00645
## 2404    0   10.5 0.00645
## 2405    0   47.5 0.00645
## 2406    0   19.5 0.00645
## 2407    0   22.5 0.00645
## 2408   20   15.5 0.00645
## 2409    0    8.5 0.00645
## 2410    5   19.5 0.00645
```

```
## 2411   0    1.5 0.00645
## 2412   6   14.5 0.00645
## 2413   0   27.5 0.00645
## 2414  20    5.5 0.00645
## 2415   0    5.5 0.00645
## 2416   0   14.5 0.00645
## 2417   0   32.5 0.00645
## 2418   0   22.5 0.00645
## 2419   0   22.5 0.00645
## 2420   0   27.5 0.00645
## 2421  10   27.5 0.00645
## 2422   0   13.5 0.00645
## 2423   0   22.5 0.00645
## 2424   0   22.5 0.00645
## 2425   0   65.0 0.00645
## 2426   0   19.5 0.00645
## 2427   0   37.5 0.00645
## 2428   0   32.5 0.00645
## 2429   0   11.5 0.00645
## 2430   0   27.5 0.00645
## 2431  20   17.5 0.00645
## 2432   0   37.5 0.00645
## 2433   0   10.5 0.00645
## 2434   0   32.5 0.00645
## 2435   0   37.5 0.00645
## 2436   0   32.5 0.00645
## 2437   0   37.5 0.00645
## 2438  10    2.5 0.00645
## 2439   0   15.5 0.00645
## 2440   0   42.5 0.00645
## 2441   0   22.5 0.00645
## 2442   0   22.5 0.00645
## 2443   0    2.5 0.00645
## 2444   0   32.5 0.00645
## 2445   0   32.5 0.00645
## 2446   0   18.5 0.00645
## 2447   0   27.5 0.00645
## 2448   0    2.5 0.00645
## 2449  20    6.5 0.00645
```

```
## 2450    0   37.5 0.00645
## 2451    0   65.0 0.00645
## 2452    0   47.5 0.00645
## 2453    0   42.5 0.00645
## 2454    0   27.5 0.00645
## 2455    0   32.5 0.00645
## 2456   20   42.5 0.00645
## 2457    0   17.5 0.00645
## 2458    0   42.5 0.00645
## 2459   10   19.5 0.00645
## 2460    0   32.5 0.00645
## 2461    0   42.5 0.00645
## 2462   20   14.5 0.00645
## 2463    0   15.5 0.00645
## 2464    0   32.5 0.00645
## 2465    0   37.5 0.00645
## 2466    0    6.5 0.00645
## 2467    0   32.5 0.00645
## 2468    0   42.5 0.00645
## 2469   20   27.5 0.00645
## 2470    0   65.0 0.00645
## 2471    0   65.0 0.00645
## 2472    0   27.5 0.00645
## 2473    0   32.5 0.00645
## 2474    0   32.5 0.00645
## 2475    0   37.5 0.00645
## 2476   10   18.5 0.00645
## 2477    0   22.5 0.00645
## 2478    6   42.5 0.00645
## 2479    0   27.5 0.00645
## 2480    0   37.5 0.00645
## 2481    0   11.5 0.00645
## 2482    0   18.5 0.00645
## 2483    0    3.5 0.00645
## 2484    0   18.5 0.00645
## 2485    0   13.5 0.00645
## 2486    0   22.5 0.00645
## 2487    0   65.0 0.00645
## 2488    0   22.5 0.00645
```

```
## 2489    0   16.5 0.00645
## 2490    0   27.5 0.00645
## 2491    0   42.5 0.00645
## 2492    2    3.5 0.00645
## 2493    0   22.5 0.00645
## 2494    0   19.5 0.00645
## 2495    0   12.5 0.00645
## 2496   20    9.5 0.00645
## 2497   10    4.5 0.00645
## 2498    0   27.5 0.00645
## 2499    0   47.5 0.00645
## 2500    0   22.5 0.00645
## 2501    0    9.5 0.00645
## 2502    0   65.0 0.00645
## 2503    0    7.5 0.00645
## 2504    0   65.0 0.00645
## 2505    0    4.5 0.00645
## 2506    0   27.5 0.00645
## 2507    0   19.5 0.00645
## 2508    0    6.5 0.00645
## 2509    0   16.5 0.00645
## 2510    0   65.0 0.00645
## 2511    0   22.5 0.00645
## 2512    0    2.5 0.00645
## 2513    0   22.5 0.00645
## 2514    0   32.5 0.00645
## 2515    0    9.5 0.00645
## 2516    0   16.5 0.00645
## 2517    0   32.5 0.00645
## 2518    0   17.5 0.00645
## 2519    0    6.5 0.00645
## 2520    0   65.0 0.00645
## 2521    0   37.5 0.00645
## 2522    4   17.5 0.00645
## 2523    0   19.5 0.00645
## 2524    0   32.5 0.00645
## 2525    6   42.5 0.00645
## 2526    0   32.5 0.00645
## 2527    0   18.5 0.00645
```

```
## 2528   10   22.5 0.00645
## 2529    3   22.5 0.00645
## 2530    0   32.5 0.00645
## 2531    0   18.5 0.00645
## 2532    0   12.5 0.00645
## 2533    0    9.5 0.00645
## 2534    0   22.5 0.00645
## 2535    0   27.5 0.00645
## 2536    0    0.5 0.00645
## 2537    0   22.5 0.00645
## 2538    0    6.5 0.00645
## 2539    0   65.0 0.00645
## 2540    0   19.5 0.00645
## 2541    0   27.5 0.00645
## 2542    0   12.5 0.00645
## 2543    0   42.5 0.00645
## 2544    0   13.5 0.00645
## 2545    0   65.0 0.00645
## 2546    0    2.5 0.00645
## 2547    0   65.0 0.00645
## 2548    0    9.5 0.00645
## 2549    0   37.5 0.00645
## 2550    0   19.5 0.00645
## 2551    0   17.5 0.00645
## 2552    0    9.5 0.00645
## 2553    0   65.0 0.00645
## 2554    0   65.0 0.00645
## 2555    5   14.5 0.00645
## 2556    5   32.5 0.00645
## 2557    0   17.5 0.00645
## 2558    0    2.5 0.00645
## 2559    0   18.5 0.00645
## 2560    0   22.5 0.00645
## 2561   20   65.0 0.00645
## 2562    0   65.0 0.00645
## 2563    6   22.5 0.00645
## 2564    0    0.5 0.00645
## 2565    0   22.5 0.00645
## 2566    0   47.5 0.00645
```

```
## 2567    0   65.0 0.00645
## 2568    0   65.0 0.00645
## 2569    0   32.5 0.00645
## 2570    0   65.0 0.00645
## 2571    0    0.5 0.00645
## 2572    0   65.0 0.00645
## 2573    0   42.5 0.00645
## 2574    0   13.5 0.00645
## 2575    0   22.5 0.00645
## 2576    0   65.0 0.00645
## 2577    0   16.5 0.00645
## 2578   20    9.5 0.00645
## 2579   15   19.5 0.00645
## 2580    0   11.5 0.00645
## 2581    0    8.5 0.00645
## 2582    0   42.5 0.00645
## 2583    0   27.5 0.00645
## 2584    0   14.5 0.00645
## 2585    8    4.5 0.00645
## 2586    0   15.5 0.00645
## 2587    0   27.5 0.00645
## 2588    0   65.0 0.00645
## 2589    0   16.5 0.00645
## 2590    0   37.5 0.00645
## 2591    0   65.0 0.00645
## 2592    0   37.5 0.00645
## 2593    0    7.5 0.00645
## 2594    0   22.5 0.00645
## 2595    0   47.5 0.00645
## 2596    0   32.5 0.00645
## 2597    5    4.5 0.00645
## 2598    0   32.5 0.00645
## 2599    0   15.5 0.00645
## 2600   10    1.5 0.00645
## 2601    0   65.0 0.00645
## 2602    0   37.5 0.00645
## 2603    0   12.5 0.00645
## 2604    0   16.5 0.00645
## 2605    0   47.5 0.00645
```

```
## 2606    0    0.5 0.00645
## 2607    0   18.5 0.00645
## 2608    0   32.5 0.00645
## 2609    0   13.5 0.00645
## 2610    0    2.5 0.00645
## 2611    0   47.5 0.00645
## 2612    0   32.5 0.00645
## 2613    0   22.5 0.00645
## 2614    0   65.0 0.00645
## 2615    0    9.5 0.00645
## 2616    0   65.0 0.00645
## 2617   15    8.5 0.00645
## 2618    0    9.5 0.00645
## 2619    0   22.5 0.00645
## 2620    0   22.5 0.00645
## 2621   12   65.0 0.00645
## 2622    0   22.5 0.00645
## 2623   10   22.5 0.00645
## 2624    0   10.5 0.00645
## 2625    0    2.5 0.00645
## 2626    0    9.5 0.00645
## 2627    0    4.5 0.00645
## 2628   46    0.5 0.00645
## 2629    0   32.5 0.00645
## 2630    0   47.5 0.00645
## 2631    0    5.5 0.00645
## 2632    0   17.5 0.00645
## 2633   20   10.5 0.00645
## 2634    0   12.5 0.00645
## 2635    0    9.5 0.00645
## 2636    5   22.5 0.00645
## 2637    0   32.5 0.00645
## 2638    0   22.5 0.00645
## 2639    0    8.5 0.00645
## 2640    0    1.5 0.00645
## 2641    0   32.5 0.00645
## 2642    0   15.5 0.00645
## 2643    0   37.5 0.00645
## 2644    0   47.5 0.00645
```

```
## 2645     0    65.0 0.00645
## 2646     0    27.5 0.00645
## 2647     0    27.5 0.00645
## 2648     0    65.0 0.00645
## 2649     0    32.5 0.00645
## 2650     0     7.5 0.00645
## 2651     0     4.5 0.00645
## 2652    40    22.5 0.00645
## 2653     0     8.5 0.00645
## 2654     0     6.5 0.00645
## 2655     0    27.5 0.00645
## 2656     0    18.5 0.00645
## 2657     0    27.5 0.00645
## 2658     0    27.5 0.00645
## 2659     0    22.5 0.00645
## 2660     0    27.5 0.00645
## 2661     0    19.5 0.00645
## 2662     0    27.5 0.00645
## 2663     0    37.5 0.00645
## 2664    20     6.5 0.00645
## 2665     0    32.5 0.00645
## 2666     0    15.5 0.00645
## 2667     0    27.5 0.00645
## 2668    12    42.5 0.00645
## 2669     0    32.5 0.00645
## 2670     0    47.5 0.00645
## 2671     0    16.5 0.00645
## 2672     0    42.5 0.00645
## 2673     0     5.5 0.00645
## 2674     0    22.5 0.00645
## 2675     0    65.0 0.00645
## 2676    10    27.5 0.00645
## 2677     0    42.5 0.00645
## 2678     0    32.5 0.00645
## 2679    20     4.5 0.00645
## 2680     5    12.5 0.00645
## 2681     0    65.0 0.00645
## 2682     0    65.0 0.00645
## 2683     0    22.5 0.00645
```

```
## 2684    0   32.5 0.00645
## 2685    0   65.0 0.00645
## 2686    0   65.0 0.00645
## 2687    0    8.5 0.00645
## 2688    0   47.5 0.00645
## 2689    0    3.5 0.00645
## 2690    0   22.5 0.00645
## 2691    0   65.0 0.00645
## 2692   50   27.5 0.00645
## 2693    0   65.0 0.00645
## 2694    0   10.5 0.00645
## 2695    0   65.0 0.00645
## 2696    0   19.5 0.00645
## 2697    0   22.5 0.00645
## 2698    0   18.5 0.00645
## 2699    0   19.5 0.00645
## 2700    0   22.5 0.00645
## 2701    0   16.5 0.00645
## 2702    0   65.0 0.00645
## 2703    0   65.0 0.00645
## 2704   20   22.5 0.00645
## 2705    0   32.5 0.00645
## 2706    0   42.5 0.00645
## 2707    0    6.5 0.00645
## 2708    0   27.5 0.00645
## 2709    0   14.5 0.00645
## 2710    0   32.5 0.00645
## 2711    5   65.0 0.00645
## 2712    0   15.5 0.00645
## 2713   15   22.5 0.00645
## 2714    0   32.5 0.00645
## 2715    0    6.5 0.00645
## 2716    0   15.5 0.00645
## 2717    0   27.5 0.00645
## 2718    0   17.5 0.00645
## 2719    0   37.5 0.00645
## 2720   10   22.5 0.00645
## 2721    9    4.5 0.00645
## 2722    0   18.5 0.00645
```

```
## 2723    0   22.5 0.00645
## 2724    0   37.5 0.00645
## 2725   15    5.5 0.00645
## 2726    0   16.5 0.00645
## 2727    0   17.5 0.00645
## 2728    0    6.5 0.00645
## 2729    0    6.5 0.00645
## 2730    0   32.5 0.00645
## 2731    0   22.5 0.00645
## 2732    0   15.5 0.00645
## 2733   10    6.5 0.00645
## 2734    0   27.5 0.00645
## 2735    0   42.5 0.00645
## 2736   15    9.5 0.00645
## 2737   20   32.5 0.00645
## 2738    0   22.5 0.00645
## 2739    0    4.5 0.00645
## 2740    0   27.5 0.00645
## 2741    0   37.5 0.00645
## 2742    0    8.5 0.00645
## 2743    0   27.5 0.00645
## 2744    0   47.5 0.00645
## 2745    0   32.5 0.00645
## 2746    0   27.5 0.00645
## 2747    0    6.5 0.00645
## 2748    3   12.5 0.00645
## 2749    0   32.5 0.00645
## 2750   10    5.5 0.00645
## 2751    0   22.5 0.00645
## 2752    0   10.5 0.00645
## 2753    0   32.5 0.00645
## 2754    0   32.5 0.00645
## 2755    0   27.5 0.00645
## 2756   15   12.5 0.00645
## 2757    0    8.5 0.00645
## 2758    0   42.5 0.00645
## 2759    0    4.5 0.00645
## 2760    0   37.5 0.00645
## 2761    0   18.5 0.00645
```

```
## 2762    0    42.5 0.00645
## 2763    0    42.5 0.00645
## 2764   20    17.5 0.00645
## 2765    0    47.5 0.00645
## 2766    0    22.5 0.00645
## 2767    0    15.5 0.00645
## 2768    0     1.5 0.00645
## 2769    0     5.5 0.00645
## 2770    0    12.5 0.00645
## 2771    0    22.5 0.00645
## 2772    0    27.5 0.00645
## 2773    0     5.5 0.00645
## 2774    0    65.0 0.00645
## 2775    0    27.5 0.00645
## 2776    0    37.5 0.00645
```

```
marginaleffects(bwght.lm1, slope = 'dyex')
```

```
##       rowid      type   term contrast      dydx   std.error statistic
## 1         1 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 2         2 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 3         3 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 4         4 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 5         5 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 6         6 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 7         7 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 8         8 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 9         9 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 10       10 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 11       11 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 12       12 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 13       13 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 14       14 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 15       15 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 16       16 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 17       17 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 18       18 response   cigs    dY/eX 0.00000000 0.00000000       NaN
## 19       19 response   cigs    dY/eX 0.00000000 0.00000000       NaN
```

```
## 20        20 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 21        21 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 22        22 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 23        23 response    cigs    dY/eX   -2.78044524 0.54946095 -5.060315
## 24        24 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 25        25 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 26        26 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 27        27 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 28        28 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 29        29 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 30        30 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 31        31 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 32        32 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 33        33 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 34        34 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 35        35 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 36        36 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 37        37 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 38        38 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 39        39 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 40        40 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 41        41 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 42        42 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 43        43 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 44        44 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 45        45 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 46        46 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 47        47 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 48        48 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 49        49 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 50        50 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 51        51 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 52        52 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 53        53 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 54        54 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 55        55 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 56        56 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 57        57 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 58        58 response    cigs    dY/eX    0.00000000 0.00000000        NaN
```

```
## 59      59 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 60      60 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 61      61 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 62      62 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 63      63 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 64      64 response    cigs     dY/eX  -4.63407540 0.91576823 -5.060315
## 65      65 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 66      66 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 67      67 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 68      68 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 69      69 response    cigs     dY/eX  -9.26815080 1.83153651 -5.060315
## 70      70 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 71      71 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 72      72 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 73      73 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 74      74 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 75      75 response    cigs     dY/eX -18.53630161 3.66307282 -5.060315
## 76      76 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 77      77 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 78      78 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 79      79 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 80      80 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 81      81 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 82      82 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 83      83 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 84      84 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 85      85 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 86      86 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 87      87 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 88      88 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 89      89 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 90      90 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 91      91 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 92      92 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 93      93 response    cigs     dY/eX  -4.63407540 0.91576823 -5.060315
## 94      94 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 95      95 response    cigs     dY/eX  -4.63407540 0.91576823 -5.060315
## 96      96 response    cigs     dY/eX   0.00000000 0.00000000        NaN
## 97      97 response    cigs     dY/eX   0.00000000 0.00000000        NaN
```

```
## 98      98 response   cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 99      99 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 100    100 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 101    101 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 102    102 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 103    103 response   cigs    dY/eX   -1.39022262 0.27473047 -5.060315
## 104    104 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 105    105 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 106    106 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 107    107 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 108    108 response   cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 109    109 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 110    110 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 111    111 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 112    112 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 113    113 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 114    114 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 115    115 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 116    116 response   cigs    dY/eX   -9.26815080 1.83153652 -5.060315
## 117    117 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 118    118 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 119    119 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 120    120 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 121    121 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 122    122 response   cigs    dY/eX  -18.53630161 3.66307282 -5.060315
## 123    123 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 124    124 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 125    125 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 126    126 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 127    127 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 128    128 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 129    129 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 130    130 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 131    131 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 132    132 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 133    133 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 134    134 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 135    135 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 136    136 response   cigs    dY/eX    0.00000000 0.00000000       NaN
```

```
## 137    137 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 138    138 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 139    139 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 140    140 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 141    141 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 142    142 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 143    143 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 144    144 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 145    145 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 146    146 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 147    147 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 148    148 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 149    149 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 150    150 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 151    151 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 152    152 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 153    153 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 154    154 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 155    155 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 156    156 response    cigs    dY/eX   -1.85363016 0.36630729 -5.060315
## 157    157 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 158    158 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 159    159 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 160    160 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 161    161 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 162    162 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 163    163 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 164    164 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 165    165 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 166    166 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 167    167 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 168    168 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 169    169 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 170    170 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 171    171 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 172    172 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 173    173 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 174    174 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 175    175 response    cigs    dY/eX    0.00000000 0.00000000         NaN
```

```
## 176      176 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 177      177 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 178      178 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 179      179 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 180      180 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 181      181 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 182      182 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 183      183 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 184      184 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 185      185 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 186      186 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 187      187 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 188      188 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 189      189 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 190      190 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 191      191 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 192      192 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 193      193 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 194      194 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 195      195 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 196      196 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 197      197 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 198      198 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 199      199 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 200      200 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 201      201 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 202      202 response    cigs    dY/eX   -3.70726032 0.73261458 -5.060315
## 203      203 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 204      204 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 205      205 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 206      206 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 207      207 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 208      208 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 209      209 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 210      210 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 211      211 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 212      212 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 213      213 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 214      214 response    cigs    dY/eX    0.00000000 0.00000000        NaN
```

```
## 215    215 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 216    216 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 217    217 response   cigs   dY/eX  -1.85363016 0.36630729 -5.060315
## 218    218 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 219    219 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 220    220 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 221    221 response   cigs   dY/eX  -9.26815080 1.83153651 -5.060315
## 222    222 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 223    223 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 224    224 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 225    225 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 226    226 response   cigs   dY/eX  -4.63407540 0.91576823 -5.060315
## 227    227 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 228    228 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 229    229 response   cigs   dY/eX  -5.56089048 1.09892185 -5.060315
## 230    230 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 231    231 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 232    232 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 233    233 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 234    234 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 235    235 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 236    236 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 237    237 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 238    238 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 239    239 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 240    240 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 241    241 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 242    242 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 243    243 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 244    244 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 245    245 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 246    246 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 247    247 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 248    248 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 249    249 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 250    250 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 251    251 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 252    252 response   cigs   dY/eX   0.00000000 0.00000000      NaN
## 253    253 response   cigs   dY/eX   0.00000000 0.00000000      NaN
```

```
## 254     254 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 255     255 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 256     256 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 257     257 response    cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 258     258 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 259     259 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 260     260 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 261     261 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 262     262 response    cigs     dY/eX   -4.63407540 0.91576823 -5.060315
## 263     263 response    cigs     dY/eX   -4.63407540 0.91576823 -5.060315
## 264     264 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 265     265 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 266     266 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 267     267 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 268     268 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 269     269 response    cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 270     270 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 271     271 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 272     272 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 273     273 response    cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 274     274 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 275     275 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 276     276 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 277     277 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 278     278 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 279     279 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 280     280 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 281     281 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 282     282 response    cigs     dY/eX   -1.85363016 0.36630729 -5.060315
## 283     283 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 284     284 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 285     285 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 286     286 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 287     287 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 288     288 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 289     289 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 290     290 response    cigs     dY/eX   -0.46340754 0.09157682 -5.060315
## 291     291 response    cigs     dY/eX    0.00000000 0.00000000       NaN
## 292     292 response    cigs     dY/eX    0.00000000 0.00000000       NaN
```

```
## 293      293 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 294      294 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 295      295 response     cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 296      296 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 297      297 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 298      298 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 299      299 response     cigs     dY/eX  -18.53630161 3.66307282 -5.060315
## 300      300 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 301      301 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 302      302 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 303      303 response     cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 304      304 response     cigs     dY/eX   -4.63407540 0.91576823 -5.060315
## 305      305 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 306      306 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 307      307 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 308      308 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 309      309 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 310      310 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 311      311 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 312      312 response     cigs     dY/eX   -4.63407540 0.91576823 -5.060315
## 313      313 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 314      314 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 315      315 response     cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 316      316 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 317      317 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 318      318 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 319      319 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 320      320 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 321      321 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 322      322 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 323      323 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 324      324 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 325      325 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 326      326 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 327      327 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 328      328 response     cigs     dY/eX   -6.95111310 1.37365231 -5.060315
## 329      329 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 330      330 response     cigs     dY/eX    0.00000000 0.00000000        NaN
## 331      331 response     cigs     dY/eX    0.00000000 0.00000000        NaN
```

```
## 332      332 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 333      333 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 334      334 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 335      335 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 336      336 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 337      337 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 338      338 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 339      339 response   cigs    dY/eX  -9.26815080 1.83153651 -5.060315
## 340      340 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 341      341 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 342      342 response   cigs    dY/eX  -9.26815080 1.83153652 -5.060315
## 343      343 response   cigs    dY/eX  -5.56089048 1.09892185 -5.060315
## 344      344 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 345      345 response   cigs    dY/eX  -3.70726032 0.73261458 -5.060315
## 346      346 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 347      347 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 348      348 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 349      349 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 350      350 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 351      351 response   cigs    dY/eX  -6.95111310 1.37365231 -5.060315
## 352      352 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 353      353 response   cigs    dY/eX  -4.63407540 0.91576823 -5.060315
## 354      354 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 355      355 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 356      356 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 357      357 response   cigs    dY/eX  -4.63407540 0.91576823 -5.060315
## 358      358 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 359      359 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 360      360 response   cigs    dY/eX  -9.26815080 1.83153651 -5.060315
## 361      361 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 362      362 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 363      363 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 364      364 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 365      365 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 366      366 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 367      367 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 368      368 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 369      369 response   cigs    dY/eX   0.00000000 0.00000000         NaN
## 370      370 response   cigs    dY/eX   0.00000000 0.00000000         NaN
```

```
## 371     371 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 372     372 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 373     373 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 374     374 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 375     375 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 376     376 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 377     377 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 378     378 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 379     379 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 380     380 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 381     381 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 382     382 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 383     383 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 384     384 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 385     385 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 386     386 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 387     387 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 388     388 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 389     389 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 390     390 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 391     391 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 392     392 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 393     393 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 394     394 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 395     395 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 396     396 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 397     397 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 398     398 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 399     399 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 400     400 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 401     401 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 402     402 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 403     403 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 404     404 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 405     405 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 406     406 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 407     407 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 408     408 response    cigs    dY/eX   0.00000000 0.00000000         NaN
## 409     409 response    cigs    dY/eX   0.00000000 0.00000000         NaN
```

```
## 410     410 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 411     411 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 412     412 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 413     413 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 414     414 response   cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 415     415 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 416     416 response   cigs     dY/eX   -1.85363016 0.36630729 -5.060315
## 417     417 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 418     418 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 419     419 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 420     420 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 421     421 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 422     422 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 423     423 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 424     424 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 425     425 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 426     426 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 427     427 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 428     428 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 429     429 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 430     430 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 431     431 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 432     432 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 433     433 response   cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 434     434 response   cigs     dY/eX   -4.63407540 0.91576823 -5.060315
## 435     435 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 436     436 response   cigs     dY/eX  -13.90222621 2.74730476 -5.060315
## 437     437 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 438     438 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 439     439 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 440     440 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 441     441 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 442     442 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 443     443 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 444     444 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 445     445 response   cigs     dY/eX   -6.95111310 1.37365231 -5.060315
## 446     446 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 447     447 response   cigs     dY/eX    0.00000000 0.00000000        NaN
## 448     448 response   cigs     dY/eX    0.00000000 0.00000000        NaN
```

```
## 449      449 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 450      450 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 451      451 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 452      452 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 453      453 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 454      454 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 455      455 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 456      456 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 457      457 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 458      458 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 459      459 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 460      460 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 461      461 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 462      462 response    cigs    dY/eX   -6.95111310 1.37365231 -5.060315
## 463      463 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 464      464 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 465      465 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 466      466 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 467      467 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 468      468 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 469      469 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 470      470 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 471      471 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 472      472 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 473      473 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 474      474 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 475      475 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 476      476 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 477      477 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 478      478 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 479      479 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 480      480 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 481      481 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 482      482 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 483      483 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 484      484 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 485      485 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 486      486 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 487      487 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
```

```
## 488      488 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 489      489 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 490      490 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 491      491 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 492      492 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 493      493 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 494      494 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 495      495 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 496      496 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 497      497 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 498      498 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 499      499 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 500      500 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 501      501 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 502      502 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 503      503 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 504      504 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 505      505 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 506      506 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 507      507 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 508      508 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 509      509 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 510      510 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 511      511 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 512      512 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 513      513 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 514      514 response    cigs    dY/eX  -13.90222621 2.74730477 -5.060315
## 515      515 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 516      516 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 517      517 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 518      518 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 519      519 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 520      520 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 521      521 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 522      522 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 523      523 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 524      524 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 525      525 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 526      526 response    cigs    dY/eX    0.00000000 0.00000000        NaN
```

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```
## 527     527 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 528     528 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 529     529 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 530     530 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 531     531 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 532     532 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 533     533 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 534     534 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 535     535 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 536     536 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 537     537 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 538     538 response    cigs    dY/eX   -2.78044524 0.54946095 -5.060315
## 539     539 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 540     540 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 541     541 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 542     542 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 543     543 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 544     544 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 545     545 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 546     546 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 547     547 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 548     548 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 549     549 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 550     550 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 551     551 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 552     552 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 553     553 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 554     554 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 555     555 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 556     556 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 557     557 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 558     558 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 559     559 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 560     560 response    cigs    dY/eX   -0.92681508 0.18315365 -5.060315
## 561     561 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 562     562 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 563     563 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 564     564 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 565     565 response    cigs    dY/eX    0.00000000 0.00000000        NaN
```

```
## 566     566 response    cigs     dY/eX  -0.46340754 0.09157682 -5.060315
## 567     567 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 568     568 response    cigs     dY/eX  -9.26815080 1.83153651 -5.060315
## 569     569 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 570     570 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 571     571 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 572     572 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 573     573 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 574     574 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 575     575 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 576     576 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 577     577 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 578     578 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 579     579 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 580     580 response    cigs     dY/eX  -4.63407540 0.91576823 -5.060315
## 581     581 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 582     582 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 583     583 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 584     584 response    cigs     dY/eX  -4.63407540 0.91576823 -5.060315
## 585     585 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 586     586 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 587     587 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 588     588 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 589     589 response    cigs     dY/eX  -9.26815080 1.83153651 -5.060315
## 590     590 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 591     591 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 592     592 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 593     593 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 594     594 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 595     595 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 596     596 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 597     597 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 598     598 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 599     599 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 600     600 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 601     601 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 602     602 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 603     603 response    cigs     dY/eX   0.00000000 0.00000000       NaN
## 604     604 response    cigs     dY/eX   0.00000000 0.00000000       NaN
```

```
## 605      605 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 606      606 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 607      607 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 608      608 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 609      609 response    cigs    dY/eX   -1.39022262 0.27473047 -5.060315
## 610      610 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 611      611 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 612      612 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 613      613 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 614      614 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 615      615 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 616      616 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 617      617 response    cigs    dY/eX  -18.53630161 3.66307282 -5.060315
## 618      618 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 619      619 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 620      620 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 621      621 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 622      622 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 623      623 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 624      624 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 625      625 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 626      626 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 627      627 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 628      628 response    cigs    dY/eX   -3.70726032 0.73261458 -5.060315
## 629      629 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 630      630 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 631      631 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 632      632 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 633      633 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 634      634 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 635      635 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 636      636 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 637      637 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 638      638 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 639      639 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 640      640 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 641      641 response    cigs    dY/eX   -3.24385278 0.64103776 -5.060315
## 642      642 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 643      643 response    cigs    dY/eX    0.00000000 0.00000000        NaN
```

```
## 644      644 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 645      645 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 646      646 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 647      647 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 648      648 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 649      649 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 650      650 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 651      651 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 652      652 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 653      653 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 654      654 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 655      655 response   cigs    dY/eX   -3.70726032 0.73261458 -5.060315
## 656      656 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 657      657 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 658      658 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 659      659 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 660      660 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 661      661 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 662      662 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 663      663 response   cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 664      664 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 665      665 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 666      666 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 667      667 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 668      668 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 669      669 response   cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 670      670 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 671      671 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 672      672 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 673      673 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 674      674 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 675      675 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 676      676 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 677      677 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 678      678 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 679      679 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 680      680 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 681      681 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 682      682 response   cigs    dY/eX    0.00000000 0.00000000        NaN
```

```
## 683     683 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 684     684 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 685     685 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 686     686 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 687     687 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 688     688 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 689     689 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 690     690 response    cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 691     691 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 692     692 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 693     693 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 694     694 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 695     695 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 696     696 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 697     697 response    cigs     dY/eX   -2.31703770 0.45788412 -5.060315
## 698     698 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 699     699 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 700     700 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 701     701 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 702     702 response    cigs     dY/eX   -4.63407540 0.91576823 -5.060315
## 703     703 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 704     704 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 705     705 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 706     706 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 707     707 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 708     708 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 709     709 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 710     710 response    cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 711     711 response    cigs     dY/eX   -6.95111310 1.37365231 -5.060315
## 712     712 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 713     713 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 714     714 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 715     715 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 716     716 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 717     717 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 718     718 response    cigs     dY/eX   -3.24385278 0.64103776 -5.060315
## 719     719 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 720     720 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 721     721 response    cigs     dY/eX    0.00000000 0.00000000        NaN
```

```
## 722      722 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 723      723 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 724      724 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 725      725 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 726      726 response      cigs      dY/eX    -6.95111310 1.37365231 -5.060315
## 727      727 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 728      728 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 729      729 response      cigs      dY/eX    -0.46340754 0.09157682 -5.060315
## 730      730 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 731      731 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 732      732 response      cigs      dY/eX    -6.95111310 1.37365231 -5.060315
## 733      733 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 734      734 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 735      735 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 736      736 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 737      737 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 738      738 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 739      739 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 740      740 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 741      741 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 742      742 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 743      743 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 744      744 response      cigs      dY/eX    -2.31703770 0.45788412 -5.060315
## 745      745 response      cigs      dY/eX    -4.63407540 0.91576823 -5.060315
## 746      746 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 747      747 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 748      748 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 749      749 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 750      750 response      cigs      dY/eX    -5.56089048 1.09892185 -5.060315
## 751      751 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 752      752 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 753      753 response      cigs      dY/eX    -4.63407540 0.91576823 -5.060315
## 754      754 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 755      755 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 756      756 response      cigs      dY/eX    -9.26815080 1.83153651 -5.060315
## 757      757 response      cigs      dY/eX     0.00000000 0.00000000          NaN
## 758      758 response      cigs      dY/eX    -4.63407540 0.91576823 -5.060315
## 759      759 response      cigs      dY/eX    -4.63407540 0.91576823 -5.060315
## 760      760 response      cigs      dY/eX     0.00000000 0.00000000          NaN
```

```
## 761      761 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 762      762 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 763      763 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 764      764 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 765      765 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 766      766 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 767      767 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 768      768 response    cigs    dY/eX   -1.85363016 0.36630729 -5.060315
## 769      769 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 770      770 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 771      771 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 772      772 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 773      773 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 774      774 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 775      775 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 776      776 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 777      777 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 778      778 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 779      779 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 780      780 response    cigs    dY/eX   -1.85363016 0.36630729 -5.060315
## 781      781 response    cigs    dY/eX   -6.95111310 1.37365231 -5.060315
## 782      782 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 783      783 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 784      784 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 785      785 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 786      786 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 787      787 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 788      788 response    cigs    dY/eX   -1.39022262 0.27473047 -5.060315
## 789      789 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 790      790 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 791      791 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 792      792 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 793      793 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 794      794 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 795      795 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 796      796 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 797      797 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 798      798 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 799      799 response    cigs    dY/eX    0.00000000 0.00000000        NaN
```

```
## 800    800 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 801    801 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 802    802 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 803    803 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 804    804 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 805    805 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 806    806 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 807    807 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 808    808 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 809    809 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 810    810 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 811    811 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 812    812 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 813    813 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 814    814 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 815    815 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 816    816 response    cigs    dY/eX   -0.92681508 0.18315365 -5.060315
## 817    817 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 818    818 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 819    819 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 820    820 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 821    821 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 822    822 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 823    823 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 824    824 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 825    825 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 826    826 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 827    827 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 828    828 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 829    829 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 830    830 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 831    831 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 832    832 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 833    833 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 834    834 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 835    835 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 836    836 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 837    837 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 838    838 response    cigs    dY/eX    0.00000000 0.00000000       NaN
```

```
## 839     839 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 840     840 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 841     841 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 842     842 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 843     843 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 844     844 response    cigs    dY/eX   -2.31703770 0.45788412  -5.060315
## 845     845 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 846     846 response    cigs    dY/eX   -4.63407540 0.91576823  -5.060315
## 847     847 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 848     848 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 849     849 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 850     850 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 851     851 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 852     852 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 853     853 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 854     854 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 855     855 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 856     856 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 857     857 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 858     858 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 859     859 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 860     860 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 861     861 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 862     862 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 863     863 response    cigs    dY/eX   -9.26815080 1.83153651  -5.060315
## 864     864 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 865     865 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 866     866 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 867     867 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 868     868 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 869     869 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 870     870 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 871     871 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 872     872 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 873     873 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 874     874 response    cigs    dY/eX   -4.63407540 0.91576823  -5.060315
## 875     875 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 876     876 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 877     877 response    cigs    dY/eX    0.00000000 0.00000000        NaN
```

```
## 878      878 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 879      879 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 880      880 response   cigs   dY/eX   -4.63407540 0.91576823  -5.060315
## 881      881 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 882      882 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 883      883 response   cigs   dY/eX  -13.90222621 2.74730477  -5.060315
## 884      884 response   cigs   dY/eX   -4.63407540 0.91576823  -5.060315
## 885      885 response   cigs   dY/eX   -9.26815080 1.83153651  -5.060315
## 886      886 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 887      887 response   cigs   dY/eX   -4.63407540 0.91576823  -5.060315
## 888      888 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 889      889 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 890      890 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 891      891 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 892      892 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 893      893 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 894      894 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 895      895 response   cigs   dY/eX  -13.90222621 2.74730477  -5.060315
## 896      896 response   cigs   dY/eX  -13.90222621 2.74730477  -5.060315
## 897      897 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 898      898 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 899      899 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 900      900 response   cigs   dY/eX   -1.85363016 0.36630729  -5.060315
## 901      901 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 902      902 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 903      903 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 904      904 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 905      905 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 906      906 response   cigs   dY/eX   -4.63407540 0.91576823  -5.060315
## 907      907 response   cigs   dY/eX   -1.39022262 0.27473047  -5.060315
## 908      908 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 909      909 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 910      910 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 911      911 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 912      912 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 913      913 response   cigs   dY/eX   -9.26815080 1.83153651  -5.060315
## 914      914 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 915      915 response   cigs   dY/eX    0.00000000 0.00000000         NaN
## 916      916 response   cigs   dY/eX    0.00000000 0.00000000         NaN
```

```
## 917      917 response     cigs     dY/eX  -1.39022262 0.27473047 -5.060315
## 918      918 response     cigs     dY/eX  -9.26815080 1.83153651 -5.060315
## 919      919 response     cigs     dY/eX  -3.24385278 0.64103776 -5.060315
## 920      920 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 921      921 response     cigs     dY/eX  -9.26815080 1.83153651 -5.060315
## 922      922 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 923      923 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 924      924 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 925      925 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 926      926 response     cigs     dY/eX  -0.92681508 0.18315365 -5.060315
## 927      927 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 928      928 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 929      929 response     cigs     dY/eX  -4.63407540 0.91576823 -5.060315
## 930      930 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 931      931 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 932      932 response     cigs     dY/eX  -9.26815080 1.83153651 -5.060315
## 933      933 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 934      934 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 935      935 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 936      936 response     cigs     dY/eX  -2.31703770 0.45788412 -5.060315
## 937      937 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 938      938 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 939      939 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 940      940 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 941      941 response     cigs     dY/eX  -4.63407540 0.91576823 -5.060315
## 942      942 response     cigs     dY/eX  -9.26815080 1.83153651 -5.060315
## 943      943 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 944      944 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 945      945 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 946      946 response     cigs     dY/eX  -9.26815080 1.83153651 -5.060315
## 947      947 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 948      948 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 949      949 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 950      950 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 951      951 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 952      952 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 953      953 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 954      954 response     cigs     dY/eX   0.00000000 0.00000000       NaN
## 955      955 response     cigs     dY/eX  -2.31703770 0.45788412 -5.060315
```

```
## 956    956 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 957    957 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 958    958 response   cigs    dY/eX   -3.24385278 0.64103776 -5.060315
## 959    959 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 960    960 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 961    961 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 962    962 response   cigs    dY/eX   -6.95111310 1.37365231 -5.060315
## 963    963 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 964    964 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 965    965 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 966    966 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 967    967 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 968    968 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 969    969 response   cigs    dY/eX   -1.85363016 0.36630729 -5.060315
## 970    970 response   cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 971    971 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 972    972 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 973    973 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 974    974 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 975    975 response   cigs    dY/eX   -6.95111310 1.37365231 -5.060315
## 976    976 response   cigs    dY/eX   -6.95111310 1.37365231 -5.060315
## 977    977 response   cigs    dY/eX  -18.53630161 3.66307282 -5.060315
## 978    978 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 979    979 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 980    980 response   cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 981    981 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 982    982 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 983    983 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 984    984 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 985    985 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 986    986 response   cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 987    987 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 988    988 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 989    989 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 990    990 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 991    991 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 992    992 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 993    993 response   cigs    dY/eX    0.00000000 0.00000000       NaN
## 994    994 response   cigs    dY/eX    0.00000000 0.00000000       NaN
```

```
## 995    995 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 996    996 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 997    997 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 998    998 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 999    999 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1000  1000 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1001  1001 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1002  1002 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 1003  1003 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1004  1004 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1005  1005 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1006  1006 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 1007  1007 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1008  1008 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1009  1009 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1010  1010 response    cigs    dY/eX   -6.95111310 1.37365231 -5.060315
## 1011  1011 response    cigs    dY/eX   -6.95111310 1.37365231 -5.060315
## 1012  1012 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1013  1013 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1014  1014 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1015  1015 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1016  1016 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1017  1017 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1018  1018 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1019  1019 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1020  1020 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 1021  1021 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1022  1022 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 1023  1023 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1024  1024 response    cigs    dY/eX   -2.78044524 0.54946095 -5.060315
## 1025  1025 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1026  1026 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 1027  1027 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1028  1028 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1029  1029 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1030  1030 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1031  1031 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1032  1032 response    cigs    dY/eX    0.00000000 0.00000000       NaN
## 1033  1033 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
```

```
## 1034   1034 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1035   1035 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1036   1036 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1037   1037 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1038   1038 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1039   1039 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1040   1040 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1041   1041 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1042   1042 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1043   1043 response   cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 1044   1044 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1045   1045 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1046   1046 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1047   1047 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1048   1048 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1049   1049 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1050   1050 response   cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 1051   1051 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1052   1052 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1053   1053 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1054   1054 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1055   1055 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1056   1056 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1057   1057 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1058   1058 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1059   1059 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1060   1060 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1061   1061 response   cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 1062   1062 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1063   1063 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1064   1064 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1065   1065 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1066   1066 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1067   1067 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1068   1068 response   cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 1069   1069 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1070   1070 response   cigs    dY/eX    0.00000000 0.00000000        NaN
## 1071   1071 response   cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 1072   1072 response   cigs    dY/eX    0.00000000 0.00000000        NaN
```

```
## 1073   1073 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1074   1074 response    cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 1075   1075 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1076   1076 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1077   1077 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1078   1078 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1079   1079 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1080   1080 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1081   1081 response    cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 1082   1082 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1083   1083 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1084   1084 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1085   1085 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1086   1086 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1087   1087 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1088   1088 response    cigs     dY/eX   -4.63407540 0.91576823 -5.060315
## 1089   1089 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1090   1090 response    cigs     dY/eX   -2.78044524 0.54946095 -5.060315
## 1091   1091 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1092   1092 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1093   1093 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1094   1094 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1095   1095 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1096   1096 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1097   1097 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1098   1098 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1099   1099 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1100   1100 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1101   1101 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1102   1102 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1103   1103 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1104   1104 response    cigs     dY/eX   -0.92681508 0.18315365 -5.060315
## 1105   1105 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1106   1106 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1107   1107 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1108   1108 response    cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 1109   1109 response    cigs     dY/eX   -4.63407540 0.91576823 -5.060315
## 1110   1110 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1111   1111 response    cigs     dY/eX    0.00000000 0.00000000        NaN
```

```
## 1112 1112 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1113 1113 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1114 1114 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1115 1115 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1116 1116 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1117 1117 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1118 1118 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1119 1119 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1120 1120 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1121 1121 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1122 1122 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1123 1123 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1124 1124 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1125 1125 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1126 1126 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1127 1127 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1128 1128 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1129 1129 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1130 1130 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1131 1131 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1132 1132 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1133 1133 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1134 1134 response   cigs    dY/eX   -1.85363016 0.36630729 -5.060315
## 1135 1135 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1136 1136 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1137 1137 response   cigs    dY/eX   -2.78044524 0.54946095 -5.060315
## 1138 1138 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1139 1139 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1140 1140 response   cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 1141 1141 response   cigs    dY/eX   -1.39022262 0.27473047 -5.060315
## 1142 1142 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1143 1143 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1144 1144 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1145 1145 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1146 1146 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1147 1147 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1148 1148 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1149 1149 response   cigs    dY/eX    0.00000000 0.00000000         NaN
## 1150 1150 response   cigs    dY/eX    0.00000000 0.00000000         NaN
```

```
## 1151  1151 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1152  1152 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1153  1153 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1154  1154 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1155  1155 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1156  1156 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1157  1157 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1158  1158 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1159  1159 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1160  1160 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1161  1161 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1162  1162 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1163  1163 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1164  1164 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1165  1165 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1166  1166 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1167  1167 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 1168  1168 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 1169  1169 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1170  1170 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1171  1171 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1172  1172 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1173  1173 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 1174  1174 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1175  1175 response    cigs    dY/eX   -2.78044524 0.54946095 -5.060315
## 1176  1176 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1177  1177 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1178  1178 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1179  1179 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1180  1180 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1181  1181 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1182  1182 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1183  1183 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1184  1184 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1185  1185 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1186  1186 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1187  1187 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1188  1188 response    cigs    dY/eX    0.00000000 0.00000000         NaN
## 1189  1189 response    cigs    dY/eX    0.00000000 0.00000000         NaN
```

```
## 1190   1190 response    cigs    dY/eX  -9.26815080 1.83153651 -5.060315
## 1191   1191 response    cigs    dY/eX  -6.95111310 1.37365231 -5.060315
## 1192   1192 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1193   1193 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1194   1194 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1195   1195 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1196   1196 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1197   1197 response    cigs    dY/eX  -3.70726032 0.73261458 -5.060315
## 1198   1198 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1199   1199 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1200   1200 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1201   1201 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1202   1202 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1203   1203 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1204   1204 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1205   1205 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1206   1206 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1207   1207 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1208   1208 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1209   1209 response    cigs    dY/eX  -2.31703770 0.45788412 -5.060315
## 1210   1210 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1211   1211 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1212   1212 response    cigs    dY/eX  -4.63407540 0.91576823 -5.060315
## 1213   1213 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1214   1214 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1215   1215 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1216   1216 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1217   1217 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1218   1218 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1219   1219 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1220   1220 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1221   1221 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1222   1222 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1223   1223 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1224   1224 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1225   1225 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1226   1226 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1227   1227 response    cigs    dY/eX   0.00000000 0.00000000        NaN
## 1228   1228 response    cigs    dY/eX   0.00000000 0.00000000        NaN
```

```
## 1229   1229 response    cigs     dY/eX   -6.95111310 1.37365231 -5.060315
## 1230   1230 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1231   1231 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1232   1232 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1233   1233 response    cigs     dY/eX   -5.56089048 1.09892185 -5.060315
## 1234   1234 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1235   1235 response    cigs     dY/eX   -4.63407540 0.91576823 -5.060315
## 1236   1236 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1237   1237 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1238   1238 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1239   1239 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1240   1240 response    cigs     dY/eX  -21.31674685 4.21253386 -5.060315
## 1241   1241 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1242   1242 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1243   1243 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1244   1244 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1245   1245 response    cigs     dY/eX   -9.26815080 1.83153651 -5.060315
## 1246   1246 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1247   1247 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1248   1248 response    cigs     dY/eX   -2.31703770 0.45788412 -5.060315
## 1249   1249 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1250   1250 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1251   1251 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1252   1252 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1253   1253 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1254   1254 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1255   1255 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1256   1256 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1257   1257 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1258   1258 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1259   1259 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1260   1260 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1261   1261 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1262   1262 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1263   1263 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1264   1264 response    cigs     dY/eX  -18.53630161 3.66307282 -5.060315
## 1265   1265 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1266   1266 response    cigs     dY/eX    0.00000000 0.00000000        NaN
## 1267   1267 response    cigs     dY/eX    0.00000000 0.00000000        NaN
```

```
## 1268   1268 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1269   1269 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1270   1270 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1271   1271 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1272   1272 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1273   1273 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1274   1274 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1275   1275 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1276   1276 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 1277   1277 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1278   1278 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1279   1279 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1280   1280 response    cigs    dY/eX   -5.56089048 1.09892185 -5.060315
## 1281   1281 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1282   1282 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1283   1283 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1284   1284 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1285   1285 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1286   1286 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1287   1287 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1288   1288 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 1289   1289 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1290   1290 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1291   1291 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 1292   1292 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 1293   1293 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1294   1294 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1295   1295 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1296   1296 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1297   1297 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1298   1298 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1299   1299 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1300   1300 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1301   1301 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1302   1302 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1303   1303 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1304   1304 response    cigs    dY/eX  -23.17037701 4.57884115 -5.060315
## 1305   1305 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1306   1306 response    cigs    dY/eX    0.00000000 0.00000000        NaN
```

```
## 1307  1307 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1308  1308 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1309  1309 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1310  1310 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1311  1311 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1312  1312 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1313  1313 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1314  1314 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1315  1315 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1316  1316 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 1317  1317 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1318  1318 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1319  1319 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1320  1320 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1321  1321 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1322  1322 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1323  1323 response    cigs    dY/eX   -2.31703770 0.45788412 -5.060315
## 1324  1324 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1325  1325 response    cigs    dY/eX   -6.95111310 1.37365231 -5.060315
## 1326  1326 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1327  1327 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1328  1328 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1329  1329 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1330  1330 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1331  1331 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1332  1332 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 1333  1333 response    cigs    dY/eX   -4.17066786 0.82419143 -5.060315
## 1334  1334 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1335  1335 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1336  1336 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1337  1337 response    cigs    dY/eX   -6.95111310 1.37365231 -5.060315
## 1338  1338 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1339  1339 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1340  1340 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1341  1341 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1342  1342 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1343  1343 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1344  1344 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1345  1345 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
```

```
## 1346  1346 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1347  1347 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1348  1348 response    cigs    dY/eX   -6.95111310 1.37365231 -5.060315
## 1349  1349 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 1350  1350 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1351  1351 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1352  1352 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1353  1353 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1354  1354 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1355  1355 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1356  1356 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1357  1357 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1358  1358 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1359  1359 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1360  1360 response    cigs    dY/eX   -1.39022262 0.27473047 -5.060315
## 1361  1361 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1362  1362 response    cigs    dY/eX   -4.63407540 0.91576823 -5.060315
## 1363  1363 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1364  1364 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1365  1365 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1366  1366 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1367  1367 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1368  1368 response    cigs    dY/eX   -6.95111310 1.37365231 -5.060315
## 1369  1369 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1370  1370 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1371  1371 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1372  1372 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1373  1373 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1374  1374 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1375  1375 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1376  1376 response    cigs    dY/eX   -9.26815080 1.83153651 -5.060315
## 1377  1377 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1378  1378 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1379  1379 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1380  1380 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1381  1381 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1382  1382 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1383  1383 response    cigs    dY/eX    0.00000000 0.00000000        NaN
## 1384  1384 response    cigs    dY/eX    0.00000000 0.00000000        NaN
```

```
## 1385 1385 response   cigs    dY/eX   0.00000000 0.00000000       NaN
## 1386 1386 response   cigs    dY/eX   0.00000000 0.00000000       NaN
## 1387 1387 response   cigs    dY/eX   0.00000000 0.00000000       NaN
## 1388 1388 response   cigs    dY/eX   0.00000000 0.00000000       NaN
## 1389    1 response faminc    dY/eX   1.25232397 0.39403623  3.178195
## 1390    2 response faminc    dY/eX   0.69573554 0.21890902  3.178195
## 1391    3 response faminc    dY/eX   0.04638237 0.01459393  3.178195
## 1392    4 response faminc    dY/eX   1.43785344 0.45241196  3.178195
## 1393    5 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1394    6 response faminc    dY/eX   0.69573554 0.21890902  3.178195
## 1395    7 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1396    8 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1397    9 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1398   10 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 1399   11 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1400   12 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1401   13 response faminc    dY/eX   0.60297080 0.18972115  3.178195
## 1402   14 response faminc    dY/eX   0.97402975 0.30647262  3.178195
## 1403   15 response faminc    dY/eX   1.15955923 0.36484836  3.178195
## 1404   16 response faminc    dY/eX   1.62338292 0.51078772  3.178195
## 1405   17 response faminc    dY/eX   3.94250138 1.24048445  3.178195
## 1406   18 response faminc    dY/eX   0.41744132 0.13134541  3.178195
## 1407   19 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 1408   20 response faminc    dY/eX   0.60297080 0.18972115  3.178195
## 1409   21 response faminc    dY/eX   4.40632507 1.38642377  3.178195
## 1410   22 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1411   23 response faminc    dY/eX   1.43785344 0.45241196  3.178195
## 1412   24 response faminc    dY/eX   1.25232397 0.39403623  3.178195
## 1413   25 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 1414   26 response faminc    dY/eX   0.23191185 0.07296967  3.178195
## 1415   27 response faminc    dY/eX   0.23191185 0.07296967  3.178195
## 1416   28 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 1417   29 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1418   30 response faminc    dY/eX   0.04638237 0.01459393  3.178195
## 1419   31 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1420   32 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1421   33 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1422   34 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1423   35 response faminc    dY/eX   0.69573554 0.21890902  3.178195
```

```
## 1424    36 response faminc    dY/eX   4.40632507 1.38642377   3.178195
## 1425    37 response faminc    dY/eX   6.02970799 1.89721148   3.178195
## 1426    38 response faminc    dY/eX   6.02970799 1.89721148   3.178195
## 1427    39 response faminc    dY/eX   3.01485400 0.94860574   3.178195
## 1428    40 response faminc    dY/eX   1.25232397 0.39403623   3.178195
## 1429    41 response faminc    dY/eX   6.02970799 1.89721148   3.178195
## 1430    42 response faminc    dY/eX   4.40632507 1.38642377   3.178195
## 1431    43 response faminc    dY/eX   3.47867769 1.09454508   3.178195
## 1432    44 response faminc    dY/eX   3.01485400 0.94860574   3.178195
## 1433    45 response faminc    dY/eX   1.71614766 0.53997559   3.178195
## 1434    46 response faminc    dY/eX   6.02970799 1.89721148   3.178195
## 1435    47 response faminc    dY/eX   6.02970799 1.89721148   3.178195
## 1436    48 response faminc    dY/eX   1.06679449 0.33566049   3.178195
## 1437    49 response faminc    dY/eX   3.01485400 0.94860574   3.178195
## 1438    50 response faminc    dY/eX   6.02970799 1.89721148   3.178195
## 1439    51 response faminc    dY/eX   1.62338292 0.51078772   3.178195
## 1440    52 response faminc    dY/eX   1.53061818 0.48159983   3.178195
## 1441    53 response faminc    dY/eX   2.08720661 0.65672704   3.178195
## 1442    54 response faminc    dY/eX   3.94250138 1.24048445   3.178195
## 1443    55 response faminc    dY/eX   3.01485400 0.94860574   3.178195
## 1444    56 response faminc    dY/eX   1.06679449 0.33566049   3.178195
## 1445    57 response faminc    dY/eX   6.02970799 1.89721148   3.178195
## 1446    58 response faminc    dY/eX   2.55103031 0.80266639   3.178195
## 1447    59 response faminc    dY/eX   2.55103031 0.80266639   3.178195
## 1448    60 response faminc    dY/eX   1.62338292 0.51078772   3.178195
## 1449    61 response faminc    dY/eX   6.02970799 1.89721148   3.178195
## 1450    62 response faminc    dY/eX   0.32467658 0.10215754   3.178195
## 1451    63 response faminc    dY/eX   0.04638237 0.01459393   3.178195
## 1452    64 response faminc    dY/eX   0.04638237 0.01459393   3.178195
## 1453    65 response faminc    dY/eX   0.32467658 0.10215754   3.178195
## 1454    66 response faminc    dY/eX   6.02970799 1.89721148   3.178195
## 1455    67 response faminc    dY/eX   2.08720661 0.65672704   3.178195
## 1456    68 response faminc    dY/eX   2.08720661 0.65672704   3.178195
## 1457    69 response faminc    dY/eX   0.69573554 0.21890902   3.178195
## 1458    70 response faminc    dY/eX   2.55103031 0.80266639   3.178195
## 1459    71 response faminc    dY/eX   1.71614766 0.53997559   3.178195
## 1460    72 response faminc    dY/eX   3.47867769 1.09454508   3.178195
## 1461    73 response faminc    dY/eX   2.08720661 0.65672704   3.178195
## 1462    74 response faminc    dY/eX   2.55103031 0.80266639   3.178195
```

```
## 1463    75 response faminc    dY/eX   1.71614766 0.53997559  3.178195
## 1464    76 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1465    77 response faminc    dY/eX   0.04638237 0.01459393  3.178195
## 1466    78 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 1467    79 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1468    80 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 1469    81 response faminc    dY/eX   1.43785344 0.45241196  3.178195
## 1470    82 response faminc    dY/eX   1.53061818 0.48159983  3.178195
## 1471    83 response faminc    dY/eX   1.80891240 0.56916346  3.178195
## 1472    84 response faminc    dY/eX   1.43785344 0.45241196  3.178195
## 1473    85 response faminc    dY/eX   1.34508871 0.42322410  3.178195
## 1474    86 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 1475    87 response faminc    dY/eX   1.34508871 0.42322410  3.178195
## 1476    88 response faminc    dY/eX   0.78850028 0.24809689  3.178195
## 1477    89 response faminc    dY/eX   0.78850028 0.24809689  3.178195
## 1478    90 response faminc    dY/eX   0.69573554 0.21890902  3.178195
## 1479    91 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 1480    92 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1481    93 response faminc    dY/eX   0.69573554 0.21890902  3.178195
## 1482    94 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1483    95 response faminc    dY/eX   1.25232397 0.39403623  3.178195
## 1484    96 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1485    97 response faminc    dY/eX   1.71614766 0.53997559  3.178195
## 1486    98 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1487    99 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1488   100 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1489   101 response faminc    dY/eX   3.94250138 1.24048445  3.178195
## 1490   102 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 1491   103 response faminc    dY/eX   1.06679449 0.33566049  3.178195
## 1492   104 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1493   105 response faminc    dY/eX   0.69573554 0.21890902  3.178195
## 1494   106 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1495   107 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1496   108 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1497   109 response faminc    dY/eX   0.69573554 0.21890902  3.178195
## 1498   110 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1499   111 response faminc    dY/eX   0.78850028 0.24809689  3.178195
## 1500   112 response faminc    dY/eX   1.15955923 0.36484836  3.178195
## 1501   113 response faminc    dY/eX   3.47867769 1.09454508  3.178195
```

```
## 1502    114 response faminc    dY/eX    1.34508871 0.42322410  3.178195
## 1503    115 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1504    116 response faminc    dY/eX    3.47867769 1.09454508  3.178195
## 1505    117 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 1506    118 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1507    119 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 1508    120 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 1509    121 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1510    122 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 1511    123 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1512    124 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1513    125 response faminc    dY/eX    0.69573554 0.21890902  3.178195
## 1514    126 response faminc    dY/eX    1.62338292 0.51078772  3.178195
## 1515    127 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 1516    128 response faminc    dY/eX    3.47867769 1.09454508  3.178195
## 1517    129 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 1518    130 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 1519    131 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1520    132 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 1521    133 response faminc    dY/eX    0.23191185 0.07296967  3.178195
## 1522    134 response faminc    dY/eX    0.97402975 0.30647262  3.178195
## 1523    135 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 1524    136 response faminc    dY/eX    1.34508871 0.42322410  3.178195
## 1525    137 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 1526    138 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 1527    139 response faminc    dY/eX    0.32467658 0.10215754  3.178195
## 1528    140 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 1529    141 response faminc    dY/eX    1.43785344 0.45241196  3.178195
## 1530    142 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 1531    143 response faminc    dY/eX    1.80891240 0.56916346  3.178195
## 1532    144 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 1533    145 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1534    146 response faminc    dY/eX    1.25232397 0.39403623  3.178195
## 1535    147 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 1536    148 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 1537    149 response faminc    dY/eX    0.51020606 0.16053328  3.178195
## 1538    150 response faminc    dY/eX    0.51020606 0.16053328  3.178195
## 1539    151 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1540    152 response faminc    dY/eX    2.08720661 0.65672704  3.178195
```

```
## 1541    153 response faminc    dY/eX    1.71614766 0.53997559    3.178195
## 1542    154 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 1543    155 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 1544    156 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 1545    157 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 1546    158 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 1547    159 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 1548    160 response faminc    dY/eX    0.13914711 0.04378180    3.178195
## 1549    161 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 1550    162 response faminc    dY/eX    4.40632507 1.38642377    3.178195
## 1551    163 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 1552    164 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 1553    165 response faminc    dY/eX    0.78850028 0.24809689    3.178195
## 1554    166 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 1555    167 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 1556    168 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 1557    169 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 1558    170 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 1559    171 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 1560    172 response faminc    dY/eX    0.78850028 0.24809689    3.178195
## 1561    173 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 1562    174 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 1563    175 response faminc    dY/eX    1.15955923 0.36484836    3.178195
## 1564    176 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 1565    177 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 1566    178 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 1567    179 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 1568    180 response faminc    dY/eX    1.71614766 0.53997559    3.178195
## 1569    181 response faminc    dY/eX    1.25232397 0.39403623    3.178195
## 1570    182 response faminc    dY/eX    1.71614766 0.53997559    3.178195
## 1571    183 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 1572    184 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 1573    185 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 1574    186 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 1575    187 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 1576    188 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 1577    189 response faminc    dY/eX    4.40632507 1.38642377    3.178195
## 1578    190 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 1579    191 response faminc    dY/eX    3.01485400 0.94860574    3.178195
```

```
## 1580   192 response faminc   dY/eX   0.97402975 0.30647262  3.178195
## 1581   193 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 1582   194 response faminc   dY/eX   3.47867769 1.09454508  3.178195
## 1583   195 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1584   196 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1585   197 response faminc   dY/eX   0.97402975 0.30647262  3.178195
## 1586   198 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 1587   199 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 1588   200 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1589   201 response faminc   dY/eX   4.40632507 1.38642377  3.178195
## 1590   202 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 1591   203 response faminc   dY/eX   0.60297080 0.18972115  3.178195
## 1592   204 response faminc   dY/eX   1.15955923 0.36484836  3.178195
## 1593   205 response faminc   dY/eX   4.40632507 1.38642377  3.178195
## 1594   206 response faminc   dY/eX   1.80891240 0.56916346  3.178195
## 1595   207 response faminc   dY/eX   0.69573554 0.21890902  3.178195
## 1596   208 response faminc   dY/eX   0.78850028 0.24809689  3.178195
## 1597   209 response faminc   dY/eX   1.80891240 0.56916346  3.178195
## 1598   210 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1599   211 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 1600   212 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1601   213 response faminc   dY/eX   1.80891240 0.56916346  3.178195
## 1602   214 response faminc   dY/eX   1.62338292 0.51078772  3.178195
## 1603   215 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 1604   216 response faminc   dY/eX   1.15955923 0.36484836  3.178195
## 1605   217 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 1606   218 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 1607   219 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 1608   220 response faminc   dY/eX   1.71614766 0.53997559  3.178195
## 1609   221 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 1610   222 response faminc   dY/eX   3.94250138 1.24048445  3.178195
## 1611   223 response faminc   dY/eX   3.47867769 1.09454508  3.178195
## 1612   224 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 1613   225 response faminc   dY/eX   0.88126501 0.27728475  3.178195
## 1614   226 response faminc   dY/eX   1.43785344 0.45241196  3.178195
## 1615   227 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1616   228 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1617   229 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 1618   230 response faminc   dY/eX   3.01485400 0.94860574  3.178195
```

```
## 1619    231 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1620    232 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1621    233 response faminc    dY/eX    0.51020606 0.16053328  3.178195
## 1622    234 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 1623    235 response faminc    dY/eX    1.25232397 0.39403623  3.178195
## 1624    236 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1625    237 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1626    238 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 1627    239 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 1628    240 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 1629    241 response faminc    dY/eX    0.97402975 0.30647262  3.178195
## 1630    242 response faminc    dY/eX    0.88126501 0.27728475  3.178195
## 1631    243 response faminc    dY/eX    0.04638237 0.01459393  3.178195
## 1632    244 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 1633    245 response faminc    dY/eX    1.80891240 0.56916346  3.178195
## 1634    246 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 1635    247 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1636    248 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1637    249 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 1638    250 response faminc    dY/eX    3.47867769 1.09454508  3.178195
## 1639    251 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 1640    252 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1641    253 response faminc    dY/eX    0.13914711 0.04378180  3.178195
## 1642    254 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1643    255 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 1644    256 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 1645    257 response faminc    dY/eX    1.62338292 0.51078772  3.178195
## 1646    258 response faminc    dY/eX    1.71614766 0.53997559  3.178195
## 1647    259 response faminc    dY/eX    1.25232397 0.39403623  3.178195
## 1648    260 response faminc    dY/eX    0.97402975 0.30647262  3.178195
## 1649    261 response faminc    dY/eX    1.71614766 0.53997559  3.178195
## 1650    262 response faminc    dY/eX    1.25232397 0.39403623  3.178195
## 1651    263 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 1652    264 response faminc    dY/eX    1.43785344 0.45241196  3.178195
## 1653    265 response faminc    dY/eX    0.97402975 0.30647262  3.178195
## 1654    266 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 1655    267 response faminc    dY/eX    1.25232397 0.39403623  3.178195
## 1656    268 response faminc    dY/eX    1.53061818 0.48159983  3.178195
## 1657    269 response faminc    dY/eX    0.60297080 0.18972115  3.178195
```

```
## 1658     270 response faminc     dY/eX   0.78850028 0.24809689   3.178195
## 1659     271 response faminc     dY/eX   2.08720661 0.65672704   3.178195
## 1660     272 response faminc     dY/eX   2.55103031 0.80266639   3.178195
## 1661     273 response faminc     dY/eX   1.15955923 0.36484836   3.178195
## 1662     274 response faminc     dY/eX   1.80891240 0.56916346   3.178195
## 1663     275 response faminc     dY/eX   6.02970799 1.89721148   3.178195
## 1664     276 response faminc     dY/eX   6.02970799 1.89721148   3.178195
## 1665     277 response faminc     dY/eX   1.43785344 0.45241196   3.178195
## 1666     278 response faminc     dY/eX   3.47867769 1.09454508   3.178195
## 1667     279 response faminc     dY/eX   4.40632507 1.38642377   3.178195
## 1668     280 response faminc     dY/eX   4.40632507 1.38642377   3.178195
## 1669     281 response faminc     dY/eX   3.47867769 1.09454508   3.178195
## 1670     282 response faminc     dY/eX   3.01485400 0.94860574   3.178195
## 1671     283 response faminc     dY/eX   6.02970799 1.89721148   3.178195
## 1672     284 response faminc     dY/eX   2.55103031 0.80266639   3.178195
## 1673     285 response faminc     dY/eX   6.02970799 1.89721148   3.178195
## 1674     286 response faminc     dY/eX   6.02970799 1.89721148   3.178195
## 1675     287 response faminc     dY/eX   3.01485400 0.94860574   3.178195
## 1676     288 response faminc     dY/eX   2.08720661 0.65672704   3.178195
## 1677     289 response faminc     dY/eX   1.62338292 0.51078772   3.178195
## 1678     290 response faminc     dY/eX   3.01485400 0.94860574   3.178195
## 1679     291 response faminc     dY/eX   6.02970799 1.89721148   3.178195
## 1680     292 response faminc     dY/eX   3.47867769 1.09454508   3.178195
## 1681     293 response faminc     dY/eX   3.47867769 1.09454508   3.178195
## 1682     294 response faminc     dY/eX   1.34508871 0.42322410   3.178195
## 1683     295 response faminc     dY/eX   1.71614766 0.53997559   3.178195
## 1684     296 response faminc     dY/eX   6.02970799 1.89721148   3.178195
## 1685     297 response faminc     dY/eX   4.40632507 1.38642377   3.178195
## 1686     298 response faminc     dY/eX   2.55103031 0.80266639   3.178195
## 1687     299 response faminc     dY/eX   2.55103031 0.80266639   3.178195
## 1688     300 response faminc     dY/eX   2.55103031 0.80266639   3.178195
## 1689     301 response faminc     dY/eX   2.08720661 0.65672704   3.178195
## 1690     302 response faminc     dY/eX   3.01485400 0.94860574   3.178195
## 1691     303 response faminc     dY/eX   0.32467658 0.10215754   3.178195
## 1692     304 response faminc     dY/eX   1.71614766 0.53997559   3.178195
## 1693     305 response faminc     dY/eX   1.80891240 0.56916346   3.178195
## 1694     306 response faminc     dY/eX   3.01485400 0.94860574   3.178195
## 1695     307 response faminc     dY/eX   2.08720661 0.65672704   3.178195
## 1696     308 response faminc     dY/eX   6.02970799 1.89721148   3.178195
```

```
## 1697   309 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1698   310 response faminc    dY/eX   1.34508871 0.42322410  3.178195
## 1699   311 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1700   312 response faminc    dY/eX   1.34508871 0.42322410  3.178195
## 1701   313 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 1702   314 response faminc    dY/eX   1.25232397 0.39403623  3.178195
## 1703   315 response faminc    dY/eX   0.41744132 0.13134541  3.178195
## 1704   316 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1705   317 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 1706   318 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1707   319 response faminc    dY/eX   1.06679449 0.33566049  3.178195
## 1708   320 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1709   321 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1710   322 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 1711   323 response faminc    dY/eX   0.97402975 0.30647262  3.178195
## 1712   324 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 1713   325 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1714   326 response faminc    dY/eX   1.43785344 0.45241196  3.178195
## 1715   327 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1716   328 response faminc    dY/eX   0.04638237 0.01459393  3.178195
## 1717   329 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 1718   330 response faminc    dY/eX   0.97402975 0.30647262  3.178195
## 1719   331 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1720   332 response faminc    dY/eX   4.40632507 1.38642377  3.178195
## 1721   333 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1722   334 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1723   335 response faminc    dY/eX   4.40632507 1.38642377  3.178195
## 1724   336 response faminc    dY/eX   0.41744132 0.13134541  3.178195
## 1725   337 response faminc    dY/eX   0.78850028 0.24809689  3.178195
## 1726   338 response faminc    dY/eX   4.40632507 1.38642377  3.178195
## 1727   339 response faminc    dY/eX   1.15955923 0.36484836  3.178195
## 1728   340 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1729   341 response faminc    dY/eX   0.88126501 0.27728475  3.178195
## 1730   342 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 1731   343 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1732   344 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1733   345 response faminc    dY/eX   0.69573554 0.21890902  3.178195
## 1734   346 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 1735   347 response faminc    dY/eX   4.40632507 1.38642377  3.178195
```

```
## 1736    348 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 1737    349 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 1738    350 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 1739    351 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 1740    352 response faminc    dY/eX    4.40632507 1.38642377    3.178195
## 1741    353 response faminc    dY/eX    0.23191185 0.07296967    3.178195
## 1742    354 response faminc    dY/eX    0.69573554 0.21890902    3.178195
## 1743    355 response faminc    dY/eX    0.60297080 0.18972115    3.178195
## 1744    356 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 1745    357 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 1746    358 response faminc    dY/eX    4.40632507 1.38642377    3.178195
## 1747    359 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 1748    360 response faminc    dY/eX    0.88126501 0.27728475    3.178195
## 1749    361 response faminc    dY/eX    4.40632507 1.38642377    3.178195
## 1750    362 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 1751    363 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 1752    364 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 1753    365 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 1754    366 response faminc    dY/eX    1.80891240 0.56916346    3.178195
## 1755    367 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 1756    368 response faminc    dY/eX    1.34508871 0.42322410    3.178195
## 1757    369 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 1758    370 response faminc    dY/eX    0.69573554 0.21890902    3.178195
## 1759    371 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 1760    372 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 1761    373 response faminc    dY/eX    0.88126501 0.27728475    3.178195
## 1762    374 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 1763    375 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 1764    376 response faminc    dY/eX    0.51020606 0.16053328    3.178195
## 1765    377 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 1766    378 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 1767    379 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 1768    380 response faminc    dY/eX    0.69573554 0.21890902    3.178195
## 1769    381 response faminc    dY/eX    1.25232397 0.39403623    3.178195
## 1770    382 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 1771    383 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 1772    384 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 1773    385 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 1774    386 response faminc    dY/eX    0.51020606 0.16053328    3.178195
```

```
## 1775   387 response faminc   dY/eX   4.40632507 1.38642377   3.178195
## 1776   388 response faminc   dY/eX   4.40632507 1.38642377   3.178195
## 1777   389 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 1778   390 response faminc   dY/eX   3.47867769 1.09454508   3.178195
## 1779   391 response faminc   dY/eX   3.01485400 0.94860574   3.178195
## 1780   392 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 1781   393 response faminc   dY/eX   4.40632507 1.38642377   3.178195
## 1782   394 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 1783   395 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 1784   396 response faminc   dY/eX   1.62338292 0.51078772   3.178195
## 1785   397 response faminc   dY/eX   1.71614766 0.53997559   3.178195
## 1786   398 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 1787   399 response faminc   dY/eX   3.47867769 1.09454508   3.178195
## 1788   400 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 1789   401 response faminc   dY/eX   3.01485400 0.94860574   3.178195
## 1790   402 response faminc   dY/eX   0.23191185 0.07296967   3.178195
## 1791   403 response faminc   dY/eX   1.71614766 0.53997559   3.178195
## 1792   404 response faminc   dY/eX   0.41744132 0.13134541   3.178195
## 1793   405 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 1794   406 response faminc   dY/eX   0.41744132 0.13134541   3.178195
## 1795   407 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 1796   408 response faminc   dY/eX   1.80891240 0.56916346   3.178195
## 1797   409 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 1798   410 response faminc   dY/eX   1.80891240 0.56916346   3.178195
## 1799   411 response faminc   dY/eX   1.71614766 0.53997559   3.178195
## 1800   412 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 1801   413 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 1802   414 response faminc   dY/eX   0.13914711 0.04378180   3.178195
## 1803   415 response faminc   dY/eX   0.41744132 0.13134541   3.178195
## 1804   416 response faminc   dY/eX   0.32467658 0.10215754   3.178195
## 1805   417 response faminc   dY/eX   0.32467658 0.10215754   3.178195
## 1806   418 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 1807   419 response faminc   dY/eX   3.47867769 1.09454508   3.178195
## 1808   420 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 1809   421 response faminc   dY/eX   3.47867769 1.09454508   3.178195
## 1810   422 response faminc   dY/eX   1.43785344 0.45241196   3.178195
## 1811   423 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 1812   424 response faminc   dY/eX   3.01485400 0.94860574   3.178195
## 1813   425 response faminc   dY/eX   2.08720661 0.65672704   3.178195
```

```
## 1814   426 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1815   427 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1816   428 response faminc    dY/eX   0.41744132 0.13134541  3.178195
## 1817   429 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1818   430 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1819   431 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1820   432 response faminc    dY/eX   1.80891240 0.56916346  3.178195
## 1821   433 response faminc    dY/eX   0.41744132 0.13134541  3.178195
## 1822   434 response faminc    dY/eX   1.06679449 0.33566049  3.178195
## 1823   435 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1824   436 response faminc    dY/eX   3.47867769 1.09454506  3.178195
## 1825   437 response faminc    dY/eX   0.60297080 0.18972115  3.178195
## 1826   438 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 1827   439 response faminc    dY/eX   1.71614766 0.53997559  3.178195
## 1828   440 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 1829   441 response faminc    dY/eX   3.94250138 1.24048445  3.178195
## 1830   442 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1831   443 response faminc    dY/eX   1.53061818 0.48159983  3.178195
## 1832   444 response faminc    dY/eX   3.94250138 1.24048445  3.178195
## 1833   445 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 1834   446 response faminc    dY/eX   1.25232397 0.39403623  3.178195
## 1835   447 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1836   448 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1837   449 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 1838   450 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1839   451 response faminc    dY/eX   1.53061818 0.48159983  3.178195
## 1840   452 response faminc    dY/eX   4.40632507 1.38642377  3.178195
## 1841   453 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1842   454 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1843   455 response faminc    dY/eX   4.40632507 1.38642377  3.178195
## 1844   456 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1845   457 response faminc    dY/eX   1.34508871 0.42322410  3.178195
## 1846   458 response faminc    dY/eX   1.53061818 0.48159983  3.178195
## 1847   459 response faminc    dY/eX   1.34508871 0.42322410  3.178195
## 1848   460 response faminc    dY/eX   1.71614766 0.53997559  3.178195
## 1849   461 response faminc    dY/eX   0.32467658 0.10215754  3.178195
## 1850   462 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 1851   463 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 1852   464 response faminc    dY/eX   1.62338292 0.51078772  3.178195
```

```
## 1853    465 response faminc    dY/eX    1.71614766 0.53997559   3.178195
## 1854    466 response faminc    dY/eX    0.04638237 0.01459393   3.178195
## 1855    467 response faminc    dY/eX    1.62338292 0.51078772   3.178195
## 1856    468 response faminc    dY/eX    1.71614766 0.53997559   3.178195
## 1857    469 response faminc    dY/eX    0.04638237 0.01459393   3.178195
## 1858    470 response faminc    dY/eX    3.47867769 1.09454508   3.178195
## 1859    471 response faminc    dY/eX    0.69573554 0.21890902   3.178195
## 1860    472 response faminc    dY/eX    1.71614766 0.53997559   3.178195
## 1861    473 response faminc    dY/eX    0.41744132 0.13134541   3.178195
## 1862    474 response faminc    dY/eX    2.55103031 0.80266639   3.178195
## 1863    475 response faminc    dY/eX    0.60297080 0.18972115   3.178195
## 1864    476 response faminc    dY/eX    2.55103031 0.80266639   3.178195
## 1865    477 response faminc    dY/eX    1.06679449 0.33566049   3.178195
## 1866    478 response faminc    dY/eX    3.94250138 1.24048445   3.178195
## 1867    479 response faminc    dY/eX    2.08720661 0.65672704   3.178195
## 1868    480 response faminc    dY/eX    1.80891240 0.56916346   3.178195
## 1869    481 response faminc    dY/eX    6.02970799 1.89721148   3.178195
## 1870    482 response faminc    dY/eX    3.47867769 1.09454508   3.178195
## 1871    483 response faminc    dY/eX    3.94250138 1.24048445   3.178195
## 1872    484 response faminc    dY/eX    3.94250138 1.24048445   3.178195
## 1873    485 response faminc    dY/eX    3.47867769 1.09454508   3.178195
## 1874    486 response faminc    dY/eX    4.40632507 1.38642377   3.178195
## 1875    487 response faminc    dY/eX    1.34508871 0.42322410   3.178195
## 1876    488 response faminc    dY/eX    3.01485400 0.94860574   3.178195
## 1877    489 response faminc    dY/eX    1.43785344 0.45241196   3.178195
## 1878    490 response faminc    dY/eX    3.01485400 0.94860574   3.178195
## 1879    491 response faminc    dY/eX    1.71614766 0.53997559   3.178195
## 1880    492 response faminc    dY/eX    0.23191185 0.07296967   3.178195
## 1881    493 response faminc    dY/eX    0.51020606 0.16053328   3.178195
## 1882    494 response faminc    dY/eX    4.40632507 1.38642377   3.178195
## 1883    495 response faminc    dY/eX    0.32467658 0.10215754   3.178195
## 1884    496 response faminc    dY/eX    3.94250138 1.24048445   3.178195
## 1885    497 response faminc    dY/eX    0.60297080 0.18972115   3.178195
## 1886    498 response faminc    dY/eX    3.01485400 0.94860574   3.178195
## 1887    499 response faminc    dY/eX    4.40632507 1.38642377   3.178195
## 1888    500 response faminc    dY/eX    0.32467658 0.10215754   3.178195
## 1889    501 response faminc    dY/eX    2.55103031 0.80266639   3.178195
## 1890    502 response faminc    dY/eX    2.08720661 0.65672704   3.178195
## 1891    503 response faminc    dY/eX    2.55103031 0.80266639   3.178195
```

```
## 1892    504 response faminc    dY/eX    1.71614766 0.53997559   3.178195
## 1893    505 response faminc    dY/eX    1.15955923 0.36484836   3.178195
## 1894    506 response faminc    dY/eX    0.04638237 0.01459393   3.178195
## 1895    507 response faminc    dY/eX    0.13914711 0.04378180   3.178195
## 1896    508 response faminc    dY/eX    3.47867769 1.09454506   3.178195
## 1897    509 response faminc    dY/eX    1.71614766 0.53997559   3.178195
## 1898    510 response faminc    dY/eX    2.08720661 0.65672704   3.178195
## 1899    511 response faminc    dY/eX    4.40632507 1.38642377   3.178195
## 1900    512 response faminc    dY/eX    6.02970799 1.89721148   3.178195
## 1901    513 response faminc    dY/eX    6.02970799 1.89721148   3.178195
## 1902    514 response faminc    dY/eX    1.06679449 0.33566049   3.178195
## 1903    515 response faminc    dY/eX    3.01485400 0.94860574   3.178195
## 1904    516 response faminc    dY/eX    2.08720661 0.65672704   3.178195
## 1905    517 response faminc    dY/eX    3.01485400 0.94860574   3.178195
## 1906    518 response faminc    dY/eX    6.02970799 1.89721148   3.178195
## 1907    519 response faminc    dY/eX    2.55103031 0.80266639   3.178195
## 1908    520 response faminc    dY/eX    1.71614766 0.53997559   3.178195
## 1909    521 response faminc    dY/eX    3.47867769 1.09454508   3.178195
## 1910    522 response faminc    dY/eX    3.01485400 0.94860574   3.178195
## 1911    523 response faminc    dY/eX    1.80891240 0.56916346   3.178195
## 1912    524 response faminc    dY/eX    2.08720661 0.65672704   3.178195
## 1913    525 response faminc    dY/eX    2.55103031 0.80266639   3.178195
## 1914    526 response faminc    dY/eX    2.08720661 0.65672704   3.178195
## 1915    527 response faminc    dY/eX    4.40632507 1.38642377   3.178195
## 1916    528 response faminc    dY/eX    2.08720661 0.65672704   3.178195
## 1917    529 response faminc    dY/eX    1.71614766 0.53997559   3.178195
## 1918    530 response faminc    dY/eX    1.62338292 0.51078772   3.178195
## 1919    531 response faminc    dY/eX    1.71614766 0.53997559   3.178195
## 1920    532 response faminc    dY/eX    6.02970799 1.89721152   3.178195
## 1921    533 response faminc    dY/eX    3.01485400 0.94860574   3.178195
## 1922    534 response faminc    dY/eX    4.40632507 1.38642377   3.178195
## 1923    535 response faminc    dY/eX    1.25232397 0.39403623   3.178195
## 1924    536 response faminc    dY/eX    3.01485400 0.94860574   3.178195
## 1925    537 response faminc    dY/eX    6.02970799 1.89721148   3.178195
## 1926    538 response faminc    dY/eX    3.94250138 1.24048445   3.178195
## 1927    539 response faminc    dY/eX    3.01485400 0.94860574   3.178195
## 1928    540 response faminc    dY/eX    3.94250138 1.24048445   3.178195
## 1929    541 response faminc    dY/eX    3.47867769 1.09454508   3.178195
## 1930    542 response faminc    dY/eX    0.88126501 0.27728475   3.178195
```

```
## 1931   543 response faminc   dY/eX   3.47867769 1.09454508  3.178195
## 1932   544 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1933   545 response faminc   dY/eX   3.94250138 1.24048445  3.178195
## 1934   546 response faminc   dY/eX   3.47867769 1.09454508  3.178195
## 1935   547 response faminc   dY/eX   0.88126501 0.27728475  3.178195
## 1936   548 response faminc   dY/eX   1.80891240 0.56916346  3.178195
## 1937   549 response faminc   dY/eX   1.80891240 0.56916346  3.178195
## 1938   550 response faminc   dY/eX   4.40632507 1.38642377  3.178195
## 1939   551 response faminc   dY/eX   3.94250138 1.24048445  3.178195
## 1940   552 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 1941   553 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1942   554 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 1943   555 response faminc   dY/eX   4.40632507 1.38642377  3.178195
## 1944   556 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1945   557 response faminc   dY/eX   0.60297080 0.18972115  3.178195
## 1946   558 response faminc   dY/eX   3.94250138 1.24048445  3.178195
## 1947   559 response faminc   dY/eX   1.80891240 0.56916346  3.178195
## 1948   560 response faminc   dY/eX   6.02970799 1.89721152  3.178195
## 1949   561 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 1950   562 response faminc   dY/eX   3.47867769 1.09454506  3.178195
## 1951   563 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 1952   564 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 1953   565 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 1954   566 response faminc   dY/eX   3.47867769 1.09454508  3.178195
## 1955   567 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 1956   568 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 1957   569 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 1958   570 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 1959   571 response faminc   dY/eX   3.47867769 1.09454508  3.178195
## 1960   572 response faminc   dY/eX   3.47867769 1.09454508  3.178195
## 1961   573 response faminc   dY/eX   1.80891240 0.56916346  3.178195
## 1962   574 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1963   575 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 1964   576 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 1965   577 response faminc   dY/eX   3.94250138 1.24048445  3.178195
## 1966   578 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 1967   579 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 1968   580 response faminc   dY/eX   1.53061818 0.48159983  3.178195
## 1969   581 response faminc   dY/eX   2.08720661 0.65672704  3.178195
```

```
## 1970   582 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 1971   583 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 1972   584 response faminc   dY/eX   1.25232397 0.39403623   3.178195
## 1973   585 response faminc   dY/eX   3.01485400 0.94860574   3.178195
## 1974   586 response faminc   dY/eX   3.47867769 1.09454508   3.178195
## 1975   587 response faminc   dY/eX   3.47867769 1.09454508   3.178195
## 1976   588 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 1977   589 response faminc   dY/eX   0.60297080 0.18972115   3.178195
## 1978   590 response faminc   dY/eX   1.80891240 0.56916346   3.178195
## 1979   591 response faminc   dY/eX   3.01485400 0.94860574   3.178195
## 1980   592 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 1981   593 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 1982   594 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 1983   595 response faminc   dY/eX   1.71614766 0.53997559   3.178195
## 1984   596 response faminc   dY/eX   4.40632507 1.38642377   3.178195
## 1985   597 response faminc   dY/eX   0.13914711 0.04378180   3.178195
## 1986   598 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 1987   599 response faminc   dY/eX   0.13914711 0.04378180   3.178195
## 1988   600 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 1989   601 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 1990   602 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 1991   603 response faminc   dY/eX   0.04638237 0.01459393   3.178195
## 1992   604 response faminc   dY/eX   4.40632507 1.38642377   3.178195
## 1993   605 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 1994   606 response faminc   dY/eX   1.06679449 0.33566049   3.178195
## 1995   607 response faminc   dY/eX   0.51020606 0.16053328   3.178195
## 1996   608 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 1997   609 response faminc   dY/eX   0.23191185 0.07296967   3.178195
## 1998   610 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 1999   611 response faminc   dY/eX   3.01485400 0.94860574   3.178195
## 2000   612 response faminc   dY/eX   0.23191185 0.07296967   3.178195
## 2001   613 response faminc   dY/eX   4.40632507 1.38642377   3.178195
## 2002   614 response faminc   dY/eX   0.51020606 0.16053328   3.178195
## 2003   615 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 2004   616 response faminc   dY/eX   1.06679449 0.33566049   3.178195
## 2005   617 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2006   618 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 2007   619 response faminc   dY/eX   1.25232397 0.39403623   3.178195
## 2008   620 response faminc   dY/eX   2.55103031 0.80266639   3.178195
```

```
## 2009    621 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 2010    622 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 2011    623 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 2012    624 response faminc   dY/eX   0.78850028 0.24809689  3.178195
## 2013    625 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 2014    626 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 2015    627 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 2016    628 response faminc   dY/eX   0.51020606 0.16053328  3.178195
## 2017    629 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 2018    630 response faminc   dY/eX   0.51020606 0.16053328  3.178195
## 2019    631 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 2020    632 response faminc   dY/eX   0.69573554 0.21890902  3.178195
## 2021    633 response faminc   dY/eX   0.41744132 0.13134541  3.178195
## 2022    634 response faminc   dY/eX   3.94250138 1.24048445  3.178195
## 2023    635 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 2024    636 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 2025    637 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 2026    638 response faminc   dY/eX   4.40632507 1.38642377  3.178195
## 2027    639 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 2028    640 response faminc   dY/eX   0.32467658 0.10215754  3.178195
## 2029    641 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 2030    642 response faminc   dY/eX   0.88126501 0.27728475  3.178195
## 2031    643 response faminc   dY/eX   4.40632507 1.38642377  3.178195
## 2032    644 response faminc   dY/eX   3.94250138 1.24048445  3.178195
## 2033    645 response faminc   dY/eX   0.88126501 0.27728475  3.178195
## 2034    646 response faminc   dY/eX   1.71614766 0.53997559  3.178195
## 2035    647 response faminc   dY/eX   3.47867769 1.09454508  3.178195
## 2036    648 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 2037    649 response faminc   dY/eX   3.47867769 1.09454508  3.178195
## 2038    650 response faminc   dY/eX   1.71614766 0.53997559  3.178195
## 2039    651 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 2040    652 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 2041    653 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 2042    654 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 2043    655 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 2044    656 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 2045    657 response faminc   dY/eX   3.47867769 1.09454508  3.178195
## 2046    658 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 2047    659 response faminc   dY/eX   4.40632507 1.38642377  3.178195
```

```
## 2048    660 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 2049    661 response faminc    dY/eX    1.15955923 0.36484836    3.178195
## 2050    662 response faminc    dY/eX    1.71614766 0.53997559    3.178195
## 2051    663 response faminc    dY/eX    0.60297080 0.18972115    3.178195
## 2052    664 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 2053    665 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2054    666 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2055    667 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2056    668 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2057    669 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2058    670 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 2059    671 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2060    672 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2061    673 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2062    674 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2063    675 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2064    676 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2065    677 response faminc    dY/eX    1.34508871 0.42322410    3.178195
## 2066    678 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 2067    679 response faminc    dY/eX    0.97402975 0.30647262    3.178195
## 2068    680 response faminc    dY/eX    1.43785344 0.45241196    3.178195
## 2069    681 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 2070    682 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 2071    683 response faminc    dY/eX    0.41744132 0.13134541    3.178195
## 2072    684 response faminc    dY/eX    0.60297080 0.18972115    3.178195
## 2073    685 response faminc    dY/eX    0.78850028 0.24809689    3.178195
## 2074    686 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 2075    687 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 2076    688 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 2077    689 response faminc    dY/eX    4.40632507 1.38642377    3.178195
## 2078    690 response faminc    dY/eX    1.62338292 0.51078772    3.178195
## 2079    691 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 2080    692 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2081    693 response faminc    dY/eX    0.69573554 0.21890902    3.178195
## 2082    694 response faminc    dY/eX    0.97402975 0.30647262    3.178195
## 2083    695 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 2084    696 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2085    697 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 2086    698 response faminc    dY/eX    3.47867769 1.09454508    3.178195
```

```
## 2087   699 response faminc   dY/eX   0.41744132 0.13134541   3.178195
## 2088   700 response faminc   dY/eX   0.23191185 0.07296967   3.178195
## 2089   701 response faminc   dY/eX   4.40632507 1.38642377   3.178195
## 2090   702 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2091   703 response faminc   dY/eX   0.13914711 0.04378180   3.178195
## 2092   704 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2093   705 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 2094   706 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 2095   707 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 2096   708 response faminc   dY/eX   1.15955923 0.36484836   3.178195
## 2097   709 response faminc   dY/eX   4.40632507 1.38642377   3.178195
## 2098   710 response faminc   dY/eX   3.01485400 0.94860574   3.178195
## 2099   711 response faminc   dY/eX   3.47867769 1.09454508   3.178195
## 2100   712 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 2101   713 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2102   714 response faminc   dY/eX   1.62338292 0.51078772   3.178195
## 2103   715 response faminc   dY/eX   3.01485400 0.94860574   3.178195
## 2104   716 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2105   717 response faminc   dY/eX   1.71614766 0.53997559   3.178195
## 2106   718 response faminc   dY/eX   3.01485400 0.94860574   3.178195
## 2107   719 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 2108   720 response faminc   dY/eX   0.32467658 0.10215754   3.178195
## 2109   721 response faminc   dY/eX   1.43785344 0.45241196   3.178195
## 2110   722 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 2111   723 response faminc   dY/eX   3.47867769 1.09454508   3.178195
## 2112   724 response faminc   dY/eX   3.01485400 0.94860574   3.178195
## 2113   725 response faminc   dY/eX   0.88126501 0.27728475   3.178195
## 2114   726 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2115   727 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 2116   728 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 2117   729 response faminc   dY/eX   3.47867769 1.09454508   3.178195
## 2118   730 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2119   731 response faminc   dY/eX   1.43785344 0.45241196   3.178195
## 2120   732 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 2121   733 response faminc   dY/eX   1.34508871 0.42322410   3.178195
## 2122   734 response faminc   dY/eX   3.47867769 1.09454508   3.178195
## 2123   735 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2124   736 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 2125   737 response faminc   dY/eX   4.40632507 1.38642377   3.178195
```

```
## 2126    738 response faminc    dY/eX   0.97402975 0.30647262  3.178195
## 2127    739 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2128    740 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 2129    741 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2130    742 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 2131    743 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2132    744 response faminc    dY/eX   1.53061818 0.48159983  3.178195
## 2133    745 response faminc    dY/eX   6.02970799 1.89721152  3.178195
## 2134    746 response faminc    dY/eX   3.94250138 1.24048445  3.178195
## 2135    747 response faminc    dY/eX   1.15955923 0.36484836  3.178195
## 2136    748 response faminc    dY/eX   1.06679449 0.33566049  3.178195
## 2137    749 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 2138    750 response faminc    dY/eX   6.02970799 1.89721152  3.178195
## 2139    751 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 2140    752 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2141    753 response faminc    dY/eX   6.02970799 1.89721152  3.178195
## 2142    754 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2143    755 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2144    756 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 2145    757 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2146    758 response faminc    dY/eX   4.40632507 1.38642377  3.178195
## 2147    759 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 2148    760 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2149    761 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2150    762 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 2151    763 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 2152    764 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2153    765 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2154    766 response faminc    dY/eX   0.60297080 0.18972115  3.178195
## 2155    767 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2156    768 response faminc    dY/eX   3.47867769 1.09454506  3.178195
## 2157    769 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2158    770 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 2159    771 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 2160    772 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2161    773 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 2162    774 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 2163    775 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 2164    776 response faminc    dY/eX   1.25232397 0.39403623  3.178195
```

```
## 2165   777 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2166   778 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2167   779 response faminc    dY/eX    1.15955923 0.36484836  3.178195
## 2168   780 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 2169   781 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2170   782 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 2171   783 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 2172   784 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2173   785 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2174   786 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2175   787 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2176   788 response faminc    dY/eX    3.47867769 1.09454506  3.178195
## 2177   789 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2178   790 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2179   791 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2180   792 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2181   793 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2182   794 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2183   795 response faminc    dY/eX    1.62338292 0.51078772  3.178195
## 2184   796 response faminc    dY/eX    1.80891240 0.56916346  3.178195
## 2185   797 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2186   798 response faminc    dY/eX    4.40632507 1.38642377  3.178195
## 2187   799 response faminc    dY/eX    4.40632507 1.38642377  3.178195
## 2188   800 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2189   801 response faminc    dY/eX    0.88126501 0.27728475  3.178195
## 2190   802 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 2191   803 response faminc    dY/eX    0.97402975 0.30647262  3.178195
## 2192   804 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2193   805 response faminc    dY/eX    4.40632507 1.38642377  3.178195
## 2194   806 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 2195   807 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2196   808 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2197   809 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2198   810 response faminc    dY/eX    0.78850028 0.24809689  3.178195
## 2199   811 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2200   812 response faminc    dY/eX    1.80891240 0.56916346  3.178195
## 2201   813 response faminc    dY/eX    0.78850028 0.24809689  3.178195
## 2202   814 response faminc    dY/eX    4.40632507 1.38642377  3.178195
## 2203   815 response faminc    dY/eX    0.78850028 0.24809689  3.178195
```

```
## 2204    816 response faminc    dY/eX    0.41744132 0.13134541    3.178195
## 2205    817 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2206    818 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 2207    819 response faminc    dY/eX    1.15955923 0.36484836    3.178195
## 2208    820 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2209    821 response faminc    dY/eX    1.80891240 0.56916346    3.178195
## 2210    822 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 2211    823 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2212    824 response faminc    dY/eX    1.80891240 0.56916346    3.178195
## 2213    825 response faminc    dY/eX    1.43785344 0.45241196    3.178195
## 2214    826 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 2215    827 response faminc    dY/eX    1.25232397 0.39403623    3.178195
## 2216    828 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 2217    829 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2218    830 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 2219    831 response faminc    dY/eX    3.47867769 1.09454508    3.178195
## 2220    832 response faminc    dY/eX    4.40632507 1.38642377    3.178195
## 2221    833 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2222    834 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 2223    835 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2224    836 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 2225    837 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2226    838 response faminc    dY/eX    1.15955923 0.36484836    3.178195
## 2227    839 response faminc    dY/eX    1.80891240 0.56916346    3.178195
## 2228    840 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 2229    841 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2230    842 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 2231    843 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2232    844 response faminc    dY/eX    4.40632507 1.38642377    3.178195
## 2233    845 response faminc    dY/eX    2.55103031 0.80266639    3.178195
## 2234    846 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 2235    847 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2236    848 response faminc    dY/eX    2.08720661 0.65672704    3.178195
## 2237    849 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2238    850 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 2239    851 response faminc    dY/eX    3.01485400 0.94860574    3.178195
## 2240    852 response faminc    dY/eX    6.02970799 1.89721148    3.178195
## 2241    853 response faminc    dY/eX    3.94250138 1.24048445    3.178195
## 2242    854 response faminc    dY/eX    2.55103031 0.80266639    3.178195
```

```
## 2243     855 response faminc      dY/eX     6.02970799 1.89721148  3.178195
## 2244     856 response faminc      dY/eX     0.51020606 0.16053328  3.178195
## 2245     857 response faminc      dY/eX     2.08720661 0.65672704  3.178195
## 2246     858 response faminc      dY/eX     3.47867769 1.09454508  3.178195
## 2247     859 response faminc      dY/eX     0.23191185 0.07296967  3.178195
## 2248     860 response faminc      dY/eX     0.60297080 0.18972115  3.178195
## 2249     861 response faminc      dY/eX     1.71614766 0.53997559  3.178195
## 2250     862 response faminc      dY/eX     1.25232397 0.39403623  3.178195
## 2251     863 response faminc      dY/eX     1.15955923 0.36484836  3.178195
## 2252     864 response faminc      dY/eX     1.80891240 0.56916346  3.178195
## 2253     865 response faminc      dY/eX     0.88126501 0.27728475  3.178195
## 2254     866 response faminc      dY/eX     0.88126501 0.27728475  3.178195
## 2255     867 response faminc      dY/eX     1.25232397 0.39403623  3.178195
## 2256     868 response faminc      dY/eX     4.40632507 1.38642377  3.178195
## 2257     869 response faminc      dY/eX     0.97402975 0.30647262  3.178195
## 2258     870 response faminc      dY/eX     3.47867769 1.09454508  3.178195
## 2259     871 response faminc      dY/eX     2.55103031 0.80266639  3.178195
## 2260     872 response faminc      dY/eX     1.80891240 0.56916346  3.178195
## 2261     873 response faminc      dY/eX     1.43785344 0.45241196  3.178195
## 2262     874 response faminc      dY/eX     1.53061818 0.48159983  3.178195
## 2263     875 response faminc      dY/eX     3.01485400 0.94860574  3.178195
## 2264     876 response faminc      dY/eX     1.06679449 0.33566049  3.178195
## 2265     877 response faminc      dY/eX     0.97402975 0.30647262  3.178195
## 2266     878 response faminc      dY/eX     1.53061818 0.48159983  3.178195
## 2267     879 response faminc      dY/eX     0.88126501 0.27728475  3.178195
## 2268     880 response faminc      dY/eX     1.15955923 0.36484836  3.178195
## 2269     881 response faminc      dY/eX     0.88126501 0.27728475  3.178195
## 2270     882 response faminc      dY/eX     2.08720661 0.65672704  3.178195
## 2271     883 response faminc      dY/eX     2.08720661 0.65672704  3.178195
## 2272     884 response faminc      dY/eX     2.55103031 0.80266639  3.178195
## 2273     885 response faminc      dY/eX     1.06679449 0.33566049  3.178195
## 2274     886 response faminc      dY/eX     0.51020606 0.16053328  3.178195
## 2275     887 response faminc      dY/eX     1.80891240 0.56916346  3.178195
## 2276     888 response faminc      dY/eX     1.06679449 0.33566049  3.178195
## 2277     889 response faminc      dY/eX     2.55103031 0.80266639  3.178195
## 2278     890 response faminc      dY/eX     3.94250138 1.24048445  3.178195
## 2279     891 response faminc      dY/eX     0.32467658 0.10215754  3.178195
## 2280     892 response faminc      dY/eX     6.02970799 1.89721148  3.178195
## 2281     893 response faminc      dY/eX     1.53061818 0.48159983  3.178195
```

```
## 2282    894 response faminc    dY/eX    3.94250138 1.24048445   3.178195
## 2283    895 response faminc    dY/eX    0.23191185 0.07296967   3.178195
## 2284    896 response faminc    dY/eX    0.32467658 0.10215754   3.178195
## 2285    897 response faminc    dY/eX    0.78850028 0.24809689   3.178195
## 2286    898 response faminc    dY/eX    2.55103031 0.80266639   3.178195
## 2287    899 response faminc    dY/eX    1.15955923 0.36484836   3.178195
## 2288    900 response faminc    dY/eX    0.41744132 0.13134541   3.178195
## 2289    901 response faminc    dY/eX    3.47867769 1.09454508   3.178195
## 2290    902 response faminc    dY/eX    3.01485400 0.94860574   3.178195
## 2291    903 response faminc    dY/eX    2.08720661 0.65672704   3.178195
## 2292    904 response faminc    dY/eX    3.47867769 1.09454508   3.178195
## 2293    905 response faminc    dY/eX    1.80891240 0.56916346   3.178195
## 2294    906 response faminc    dY/eX    0.88126501 0.27728475   3.178195
## 2295    907 response faminc    dY/eX    1.25232397 0.39403623   3.178195
## 2296    908 response faminc    dY/eX    0.23191185 0.07296967   3.178195
## 2297    909 response faminc    dY/eX    0.04638237 0.01459393   3.178195
## 2298    910 response faminc    dY/eX    0.97402975 0.30647262   3.178195
## 2299    911 response faminc    dY/eX    4.40632507 1.38642377   3.178195
## 2300    912 response faminc    dY/eX    3.94250138 1.24048445   3.178195
## 2301    913 response faminc    dY/eX    0.32467658 0.10215754   3.178195
## 2302    914 response faminc    dY/eX    2.55103031 0.80266639   3.178195
## 2303    915 response faminc    dY/eX    1.80891240 0.56916346   3.178195
## 2304    916 response faminc    dY/eX    3.47867769 1.09454508   3.178195
## 2305    917 response faminc    dY/eX    0.69573554 0.21890902   3.178195
## 2306    918 response faminc    dY/eX    2.08720661 0.65672704   3.178195
## 2307    919 response faminc    dY/eX    2.08720661 0.65672704   3.178195
## 2308    920 response faminc    dY/eX    4.40632507 1.38642377   3.178195
## 2309    921 response faminc    dY/eX    2.55103031 0.80266639   3.178195
## 2310    922 response faminc    dY/eX    0.41744132 0.13134541   3.178195
## 2311    923 response faminc    dY/eX    1.71614766 0.53997559   3.178195
## 2312    924 response faminc    dY/eX    3.01485400 0.94860574   3.178195
## 2313    925 response faminc    dY/eX    3.47867769 1.09454508   3.178195
## 2314    926 response faminc    dY/eX    0.60297080 0.18972115   3.178195
## 2315    927 response faminc    dY/eX    3.94250138 1.24048445   3.178195
## 2316    928 response faminc    dY/eX    4.40632507 1.38642377   3.178195
## 2317    929 response faminc    dY/eX    1.34508871 0.42322410   3.178195
## 2318    930 response faminc    dY/eX    0.41744132 0.13134541   3.178195
## 2319    931 response faminc    dY/eX    6.02970799 1.89721148   3.178195
## 2320    932 response faminc    dY/eX    1.15955923 0.36484836   3.178195
```

```
## 2321   933 response faminc     dY/eX    3.47867769 1.09454508   3.178195
## 2322   934 response faminc     dY/eX    3.01485400 0.94860574   3.178195
## 2323   935 response faminc     dY/eX    0.60297080 0.18972115   3.178195
## 2324   936 response faminc     dY/eX    1.06679449 0.33566049   3.178195
## 2325   937 response faminc     dY/eX    1.34508871 0.42322410   3.178195
## 2326   938 response faminc     dY/eX    2.55103031 0.80266639   3.178195
## 2327   939 response faminc     dY/eX    3.01485400 0.94860574   3.178195
## 2328   940 response faminc     dY/eX    1.43785344 0.45241196   3.178195
## 2329   941 response faminc     dY/eX    2.08720661 0.65672704   3.178195
## 2330   942 response faminc     dY/eX    2.08720661 0.65672704   3.178195
## 2331   943 response faminc     dY/eX    6.02970799 1.89721148   3.178195
## 2332   944 response faminc     dY/eX    4.40632507 1.38642377   3.178195
## 2333   945 response faminc     dY/eX    1.62338292 0.51078772   3.178195
## 2334   946 response faminc     dY/eX    2.55103031 0.80266639   3.178195
## 2335   947 response faminc     dY/eX    3.01485400 0.94860574   3.178195
## 2336   948 response faminc     dY/eX    6.02970799 1.89721148   3.178195
## 2337   949 response faminc     dY/eX    6.02970799 1.89721148   3.178195
## 2338   950 response faminc     dY/eX    6.02970799 1.89721148   3.178195
## 2339   951 response faminc     dY/eX    3.01485400 0.94860574   3.178195
## 2340   952 response faminc     dY/eX    1.71614766 0.53997559   3.178195
## 2341   953 response faminc     dY/eX    3.94250138 1.24048445   3.178195
## 2342   954 response faminc     dY/eX    0.69573554 0.21890902   3.178195
## 2343   955 response faminc     dY/eX    3.47867769 1.09454506   3.178195
## 2344   956 response faminc     dY/eX    3.47867769 1.09454508   3.178195
## 2345   957 response faminc     dY/eX    0.13914711 0.04378180   3.178195
## 2346   958 response faminc     dY/eX    1.62338292 0.51078772   3.178195
## 2347   959 response faminc     dY/eX    6.02970799 1.89721148   3.178195
## 2348   960 response faminc     dY/eX    0.32467658 0.10215754   3.178195
## 2349   961 response faminc     dY/eX    0.41744132 0.13134541   3.178195
## 2350   962 response faminc     dY/eX    2.08720661 0.65672704   3.178195
## 2351   963 response faminc     dY/eX    2.08720661 0.65672704   3.178195
## 2352   964 response faminc     dY/eX    0.32467658 0.10215754   3.178195
## 2353   965 response faminc     dY/eX    1.62338292 0.51078772   3.178195
## 2354   966 response faminc     dY/eX    1.53061818 0.48159983   3.178195
## 2355   967 response faminc     dY/eX    0.97402975 0.30647262   3.178195
## 2356   968 response faminc     dY/eX    2.08720661 0.65672704   3.178195
## 2357   969 response faminc     dY/eX    0.32467658 0.10215754   3.178195
## 2358   970 response faminc     dY/eX    0.78850028 0.24809689   3.178195
## 2359   971 response faminc     dY/eX    0.13914711 0.04378180   3.178195
```

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## 2360   972 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 2361   973 response faminc   dY/eX   3.94250138 1.24048445  3.178195
## 2362   974 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 2363   975 response faminc   dY/eX   1.62338292 0.51078772  3.178195
## 2364   976 response faminc   dY/eX   1.71614766 0.53997559  3.178195
## 2365   977 response faminc   dY/eX   0.51020606 0.16053328  3.178195
## 2366   978 response faminc   dY/eX   1.25232397 0.39403623  3.178195
## 2367   979 response faminc   dY/eX   1.62338292 0.51078772  3.178195
## 2368   980 response faminc   dY/eX   1.80891240 0.56916346  3.178195
## 2369   981 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 2370   982 response faminc   dY/eX   1.06679449 0.33566049  3.178195
## 2371   983 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 2372   984 response faminc   dY/eX   0.23191185 0.07296967  3.178195
## 2373   985 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 2374   986 response faminc   dY/eX   0.97402975 0.30647262  3.178195
## 2375   987 response faminc   dY/eX   3.94250138 1.24048445  3.178195
## 2376   988 response faminc   dY/eX   1.80891240 0.56916346  3.178195
## 2377   989 response faminc   dY/eX   0.51020606 0.16053328  3.178195
## 2378   990 response faminc   dY/eX   0.04638237 0.01459393  3.178195
## 2379   991 response faminc   dY/eX   6.02970799 1.89721148  3.178195
## 2380   992 response faminc   dY/eX   4.40632507 1.38642377  3.178195
## 2381   993 response faminc   dY/eX   1.34508871 0.42322410  3.178195
## 2382   994 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 2383   995 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 2384   996 response faminc   dY/eX   1.80891240 0.56916346  3.178195
## 2385   997 response faminc   dY/eX   1.43785344 0.45241196  3.178195
## 2386   998 response faminc   dY/eX   0.04638237 0.01459393  3.178195
## 2387   999 response faminc   dY/eX   4.40632507 1.38642377  3.178195
## 2388  1000 response faminc   dY/eX   2.08720661 0.65672704  3.178195
## 2389  1001 response faminc   dY/eX   1.43785344 0.45241196  3.178195
## 2390  1002 response faminc   dY/eX   1.62338292 0.51078772  3.178195
## 2391  1003 response faminc   dY/eX   4.40632507 1.38642377  3.178195
## 2392  1004 response faminc   dY/eX   1.43785344 0.45241196  3.178195
## 2393  1005 response faminc   dY/eX   1.71614766 0.53997559  3.178195
## 2394  1006 response faminc   dY/eX   0.23191185 0.07296967  3.178195
## 2395  1007 response faminc   dY/eX   1.71614766 0.53997559  3.178195
## 2396  1008 response faminc   dY/eX   2.55103031 0.80266639  3.178195
## 2397  1009 response faminc   dY/eX   3.01485400 0.94860574  3.178195
## 2398  1010 response faminc   dY/eX   1.80891240 0.56916346  3.178195
```

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## 2399   1011 response faminc    dY/eX   3.01485400 0.94860574   3.178195
## 2400   1012 response faminc    dY/eX   2.08720661 0.65672704   3.178195
## 2401   1013 response faminc    dY/eX   1.80891240 0.56916346   3.178195
## 2402   1014 response faminc    dY/eX   0.60297080 0.18972115   3.178195
## 2403   1015 response faminc    dY/eX   2.55103031 0.80266639   3.178195
## 2404   1016 response faminc    dY/eX   0.97402975 0.30647262   3.178195
## 2405   1017 response faminc    dY/eX   4.40632507 1.38642377   3.178195
## 2406   1018 response faminc    dY/eX   1.80891240 0.56916346   3.178195
## 2407   1019 response faminc    dY/eX   2.08720661 0.65672704   3.178195
## 2408   1020 response faminc    dY/eX   1.43785344 0.45241196   3.178195
## 2409   1021 response faminc    dY/eX   0.78850028 0.24809689   3.178195
## 2410   1022 response faminc    dY/eX   1.80891240 0.56916346   3.178195
## 2411   1023 response faminc    dY/eX   0.13914711 0.04378180   3.178195
## 2412   1024 response faminc    dY/eX   1.34508871 0.42322410   3.178195
## 2413   1025 response faminc    dY/eX   2.55103031 0.80266639   3.178195
## 2414   1026 response faminc    dY/eX   0.51020606 0.16053328   3.178195
## 2415   1027 response faminc    dY/eX   0.51020606 0.16053328   3.178195
## 2416   1028 response faminc    dY/eX   1.34508871 0.42322410   3.178195
## 2417   1029 response faminc    dY/eX   3.01485400 0.94860574   3.178195
## 2418   1030 response faminc    dY/eX   2.08720661 0.65672704   3.178195
## 2419   1031 response faminc    dY/eX   2.08720661 0.65672704   3.178195
## 2420   1032 response faminc    dY/eX   2.55103031 0.80266639   3.178195
## 2421   1033 response faminc    dY/eX   2.55103031 0.80266639   3.178195
## 2422   1034 response faminc    dY/eX   1.25232397 0.39403623   3.178195
## 2423   1035 response faminc    dY/eX   2.08720661 0.65672704   3.178195
## 2424   1036 response faminc    dY/eX   2.08720661 0.65672704   3.178195
## 2425   1037 response faminc    dY/eX   6.02970799 1.89721148   3.178195
## 2426   1038 response faminc    dY/eX   1.80891240 0.56916346   3.178195
## 2427   1039 response faminc    dY/eX   3.47867769 1.09454508   3.178195
## 2428   1040 response faminc    dY/eX   3.01485400 0.94860574   3.178195
## 2429   1041 response faminc    dY/eX   1.06679449 0.33566049   3.178195
## 2430   1042 response faminc    dY/eX   2.55103031 0.80266639   3.178195
## 2431   1043 response faminc    dY/eX   1.62338292 0.51078772   3.178195
## 2432   1044 response faminc    dY/eX   3.47867769 1.09454508   3.178195
## 2433   1045 response faminc    dY/eX   0.97402975 0.30647262   3.178195
## 2434   1046 response faminc    dY/eX   3.01485400 0.94860574   3.178195
## 2435   1047 response faminc    dY/eX   3.47867769 1.09454508   3.178195
## 2436   1048 response faminc    dY/eX   3.01485400 0.94860574   3.178195
## 2437   1049 response faminc    dY/eX   3.47867769 1.09454508   3.178195
```

```
## 2438   1050 response faminc     dY/eX   0.23191185 0.07296967  3.178195
## 2439   1051 response faminc     dY/eX   1.43785344 0.45241196  3.178195
## 2440   1052 response faminc     dY/eX   3.94250138 1.24048445  3.178195
## 2441   1053 response faminc     dY/eX   2.08720661 0.65672704  3.178195
## 2442   1054 response faminc     dY/eX   2.08720661 0.65672704  3.178195
## 2443   1055 response faminc     dY/eX   0.23191185 0.07296967  3.178195
## 2444   1056 response faminc     dY/eX   3.01485400 0.94860574  3.178195
## 2445   1057 response faminc     dY/eX   3.01485400 0.94860574  3.178195
## 2446   1058 response faminc     dY/eX   1.71614766 0.53997559  3.178195
## 2447   1059 response faminc     dY/eX   2.55103031 0.80266639  3.178195
## 2448   1060 response faminc     dY/eX   0.23191185 0.07296967  3.178195
## 2449   1061 response faminc     dY/eX   0.60297080 0.18972115  3.178195
## 2450   1062 response faminc     dY/eX   3.47867769 1.09454508  3.178195
## 2451   1063 response faminc     dY/eX   6.02970799 1.89721148  3.178195
## 2452   1064 response faminc     dY/eX   4.40632507 1.38642377  3.178195
## 2453   1065 response faminc     dY/eX   3.94250138 1.24048445  3.178195
## 2454   1066 response faminc     dY/eX   2.55103031 0.80266639  3.178195
## 2455   1067 response faminc     dY/eX   3.01485400 0.94860574  3.178195
## 2456   1068 response faminc     dY/eX   3.94250138 1.24048445  3.178195
## 2457   1069 response faminc     dY/eX   1.62338292 0.51078772  3.178195
## 2458   1070 response faminc     dY/eX   3.94250138 1.24048445  3.178195
## 2459   1071 response faminc     dY/eX   1.80891240 0.56916346  3.178195
## 2460   1072 response faminc     dY/eX   3.01485400 0.94860574  3.178195
## 2461   1073 response faminc     dY/eX   3.94250138 1.24048445  3.178195
## 2462   1074 response faminc     dY/eX   1.34508871 0.42322410  3.178195
## 2463   1075 response faminc     dY/eX   1.43785344 0.45241196  3.178195
## 2464   1076 response faminc     dY/eX   3.01485400 0.94860574  3.178195
## 2465   1077 response faminc     dY/eX   3.47867769 1.09454508  3.178195
## 2466   1078 response faminc     dY/eX   0.60297080 0.18972115  3.178195
## 2467   1079 response faminc     dY/eX   3.01485400 0.94860574  3.178195
## 2468   1080 response faminc     dY/eX   3.94250138 1.24048445  3.178195
## 2469   1081 response faminc     dY/eX   2.55103031 0.80266639  3.178195
## 2470   1082 response faminc     dY/eX   6.02970799 1.89721148  3.178195
## 2471   1083 response faminc     dY/eX   6.02970799 1.89721148  3.178195
## 2472   1084 response faminc     dY/eX   2.55103031 0.80266639  3.178195
## 2473   1085 response faminc     dY/eX   3.01485400 0.94860574  3.178195
## 2474   1086 response faminc     dY/eX   3.01485400 0.94860574  3.178195
## 2475   1087 response faminc     dY/eX   3.47867769 1.09454508  3.178195
## 2476   1088 response faminc     dY/eX   1.71614766 0.53997559  3.178195
```

```
## 2477   1089 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2478   1090 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 2479   1091 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 2480   1092 response faminc   dY/eX   3.47867769 1.09454508   3.178195
## 2481   1093 response faminc   dY/eX   1.06679449 0.33566049   3.178195
## 2482   1094 response faminc   dY/eX   1.71614766 0.53997559   3.178195
## 2483   1095 response faminc   dY/eX   0.32467658 0.10215754   3.178195
## 2484   1096 response faminc   dY/eX   1.71614766 0.53997559   3.178195
## 2485   1097 response faminc   dY/eX   1.25232397 0.39403623   3.178195
## 2486   1098 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2487   1099 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 2488   1100 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2489   1101 response faminc   dY/eX   1.53061818 0.48159983   3.178195
## 2490   1102 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 2491   1103 response faminc   dY/eX   3.94250138 1.24048445   3.178195
## 2492   1104 response faminc   dY/eX   0.32467658 0.10215754   3.178195
## 2493   1105 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2494   1106 response faminc   dY/eX   1.80891240 0.56916346   3.178195
## 2495   1107 response faminc   dY/eX   1.15955923 0.36484836   3.178195
## 2496   1108 response faminc   dY/eX   0.88126501 0.27728475   3.178195
## 2497   1109 response faminc   dY/eX   0.41744132 0.13134541   3.178195
## 2498   1110 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 2499   1111 response faminc   dY/eX   4.40632507 1.38642377   3.178195
## 2500   1112 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2501   1113 response faminc   dY/eX   0.88126501 0.27728475   3.178195
## 2502   1114 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 2503   1115 response faminc   dY/eX   0.69573554 0.21890902   3.178195
## 2504   1116 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 2505   1117 response faminc   dY/eX   0.41744132 0.13134541   3.178195
## 2506   1118 response faminc   dY/eX   2.55103031 0.80266639   3.178195
## 2507   1119 response faminc   dY/eX   1.80891240 0.56916346   3.178195
## 2508   1120 response faminc   dY/eX   0.60297080 0.18972115   3.178195
## 2509   1121 response faminc   dY/eX   1.53061818 0.48159983   3.178195
## 2510   1122 response faminc   dY/eX   6.02970799 1.89721148   3.178195
## 2511   1123 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2512   1124 response faminc   dY/eX   0.23191185 0.07296967   3.178195
## 2513   1125 response faminc   dY/eX   2.08720661 0.65672704   3.178195
## 2514   1126 response faminc   dY/eX   3.01485400 0.94860574   3.178195
## 2515   1127 response faminc   dY/eX   0.88126501 0.27728475   3.178195
```

```
## 2516  1128 response faminc    dY/eX   1.53061818 0.48159983  3.178195
## 2517  1129 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 2518  1130 response faminc    dY/eX   1.62338292 0.51078772  3.178195
## 2519  1131 response faminc    dY/eX   0.60297080 0.18972115  3.178195
## 2520  1132 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2521  1133 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 2522  1134 response faminc    dY/eX   1.62338292 0.51078772  3.178195
## 2523  1135 response faminc    dY/eX   1.80891240 0.56916346  3.178195
## 2524  1136 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 2525  1137 response faminc    dY/eX   3.94250138 1.24048445  3.178195
## 2526  1138 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 2527  1139 response faminc    dY/eX   1.71614766 0.53997559  3.178195
## 2528  1140 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 2529  1141 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 2530  1142 response faminc    dY/eX   3.01485400 0.94860574  3.178195
## 2531  1143 response faminc    dY/eX   1.71614766 0.53997559  3.178195
## 2532  1144 response faminc    dY/eX   1.15955923 0.36484836  3.178195
## 2533  1145 response faminc    dY/eX   0.88126501 0.27728475  3.178195
## 2534  1146 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 2535  1147 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 2536  1148 response faminc    dY/eX   0.04638237 0.01459393  3.178195
## 2537  1149 response faminc    dY/eX   2.08720661 0.65672704  3.178195
## 2538  1150 response faminc    dY/eX   0.60297080 0.18972115  3.178195
## 2539  1151 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2540  1152 response faminc    dY/eX   1.80891240 0.56916346  3.178195
## 2541  1153 response faminc    dY/eX   2.55103031 0.80266639  3.178195
## 2542  1154 response faminc    dY/eX   1.15955923 0.36484836  3.178195
## 2543  1155 response faminc    dY/eX   3.94250138 1.24048445  3.178195
## 2544  1156 response faminc    dY/eX   1.25232397 0.39403623  3.178195
## 2545  1157 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2546  1158 response faminc    dY/eX   0.23191185 0.07296967  3.178195
## 2547  1159 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2548  1160 response faminc    dY/eX   0.88126501 0.27728475  3.178195
## 2549  1161 response faminc    dY/eX   3.47867769 1.09454508  3.178195
## 2550  1162 response faminc    dY/eX   1.80891240 0.56916346  3.178195
## 2551  1163 response faminc    dY/eX   1.62338292 0.51078772  3.178195
## 2552  1164 response faminc    dY/eX   0.88126501 0.27728475  3.178195
## 2553  1165 response faminc    dY/eX   6.02970799 1.89721148  3.178195
## 2554  1166 response faminc    dY/eX   6.02970799 1.89721148  3.178195
```

```
## 2555  1167 response faminc    dY/eX    1.34508871 0.42322410  3.178195
## 2556  1168 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2557  1169 response faminc    dY/eX    1.62338292 0.51078772  3.178195
## 2558  1170 response faminc    dY/eX    0.23191185 0.07296967  3.178195
## 2559  1171 response faminc    dY/eX    1.71614766 0.53997559  3.178195
## 2560  1172 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2561  1173 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2562  1174 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2563  1175 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2564  1176 response faminc    dY/eX    0.04638237 0.01459393  3.178195
## 2565  1177 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2566  1178 response faminc    dY/eX    4.40632507 1.38642377  3.178195
## 2567  1179 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2568  1180 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2569  1181 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2570  1182 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2571  1183 response faminc    dY/eX    0.04638237 0.01459393  3.178195
## 2572  1184 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2573  1185 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 2574  1186 response faminc    dY/eX    1.25232397 0.39403623  3.178195
## 2575  1187 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2576  1188 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2577  1189 response faminc    dY/eX    1.53061818 0.48159983  3.178195
## 2578  1190 response faminc    dY/eX    0.88126501 0.27728475  3.178195
## 2579  1191 response faminc    dY/eX    1.80891240 0.56916346  3.178195
## 2580  1192 response faminc    dY/eX    1.06679449 0.33566049  3.178195
## 2581  1193 response faminc    dY/eX    0.78850028 0.24809689  3.178195
## 2582  1194 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 2583  1195 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2584  1196 response faminc    dY/eX    1.34508871 0.42322410  3.178195
## 2585  1197 response faminc    dY/eX    0.41744132 0.13134541  3.178195
## 2586  1198 response faminc    dY/eX    1.43785344 0.45241196  3.178195
## 2587  1199 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2588  1200 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2589  1201 response faminc    dY/eX    1.53061818 0.48159983  3.178195
## 2590  1202 response faminc    dY/eX    3.47867769 1.09454508  3.178195
## 2591  1203 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2592  1204 response faminc    dY/eX    3.47867769 1.09454508  3.178195
## 2593  1205 response faminc    dY/eX    0.69573554 0.21890902  3.178195
```

```
## 2594   1206 response faminc     dY/eX   2.08720661 0.65672704   3.178195
## 2595   1207 response faminc     dY/eX   4.40632507 1.38642377   3.178195
## 2596   1208 response faminc     dY/eX   3.01485400 0.94860574   3.178195
## 2597   1209 response faminc     dY/eX   0.41744132 0.13134541   3.178195
## 2598   1210 response faminc     dY/eX   3.01485400 0.94860574   3.178195
## 2599   1211 response faminc     dY/eX   1.43785344 0.45241196   3.178195
## 2600   1212 response faminc     dY/eX   0.13914711 0.04378180   3.178195
## 2601   1213 response faminc     dY/eX   6.02970799 1.89721148   3.178195
## 2602   1214 response faminc     dY/eX   3.47867769 1.09454508   3.178195
## 2603   1215 response faminc     dY/eX   1.15955923 0.36484836   3.178195
## 2604   1216 response faminc     dY/eX   1.53061818 0.48159983   3.178195
## 2605   1217 response faminc     dY/eX   4.40632507 1.38642377   3.178195
## 2606   1218 response faminc     dY/eX   0.04638237 0.01459393   3.178195
## 2607   1219 response faminc     dY/eX   1.71614766 0.53997559   3.178195
## 2608   1220 response faminc     dY/eX   3.01485400 0.94860574   3.178195
## 2609   1221 response faminc     dY/eX   1.25232397 0.39403623   3.178195
## 2610   1222 response faminc     dY/eX   0.23191185 0.07296967   3.178195
## 2611   1223 response faminc     dY/eX   4.40632507 1.38642377   3.178195
## 2612   1224 response faminc     dY/eX   3.01485400 0.94860574   3.178195
## 2613   1225 response faminc     dY/eX   2.08720661 0.65672704   3.178195
## 2614   1226 response faminc     dY/eX   6.02970799 1.89721148   3.178195
## 2615   1227 response faminc     dY/eX   0.88126501 0.27728475   3.178195
## 2616   1228 response faminc     dY/eX   6.02970799 1.89721148   3.178195
## 2617   1229 response faminc     dY/eX   0.78850028 0.24809688   3.178195
## 2618   1230 response faminc     dY/eX   0.88126501 0.27728475   3.178195
## 2619   1231 response faminc     dY/eX   2.08720661 0.65672704   3.178195
## 2620   1232 response faminc     dY/eX   2.08720661 0.65672704   3.178195
## 2621   1233 response faminc     dY/eX   6.02970799 1.89721152   3.178195
## 2622   1234 response faminc     dY/eX   2.08720661 0.65672704   3.178195
## 2623   1235 response faminc     dY/eX   2.08720661 0.65672704   3.178195
## 2624   1236 response faminc     dY/eX   0.97402975 0.30647262   3.178195
## 2625   1237 response faminc     dY/eX   0.23191185 0.07296967   3.178195
## 2626   1238 response faminc     dY/eX   0.88126501 0.27728475   3.178195
## 2627   1239 response faminc     dY/eX   0.41744132 0.13134541   3.178195
## 2628   1240 response faminc     dY/eX   0.04638237 0.01459393   3.178195
## 2629   1241 response faminc     dY/eX   3.01485400 0.94860574   3.178195
## 2630   1242 response faminc     dY/eX   4.40632507 1.38642377   3.178195
## 2631   1243 response faminc     dY/eX   0.51020606 0.16053328   3.178195
## 2632   1244 response faminc     dY/eX   1.62338292 0.51078772   3.178195
```

```
## 2633   1245 response faminc    dY/eX    0.97402975 0.30647262  3.178195
## 2634   1246 response faminc    dY/eX    1.15955923 0.36484836  3.178195
## 2635   1247 response faminc    dY/eX    0.88126501 0.27728475  3.178195
## 2636   1248 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2637   1249 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2638   1250 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2639   1251 response faminc    dY/eX    0.78850028 0.24809689  3.178195
## 2640   1252 response faminc    dY/eX    0.13914711 0.04378180  3.178195
## 2641   1253 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2642   1254 response faminc    dY/eX    1.43785344 0.45241196  3.178195
## 2643   1255 response faminc    dY/eX    3.47867769 1.09454508  3.178195
## 2644   1256 response faminc    dY/eX    4.40632507 1.38642377  3.178195
## 2645   1257 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2646   1258 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2647   1259 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2648   1260 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2649   1261 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2650   1262 response faminc    dY/eX    0.69573554 0.21890902  3.178195
## 2651   1263 response faminc    dY/eX    0.41744132 0.13134541  3.178195
## 2652   1264 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2653   1265 response faminc    dY/eX    0.78850028 0.24809689  3.178195
## 2654   1266 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 2655   1267 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2656   1268 response faminc    dY/eX    1.71614766 0.53997559  3.178195
## 2657   1269 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2658   1270 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2659   1271 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2660   1272 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2661   1273 response faminc    dY/eX    1.80891240 0.56916346  3.178195
## 2662   1274 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2663   1275 response faminc    dY/eX    3.47867769 1.09454508  3.178195
## 2664   1276 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 2665   1277 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2666   1278 response faminc    dY/eX    1.43785344 0.45241196  3.178195
## 2667   1279 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2668   1280 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 2669   1281 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2670   1282 response faminc    dY/eX    4.40632507 1.38642377  3.178195
## 2671   1283 response faminc    dY/eX    1.53061818 0.48159983  3.178195
```

```
## 2672   1284 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 2673   1285 response faminc    dY/eX    0.51020606 0.16053328  3.178195
## 2674   1286 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2675   1287 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2676   1288 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2677   1289 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 2678   1290 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2679   1291 response faminc    dY/eX    0.41744132 0.13134541  3.178195
## 2680   1292 response faminc    dY/eX    1.15955923 0.36484836  3.178195
## 2681   1293 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2682   1294 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2683   1295 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2684   1296 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2685   1297 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2686   1298 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2687   1299 response faminc    dY/eX    0.78850028 0.24809689  3.178195
## 2688   1300 response faminc    dY/eX    4.40632507 1.38642377  3.178195
## 2689   1301 response faminc    dY/eX    0.32467658 0.10215754  3.178195
## 2690   1302 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2691   1303 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2692   1304 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2693   1305 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2694   1306 response faminc    dY/eX    0.97402975 0.30647262  3.178195
## 2695   1307 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2696   1308 response faminc    dY/eX    1.80891240 0.56916346  3.178195
## 2697   1309 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2698   1310 response faminc    dY/eX    1.71614766 0.53997559  3.178195
## 2699   1311 response faminc    dY/eX    1.80891240 0.56916346  3.178195
## 2700   1312 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2701   1313 response faminc    dY/eX    1.53061818 0.48159983  3.178195
## 2702   1314 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2703   1315 response faminc    dY/eX    6.02970799 1.89721148  3.178195
## 2704   1316 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2705   1317 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2706   1318 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 2707   1319 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 2708   1320 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2709   1321 response faminc    dY/eX    1.34508871 0.42322410  3.178195
## 2710   1322 response faminc    dY/eX    3.01485400 0.94860574  3.178195
```

```
## 2711  1323 response faminc    dY/eX    6.02970799 1.89721152  3.178195
## 2712  1324 response faminc    dY/eX    1.43785344 0.45241196  3.178195
## 2713  1325 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2714  1326 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2715  1327 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 2716  1328 response faminc    dY/eX    1.43785344 0.45241196  3.178195
## 2717  1329 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2718  1330 response faminc    dY/eX    1.62338292 0.51078772  3.178195
## 2719  1331 response faminc    dY/eX    3.47867769 1.09454508  3.178195
## 2720  1332 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2721  1333 response faminc    dY/eX    0.41744132 0.13134541  3.178195
## 2722  1334 response faminc    dY/eX    1.71614766 0.53997559  3.178195
## 2723  1335 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2724  1336 response faminc    dY/eX    3.47867769 1.09454508  3.178195
## 2725  1337 response faminc    dY/eX    0.51020606 0.16053328  3.178195
## 2726  1338 response faminc    dY/eX    1.53061818 0.48159983  3.178195
## 2727  1339 response faminc    dY/eX    1.62338292 0.51078772  3.178195
## 2728  1340 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 2729  1341 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 2730  1342 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2731  1343 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2732  1344 response faminc    dY/eX    1.43785344 0.45241196  3.178195
## 2733  1345 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 2734  1346 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2735  1347 response faminc    dY/eX    3.94250138 1.24048445  3.178195
## 2736  1348 response faminc    dY/eX    0.88126501 0.27728475  3.178195
## 2737  1349 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2738  1350 response faminc    dY/eX    2.08720661 0.65672704  3.178195
## 2739  1351 response faminc    dY/eX    0.41744132 0.13134541  3.178195
## 2740  1352 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2741  1353 response faminc    dY/eX    3.47867769 1.09454508  3.178195
## 2742  1354 response faminc    dY/eX    0.78850028 0.24809689  3.178195
## 2743  1355 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2744  1356 response faminc    dY/eX    4.40632507 1.38642377  3.178195
## 2745  1357 response faminc    dY/eX    3.01485400 0.94860574  3.178195
## 2746  1358 response faminc    dY/eX    2.55103031 0.80266639  3.178195
## 2747  1359 response faminc    dY/eX    0.60297080 0.18972115  3.178195
## 2748  1360 response faminc    dY/eX    1.15955923 0.36484836  3.178195
## 2749  1361 response faminc    dY/eX    3.01485400 0.94860574  3.178195
```

```
## 2750  1362 response faminc   dY/eX  0.51020606 0.16053328  3.178195
## 2751  1363 response faminc   dY/eX  2.08720661 0.65672704  3.178195
## 2752  1364 response faminc   dY/eX  0.97402975 0.30647262  3.178195
## 2753  1365 response faminc   dY/eX  3.01485400 0.94860574  3.178195
## 2754  1366 response faminc   dY/eX  3.01485400 0.94860574  3.178195
## 2755  1367 response faminc   dY/eX  2.55103031 0.80266639  3.178195
## 2756  1368 response faminc   dY/eX  1.15955923 0.36484836  3.178195
## 2757  1369 response faminc   dY/eX  0.78850028 0.24809689  3.178195
## 2758  1370 response faminc   dY/eX  3.94250138 1.24048445  3.178195
## 2759  1371 response faminc   dY/eX  0.41744132 0.13134541  3.178195
## 2760  1372 response faminc   dY/eX  3.47867769 1.09454508  3.178195
## 2761  1373 response faminc   dY/eX  1.71614766 0.53997559  3.178195
## 2762  1374 response faminc   dY/eX  3.94250138 1.24048445  3.178195
## 2763  1375 response faminc   dY/eX  3.94250138 1.24048445  3.178195
## 2764  1376 response faminc   dY/eX  1.62338292 0.51078772  3.178195
## 2765  1377 response faminc   dY/eX  4.40632507 1.38642377  3.178195
## 2766  1378 response faminc   dY/eX  2.08720661 0.65672704  3.178195
## 2767  1379 response faminc   dY/eX  1.43785344 0.45241196  3.178195
## 2768  1380 response faminc   dY/eX  0.13914711 0.04378180  3.178195
## 2769  1381 response faminc   dY/eX  0.51020606 0.16053328  3.178195
## 2770  1382 response faminc   dY/eX  1.15955923 0.36484836  3.178195
## 2771  1383 response faminc   dY/eX  2.08720661 0.65672704  3.178195
## 2772  1384 response faminc   dY/eX  2.55103031 0.80266639  3.178195
## 2773  1385 response faminc   dY/eX  0.51020606 0.16053328  3.178195
## 2774  1386 response faminc   dY/eX  6.02970799 1.89721148  3.178195
## 2775  1387 response faminc   dY/eX  2.55103031 0.80266639  3.178195
## 2776  1388 response faminc   dY/eX  3.47867769 1.09454508  3.178195
##          p.value    conf.low    conf.high predicted_lo predicted_hi bwght
## 1          NaN   0.00000000  0.00000000    118.22645    118.22414   109
## 2          NaN   0.00000000  0.00000000    117.66987    117.66755   133
## 3          NaN   0.00000000  0.00000000    117.02051    117.01820   129
## 4          NaN   0.00000000  0.00000000    118.41198    118.40967   126
## 5          NaN   0.00000000  0.00000000    119.52516    119.52284   134
## 6          NaN   0.00000000  0.00000000    117.66987    117.66755   118
## 7          NaN   0.00000000  0.00000000    123.00384    123.00152   140
## 8          NaN   0.00000000  0.00000000    119.52516    119.52284    86
## 9          NaN   0.00000000  0.00000000    119.52516    119.52284   121
## 10         NaN   0.00000000  0.00000000    120.45281    120.45049   129
## 11         NaN   0.00000000  0.00000000    119.52516    119.52284   101
```

```
## 12            NaN    0.00000000    0.00000000    119.52516    119.52284    133
## 13            NaN    0.00000000    0.00000000    117.57710    117.57478     61
## 14            NaN    0.00000000    0.00000000    117.94816    117.94584    104
## 15            NaN    0.00000000    0.00000000    118.13369    118.13137     92
## 16            NaN    0.00000000    0.00000000    118.59751    118.59520    122
## 17            NaN    0.00000000    0.00000000    120.91663    120.91431    159
## 18            NaN    0.00000000    0.00000000    117.39157    117.38925    154
## 19            NaN    0.00000000    0.00000000    119.98898    119.98667    120
## 20            NaN    0.00000000    0.00000000    117.57710    117.57478    138
## 21            NaN    0.00000000    0.00000000    121.38046    121.37814    127
## 22            NaN    0.00000000    0.00000000    119.06134    119.05902    107
## 23   4.185655e-07   -3.85736892   -1.70352156    115.63154    115.62922    129
## 24            NaN    0.00000000    0.00000000    118.22645    118.22414    129
## 25            NaN    0.00000000    0.00000000    120.45281    120.45049    156
## 26            NaN    0.00000000    0.00000000    117.20604    117.20373    124
## 27            NaN    0.00000000    0.00000000    117.20604    117.20373     79
## 28            NaN    0.00000000    0.00000000    119.98898    119.98667    112
## 29            NaN    0.00000000    0.00000000    119.06134    119.05902    124
## 30            NaN    0.00000000    0.00000000    117.02051    117.01820    134
## 31            NaN    0.00000000    0.00000000    123.00384    123.00152    114
## 32            NaN    0.00000000    0.00000000    123.00384    123.00152    124
## 33            NaN    0.00000000    0.00000000    123.00384    123.00152    122
## 34            NaN    0.00000000    0.00000000    119.52516    119.52284    104
## 35            NaN    0.00000000    0.00000000    117.66987    117.66755    105
## 36            NaN    0.00000000    0.00000000    121.38046    121.37814    113
## 37            NaN    0.00000000    0.00000000    123.00384    123.00152    131
## 38            NaN    0.00000000    0.00000000    123.00384    123.00152    107
## 39            NaN    0.00000000    0.00000000    119.98898    119.98667    115
## 40            NaN    0.00000000    0.00000000    118.22645    118.22414     97
## 41            NaN    0.00000000    0.00000000    123.00384    123.00152    106
## 42            NaN    0.00000000    0.00000000    121.38046    121.37814    132
## 43            NaN    0.00000000    0.00000000    120.45281    120.45049    108
## 44            NaN    0.00000000    0.00000000    119.98898    119.98667    114
## 45            NaN    0.00000000    0.00000000    118.69028    118.68796    134
## 46            NaN    0.00000000    0.00000000    123.00384    123.00152    134
## 47            NaN    0.00000000    0.00000000    123.00384    123.00152    141
## 48            NaN    0.00000000    0.00000000    118.04092    118.03861     84
## 49            NaN    0.00000000    0.00000000    119.98898    119.98667     88
## 50            NaN    0.00000000    0.00000000    123.00384    123.00152    130
```

```
## 51         NaN   0.00000000   0.00000000  118.59751  118.59520  132
## 52         NaN   0.00000000   0.00000000  118.50475  118.50243  133
## 53         NaN   0.00000000   0.00000000  119.06134  119.05902  108
## 54         NaN   0.00000000   0.00000000  120.91663  120.91431   92
## 55         NaN   0.00000000   0.00000000  119.98898  119.98667  127
## 56         NaN   0.00000000   0.00000000  118.04092  118.03861  131
## 57         NaN   0.00000000   0.00000000  123.00384  123.00152  104
## 58         NaN   0.00000000   0.00000000  119.52516  119.52284  122
## 59         NaN   0.00000000   0.00000000  119.52516  119.52284   97
## 60         NaN   0.00000000   0.00000000  118.59751  118.59520  122
## 61         NaN   0.00000000   0.00000000  123.00384  123.00152  118
## 62         NaN   0.00000000   0.00000000  117.29881  117.29649  140
## 63         NaN   0.00000000   0.00000000  117.02051  117.01820  131
## 64  4.185651e-07  -6.42894815  -2.83920265  112.38644  112.38412  104
## 65         NaN   0.00000000   0.00000000  117.29881  117.29649  114
## 66         NaN   0.00000000   0.00000000  123.00384  123.00152  141
## 67         NaN   0.00000000   0.00000000  119.06134  119.05902  107
## 68         NaN   0.00000000   0.00000000  119.06134  119.05902  152
## 69  4.185655e-07 -12.85789641  -5.67840520  108.40172  108.39940  119
## 70         NaN   0.00000000   0.00000000  119.52516  119.52284  135
## 71         NaN   0.00000000   0.00000000  118.69028  118.68796  138
## 72         NaN   0.00000000   0.00000000  120.45281  120.45049  108
## 73         NaN   0.00000000   0.00000000  119.06134  119.05902   97
## 74         NaN   0.00000000   0.00000000  119.52516  119.52284  131
## 75  4.185648e-07 -25.71579240 -11.35681081  100.15398  100.15166  115
## 76         NaN   0.00000000   0.00000000  119.06134  119.05902  123
## 77         NaN   0.00000000   0.00000000  117.02051  117.01820  115
## 78         NaN   0.00000000   0.00000000  119.98898  119.98667  132
## 79         NaN   0.00000000   0.00000000  119.52516  119.52284  133
## 80         NaN   0.00000000   0.00000000  119.98898  119.98667  125
## 81         NaN   0.00000000   0.00000000  118.41198  118.40967  117
## 82         NaN   0.00000000   0.00000000  118.50475  118.50243  116
## 83         NaN   0.00000000   0.00000000  118.78304  118.78073  152
## 84         NaN   0.00000000   0.00000000  118.41198  118.40967  101
## 85         NaN   0.00000000   0.00000000  118.31922  118.31690  107
## 86         NaN   0.00000000   0.00000000  119.98898  119.98667  136
## 87         NaN   0.00000000   0.00000000  118.31922  118.31690  120
## 88         NaN   0.00000000   0.00000000  117.76263  117.76031  127
## 89         NaN   0.00000000   0.00000000  117.76263  117.76031  123
```

```
## 90           NaN   0.00000000    0.00000000   117.66987   117.66755   135
## 91           NaN   0.00000000    0.00000000   119.98898   119.98667    86
## 92           NaN   0.00000000    0.00000000   123.00384   123.00152    97
## 93  4.185651e-07  -6.42894815   -2.83920265   113.03579   113.03347    93
## 94           NaN   0.00000000    0.00000000   119.52516   119.52284    96
## 95  4.185651e-07  -6.42894815   -2.83920265   113.59238   113.59006   109
## 96           NaN   0.00000000    0.00000000   119.52516   119.52284   117
## 97           NaN   0.00000000    0.00000000   118.69028   118.68796   115
## 98  4.185655e-07 -12.85789641   -5.67840520   109.79319   109.79087   121
## 99           NaN   0.00000000    0.00000000   123.00384   123.00152   114
## 100          NaN   0.00000000    0.00000000   119.06134   119.05902   118
## 101          NaN   0.00000000    0.00000000   120.91663   120.91431   134
## 102          NaN   0.00000000    0.00000000   120.45281   120.45049   156
## 103 4.185651e-07  -1.92868445   -0.85176080   116.65070   116.64839   139
## 104          NaN   0.00000000    0.00000000   123.00384   123.00152   136
## 105          NaN   0.00000000    0.00000000   117.66987   117.66755   115
## 106          NaN   0.00000000    0.00000000   119.06134   119.05902    23
## 107          NaN   0.00000000    0.00000000   123.00384   123.00152   135
## 108 4.185651e-07  -6.42894815   -2.83920265   114.89109   114.88877   106
## 109          NaN   0.00000000    0.00000000   117.66987   117.66755   116
## 110          NaN   0.00000000    0.00000000   123.00384   123.00152   147
## 111          NaN   0.00000000    0.00000000   117.76263   117.76031   115
## 112          NaN   0.00000000    0.00000000   118.13369   118.13137    85
## 113          NaN   0.00000000    0.00000000   120.45281   120.45049   102
## 114          NaN   0.00000000    0.00000000   118.31922   118.31690   122
## 115          NaN   0.00000000    0.00000000   123.00384   123.00152   109
## 116 4.185655e-07 -12.85789641   -5.67840520   111.18466   111.18234    97
## 117          NaN   0.00000000    0.00000000   119.52516   119.52284   136
## 118          NaN   0.00000000    0.00000000   123.00384   123.00152   131
## 119          NaN   0.00000000    0.00000000   119.98898   119.98667   116
## 120          NaN   0.00000000    0.00000000   117.57710   117.57478    86
## 121          NaN   0.00000000    0.00000000   123.00384   123.00152   155
## 122 4.185648e-07 -25.71579240  -11.35681081    99.04080    99.03848   122
## 123          NaN   0.00000000    0.00000000   123.00384   123.00152   105
## 124          NaN   0.00000000    0.00000000   123.00384   123.00152   131
## 125          NaN   0.00000000    0.00000000   117.66987   117.66755   126
## 126          NaN   0.00000000    0.00000000   118.59751   118.59520   127
## 127          NaN   0.00000000    0.00000000   119.52516   119.52284   125
## 128          NaN   0.00000000    0.00000000   120.45281   120.45049    98
```

```
## 129          NaN   0.00000000    0.00000000    119.06134    119.05902    144
## 130          NaN   0.00000000    0.00000000    119.06134    119.05902     91
## 131          NaN   0.00000000    0.00000000    123.00384    123.00152    106
## 132          NaN   0.00000000    0.00000000    120.91663    120.91431    128
## 133          NaN   0.00000000    0.00000000    117.20604    117.20373    144
## 134          NaN   0.00000000    0.00000000    117.94816    117.94584     91
## 135          NaN   0.00000000    0.00000000    120.91663    120.91431    122
## 136          NaN   0.00000000    0.00000000    118.31922    118.31690    139
## 137          NaN   0.00000000    0.00000000    120.91663    120.91431    126
## 138          NaN   0.00000000    0.00000000    119.98898    119.98667    107
## 139          NaN   0.00000000    0.00000000    117.29881    117.29649     79
## 140          NaN   0.00000000    0.00000000    120.91663    120.91431    102
## 141          NaN   0.00000000    0.00000000    118.41198    118.40967    126
## 142          NaN   0.00000000    0.00000000    119.98898    119.98667    120
## 143          NaN   0.00000000    0.00000000    118.78304    118.78073    101
## 144          NaN   0.00000000    0.00000000    120.91663    120.91431    131
## 145          NaN   0.00000000    0.00000000    123.00384    123.00152    128
## 146          NaN   0.00000000    0.00000000    118.22645    118.22414    142
## 147          NaN   0.00000000    0.00000000    119.52516    119.52284    144
## 148          NaN   0.00000000    0.00000000    120.91663    120.91431     58
## 149          NaN   0.00000000    0.00000000    117.48434    117.48202     88
## 150          NaN   0.00000000    0.00000000    117.48434    117.48202    123
## 151          NaN   0.00000000    0.00000000    123.00384    123.00152    146
## 152          NaN   0.00000000    0.00000000    119.06134    119.05902    135
## 153          NaN   0.00000000    0.00000000    118.69028    118.68796    125
## 154          NaN   0.00000000    0.00000000    119.52516    119.52284    125
## 155          NaN   0.00000000    0.00000000    123.00384    123.00152     99
## 156  4.185651e-07  -2.57157926   -1.13568106    118.13535    118.13304    120
## 157          NaN   0.00000000    0.00000000    119.06134    119.05902    114
## 158          NaN   0.00000000    0.00000000    120.45281    120.45049     88
## 159          NaN   0.00000000    0.00000000    123.00384    123.00152    106
## 160          NaN   0.00000000    0.00000000    117.11328    117.11096    123
## 161          NaN   0.00000000    0.00000000    119.52516    119.52284    135
## 162          NaN   0.00000000    0.00000000    121.38046    121.37814    116
## 163          NaN   0.00000000    0.00000000    119.98898    119.98667    128
## 164          NaN   0.00000000    0.00000000    123.00384    123.00152    111
## 165          NaN   0.00000000    0.00000000    117.76263    117.76031    123
## 166          NaN   0.00000000    0.00000000    123.00384    123.00152    115
## 167          NaN   0.00000000    0.00000000    119.52516    119.52284    167
```

```
## 168         NaN   0.00000000    0.00000000   120.45281   120.45049    82
## 169         NaN   0.00000000    0.00000000   120.45281   120.45049   121
## 170         NaN   0.00000000    0.00000000   119.06134   119.05902   114
## 171         NaN   0.00000000    0.00000000   120.45281   120.45049   116
## 172 4.185651e-07  -3.21447408   -1.41960133  115.44559   115.44328   141
## 173         NaN   0.00000000    0.00000000   120.91663   120.91431   141
## 174         NaN   0.00000000    0.00000000   123.00384   123.00152   120
## 175         NaN   0.00000000    0.00000000   118.13369   118.13137   110
## 176         NaN   0.00000000    0.00000000   119.52516   119.52284   120
## 177         NaN   0.00000000    0.00000000   119.52516   119.52284   125
## 178         NaN   0.00000000    0.00000000   123.00384   123.00152    82
## 179         NaN   0.00000000    0.00000000   119.06134   119.05902   141
## 180         NaN   0.00000000    0.00000000   118.69028   118.68796   144
## 181         NaN   0.00000000    0.00000000   118.22645   118.22414   102
## 182         NaN   0.00000000    0.00000000   118.69028   118.68796   121
## 183         NaN   0.00000000    0.00000000   119.52516   119.52284    80
## 184         NaN   0.00000000    0.00000000   119.06134   119.05902   106
## 185         NaN   0.00000000    0.00000000   123.00384   123.00152   116
## 186 4.185651e-07  -6.42894815   -2.83920265  115.35491   115.35259   116
## 187         NaN   0.00000000    0.00000000   119.06134   119.05902   123
## 188         NaN   0.00000000    0.00000000   120.45281   120.45049   132
## 189 4.185655e-07 -12.85789641   -5.67840520  112.11230   112.10999   118
## 190         NaN   0.00000000    0.00000000   123.00384   123.00152   131
## 191         NaN   0.00000000    0.00000000   119.98898   119.98667   152
## 192         NaN   0.00000000    0.00000000   117.94816   117.94584   120
## 193         NaN   0.00000000    0.00000000   119.06134   119.05902   145
## 194         NaN   0.00000000    0.00000000   120.45281   120.45049   124
## 195         NaN   0.00000000    0.00000000   123.00384   123.00152   142
## 196         NaN   0.00000000    0.00000000   123.00384   123.00152   117
## 197         NaN   0.00000000    0.00000000   117.94816   117.94584   100
## 198         NaN   0.00000000    0.00000000   119.98898   119.98667   120
## 199         NaN   0.00000000    0.00000000   119.98898   119.98667   145
## 200         NaN   0.00000000    0.00000000   123.00384   123.00152   123
## 201         NaN   0.00000000    0.00000000   121.38046   121.37814   166
## 202 4.185651e-07  -5.14315852   -2.27136212  116.28172   116.27941   103
## 203         NaN   0.00000000    0.00000000   117.57710   117.57478   133
## 204         NaN   0.00000000    0.00000000   118.13369   118.13137   112
## 205         NaN   0.00000000    0.00000000   121.38046   121.37814   119
## 206         NaN   0.00000000    0.00000000   118.78304   118.78073   123
```

```
## 207          NaN  0.00000000   0.00000000  117.66987  117.66755  107
## 208          NaN  0.00000000   0.00000000  117.76263  117.76031  145
## 209          NaN  0.00000000   0.00000000  118.78304  118.78073  133
## 210          NaN  0.00000000   0.00000000  123.00384  123.00152  146
## 211          NaN  0.00000000   0.00000000  119.98898  119.98667  134
## 212          NaN  0.00000000   0.00000000  123.00384  123.00152  140
## 213          NaN  0.00000000   0.00000000  118.78304  118.78073   95
## 214          NaN  0.00000000   0.00000000  118.59751  118.59520  126
## 215          NaN  0.00000000   0.00000000  119.52516  119.52284  134
## 216          NaN  0.00000000   0.00000000  118.13369  118.13137   64
## 217 4.185651e-07 -2.57157926  -1.13568106  117.67153  117.66921  119
## 218          NaN  0.00000000   0.00000000  119.98898  119.98667  140
## 219          NaN  0.00000000   0.00000000  119.06134  119.05902  120
## 220          NaN  0.00000000   0.00000000  118.69028  118.68796  103
## 221 4.185655e-07 -12.85789641 -5.67840520  110.72083  110.71852   68
## 222          NaN  0.00000000   0.00000000  120.91663  120.91431   97
## 223          NaN  0.00000000   0.00000000  120.45281  120.45049  120
## 224          NaN  0.00000000   0.00000000  119.98898  119.98667  121
## 225          NaN  0.00000000   0.00000000  117.85540  117.85308  130
## 226 4.185651e-07 -6.42894815  -2.83920265  113.77791  113.77559  115
## 227          NaN  0.00000000   0.00000000  123.00384  123.00152  112
## 228          NaN  0.00000000   0.00000000  123.00384  123.00152  120
## 229 4.185648e-07 -7.71473772  -3.40704324  113.50045  113.49813  103
## 230          NaN  0.00000000   0.00000000  119.98898  119.98667  100
## 231          NaN  0.00000000   0.00000000  123.00384  123.00152  117
## 232          NaN  0.00000000   0.00000000  123.00384  123.00152  126
## 233          NaN  0.00000000   0.00000000  117.48434  117.48202  142
## 234          NaN  0.00000000   0.00000000  119.06134  119.05902  120
## 235          NaN  0.00000000   0.00000000  118.22645  118.22414  111
## 236          NaN  0.00000000   0.00000000  123.00384  123.00152  152
## 237          NaN  0.00000000   0.00000000  123.00384  123.00152  124
## 238          NaN  0.00000000   0.00000000  119.52516  119.52284  146
## 239          NaN  0.00000000   0.00000000  119.52516  119.52284  102
## 240          NaN  0.00000000   0.00000000  119.52516  119.52284  129
## 241          NaN  0.00000000   0.00000000  117.94816  117.94584  125
## 242          NaN  0.00000000   0.00000000  117.85540  117.85308  126
## 243          NaN  0.00000000   0.00000000  117.02051  117.01820  101
## 244          NaN  0.00000000   0.00000000  119.98898  119.98667  113
## 245          NaN  0.00000000   0.00000000  118.78304  118.78073  136
```

```
## 246         NaN   0.00000000   0.00000000  120.91663  120.91431  101
## 247         NaN   0.00000000   0.00000000  123.00384  123.00152  106
## 248         NaN   0.00000000   0.00000000  123.00384  123.00152  100
## 249         NaN   0.00000000   0.00000000  120.91663  120.91431  130
## 250         NaN   0.00000000   0.00000000  120.45281  120.45049  136
## 251         NaN   0.00000000   0.00000000  117.57710  117.57478  100
## 252         NaN   0.00000000   0.00000000  123.00384  123.00152  122
## 253         NaN   0.00000000   0.00000000  117.11328  117.11096   90
## 254         NaN   0.00000000   0.00000000  123.00384  123.00152   94
## 255         NaN   0.00000000   0.00000000  119.98898  119.98667  108
## 256         NaN   0.00000000   0.00000000  123.00384  123.00152  107
## 257 4.185655e-07 -12.85789641  -5.67840520  109.32936  109.32705  119
## 258         NaN   0.00000000   0.00000000  118.69028  118.68796  106
## 259         NaN   0.00000000   0.00000000  118.22645  118.22414  113
## 260         NaN   0.00000000   0.00000000  117.94816  117.94584  132
## 261         NaN   0.00000000   0.00000000  118.69028  118.68796   99
## 262 4.185651e-07  -6.42894815  -2.83920265  113.59238  113.59006  110
## 263 4.185651e-07  -6.42894815  -2.83920265  115.35491  115.35259   76
## 264         NaN   0.00000000   0.00000000  118.41198  118.40967  123
## 265         NaN   0.00000000   0.00000000  117.94816  117.94584  123
## 266         NaN   0.00000000   0.00000000  119.98898  119.98667  129
## 267         NaN   0.00000000   0.00000000  118.22645  118.22414   95
## 268         NaN   0.00000000   0.00000000  118.50475  118.50243  118
## 269 4.185655e-07 -12.85789641  -5.67840520  108.30895  108.30663  115
## 270         NaN   0.00000000   0.00000000  117.76263  117.76031  133
## 271         NaN   0.00000000   0.00000000  119.06134  119.05902  139
## 272         NaN   0.00000000   0.00000000  119.52516  119.52284  124
## 273 4.185655e-07 -12.85789641  -5.67840520  108.86554  108.86322   60
## 274         NaN   0.00000000   0.00000000  118.78304  118.78073   87
## 275         NaN   0.00000000   0.00000000  123.00384  123.00152  130
## 276         NaN   0.00000000   0.00000000  123.00384  123.00152  110
## 277         NaN   0.00000000   0.00000000  118.41198  118.40967   73
## 278         NaN   0.00000000   0.00000000  120.45281  120.45049  126
## 279         NaN   0.00000000   0.00000000  121.38046  121.37814  125
## 280         NaN   0.00000000   0.00000000  121.38046  121.37814  166
## 281         NaN   0.00000000   0.00000000  120.45281  120.45049  122
## 282 4.185651e-07  -2.57157926  -1.13568106  118.13535  118.13304  120
## 283         NaN   0.00000000   0.00000000  123.00384  123.00152  143
## 284         NaN   0.00000000   0.00000000  119.52516  119.52284  122
```

```
## 285            NaN   0.00000000    0.00000000  123.00384  123.00152  106
## 286            NaN   0.00000000    0.00000000  123.00384  123.00152  126
## 287            NaN   0.00000000    0.00000000  119.98898  119.98667  156
## 288            NaN   0.00000000    0.00000000  119.06134  119.05902  129
## 289            NaN   0.00000000    0.00000000  118.59751  118.59520  120
## 290  4.185651e-07  -0.64289482   -0.28392027  119.52558  119.52326  113
## 291            NaN   0.00000000    0.00000000  123.00384  123.00152   81
## 292            NaN   0.00000000    0.00000000  120.45281  120.45049   83
## 293            NaN   0.00000000    0.00000000  120.45281  120.45049  129
## 294            NaN   0.00000000    0.00000000  118.31922  118.31690  133
## 295  4.185655e-07 -12.85789641   -5.67840520  109.42213  109.41981  112
## 296            NaN   0.00000000    0.00000000  123.00384  123.00152  119
## 297            NaN   0.00000000    0.00000000  121.38046  121.37814  139
## 298            NaN   0.00000000    0.00000000  119.52516  119.52284  111
## 299  4.185648e-07 -25.71579240  -11.35681081  100.98886  100.98654   81
## 300            NaN   0.00000000    0.00000000  119.52516  119.52284  127
## 301            NaN   0.00000000    0.00000000  119.06134  119.05902  119
## 302            NaN   0.00000000    0.00000000  119.98898  119.98667  107
## 303  4.185655e-07 -12.85789641   -5.67840520  108.03066  108.02834   98
## 304  4.185651e-07  -6.42894815   -2.83920265  114.05620  114.05389  113
## 305            NaN   0.00000000    0.00000000  118.78304  118.78073  104
## 306            NaN   0.00000000    0.00000000  119.98898  119.98667  108
## 307            NaN   0.00000000    0.00000000  119.06134  119.05902  144
## 308            NaN   0.00000000    0.00000000  123.00384  123.00152  110
## 309            NaN   0.00000000    0.00000000  123.00384  123.00152  138
## 310            NaN   0.00000000    0.00000000  118.31922  118.31690  107
## 311            NaN   0.00000000    0.00000000  123.00384  123.00152  128
## 312  4.185651e-07  -6.42894815   -2.83920265  113.68514  113.68283  144
## 313            NaN   0.00000000    0.00000000  120.45281  120.45049  136
## 314            NaN   0.00000000    0.00000000  118.22645  118.22414  110
## 315  4.185655e-07 -12.85789641   -5.67840520  108.12342  108.12110  105
## 316            NaN   0.00000000    0.00000000  119.06134  119.05902  124
## 317            NaN   0.00000000    0.00000000  120.45281  120.45049  117
## 318            NaN   0.00000000    0.00000000  123.00384  123.00152  145
## 319            NaN   0.00000000    0.00000000  118.04092  118.03861   96
## 320            NaN   0.00000000    0.00000000  119.06134  119.05902  140
## 321            NaN   0.00000000    0.00000000  123.00384  123.00152  101
## 322            NaN   0.00000000    0.00000000  120.45281  120.45049  148
## 323            NaN   0.00000000    0.00000000  117.94816  117.94584  135
```

```
## 324        NaN    0.00000000    0.00000000    120.45281    120.45049    120
## 325        NaN    0.00000000    0.00000000    119.06134    119.05902    130
## 326        NaN    0.00000000    0.00000000    118.41198    118.40967    134
## 327        NaN    0.00000000    0.00000000    123.00384    123.00152    128
## 328  4.185648e-07  -9.64342215   -4.25880406   110.06940    110.06708    111
## 329        NaN    0.00000000    0.00000000    119.98898    119.98667    128
## 330        NaN    0.00000000    0.00000000    117.94816    117.94584    134
## 331        NaN    0.00000000    0.00000000    119.06134    119.05902    141
## 332        NaN    0.00000000    0.00000000    121.38046    121.37814    115
## 333        NaN    0.00000000    0.00000000    119.52516    119.52284     98
## 334        NaN    0.00000000    0.00000000    123.00384    123.00152    118
## 335        NaN    0.00000000    0.00000000    121.38046    121.37814    130
## 336        NaN    0.00000000    0.00000000    117.39157    117.38925    136
## 337        NaN    0.00000000    0.00000000    117.76263    117.76031    129
## 338        NaN    0.00000000    0.00000000    121.38046    121.37814     93
## 339  4.185655e-07 -12.85789641   -5.67840520   108.86554    108.86322     91
## 340        NaN    0.00000000    0.00000000    123.00384    123.00152    110
## 341        NaN    0.00000000    0.00000000    117.85540    117.85308    112
## 342  4.185655e-07 -12.85789641   -5.67840520   111.18466    111.18234    112
## 343  4.185648e-07  -7.71473772   -3.40704324   113.96427    113.96195     98
## 344        NaN    0.00000000    0.00000000    123.00384    123.00152    147
## 345  4.185651e-07  -5.14315852   -2.27136212   113.96261    113.96029     92
## 346        NaN    0.00000000    0.00000000    123.00384    123.00152     98
## 347        NaN    0.00000000    0.00000000    121.38046    121.37814     98
## 348        NaN    0.00000000    0.00000000    123.00384    123.00152    137
## 349        NaN    0.00000000    0.00000000    120.91663    120.91431    113
## 350        NaN    0.00000000    0.00000000    119.52516    119.52284    137
## 351  4.185648e-07  -9.64342215   -4.25880406   113.50170    113.49938     71
## 352        NaN    0.00000000    0.00000000    121.38046    121.37814    129
## 353  4.185651e-07  -6.42894815   -2.83920265   112.57197    112.56965    149
## 354        NaN    0.00000000    0.00000000    117.66987    117.66755    124
## 355        NaN    0.00000000    0.00000000    117.57710    117.57478    138
## 356        NaN    0.00000000    0.00000000    120.45281    120.45049    128
## 357  4.185651e-07  -6.42894815   -2.83920265   115.35491    115.35259    122
## 358        NaN    0.00000000    0.00000000    121.38046    121.37814    118
## 359        NaN    0.00000000    0.00000000    120.91663    120.91431    128
## 360  4.185655e-07 -12.85789641   -5.67840520   108.58724    108.58493    142
## 361        NaN    0.00000000    0.00000000    121.38046    121.37814    127
## 362        NaN    0.00000000    0.00000000    123.00384    123.00152    112
```

```
## 363          NaN  0.00000000   0.00000000  119.06134  119.05902  113
## 364          NaN  0.00000000   0.00000000  120.91663  120.91431  112
## 365          NaN  0.00000000   0.00000000  120.45281  120.45049   82
## 366          NaN  0.00000000   0.00000000  118.78304  118.78073  141
## 367          NaN  0.00000000   0.00000000  120.91663  120.91431  107
## 368          NaN  0.00000000   0.00000000  118.31922  118.31690  117
## 369          NaN  0.00000000   0.00000000  120.45281  120.45049  127
## 370          NaN  0.00000000   0.00000000  117.66987  117.66755  133
## 371          NaN  0.00000000   0.00000000  120.45281  120.45049  118
## 372          NaN  0.00000000   0.00000000  119.98898  119.98667  144
## 373          NaN  0.00000000   0.00000000  117.85540  117.85308  109
## 374          NaN  0.00000000   0.00000000  123.00384  123.00152   79
## 375          NaN  0.00000000   0.00000000  119.98898  119.98667  124
## 376 4.185651e-07 -6.42894815  -2.83920265  112.85026  112.84794  130
## 377          NaN  0.00000000   0.00000000  120.91663  120.91431  271
## 378          NaN  0.00000000   0.00000000  119.06134  119.05902  160
## 379          NaN  0.00000000   0.00000000  120.91663  120.91431  127
## 380          NaN  0.00000000   0.00000000  117.66987  117.66755  108
## 381          NaN  0.00000000   0.00000000  118.22645  118.22414   90
## 382          NaN  0.00000000   0.00000000  119.52516  119.52284  140
## 383          NaN  0.00000000   0.00000000  120.91663  120.91431  126
## 384          NaN  0.00000000   0.00000000  119.98898  119.98667  110
## 385          NaN  0.00000000   0.00000000  119.98898  119.98667  127
## 386          NaN  0.00000000   0.00000000  117.48434  117.48202  101
## 387          NaN  0.00000000   0.00000000  121.38046  121.37814   92
## 388          NaN  0.00000000   0.00000000  121.38046  121.37814  121
## 389          NaN  0.00000000   0.00000000  120.91663  120.91431  102
## 390          NaN  0.00000000   0.00000000  120.45281  120.45049  125
## 391          NaN  0.00000000   0.00000000  119.98898  119.98667  141
## 392          NaN  0.00000000   0.00000000  123.00384  123.00152  121
## 393          NaN  0.00000000   0.00000000  121.38046  121.37814  127
## 394          NaN  0.00000000   0.00000000  120.91663  120.91431  119
## 395          NaN  0.00000000   0.00000000  119.52516  119.52284  106
## 396          NaN  0.00000000   0.00000000  118.59751  118.59520  105
## 397          NaN  0.00000000   0.00000000  118.69028  118.68796  104
## 398          NaN  0.00000000   0.00000000  120.91663  120.91431  131
## 399          NaN  0.00000000   0.00000000  120.45281  120.45049   96
## 400          NaN  0.00000000   0.00000000  120.91663  120.91431  141
## 401          NaN  0.00000000   0.00000000  119.98898  119.98667   93
```

```
## 402         NaN    0.00000000    0.00000000   117.20604   117.20373   114
## 403         NaN    0.00000000    0.00000000   118.69028   118.68796   112
## 404         NaN    0.00000000    0.00000000   117.39157   117.38925   138
## 405         NaN    0.00000000    0.00000000   119.06134   119.05902   136
## 406  4.185655e-07 -12.85789641   -5.67840520   108.12342   108.12110   113
## 407         NaN    0.00000000    0.00000000   119.52516   119.52284   105
## 408         NaN    0.00000000    0.00000000   118.78304   118.78073   120
## 409         NaN    0.00000000    0.00000000   119.52516   119.52284    35
## 410         NaN    0.00000000    0.00000000   118.78304   118.78073   149
## 411         NaN    0.00000000    0.00000000   118.69028   118.68796   122
## 412         NaN    0.00000000    0.00000000   119.06134   119.05902   146
## 413         NaN    0.00000000    0.00000000   119.06134   119.05902   161
## 414  4.185655e-07 -12.85789641   -5.67840520   107.84513   107.84281   142
## 415         NaN    0.00000000    0.00000000   117.39157   117.38925   119
## 416  4.185651e-07  -2.57157926   -1.13568106   115.44518   115.44286    83
## 417         NaN    0.00000000    0.00000000   117.29881   117.29649   136
## 418         NaN    0.00000000    0.00000000   120.91663   120.91431   116
## 419         NaN    0.00000000    0.00000000   120.45281   120.45049    93
## 420         NaN    0.00000000    0.00000000   119.06134   119.05902   110
## 421         NaN    0.00000000    0.00000000   120.45281   120.45049   124
## 422         NaN    0.00000000    0.00000000   118.41198   118.40967   123
## 423         NaN    0.00000000    0.00000000   119.52516   119.52284   129
## 424         NaN    0.00000000    0.00000000   119.98898   119.98667   106
## 425         NaN    0.00000000    0.00000000   119.06134   119.05902   130
## 426         NaN    0.00000000    0.00000000   119.52516   119.52284   111
## 427         NaN    0.00000000    0.00000000   119.52516   119.52284   115
## 428         NaN    0.00000000    0.00000000   117.39157   117.38925   110
## 429         NaN    0.00000000    0.00000000   119.52516   119.52284   117
## 430         NaN    0.00000000    0.00000000   119.06134   119.05902   113
## 431         NaN    0.00000000    0.00000000   119.52516   119.52284   114
## 432         NaN    0.00000000    0.00000000   118.78304   118.78073   146
## 433  4.185655e-07 -12.85789641   -5.67840520   108.12342   108.12110    98
## 434  4.185651e-07  -6.42894815   -2.83920265   113.40685   113.40453   143
## 435         NaN    0.00000000    0.00000000   119.52516   119.52284   116
## 436  4.185654e-07 -19.28684460   -8.51760781   106.55058   106.54826   116
## 437         NaN    0.00000000    0.00000000   117.57710   117.57478    75
## 438         NaN    0.00000000    0.00000000   119.98898   119.98667   139
## 439         NaN    0.00000000    0.00000000   118.69028   118.68796   120
## 440         NaN    0.00000000    0.00000000   119.98898   119.98667   146
```

```
## 441        NaN   0.00000000   0.00000000  120.91663  120.91431  145
## 442        NaN   0.00000000   0.00000000  119.06134  119.05902  136
## 443        NaN   0.00000000   0.00000000  118.50475  118.50243  120
## 444        NaN   0.00000000   0.00000000  120.91663  120.91431  106
## 445  4.185648e-07  -9.64342215  -4.25880406  113.50170  113.49938  109
## 446        NaN   0.00000000   0.00000000  118.22645  118.22414   97
## 447        NaN   0.00000000   0.00000000  119.06134  119.05902   30
## 448        NaN   0.00000000   0.00000000  119.06134  119.05902  122
## 449        NaN   0.00000000   0.00000000  120.45281  120.45049  130
## 450        NaN   0.00000000   0.00000000  119.52516  119.52284  115
## 451        NaN   0.00000000   0.00000000  118.50475  118.50243  116
## 452        NaN   0.00000000   0.00000000  121.38046  121.37814  134
## 453        NaN   0.00000000   0.00000000  119.06134  119.05902  127
## 454        NaN   0.00000000   0.00000000  119.06134  119.05902  101
## 455        NaN   0.00000000   0.00000000  121.38046  121.37814  145
## 456        NaN   0.00000000   0.00000000  119.06134  119.05902  128
## 457        NaN   0.00000000   0.00000000  118.31922  118.31690  130
## 458        NaN   0.00000000   0.00000000  118.50475  118.50243  138
## 459        NaN   0.00000000   0.00000000  118.31922  118.31690  133
## 460        NaN   0.00000000   0.00000000  118.69028  118.68796  106
## 461        NaN   0.00000000   0.00000000  117.29881  117.29649  135
## 462  4.185648e-07  -9.64342215  -4.25880406  112.57405  112.57173  104
## 463        NaN   0.00000000   0.00000000  119.06134  119.05902  107
## 464        NaN   0.00000000   0.00000000  118.59751  118.59520   98
## 465        NaN   0.00000000   0.00000000  118.69028  118.68796  123
## 466        NaN   0.00000000   0.00000000  117.02051  117.01820   96
## 467        NaN   0.00000000   0.00000000  118.59751  118.59520  119
## 468        NaN   0.00000000   0.00000000  118.69028  118.68796  134
## 469        NaN   0.00000000   0.00000000  117.02051  117.01820   83
## 470        NaN   0.00000000   0.00000000  120.45281  120.45049  161
## 471  4.185651e-07  -3.21447408  -1.41960133  115.35283  115.35051  109
## 472        NaN   0.00000000   0.00000000  118.69028  118.68796  113
## 473        NaN   0.00000000   0.00000000  117.39157  117.38925   98
## 474        NaN   0.00000000   0.00000000  119.52516  119.52284  138
## 475        NaN   0.00000000   0.00000000  117.57710  117.57478  120
## 476        NaN   0.00000000   0.00000000  119.52516  119.52284  112
## 477        NaN   0.00000000   0.00000000  118.04092  118.03861  104
## 478        NaN   0.00000000   0.00000000  120.91663  120.91431  103
## 479        NaN   0.00000000   0.00000000  119.06134  119.05902  156
```

```
## 480          NaN   0.00000000   0.00000000  118.78304  118.78073  119
## 481          NaN   0.00000000   0.00000000  123.00384  123.00152  134
## 482          NaN   0.00000000   0.00000000  120.45281  120.45049  149
## 483          NaN   0.00000000   0.00000000  120.91663  120.91431  106
## 484          NaN   0.00000000   0.00000000  120.91663  120.91431  112
## 485          NaN   0.00000000   0.00000000  120.45281  120.45049  139
## 486          NaN   0.00000000   0.00000000  121.38046  121.37814  137
## 487 4.185655e-07 -12.85789641  -5.67840520  109.05107  109.04875   90
## 488          NaN   0.00000000   0.00000000  119.98898  119.98667  137
## 489 4.185655e-07 -12.85789641  -5.67840520  109.14383  109.14152  140
## 490          NaN   0.00000000   0.00000000  119.98898  119.98667  126
## 491          NaN   0.00000000   0.00000000  118.69028  118.68796  112
## 492          NaN   0.00000000   0.00000000  117.20604  117.20373   60
## 493          NaN   0.00000000   0.00000000  117.48434  117.48202  109
## 494          NaN   0.00000000   0.00000000  121.38046  121.37814  129
## 495 4.185651e-07  -3.21447408  -1.41960133  114.98177  114.97945  104
## 496          NaN   0.00000000   0.00000000  120.91663  120.91431   71
## 497          NaN   0.00000000   0.00000000  117.57710  117.57478   86
## 498          NaN   0.00000000   0.00000000  119.98898  119.98667  124
## 499          NaN   0.00000000   0.00000000  121.38046  121.37814  112
## 500          NaN   0.00000000   0.00000000  117.29881  117.29649   79
## 501          NaN   0.00000000   0.00000000  119.52516  119.52284   95
## 502          NaN   0.00000000   0.00000000  119.06134  119.05902  100
## 503          NaN   0.00000000   0.00000000  119.52516  119.52284  100
## 504          NaN   0.00000000   0.00000000  118.69028  118.68796  105
## 505 4.185655e-07 -12.85789641  -5.67840520  108.86554  108.86322  107
## 506          NaN   0.00000000   0.00000000  117.02051  117.01820  141
## 507          NaN   0.00000000   0.00000000  117.11328  117.11096  142
## 508 4.185651e-07  -3.21447408  -1.41960133  118.13577  118.13345   99
## 509 4.185651e-07  -3.21447408  -1.41960133  116.37324  116.37092  112
## 510          NaN   0.00000000   0.00000000  119.06134  119.05902  107
## 511          NaN   0.00000000   0.00000000  121.38046  121.37814  147
## 512          NaN   0.00000000   0.00000000  123.00384  123.00152   94
## 513          NaN   0.00000000   0.00000000  123.00384  123.00152  148
## 514 4.185655e-07 -19.28684461  -8.51760780  104.13870  104.13638   91
## 515          NaN   0.00000000   0.00000000  119.98898  119.98667  131
## 516          NaN   0.00000000   0.00000000  119.06134  119.05902  102
## 517          NaN   0.00000000   0.00000000  119.98898  119.98667  161
## 518          NaN   0.00000000   0.00000000  123.00384  123.00152  120
```

304

```
## 519        NaN   0.00000000    0.00000000   119.52516   119.52284   105
## 520        NaN   0.00000000    0.00000000   118.69028   118.68796   112
## 521        NaN   0.00000000    0.00000000   120.45281   120.45049   130
## 522        NaN   0.00000000    0.00000000   119.98898   119.98667   136
## 523        NaN   0.00000000    0.00000000   118.78304   118.78073   110
## 524        NaN   0.00000000    0.00000000   119.06134   119.05902   124
## 525        NaN   0.00000000    0.00000000   119.52516   119.52284   124
## 526        NaN   0.00000000    0.00000000   119.06134   119.05902   134
## 527        NaN   0.00000000    0.00000000   121.38046   121.37814   136
## 528        NaN   0.00000000    0.00000000   119.06134   119.05902   120
## 529        NaN   0.00000000    0.00000000   118.69028   118.68796   108
## 530        NaN   0.00000000    0.00000000   118.59751   118.59520   122
## 531        NaN   0.00000000    0.00000000   118.69028   118.68796   137
## 532 4.185652e-07  -6.42894815   -2.83920265   118.36976   118.36745   119
## 533        NaN   0.00000000    0.00000000   119.98898   119.98667   144
## 534        NaN   0.00000000    0.00000000   121.38046   121.37814   128
## 535        NaN   0.00000000    0.00000000   118.22645   118.22414   104
## 536        NaN   0.00000000    0.00000000   119.98898   119.98667   118
## 537        NaN   0.00000000    0.00000000   123.00384   123.00152    93
## 538 4.185655e-07  -3.85736892   -1.70352156   118.13619   118.13387   138
## 539        NaN   0.00000000    0.00000000   119.98898   119.98667   135
## 540        NaN   0.00000000    0.00000000   120.91663   120.91431   128
## 541        NaN   0.00000000    0.00000000   120.45281   120.45049   118
## 542        NaN   0.00000000    0.00000000   117.85540   117.85308   114
## 543        NaN   0.00000000    0.00000000   120.45281   120.45049   120
## 544        NaN   0.00000000    0.00000000   123.00384   123.00152   113
## 545        NaN   0.00000000    0.00000000   120.91663   120.91431   110
## 546        NaN   0.00000000    0.00000000   120.45281   120.45049   106
## 547 4.185655e-07 -12.85789641   -5.67840520   108.58724   108.58493   125
## 548        NaN   0.00000000    0.00000000   118.78304   118.78073   107
## 549        NaN   0.00000000    0.00000000   118.78304   118.78073   130
## 550        NaN   0.00000000    0.00000000   121.38046   121.37814   116
## 551 4.185651e-07  -3.21447408   -1.41960133   118.59959   118.59728   102
## 552        NaN   0.00000000    0.00000000   119.52516   119.52284   112
## 553 4.185654e-07 -12.85789640   -5.67840521   113.73569   113.73337   124
## 554        NaN   0.00000000    0.00000000   119.98898   119.98667   118
## 555        NaN   0.00000000    0.00000000   121.38046   121.37814   125
## 556        NaN   0.00000000    0.00000000   123.00384   123.00152   103
## 557        NaN   0.00000000    0.00000000   117.57710   117.57478   115
```

```
## 558         NaN    0.00000000    0.00000000   120.91663   120.91431   136
## 559  4.185651e-07   -6.42894815   -2.83920265   114.14897   114.14665   120
## 560  4.185655e-07   -1.28578964   -0.56784052   122.07702   122.07471   139
## 561         NaN    0.00000000    0.00000000   119.52516   119.52284   137
## 562  4.185651e-07   -3.21447408   -1.41960133   118.13577   118.13345   120
## 563         NaN    0.00000000    0.00000000   119.52516   119.52284   113
## 564         NaN    0.00000000    0.00000000   119.06134   119.05902   102
## 565         NaN    0.00000000    0.00000000   119.52516   119.52284   132
## 566  4.185651e-07   -0.64289482   -0.28392027   119.98940   119.98708   141
## 567         NaN    0.00000000    0.00000000   119.06134   119.05902   119
## 568  4.185655e-07  -12.85789641   -5.67840520   110.25701   110.25469   103
## 569         NaN    0.00000000    0.00000000   119.98898   119.98667   117
## 570         NaN    0.00000000    0.00000000   119.98898   119.98667   113
## 571         NaN    0.00000000    0.00000000   120.45281   120.45049   136
## 572         NaN    0.00000000    0.00000000   120.45281   120.45049   128
## 573         NaN    0.00000000    0.00000000   118.78304   118.78073   110
## 574         NaN    0.00000000    0.00000000   123.00384   123.00152   110
## 575         NaN    0.00000000    0.00000000   123.00384   123.00152   123
## 576         NaN    0.00000000    0.00000000   119.98898   119.98667   150
## 577         NaN    0.00000000    0.00000000   120.91663   120.91431   117
## 578         NaN    0.00000000    0.00000000   119.06134   119.05902   142
## 579         NaN    0.00000000    0.00000000   119.06134   119.05902   111
## 580  4.185651e-07   -6.42894815   -2.83920265   113.87067   113.86836   101
## 581         NaN    0.00000000    0.00000000   119.06134   119.05902   124
## 582         NaN    0.00000000    0.00000000   119.06134   119.05902   120
## 583         NaN    0.00000000    0.00000000   123.00384   123.00152   123
## 584  4.185651e-07   -6.42894815   -2.83920265   113.59238   113.59006    94
## 585         NaN    0.00000000    0.00000000   119.98898   119.98667   110
## 586         NaN    0.00000000    0.00000000   120.45281   120.45049    87
## 587         NaN    0.00000000    0.00000000   120.45281   120.45049   109
## 588         NaN    0.00000000    0.00000000   119.52516   119.52284   112
## 589  4.185655e-07  -12.85789641   -5.67840520   108.30895   108.30663   108
## 590         NaN    0.00000000    0.00000000   118.78304   118.78073   139
## 591         NaN    0.00000000    0.00000000   119.98898   119.98667   104
## 592         NaN    0.00000000    0.00000000   119.06134   119.05902   121
## 593         NaN    0.00000000    0.00000000   123.00384   123.00152   110
## 594         NaN    0.00000000    0.00000000   119.52516   119.52284   155
## 595         NaN    0.00000000    0.00000000   118.69028   118.68796   147
## 596         NaN    0.00000000    0.00000000   121.38046   121.37814   117
```

```
## 597         NaN   0.00000000    0.00000000   117.11328   117.11096   113
## 598         NaN   0.00000000    0.00000000   120.91663   120.91431   136
## 599         NaN   0.00000000    0.00000000   117.11328   117.11096   105
## 600         NaN   0.00000000    0.00000000   123.00384   123.00152   129
## 601         NaN   0.00000000    0.00000000   119.06134   119.05902   114
## 602         NaN   0.00000000    0.00000000   120.91663   120.91431   109
## 603         NaN   0.00000000    0.00000000   117.02051   117.01820   108
## 604         NaN   0.00000000    0.00000000   121.38046   121.37814   142
## 605         NaN   0.00000000    0.00000000   123.00384   123.00152    99
## 606  4.185655e-07 -12.85789641   -5.67840520   108.77277   108.77046    79
## 607  4.185655e-07 -12.85789641   -5.67840520   108.21619   108.21387   102
## 608         NaN   0.00000000    0.00000000   123.00384   123.00152    74
## 609  4.185651e-07  -1.92868445   -0.85176080   115.81582   115.81350   109
## 610         NaN   0.00000000    0.00000000   123.00384   123.00152   142
## 611  4.185651e-07  -6.42894815   -2.83920265   115.35491   115.35259    98
## 612         NaN   0.00000000    0.00000000   117.20604   117.20373   128
## 613         NaN   0.00000000    0.00000000   121.38046   121.37814   107
## 614         NaN   0.00000000    0.00000000   117.48434   117.48202    97
## 615         NaN   0.00000000    0.00000000   123.00384   123.00152   125
## 616  4.185655e-07 -12.85789641   -5.67840520   108.77277   108.77046    75
## 617  4.185648e-07 -25.71579240  -11.35681081   100.52504   100.52272   136
## 618         NaN   0.00000000    0.00000000   123.00384   123.00152   106
## 619         NaN   0.00000000    0.00000000   118.22645   118.22414   104
## 620         NaN   0.00000000    0.00000000   119.52516   119.52284    72
## 621         NaN   0.00000000    0.00000000   123.00384   123.00152   112
## 622  4.185655e-07 -12.85789641   -5.67840520   110.72083   110.71852   120
## 623         NaN   0.00000000    0.00000000   123.00384   123.00152   103
## 624         NaN   0.00000000    0.00000000   117.76263   117.76031   122
## 625         NaN   0.00000000    0.00000000   119.52516   119.52284   136
## 626         NaN   0.00000000    0.00000000   123.00384   123.00152   123
## 627         NaN   0.00000000    0.00000000   119.98898   119.98667   138
## 628  4.185651e-07  -5.14315852   -2.27136212   113.77708   113.77476    50
## 629  4.185655e-07 -12.85789641   -5.67840520   109.79319   109.79087    75
## 630         NaN   0.00000000    0.00000000   117.48434   117.48202    93
## 631         NaN   0.00000000    0.00000000   119.52516   119.52284   119
## 632         NaN   0.00000000    0.00000000   117.66987   117.66755   117
## 633  4.185651e-07  -6.42894815   -2.83920265   112.75750   112.75518   102
## 634         NaN   0.00000000    0.00000000   120.91663   120.91431   112
## 635         NaN   0.00000000    0.00000000   119.98898   119.98667   106
```

```
## 636            NaN   0.00000000    0.00000000   119.06134   119.05902   108
## 637            NaN   0.00000000    0.00000000   119.52516   119.52284   112
## 638            NaN   0.00000000    0.00000000   121.38046   121.37814   145
## 639            NaN   0.00000000    0.00000000   119.98898   119.98667   134
## 640            NaN   0.00000000    0.00000000   117.29881   117.29649   117
## 641   4.185651e-07  -4.50026371   -1.98744186   116.74513   116.74281   114
## 642            NaN   0.00000000    0.00000000   117.85540   117.85308    52
## 643            NaN   0.00000000    0.00000000   121.38046   121.37814   125
## 644            NaN   0.00000000    0.00000000   120.91663   120.91431   127
## 645            NaN   0.00000000    0.00000000   117.85540   117.85308   132
## 646            NaN   0.00000000    0.00000000   118.69028   118.68796   100
## 647            NaN   0.00000000    0.00000000   120.45281   120.45049    80
## 648            NaN   0.00000000    0.00000000   119.52516   119.52284   124
## 649            NaN   0.00000000    0.00000000   120.45281   120.45049   123
## 650            NaN   0.00000000    0.00000000   118.69028   118.68796   121
## 651            NaN   0.00000000    0.00000000   123.00384   123.00152   136
## 652            NaN   0.00000000    0.00000000   119.98898   119.98667   152
## 653            NaN   0.00000000    0.00000000   119.52516   119.52284   132
## 654            NaN   0.00000000    0.00000000   123.00384   123.00152   143
## 655   4.185651e-07  -5.14315852   -2.27136212   115.35408   115.35176   114
## 656            NaN   0.00000000    0.00000000   123.00384   123.00152    88
## 657            NaN   0.00000000    0.00000000   120.45281   120.45049    81
## 658            NaN   0.00000000    0.00000000   119.06134   119.05902   115
## 659            NaN   0.00000000    0.00000000   121.38046   121.37814   150
## 660            NaN   0.00000000    0.00000000   120.91663   120.91431   141
## 661            NaN   0.00000000    0.00000000   118.13369   118.13137   125
## 662            NaN   0.00000000    0.00000000   118.69028   118.68796   135
## 663   4.185655e-07 -12.85789641   -5.67840520   108.30895   108.30663   120
## 664            NaN   0.00000000    0.00000000   120.91663   120.91431    83
## 665            NaN   0.00000000    0.00000000   119.52516   119.52284   143
## 666            NaN   0.00000000    0.00000000   123.00384   123.00152   153
## 667            NaN   0.00000000    0.00000000   123.00384   123.00152   150
## 668            NaN   0.00000000    0.00000000   119.52516   119.52284   152
## 669   4.185651e-07  -6.42894815   -2.83920265   114.89109   114.88877   148
## 670            NaN   0.00000000    0.00000000   120.91663   120.91431   123
## 671            NaN   0.00000000    0.00000000   119.52516   119.52284   117
## 672            NaN   0.00000000    0.00000000   123.00384   123.00152   128
## 673            NaN   0.00000000    0.00000000   123.00384   123.00152    92
## 674            NaN   0.00000000    0.00000000   119.52516   119.52284   115
```

```
## 675           NaN   0.00000000    0.00000000   119.52516   119.52284   105
## 676           NaN   0.00000000    0.00000000   123.00384   123.00152   141
## 677           NaN   0.00000000    0.00000000   118.31922   118.31690   104
## 678           NaN   0.00000000    0.00000000   119.06134   119.05902   156
## 679           NaN   0.00000000    0.00000000   117.94816   117.94584   131
## 680           NaN   0.00000000    0.00000000   118.41198   118.40967   117
## 681           NaN   0.00000000    0.00000000   119.98898   119.98667   141
## 682           NaN   0.00000000    0.00000000   119.98898   119.98667   138
## 683           NaN   0.00000000    0.00000000   117.39157   117.38925   136
## 684           NaN   0.00000000    0.00000000   117.57710   117.57478   149
## 685           NaN   0.00000000    0.00000000   117.76263   117.76031   144
## 686           NaN   0.00000000    0.00000000   119.98898   119.98667   123
## 687           NaN   0.00000000    0.00000000   119.98898   119.98667   114
## 688           NaN   0.00000000    0.00000000   119.98898   119.98667   100
## 689           NaN   0.00000000    0.00000000   121.38046   121.37814   127
## 690  4.185655e-07 -12.85789641   -5.67840520   109.32936   109.32705    92
## 691           NaN   0.00000000    0.00000000   120.45281   120.45049   138
## 692           NaN   0.00000000    0.00000000   119.52516   119.52284   139
## 693           NaN   0.00000000    0.00000000   117.66987   117.66755   124
## 694           NaN   0.00000000    0.00000000   117.94816   117.94584   132
## 695           NaN   0.00000000    0.00000000   119.06134   119.05902   151
## 696           NaN   0.00000000    0.00000000   119.52516   119.52284   126
## 697  4.185651e-07  -3.21447408   -1.41960133   117.67195   117.66963    95
## 698           NaN   0.00000000    0.00000000   120.45281   120.45049   115
## 699           NaN   0.00000000    0.00000000   117.39157   117.38925   109
## 700           NaN   0.00000000    0.00000000   117.20604   117.20373    86
## 701           NaN   0.00000000    0.00000000   121.38046   121.37814   128
## 702  4.185651e-07  -6.42894815   -2.83920265   114.42726   114.42494    94
## 703           NaN   0.00000000    0.00000000   117.11328   117.11096   144
## 704           NaN   0.00000000    0.00000000   119.06134   119.05902    92
## 705           NaN   0.00000000    0.00000000   119.52516   119.52284   117
## 706           NaN   0.00000000    0.00000000   123.00384   123.00152   130
## 707           NaN   0.00000000    0.00000000   120.91663   120.91431    82
## 708           NaN   0.00000000    0.00000000   118.13369   118.13137   121
## 709           NaN   0.00000000    0.00000000   121.38046   121.37814    98
## 710  4.185655e-07 -12.85789641   -5.67840520   110.72083   110.71852   137
## 711  4.185648e-07  -9.64342215   -4.25880406   113.50170   113.49938   114
## 712           NaN   0.00000000    0.00000000   120.91663   120.91431   121
## 713           NaN   0.00000000    0.00000000   119.06134   119.05902   124
```

```
## 714        NaN   0.00000000   0.00000000   118.59751   118.59520   119
## 715        NaN   0.00000000   0.00000000   119.98898   119.98667   151
## 716        NaN   0.00000000   0.00000000   119.06134   119.05902   144
## 717        NaN   0.00000000   0.00000000   118.69028   118.68796   124
## 718 4.185651e-07  -4.50026371  -1.98744186   116.74513   116.74281   100
## 719        NaN   0.00000000   0.00000000   119.52516   119.52284   160
## 720        NaN   0.00000000   0.00000000   117.29881   117.29649   109
## 721        NaN   0.00000000   0.00000000   118.41198   118.40967   138
## 722        NaN   0.00000000   0.00000000   123.00384   123.00152   122
## 723        NaN   0.00000000   0.00000000   120.45281   120.45049   109
## 724        NaN   0.00000000   0.00000000   119.98898   119.98667   139
## 725        NaN   0.00000000   0.00000000   117.85540   117.85308   125
## 726 4.185648e-07  -9.64342215  -4.25880406   112.11022   112.10791   118
## 727        NaN   0.00000000   0.00000000   120.91663   120.91431   114
## 728        NaN   0.00000000   0.00000000   123.00384   123.00152   152
## 729 4.185651e-07  -0.64289482  -0.28392027   119.98940   119.98708   114
## 730        NaN   0.00000000   0.00000000   119.06134   119.05902   119
## 731        NaN   0.00000000   0.00000000   118.41198   118.40967   149
## 732 4.185648e-07  -9.64342215  -4.25880406   113.96552   113.96320   126
## 733        NaN   0.00000000   0.00000000   118.31922   118.31690   114
## 734        NaN   0.00000000   0.00000000   120.45281   120.45049   126
## 735        NaN   0.00000000   0.00000000   119.06134   119.05902   115
## 736        NaN   0.00000000   0.00000000   123.00384   123.00152   123
## 737        NaN   0.00000000   0.00000000   121.38046   121.37814   160
## 738        NaN   0.00000000   0.00000000   117.94816   117.94584    58
## 739        NaN   0.00000000   0.00000000   123.00384   123.00152   108
## 740        NaN   0.00000000   0.00000000   119.52516   119.52284   113
## 741        NaN   0.00000000   0.00000000   123.00384   123.00152   140
## 742        NaN   0.00000000   0.00000000   119.52516   119.52284   118
## 743        NaN   0.00000000   0.00000000   123.00384   123.00152   111
## 744 4.185651e-07  -3.21447408  -1.41960133   116.18771   116.18539    88
## 745 4.185652e-07  -6.42894815  -2.83920265   118.36976   118.36745   133
## 746        NaN   0.00000000   0.00000000   120.91663   120.91431   106
## 747        NaN   0.00000000   0.00000000   118.13369   118.13137   137
## 748        NaN   0.00000000   0.00000000   118.04092   118.03861   129
## 749        NaN   0.00000000   0.00000000   120.45281   120.45049   132
## 750 4.185648e-07  -7.71473772  -3.40704324   117.44295   117.44063   112
## 751        NaN   0.00000000   0.00000000   119.98898   119.98667   122
## 752        NaN   0.00000000   0.00000000   123.00384   123.00152    76
```

```
## 753  4.185652e-07  -6.42894815   -2.83920265  118.36976  118.36745  122
## 754         NaN    0.00000000    0.00000000  123.00384  123.00152  159
## 755         NaN    0.00000000    0.00000000  123.00384  123.00152  116
## 756  4.185655e-07  -12.85789641  -5.67840520  109.79319  109.79087  104
## 757         NaN    0.00000000    0.00000000  123.00384  123.00152  116
## 758  4.185651e-07  -6.42894815   -2.83920265  116.74638  116.74406  115
## 759  4.185651e-07  -6.42894815   -2.83920265  114.89109  114.88877  159
## 760         NaN    0.00000000    0.00000000  123.00384  123.00152  145
## 761         NaN    0.00000000    0.00000000  123.00384  123.00152  121
## 762         NaN    0.00000000    0.00000000  119.98898  119.98667  112
## 763         NaN    0.00000000    0.00000000  119.06134  119.05902  107
## 764         NaN    0.00000000    0.00000000  123.00384  123.00152  133
## 765         NaN    0.00000000    0.00000000  123.00384  123.00152  136
## 766         NaN    0.00000000    0.00000000  117.57710  117.57478  148
## 767         NaN    0.00000000    0.00000000  123.00384  123.00152  133
## 768  4.185651e-07  -2.57157926   -1.13568106  118.59918  118.59686  108
## 769         NaN    0.00000000    0.00000000  123.00384  123.00152   91
## 770         NaN    0.00000000    0.00000000  119.98898  119.98667   94
## 771         NaN    0.00000000    0.00000000  119.52516  119.52284  123
## 772         NaN    0.00000000    0.00000000  123.00384  123.00152  129
## 773         NaN    0.00000000    0.00000000  119.52516  119.52284  108
## 774         NaN    0.00000000    0.00000000  119.06134  119.05902  144
## 775         NaN    0.00000000    0.00000000  119.06134  119.05902  132
## 776         NaN    0.00000000    0.00000000  118.22645  118.22414  130
## 777         NaN    0.00000000    0.00000000  119.06134  119.05902  105
## 778         NaN    0.00000000    0.00000000  119.98898  119.98667   90
## 779         NaN    0.00000000    0.00000000  118.13369  118.13137  154
## 780  4.185651e-07  -2.57157926   -1.13568106  115.72347  115.72115  103
## 781  4.185648e-07  -9.64342215   -4.25880406  112.11022  112.10791   87
## 782         NaN    0.00000000    0.00000000  120.91663  120.91431  133
## 783         NaN    0.00000000    0.00000000  120.91663  120.91431  117
## 784         NaN    0.00000000    0.00000000  123.00384  123.00152  152
## 785         NaN    0.00000000    0.00000000  119.52516  119.52284  119
## 786         NaN    0.00000000    0.00000000  119.06134  119.05902  108
## 787         NaN    0.00000000    0.00000000  123.00384  123.00152  114
## 788  4.185651e-07  -1.92868445   -0.85176080  119.06259  119.06027   89
## 789         NaN    0.00000000    0.00000000  123.00384  123.00152  132
## 790         NaN    0.00000000    0.00000000  119.98898  119.98667  130
## 791         NaN    0.00000000    0.00000000  123.00384  123.00152  124
```

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```
## 792          NaN    0.00000000    0.00000000   123.00384   123.00152   107
## 793          NaN    0.00000000    0.00000000   119.06134   119.05902   125
## 794          NaN    0.00000000    0.00000000   119.06134   119.05902   117
## 795          NaN    0.00000000    0.00000000   118.59751   118.59520   117
## 796          NaN    0.00000000    0.00000000   118.78304   118.78073   125
## 797          NaN    0.00000000    0.00000000   119.52516   119.52284   106
## 798 4.185651e-07   -6.42894815   -2.83920265   116.74638   116.74406   130
## 799          NaN    0.00000000    0.00000000   121.38046   121.37814   129
## 800          NaN    0.00000000    0.00000000   119.06134   119.05902   144
## 801          NaN    0.00000000    0.00000000   117.85540   117.85308   104
## 802          NaN    0.00000000    0.00000000   120.91663   120.91431   110
## 803 4.185651e-07   -6.42894815   -2.83920265   113.31408   113.31177   113
## 804          NaN    0.00000000    0.00000000   123.00384   123.00152    93
## 805          NaN    0.00000000    0.00000000   121.38046   121.37814   106
## 806          NaN    0.00000000    0.00000000   120.91663   120.91431   113
## 807 4.185655e-07  -12.85789641   -5.67840520   109.79319   109.79087   120
## 808          NaN    0.00000000    0.00000000   119.52516   119.52284   116
## 809          NaN    0.00000000    0.00000000   123.00384   123.00152   129
## 810          NaN    0.00000000    0.00000000   117.76263   117.76031   106
## 811          NaN    0.00000000    0.00000000   119.06134   119.05902   119
## 812          NaN    0.00000000    0.00000000   118.78304   118.78073   112
## 813          NaN    0.00000000    0.00000000   117.76263   117.76031   123
## 814          NaN    0.00000000    0.00000000   121.38046   121.37814   129
## 815          NaN    0.00000000    0.00000000   117.76263   117.76031   100
## 816 4.185655e-07   -1.28578964   -0.56784052   116.46476   116.46244    97
## 817          NaN    0.00000000    0.00000000   123.00384   123.00152   127
## 818          NaN    0.00000000    0.00000000   119.98898   119.98667   128
## 819          NaN    0.00000000    0.00000000   118.13369   118.13137   122
## 820          NaN    0.00000000    0.00000000   123.00384   123.00152    93
## 821 4.185651e-07   -6.42894815   -2.83920265   114.14897   114.14665    90
## 822          NaN    0.00000000    0.00000000   119.06134   119.05902    73
## 823          NaN    0.00000000    0.00000000   119.52516   119.52284   133
## 824          NaN    0.00000000    0.00000000   118.78304   118.78073   112
## 825          NaN    0.00000000    0.00000000   118.41198   118.40967    98
## 826          NaN    0.00000000    0.00000000   120.45281   120.45049   136
## 827          NaN    0.00000000    0.00000000   118.22645   118.22414    78
## 828          NaN    0.00000000    0.00000000   120.91663   120.91431   107
## 829          NaN    0.00000000    0.00000000   123.00384   123.00152   147
## 830 4.185655e-07  -12.85789641   -5.67840520   110.72083   110.71852   149
```

```
## 831         NaN   0.00000000    0.00000000   120.45281   120.45049   106
## 832  4.185651e-07  -6.42894815   -2.83920265   116.74638   116.74406    97
## 833         NaN   0.00000000    0.00000000   123.00384   123.00152   134
## 834         NaN   0.00000000    0.00000000   119.06134   119.05902   136
## 835         NaN   0.00000000    0.00000000   119.52516   119.52284   136
## 836         NaN   0.00000000    0.00000000   119.06134   119.05902   131
## 837         NaN   0.00000000    0.00000000   119.52516   119.52284   112
## 838         NaN   0.00000000    0.00000000   118.13369   118.13137   105
## 839         NaN   0.00000000    0.00000000   118.78304   118.78073   120
## 840         NaN   0.00000000    0.00000000   120.91663   120.91431   120
## 841         NaN   0.00000000    0.00000000   119.52516   119.52284   115
## 842         NaN   0.00000000    0.00000000   119.98898   119.98667   120
## 843         NaN   0.00000000    0.00000000   123.00384   123.00152   141
## 844  4.185651e-07  -3.21447408   -1.41960133   119.06342   119.06110   119
## 845         NaN   0.00000000    0.00000000   119.52516   119.52284   114
## 846  4.185651e-07  -6.42894815   -2.83920265   115.35491   115.35259   143
## 847         NaN   0.00000000    0.00000000   123.00384   123.00152   113
## 848         NaN   0.00000000    0.00000000   119.06134   119.05902   118
## 849         NaN   0.00000000    0.00000000   123.00384   123.00152   126
## 850         NaN   0.00000000    0.00000000   120.91663   120.91431   120
## 851         NaN   0.00000000    0.00000000   119.98898   119.98667   139
## 852         NaN   0.00000000    0.00000000   123.00384   123.00152   104
## 853         NaN   0.00000000    0.00000000   120.91663   120.91431   141
## 854         NaN   0.00000000    0.00000000   119.52516   119.52284   114
## 855         NaN   0.00000000    0.00000000   123.00384   123.00152   111
## 856         NaN   0.00000000    0.00000000   117.48434   117.48202    94
## 857         NaN   0.00000000    0.00000000   119.06134   119.05902   134
## 858         NaN   0.00000000    0.00000000   120.45281   120.45049   113
## 859         NaN   0.00000000    0.00000000   117.20604   117.20373   116
## 860         NaN   0.00000000    0.00000000   117.57710   117.57478   114
## 861         NaN   0.00000000    0.00000000   118.69028   118.68796   115
## 862         NaN   0.00000000    0.00000000   118.22645   118.22414   122
## 863  4.185655e-07 -12.85789641   -5.67840520   108.86554   108.86322   118
## 864         NaN   0.00000000    0.00000000   118.78304   118.78073   115
## 865         NaN   0.00000000    0.00000000   117.85540   117.85308   104
## 866         NaN   0.00000000    0.00000000   117.85540   117.85308   134
## 867         NaN   0.00000000    0.00000000   118.22645   118.22414   143
## 868         NaN   0.00000000    0.00000000   121.38046   121.37814   143
## 869         NaN   0.00000000    0.00000000   117.94816   117.94584   106
```

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```
## 870          NaN   0.00000000    0.00000000   120.45281   120.45049   127
## 871          NaN   0.00000000    0.00000000   119.52516   119.52284   122
## 872          NaN   0.00000000    0.00000000   118.78304   118.78073   115
## 873          NaN   0.00000000    0.00000000   118.41198   118.40967   139
## 874 4.185651e-07  -6.42894815   -2.83920265   113.87067   113.86836   114
## 875          NaN   0.00000000    0.00000000   119.98898   119.98667   108
## 876          NaN   0.00000000    0.00000000   118.04092   118.03861   127
## 877          NaN   0.00000000    0.00000000   117.94816   117.94584   111
## 878          NaN   0.00000000    0.00000000   118.50475   118.50243    91
## 879          NaN   0.00000000    0.00000000   117.85540   117.85308    96
## 880 4.185651e-07  -6.42894815   -2.83920265   113.49961   113.49730   103
## 881          NaN   0.00000000    0.00000000   117.85540   117.85308    78
## 882          NaN   0.00000000    0.00000000   119.06134   119.05902    98
## 883 4.185655e-07 -19.28684461   -8.51760780   105.15911   105.15679    94
## 884 4.185651e-07  -6.42894815   -2.83920265   114.89109   114.88877   135
## 885 4.185655e-07 -12.85789641   -5.67840520   108.77277   108.77046   124
## 886          NaN   0.00000000    0.00000000   117.48434   117.48202   108
## 887 4.185651e-07  -6.42894815   -2.83920265   114.14897   114.14665   128
## 888          NaN   0.00000000    0.00000000   118.04092   118.03861   139
## 889          NaN   0.00000000    0.00000000   119.52516   119.52284   128
## 890          NaN   0.00000000    0.00000000   120.91663   120.91431   102
## 891          NaN   0.00000000    0.00000000   117.29881   117.29649   136
## 892          NaN   0.00000000    0.00000000   123.00384   123.00152   146
## 893          NaN   0.00000000    0.00000000   118.50475   118.50243   136
## 894          NaN   0.00000000    0.00000000   120.91663   120.91431    89
## 895 4.185655e-07 -19.28684461   -8.51760780   103.30382   103.30150   102
## 896 4.185655e-07 -19.28684461   -8.51760780   103.39658   103.39426   138
## 897          NaN   0.00000000    0.00000000   117.76263   117.76031   128
## 898          NaN   0.00000000    0.00000000   119.52516   119.52284   124
## 899          NaN   0.00000000    0.00000000   118.13369   118.13137   122
## 900 4.185651e-07  -2.57157926   -1.13568106   115.53794   115.53562   101
## 901          NaN   0.00000000    0.00000000   120.45281   120.45049   118
## 902          NaN   0.00000000    0.00000000   119.98898   119.98667    70
## 903          NaN   0.00000000    0.00000000   119.06134   119.05902   136
## 904          NaN   0.00000000    0.00000000   120.45281   120.45049   152
## 905          NaN   0.00000000    0.00000000   118.78304   118.78073    98
## 906 4.185651e-07  -6.42894815   -2.83920265   113.22132   113.21900    68
## 907 4.185651e-07  -1.92868445   -0.85176080   116.83623   116.83391   101
## 908          NaN   0.00000000    0.00000000   117.20604   117.20373    94
```

```
## 909           NaN   0.00000000    0.00000000  117.02051  117.01820  117
## 910           NaN   0.00000000    0.00000000  117.94816  117.94584   96
## 911           NaN   0.00000000    0.00000000  121.38046  121.37814  122
## 912           NaN   0.00000000    0.00000000  120.91663  120.91431  132
## 913  4.185655e-07 -12.85789641   -5.67840520  108.03066  108.02834  104
## 914           NaN   0.00000000    0.00000000  119.52516  119.52284  130
## 915           NaN   0.00000000    0.00000000  118.78304  118.78073   84
## 916           NaN   0.00000000    0.00000000  120.45281  120.45049  159
## 917  4.185651e-07  -1.92868445   -0.85176080  116.27964  116.27733  115
## 918  4.185655e-07 -12.85789641   -5.67840520  109.79319  109.79087  126
## 919  4.185651e-07  -4.50026371   -1.98744186  115.81748  115.81517  132
## 920           NaN   0.00000000    0.00000000  121.38046  121.37814  101
## 921  4.185655e-07 -12.85789641   -5.67840520  110.25701  110.25469   87
## 922           NaN   0.00000000    0.00000000  117.39157  117.38925  147
## 923           NaN   0.00000000    0.00000000  118.69028  118.68796  108
## 924           NaN   0.00000000    0.00000000  119.98898  119.98667  103
## 925           NaN   0.00000000    0.00000000  120.45281  120.45049  128
## 926  4.185655e-07  -1.28578964   -0.56784052  116.65029  116.64797   97
## 927           NaN   0.00000000    0.00000000  120.91663  120.91431  113
## 928           NaN   0.00000000    0.00000000  121.38046  121.37814  128
## 929  4.185651e-07  -6.42894815   -2.83920265  113.68514  113.68283   74
## 930           NaN   0.00000000    0.00000000  117.39157  117.38925   95
## 931           NaN   0.00000000    0.00000000  123.00384  123.00152  128
## 932  4.185655e-07 -12.85789641   -5.67840520  108.86554  108.86322  129
## 933           NaN   0.00000000    0.00000000  120.45281  120.45049  117
## 934           NaN   0.00000000    0.00000000  119.98898  119.98667  109
## 935           NaN   0.00000000    0.00000000  117.57710  117.57478  109
## 936  4.185651e-07  -3.21447408   -1.41960133  115.72389  115.72157  129
## 937           NaN   0.00000000    0.00000000  118.31922  118.31690  144
## 938           NaN   0.00000000    0.00000000  119.52516  119.52284  131
## 939           NaN   0.00000000    0.00000000  119.98898  119.98667  104
## 940           NaN   0.00000000    0.00000000  118.41198  118.40967  120
## 941  4.185651e-07  -6.42894815   -2.83920265  114.42726  114.42494   99
## 942  4.185655e-07 -12.85789641   -5.67840520  109.79319  109.79087  103
## 943           NaN   0.00000000    0.00000000  123.00384  123.00152  123
## 944           NaN   0.00000000    0.00000000  121.38046  121.37814  134
## 945           NaN   0.00000000    0.00000000  118.59751  118.59520  147
## 946  4.185655e-07 -12.85789641   -5.67840520  110.25701  110.25469   83
## 947           NaN   0.00000000    0.00000000  119.98898  119.98667   91
```

```
## 948         NaN   0.00000000    0.00000000   123.00384   123.00152  124
## 949         NaN   0.00000000    0.00000000   123.00384   123.00152  141
## 950         NaN   0.00000000    0.00000000   123.00384   123.00152   56
## 951         NaN   0.00000000    0.00000000   119.98898   119.98667  139
## 952         NaN   0.00000000    0.00000000   118.69028   118.68796  133
## 953         NaN   0.00000000    0.00000000   120.91663   120.91431  144
## 954         NaN   0.00000000    0.00000000   117.66987   117.66755  130
## 955  4.185651e-07  -3.21447408   -1.41960133  118.13577   118.13345  102
## 956         NaN   0.00000000    0.00000000   120.45281   120.45049  109
## 957         NaN   0.00000000    0.00000000   117.11328   117.11096  104
## 958  4.185651e-07  -4.50026371   -1.98744186  115.35366   115.35134  134
## 959         NaN   0.00000000    0.00000000   123.00384   123.00152   91
## 960         NaN   0.00000000    0.00000000   117.29881   117.29649  159
## 961         NaN   0.00000000    0.00000000   117.39157   117.38925   93
## 962  4.185648e-07  -9.64342215   -4.25880406  112.11022   112.10791  131
## 963         NaN   0.00000000    0.00000000   119.06134   119.05902  119
## 964         NaN   0.00000000    0.00000000   117.29881   117.29649  126
## 965         NaN   0.00000000    0.00000000   118.59751   118.59520  107
## 966         NaN   0.00000000    0.00000000   118.50475   118.50243   76
## 967         NaN   0.00000000    0.00000000   117.94816   117.94584  122
## 968         NaN   0.00000000    0.00000000   119.06134   119.05902  104
## 969  4.185651e-07  -2.57157926   -1.13568106  115.44518   115.44286   92
## 970  4.185651e-07  -6.42894815   -2.83920265  113.12856   113.12624  101
## 971         NaN   0.00000000    0.00000000   117.11328   117.11096  109
## 972         NaN   0.00000000    0.00000000   123.00384   123.00152  113
## 973         NaN   0.00000000    0.00000000   120.91663   120.91431  136
## 974         NaN   0.00000000    0.00000000   119.06134   119.05902  147
## 975  4.185648e-07  -9.64342215   -4.25880406  111.64640   111.64408  104
## 976  4.185648e-07  -9.64342215   -4.25880406  111.73917   111.73685  117
## 977  4.185648e-07 -25.71579240  -11.35681081   98.94803    98.94572   89
## 978         NaN   0.00000000    0.00000000   118.22645   118.22414  101
## 979         NaN   0.00000000    0.00000000   118.59751   118.59520  121
## 980  4.185651e-07  -6.42894815   -2.83920265  114.14897   114.14665  120
## 981         NaN   0.00000000    0.00000000   123.00384   123.00152  116
## 982         NaN   0.00000000    0.00000000   118.04092   118.03861  112
## 983         NaN   0.00000000    0.00000000   123.00384   123.00152  125
## 984         NaN   0.00000000    0.00000000   117.20604   117.20373  128
## 985         NaN   0.00000000    0.00000000   123.00384   123.00152  114
## 986  4.185655e-07 -12.85789641   -5.67840520  108.68001   108.67769  104
```

```
## 987          NaN  0.00000000   0.00000000   120.91663   120.91431   123
## 988          NaN  0.00000000   0.00000000   118.78304   118.78073   123
## 989          NaN  0.00000000   0.00000000   117.48434   117.48202   164
## 990          NaN  0.00000000   0.00000000   117.02051   117.01820   113
## 991          NaN  0.00000000   0.00000000   123.00384   123.00152   102
## 992          NaN  0.00000000   0.00000000   121.38046   121.37814   113
## 993          NaN  0.00000000   0.00000000   118.31922   118.31690    99
## 994          NaN  0.00000000   0.00000000   119.52516   119.52284   127
## 995 4.185655e-07 -12.85789641  -5.67840520   109.79319   109.79087   132
## 996 4.185655e-07 -12.85789641  -5.67840520   109.51489   109.51258   121
## 997          NaN  0.00000000   0.00000000   118.41198   118.40967    91
## 998 4.185651e-07  -6.42894815  -2.83920265   112.38644   112.38412   109
## 999          NaN  0.00000000   0.00000000   121.38046   121.37814   112
## 1000         NaN  0.00000000   0.00000000   119.06134   119.05902   124
## 1001         NaN  0.00000000   0.00000000   118.41198   118.40967   149
## 1002 4.185651e-07 -6.42894815  -2.83920265   113.96344   113.96112   103
## 1003         NaN  0.00000000   0.00000000   121.38046   121.37814   120
## 1004         NaN  0.00000000   0.00000000   118.41198   118.40967   144
## 1005         NaN  0.00000000   0.00000000   118.69028   118.68796   116
## 1006 4.185651e-07 -6.42894815  -2.83920265   112.57197   112.56965   112
## 1007         NaN  0.00000000   0.00000000   118.69028   118.68796   128
## 1008         NaN  0.00000000   0.00000000   119.52516   119.52284   137
## 1009         NaN  0.00000000   0.00000000   119.98898   119.98667   127
## 1010 4.185648e-07 -9.64342215  -4.25880406   111.83193   111.82961   101
## 1011 4.185648e-07 -9.64342215  -4.25880406   113.03787   113.03555    92
## 1012         NaN  0.00000000   0.00000000   119.06134   119.05902   101
## 1013         NaN  0.00000000   0.00000000   118.78304   118.78073   121
## 1014         NaN  0.00000000   0.00000000   117.57710   117.57478   116
## 1015         NaN  0.00000000   0.00000000   119.52516   119.52284   127
## 1016         NaN  0.00000000   0.00000000   117.94816   117.94584   133
## 1017         NaN  0.00000000   0.00000000   121.38046   121.37814   128
## 1018         NaN  0.00000000   0.00000000   118.78304   118.78073   123
## 1019         NaN  0.00000000   0.00000000   119.06134   119.05902   122
## 1020 4.185655e-07 -12.85789641 -5.67840520   109.14383   109.14152   113
## 1021         NaN  0.00000000   0.00000000   117.76263   117.76031   128
## 1022 4.185651e-07 -3.21447408  -1.41960133   116.46601   116.46369   139
## 1023         NaN  0.00000000   0.00000000   117.11328   117.11096   141
## 1024 4.185655e-07 -3.85736892  -1.70352156   115.53877   115.53646   121
## 1025         NaN  0.00000000   0.00000000   119.52516   119.52284   123
```

```
## 1026 4.185655e-07 -12.85789641  -5.67840520    108.21619    108.21387    151
## 1027        NaN   0.00000000   0.00000000    117.48434    117.48202    119
## 1028        NaN   0.00000000   0.00000000    118.31922    118.31690    105
## 1029        NaN   0.00000000   0.00000000    119.98898    119.98667    133
## 1030        NaN   0.00000000   0.00000000    119.06134    119.05902    123
## 1031        NaN   0.00000000   0.00000000    119.06134    119.05902    111
## 1032        NaN   0.00000000   0.00000000    119.52516    119.52284    123
## 1033 4.185651e-07  -6.42894815  -2.83920265    114.89109    114.88877    123
## 1034        NaN   0.00000000   0.00000000    118.22645    118.22414    130
## 1035        NaN   0.00000000   0.00000000    119.06134    119.05902    154
## 1036        NaN   0.00000000   0.00000000    119.06134    119.05902    120
## 1037        NaN   0.00000000   0.00000000    123.00384    123.00152     90
## 1038        NaN   0.00000000   0.00000000    118.78304    118.78073    114
## 1039        NaN   0.00000000   0.00000000    120.45281    120.45049    123
## 1040        NaN   0.00000000   0.00000000    119.98898    119.98667    123
## 1041        NaN   0.00000000   0.00000000    118.04092    118.03861    136
## 1042        NaN   0.00000000   0.00000000    119.52516    119.52284    104
## 1043 4.185655e-07 -12.85789641  -5.67840520    109.32936    109.32705    128
## 1044        NaN   0.00000000   0.00000000    120.45281    120.45049    128
## 1045        NaN   0.00000000   0.00000000    117.94816    117.94584    160
## 1046        NaN   0.00000000   0.00000000    119.98898    119.98667    111
## 1047        NaN   0.00000000   0.00000000    120.45281    120.45049    141
## 1048        NaN   0.00000000   0.00000000    119.98898    119.98667    122
## 1049        NaN   0.00000000   0.00000000    120.45281    120.45049     98
## 1050 4.185651e-07  -6.42894815  -2.83920265    112.57197    112.56965     96
## 1051        NaN   0.00000000   0.00000000    118.41198    118.40967    127
## 1052        NaN   0.00000000   0.00000000    120.91663    120.91431    119
## 1053        NaN   0.00000000   0.00000000    119.06134    119.05902     43
## 1054        NaN   0.00000000   0.00000000    119.06134    119.05902    100
## 1055        NaN   0.00000000   0.00000000    117.20604    117.20373    139
## 1056        NaN   0.00000000   0.00000000    119.98898    119.98667    128
## 1057        NaN   0.00000000   0.00000000    119.98898    119.98667    115
## 1058        NaN   0.00000000   0.00000000    118.69028    118.68796    121
## 1059        NaN   0.00000000   0.00000000    119.52516    119.52284    134
## 1060        NaN   0.00000000   0.00000000    117.20604    117.20373    120
## 1061 4.185655e-07 -12.85789641  -5.67840520    108.30895    108.30663    104
## 1062        NaN   0.00000000   0.00000000    120.45281    120.45049    170
## 1063        NaN   0.00000000   0.00000000    123.00384    123.00152    132
## 1064        NaN   0.00000000   0.00000000    121.38046    121.37814    126
```

```
## 1065        NaN    0.00000000    0.00000000   120.91663   120.91431   142
## 1066        NaN    0.00000000    0.00000000   119.52516   119.52284   103
## 1067        NaN    0.00000000    0.00000000   119.98898   119.98667   112
## 1068 4.185655e-07  -12.85789641   -5.67840520   111.64848   111.64616   117
## 1069        NaN    0.00000000    0.00000000   118.59751   118.59520   131
## 1070        NaN    0.00000000    0.00000000   120.91663   120.91431   115
## 1071 4.185651e-07   -6.42894815   -2.83920265   114.14897   114.14665   118
## 1072        NaN    0.00000000    0.00000000   119.98898   119.98667   106
## 1073        NaN    0.00000000    0.00000000   120.91663   120.91431   126
## 1074 4.185655e-07  -12.85789641   -5.67840520   109.05107   109.04875   104
## 1075        NaN    0.00000000    0.00000000   118.41198   118.40967   143
## 1076        NaN    0.00000000    0.00000000   119.98898   119.98667   156
## 1077        NaN    0.00000000    0.00000000   120.45281   120.45049   137
## 1078        NaN    0.00000000    0.00000000   117.57710   117.57478   126
## 1079        NaN    0.00000000    0.00000000   119.98898   119.98667   134
## 1080        NaN    0.00000000    0.00000000   120.91663   120.91431    89
## 1081 4.185655e-07  -12.85789641   -5.67840520   110.25701   110.25469    64
## 1082        NaN    0.00000000    0.00000000   123.00384   123.00152   114
## 1083        NaN    0.00000000    0.00000000   123.00384   123.00152   121
## 1084        NaN    0.00000000    0.00000000   119.52516   119.52284   109
## 1085        NaN    0.00000000    0.00000000   119.98898   119.98667    38
## 1086        NaN    0.00000000    0.00000000   119.98898   119.98667   128
## 1087        NaN    0.00000000    0.00000000   120.45281   120.45049   132
## 1088 4.185651e-07   -6.42894815   -2.83920265   114.05620   114.05389   143
## 1089        NaN    0.00000000    0.00000000   119.06134   119.05902   100
## 1090 4.185655e-07   -3.85736892   -1.70352156   118.13619   118.13387   107
## 1091        NaN    0.00000000    0.00000000   119.52516   119.52284   103
## 1092        NaN    0.00000000    0.00000000   120.45281   120.45049   157
## 1093        NaN    0.00000000    0.00000000   118.04092   118.03861   126
## 1094        NaN    0.00000000    0.00000000   118.69028   118.68796   125
## 1095        NaN    0.00000000    0.00000000   117.29881   117.29649   102
## 1096        NaN    0.00000000    0.00000000   118.69028   118.68796    98
## 1097        NaN    0.00000000    0.00000000   118.22645   118.22414    96
## 1098        NaN    0.00000000    0.00000000   119.06134   119.05902   134
## 1099        NaN    0.00000000    0.00000000   123.00384   123.00152    94
## 1100        NaN    0.00000000    0.00000000   119.06134   119.05902    84
## 1101        NaN    0.00000000    0.00000000   118.50475   118.50243   155
## 1102        NaN    0.00000000    0.00000000   119.52516   119.52284   117
## 1103        NaN    0.00000000    0.00000000   120.91663   120.91431   169
```

```
## 1104 4.185655e-07  -1.28578964  -0.56784052  116.37199  116.36967  105
## 1105        NaN   0.00000000   0.00000000  119.06134  119.05902  118
## 1106        NaN   0.00000000   0.00000000  118.78304  118.78073  113
## 1107        NaN   0.00000000   0.00000000  118.13369  118.13137  114
## 1108 4.185655e-07 -12.85789641  -5.67840520  108.58724  108.58493  116
## 1109 4.185651e-07  -6.42894815  -2.83920265  112.75750  112.75518   79
## 1110        NaN   0.00000000   0.00000000  119.52516  119.52284  109
## 1111        NaN   0.00000000   0.00000000  121.38046  121.37814  146
## 1112        NaN   0.00000000   0.00000000  119.06134  119.05902  116
## 1113        NaN   0.00000000   0.00000000  117.85540  117.85308   93
## 1114        NaN   0.00000000   0.00000000  123.00384  123.00152  108
## 1115        NaN   0.00000000   0.00000000  117.66987  117.66755  115
## 1116        NaN   0.00000000   0.00000000  123.00384  123.00152  115
## 1117        NaN   0.00000000   0.00000000  117.39157  117.38925  119
## 1118        NaN   0.00000000   0.00000000  119.52516  119.52284  128
## 1119        NaN   0.00000000   0.00000000  118.78304  118.78073  119
## 1120        NaN   0.00000000   0.00000000  117.57710  117.57478  102
## 1121        NaN   0.00000000   0.00000000  118.50475  118.50243  130
## 1122        NaN   0.00000000   0.00000000  123.00384  123.00152  140
## 1123        NaN   0.00000000   0.00000000  119.06134  119.05902  107
## 1124        NaN   0.00000000   0.00000000  117.20604  117.20373  134
## 1125        NaN   0.00000000   0.00000000  119.06134  119.05902  126
## 1126        NaN   0.00000000   0.00000000  119.98898  119.98667  143
## 1127        NaN   0.00000000   0.00000000  117.85540  117.85308  122
## 1128        NaN   0.00000000   0.00000000  118.50475  118.50243  112
## 1129        NaN   0.00000000   0.00000000  119.98898  119.98667  151
## 1130        NaN   0.00000000   0.00000000  118.59751  118.59520  127
## 1131        NaN   0.00000000   0.00000000  117.57710  117.57478  158
## 1132        NaN   0.00000000   0.00000000  123.00384  123.00152   90
## 1133        NaN   0.00000000   0.00000000  120.45281  120.45049  114
## 1134 4.185651e-07  -2.57157926  -1.13568106  116.74388  116.74157  143
## 1135        NaN   0.00000000   0.00000000  118.78304  118.78073  109
## 1136        NaN   0.00000000   0.00000000  119.98898  119.98667  126
## 1137 4.185655e-07  -3.85736892  -1.70352156  118.13619  118.13387  153
## 1138        NaN   0.00000000   0.00000000  119.98898  119.98667  123
## 1139        NaN   0.00000000   0.00000000  118.69028  118.68796   72
## 1140 4.185651e-07  -6.42894815  -2.83920265  114.42726  114.42494  121
## 1141 4.185651e-07  -1.92868445  -0.85176080  117.67111  117.66880  137
## 1142        NaN   0.00000000   0.00000000  119.98898  119.98667   64
```

```
## 1143          NaN  0.00000000   0.00000000   118.69028   118.68796  119
## 1144          NaN  0.00000000   0.00000000   118.13369   118.13137  137
## 1145          NaN  0.00000000   0.00000000   117.85540   117.85308   98
## 1146          NaN  0.00000000   0.00000000   119.06134   119.05902  126
## 1147          NaN  0.00000000   0.00000000   119.52516   119.52284  142
## 1148          NaN  0.00000000   0.00000000   117.02051   117.01820  122
## 1149          NaN  0.00000000   0.00000000   119.06134   119.05902  112
## 1150          NaN  0.00000000   0.00000000   117.57710   117.57478  142
## 1151          NaN  0.00000000   0.00000000   123.00384   123.00152  108
## 1152          NaN  0.00000000   0.00000000   118.78304   118.78073  128
## 1153          NaN  0.00000000   0.00000000   119.52516   119.52284  124
## 1154          NaN  0.00000000   0.00000000   118.13369   118.13137  104
## 1155          NaN  0.00000000   0.00000000   120.91663   120.91431  118
## 1156          NaN  0.00000000   0.00000000   118.22645   118.22414   96
## 1157          NaN  0.00000000   0.00000000   123.00384   123.00152  106
## 1158          NaN  0.00000000   0.00000000   117.20604   117.20373  114
## 1159          NaN  0.00000000   0.00000000   123.00384   123.00152  142
## 1160          NaN  0.00000000   0.00000000   117.85540   117.85308   74
## 1161          NaN  0.00000000   0.00000000   120.45281   120.45049  146
## 1162          NaN  0.00000000   0.00000000   118.78304   118.78073  128
## 1163          NaN  0.00000000   0.00000000   118.59751   118.59520  115
## 1164          NaN  0.00000000   0.00000000   117.85540   117.85308  139
## 1165          NaN  0.00000000   0.00000000   123.00384   123.00152  143
## 1166          NaN  0.00000000   0.00000000   123.00384   123.00152  125
## 1167 4.185651e-07 -3.21447408  -1.41960133   116.00218   115.99986  120
## 1168 4.185651e-07 -3.21447408  -1.41960133   117.67195   117.66963  120
## 1169          NaN  0.00000000   0.00000000   118.59751   118.59520  135
## 1170          NaN  0.00000000   0.00000000   117.20604   117.20373   91
## 1171          NaN  0.00000000   0.00000000   118.69028   118.68796  117
## 1172          NaN  0.00000000   0.00000000   119.06134   119.05902  119
## 1173 4.185654e-07 -12.85789640 -5.67840521   113.73569   113.73337  128
## 1174          NaN  0.00000000   0.00000000   123.00384   123.00152  135
## 1175 4.185655e-07 -3.85736892  -1.70352156   116.28089   116.27857   91
## 1176          NaN  0.00000000   0.00000000   117.02051   117.01820  108
## 1177          NaN  0.00000000   0.00000000   119.06134   119.05902  110
## 1178          NaN  0.00000000   0.00000000   121.38046   121.37814  136
## 1179          NaN  0.00000000   0.00000000   123.00384   123.00152  126
## 1180          NaN  0.00000000   0.00000000   123.00384   123.00152  115
## 1181          NaN  0.00000000   0.00000000   119.98898   119.98667  136
```

```
## 1182        NaN    0.00000000    0.00000000    123.00384    123.00152    116
## 1183        NaN    0.00000000    0.00000000    117.02051    117.01820    117
## 1184        NaN    0.00000000    0.00000000    123.00384    123.00152    152
## 1185        NaN    0.00000000    0.00000000    120.91663    120.91431    124
## 1186        NaN    0.00000000    0.00000000    118.22645    118.22414    115
## 1187        NaN    0.00000000    0.00000000    119.06134    119.05902    134
## 1188        NaN    0.00000000    0.00000000    123.00384    123.00152    146
## 1189        NaN    0.00000000    0.00000000    118.50475    118.50243    125
## 1190 4.185655e-07 -12.85789641   -5.67840520   108.58724    108.58493     89
## 1191 4.185648e-07  -9.64342215   -4.25880406   111.83193    111.82961    128
## 1192        NaN    0.00000000    0.00000000    118.04092    118.03861    133
## 1193        NaN    0.00000000    0.00000000    117.76263    117.76031    112
## 1194        NaN    0.00000000    0.00000000    120.91663    120.91431    143
## 1195        NaN    0.00000000    0.00000000    119.52516    119.52284    157
## 1196        NaN    0.00000000    0.00000000    118.31922    118.31690     99
## 1197 4.185651e-07  -5.14315852   -2.27136212   113.68431    113.68199     96
## 1198        NaN    0.00000000    0.00000000    118.41198    118.40967    128
## 1199        NaN    0.00000000    0.00000000    119.52516    119.52284    122
## 1200        NaN    0.00000000    0.00000000    123.00384    123.00152    119
## 1201        NaN    0.00000000    0.00000000    118.50475    118.50243    160
## 1202        NaN    0.00000000    0.00000000    120.45281    120.45049    108
## 1203        NaN    0.00000000    0.00000000    123.00384    123.00152    114
## 1204        NaN    0.00000000    0.00000000    120.45281    120.45049    115
## 1205        NaN    0.00000000    0.00000000    117.66987    117.66755    131
## 1206        NaN    0.00000000    0.00000000    119.06134    119.05902    118
## 1207        NaN    0.00000000    0.00000000    121.38046    121.37814    149
## 1208        NaN    0.00000000    0.00000000    119.98898    119.98667    114
## 1209 4.185651e-07  -3.21447408   -1.41960133   115.07453    115.07222    133
## 1210        NaN    0.00000000    0.00000000    119.98898    119.98667    112
## 1211        NaN    0.00000000    0.00000000    118.41198    118.40967    101
## 1212 4.185651e-07  -6.42894815   -2.83920265   112.47920    112.47689     86
## 1213        NaN    0.00000000    0.00000000    123.00384    123.00152    125
## 1214        NaN    0.00000000    0.00000000    120.45281    120.45049    135
## 1215        NaN    0.00000000    0.00000000    118.13369    118.13137    105
## 1216        NaN    0.00000000    0.00000000    118.50475    118.50243    107
## 1217        NaN    0.00000000    0.00000000    121.38046    121.37814     97
## 1218        NaN    0.00000000    0.00000000    117.02051    117.01820    158
## 1219        NaN    0.00000000    0.00000000    118.69028    118.68796    123
## 1220        NaN    0.00000000    0.00000000    119.98898    119.98667    110
```

```
## 1221        NaN   0.00000000    0.00000000   118.22645   118.22414    74
## 1222        NaN   0.00000000    0.00000000   117.20604   117.20373    93
## 1223        NaN   0.00000000    0.00000000   121.38046   121.37814   159
## 1224        NaN   0.00000000    0.00000000   119.98898   119.98667   114
## 1225        NaN   0.00000000    0.00000000   119.06134   119.05902   142
## 1226        NaN   0.00000000    0.00000000   123.00384   123.00152   139
## 1227        NaN   0.00000000    0.00000000   117.85540   117.85308   132
## 1228        NaN   0.00000000    0.00000000   123.00384   123.00152   151
## 1229 4.185648e-07  -9.64342215   -4.25880406   110.81152   110.80920   111
## 1230        NaN   0.00000000    0.00000000   117.85540   117.85308   115
## 1231        NaN   0.00000000    0.00000000   119.06134   119.05902   120
## 1232        NaN   0.00000000    0.00000000   119.06134   119.05902   155
## 1233 4.185648e-07  -7.71473772   -3.40704324   117.44295   117.44063   131
## 1234        NaN   0.00000000    0.00000000   119.06134   119.05902   124
## 1235 4.185651e-07  -6.42894815   -2.83920265   114.42726   114.42494   127
## 1236        NaN   0.00000000    0.00000000   117.94816   117.94584   125
## 1237        NaN   0.00000000    0.00000000   117.20604   117.20373   106
## 1238        NaN   0.00000000    0.00000000   117.85540   117.85308   144
## 1239        NaN   0.00000000    0.00000000   117.39157   117.38925   109
## 1240 4.185651e-07 -29.57316150  -13.06033220    95.70377    95.70145   121
## 1241        NaN   0.00000000    0.00000000   119.98898   119.98667   111
## 1242        NaN   0.00000000    0.00000000   121.38046   121.37814   145
## 1243        NaN   0.00000000    0.00000000   117.48434   117.48202   131
## 1244        NaN   0.00000000    0.00000000   118.59751   118.59520   129
## 1245 4.185655e-07 -12.85789641   -5.67840520   108.68001   108.67769    92
## 1246        NaN   0.00000000    0.00000000   118.13369   118.13137   111
## 1247        NaN   0.00000000    0.00000000   117.85540   117.85308    91
## 1248 4.185651e-07  -3.21447408   -1.41960133   116.74430   116.74198   124
## 1249        NaN   0.00000000    0.00000000   119.98898   119.98667   130
## 1250        NaN   0.00000000    0.00000000   119.06134   119.05902   137
## 1251        NaN   0.00000000    0.00000000   117.76263   117.76031   128
## 1252        NaN   0.00000000    0.00000000   117.11328   117.11096   133
## 1253        NaN   0.00000000    0.00000000   119.98898   119.98667    68
## 1254        NaN   0.00000000    0.00000000   118.41198   118.40967    97
## 1255        NaN   0.00000000    0.00000000   120.45281   120.45049   124
## 1256        NaN   0.00000000    0.00000000   121.38046   121.37814   129
## 1257        NaN   0.00000000    0.00000000   123.00384   123.00152   117
## 1258        NaN   0.00000000    0.00000000   119.52516   119.52284    93
## 1259        NaN   0.00000000    0.00000000   119.52516   119.52284   103
```

```
## 1260           NaN   0.00000000    0.00000000   123.00384   123.00152   134
## 1261           NaN   0.00000000    0.00000000   119.98898   119.98667   101
## 1262           NaN   0.00000000    0.00000000   117.66987   117.66755   137
## 1263           NaN   0.00000000    0.00000000   117.39157   117.38925   153
## 1264 4.185648e-07 -25.71579240  -11.35681081   100.52504   100.52272    96
## 1265           NaN   0.00000000    0.00000000   117.76263   117.76031   103
## 1266           NaN   0.00000000    0.00000000   117.57710   117.57478   112
## 1267           NaN   0.00000000    0.00000000   119.52516   119.52284   108
## 1268           NaN   0.00000000    0.00000000   118.69028   118.68796    97
## 1269           NaN   0.00000000    0.00000000   119.52516   119.52284    99
## 1270           NaN   0.00000000    0.00000000   119.52516   119.52284   130
## 1271           NaN   0.00000000    0.00000000   119.06134   119.05902   148
## 1272           NaN   0.00000000    0.00000000   119.52516   119.52284   119
## 1273           NaN   0.00000000    0.00000000   118.78304   118.78073    89
## 1274           NaN   0.00000000    0.00000000   119.52516   119.52284   128
## 1275           NaN   0.00000000    0.00000000   120.45281   120.45049   130
## 1276 4.185655e-07 -12.85789641   -5.67840520   108.30895   108.30663   120
## 1277           NaN   0.00000000    0.00000000   119.98898   119.98667   146
## 1278           NaN   0.00000000    0.00000000   118.41198   118.40967   102
## 1279           NaN   0.00000000    0.00000000   119.52516   119.52284   132
## 1280 4.185648e-07  -7.71473772   -3.40704324   115.35574   115.35342    90
## 1281           NaN   0.00000000    0.00000000   119.98898   119.98667   112
## 1282           NaN   0.00000000    0.00000000   121.38046   121.37814   119
## 1283           NaN   0.00000000    0.00000000   118.50475   118.50243   145
## 1284           NaN   0.00000000    0.00000000   120.91663   120.91431   125
## 1285           NaN   0.00000000    0.00000000   117.48434   117.48202   127
## 1286           NaN   0.00000000    0.00000000   119.06134   119.05902   134
## 1287           NaN   0.00000000    0.00000000   123.00384   123.00152   139
## 1288 4.185651e-07  -6.42894815   -2.83920265   114.89109   114.88877   106
## 1289           NaN   0.00000000    0.00000000   120.91663   120.91431    69
## 1290           NaN   0.00000000    0.00000000   119.98898   119.98667   114
## 1291 4.185655e-07 -12.85789641   -5.67840520   108.12342   108.12110   111
## 1292 4.185651e-07  -3.21447408   -1.41960133   115.81665   115.81433   123
## 1293           NaN   0.00000000    0.00000000   123.00384   123.00152   172
## 1294           NaN   0.00000000    0.00000000   123.00384   123.00152   128
## 1295           NaN   0.00000000    0.00000000   119.06134   119.05902   138
## 1296           NaN   0.00000000    0.00000000   119.98898   119.98667    77
## 1297           NaN   0.00000000    0.00000000   123.00384   123.00152   137
## 1298           NaN   0.00000000    0.00000000   123.00384   123.00152    93
```

```
## 1299         NaN    0.00000000    0.00000000   117.76263   117.76031   160
## 1300         NaN    0.00000000    0.00000000   121.38046   121.37814   104
## 1301         NaN    0.00000000    0.00000000   117.29881   117.29649   115
## 1302         NaN    0.00000000    0.00000000   119.06134   119.05902   176
## 1303         NaN    0.00000000    0.00000000   123.00384   123.00152    87
## 1304 4.185651e-07 -32.14474076  -14.19601326    96.35478    96.35247    90
## 1305         NaN    0.00000000    0.00000000   123.00384   123.00152   116
## 1306         NaN    0.00000000    0.00000000   117.94816   117.94584   134
## 1307         NaN    0.00000000    0.00000000   123.00384   123.00152    86
## 1308         NaN    0.00000000    0.00000000   118.78304   118.78073   110
## 1309         NaN    0.00000000    0.00000000   119.06134   119.05902    97
## 1310         NaN    0.00000000    0.00000000   118.69028   118.68796   109
## 1311         NaN    0.00000000    0.00000000   118.78304   118.78073   108
## 1312         NaN    0.00000000    0.00000000   119.06134   119.05902   126
## 1313         NaN    0.00000000    0.00000000   118.50475   118.50243   100
## 1314         NaN    0.00000000    0.00000000   123.00384   123.00152   137
## 1315         NaN    0.00000000    0.00000000   123.00384   123.00152   115
## 1316 4.185655e-07 -12.85789641   -5.67840520   109.79319   109.79087   128
## 1317         NaN    0.00000000    0.00000000   119.98898   119.98667   131
## 1318         NaN    0.00000000    0.00000000   120.91663   120.91431   130
## 1319         NaN    0.00000000    0.00000000   117.57710   117.57478   129
## 1320         NaN    0.00000000    0.00000000   119.52516   119.52284   114
## 1321         NaN    0.00000000    0.00000000   118.31922   118.31690   111
## 1322         NaN    0.00000000    0.00000000   119.98898   119.98667   192
## 1323 4.185651e-07  -3.21447408   -1.41960133   120.68680   120.68448    87
## 1324         NaN    0.00000000    0.00000000   118.41198   118.40967    98
## 1325 4.185648e-07  -9.64342215   -4.25880406   112.11022   112.10791   115
## 1326         NaN    0.00000000    0.00000000   119.98898   119.98667   151
## 1327         NaN    0.00000000    0.00000000   117.57710   117.57478    96
## 1328         NaN    0.00000000    0.00000000   118.41198   118.40967    54
## 1329         NaN    0.00000000    0.00000000   119.52516   119.52284   110
## 1330         NaN    0.00000000    0.00000000   118.59751   118.59520   125
## 1331         NaN    0.00000000    0.00000000   120.45281   120.45049   108
## 1332 4.185651e-07  -6.42894815   -2.83920265   114.42726   114.42494   112
## 1333 4.185655e-07  -5.78605338   -2.55528234   113.22090   113.21859   128
## 1334         NaN    0.00000000    0.00000000   118.69028   118.68796   131
## 1335         NaN    0.00000000    0.00000000   119.06134   119.05902    87
## 1336         NaN    0.00000000    0.00000000   120.45281   120.45049   125
## 1337 4.185648e-07  -9.64342215   -4.25880406   110.53322   110.53091   104
```

```
## 1338        NaN   0.00000000    0.00000000    118.50475    118.50243   149
## 1339        NaN   0.00000000    0.00000000    118.59751    118.59520   166
## 1340        NaN   0.00000000    0.00000000    117.57710    117.57478   113
## 1341        NaN   0.00000000    0.00000000    117.57710    117.57478   139
## 1342        NaN   0.00000000    0.00000000    119.98898    119.98667   102
## 1343        NaN   0.00000000    0.00000000    119.06134    119.05902   139
## 1344        NaN   0.00000000    0.00000000    118.41198    118.40967   119
## 1345 4.185651e-07  -6.42894815   -2.83920265    112.94303    112.94071    91
## 1346        NaN   0.00000000    0.00000000    119.52516    119.52284   153
## 1347        NaN   0.00000000    0.00000000    120.91663    120.91431    87
## 1348 4.185648e-07  -9.64342215   -4.25880406    110.90428    110.90197    80
## 1349 4.185655e-07 -12.85789641   -5.67840520    110.72083    110.71852   124
## 1350        NaN   0.00000000    0.00000000    119.06134    119.05902   149
## 1351        NaN   0.00000000    0.00000000    117.39157    117.38925   135
## 1352        NaN   0.00000000    0.00000000    119.52516    119.52284   132
## 1353        NaN   0.00000000    0.00000000    120.45281    120.45049   142
## 1354        NaN   0.00000000    0.00000000    117.76263    117.76031   130
## 1355        NaN   0.00000000    0.00000000    119.52516    119.52284   123
## 1356        NaN   0.00000000    0.00000000    121.38046    121.37814   126
## 1357        NaN   0.00000000    0.00000000    119.98898    119.98667   116
## 1358        NaN   0.00000000    0.00000000    119.52516    119.52284   116
## 1359        NaN   0.00000000    0.00000000    117.57710    117.57478    99
## 1360 4.185651e-07  -1.92868445   -0.85176080    116.74347    116.74115   119
## 1361        NaN   0.00000000    0.00000000    119.98898    119.98667   122
## 1362 4.185651e-07  -6.42894815   -2.83920265    112.85026    112.84794   115
## 1363        NaN   0.00000000    0.00000000    119.06134    119.05902   111
## 1364        NaN   0.00000000    0.00000000    117.94816    117.94584   108
## 1365        NaN   0.00000000    0.00000000    119.98898    119.98667   140
## 1366        NaN   0.00000000    0.00000000    119.98898    119.98667   119
## 1367        NaN   0.00000000    0.00000000    119.52516    119.52284   134
## 1368 4.185648e-07  -9.64342215   -4.25880406    111.18258    111.18026   130
## 1369        NaN   0.00000000    0.00000000    117.76263    117.76031   107
## 1370        NaN   0.00000000    0.00000000    120.91663    120.91431   147
## 1371        NaN   0.00000000    0.00000000    117.39157    117.38925   109
## 1372        NaN   0.00000000    0.00000000    120.45281    120.45049   114
## 1373        NaN   0.00000000    0.00000000    118.69028    118.68796   118
## 1374        NaN   0.00000000    0.00000000    120.91663    120.91431   110
## 1375        NaN   0.00000000    0.00000000    120.91663    120.91431   127
## 1376 4.185655e-07 -12.85789641   -5.67840520    109.32936    109.32705   102
```

```
## 1377          NaN  0.00000000  0.00000000  121.38046  121.37814  158
## 1378          NaN  0.00000000  0.00000000  119.06134  119.05902  113
## 1379          NaN  0.00000000  0.00000000  118.41198  118.40967  121
## 1380          NaN  0.00000000  0.00000000  117.11328  117.11096  130
## 1381          NaN  0.00000000  0.00000000  117.48434  117.48202   85
## 1382          NaN  0.00000000  0.00000000  118.13369  118.13137   87
## 1383          NaN  0.00000000  0.00000000  119.06134  119.05902  135
## 1384          NaN  0.00000000  0.00000000  119.52516  119.52284  110
## 1385          NaN  0.00000000  0.00000000  117.48434  117.48202  146
## 1386          NaN  0.00000000  0.00000000  123.00384  123.00152  135
## 1387          NaN  0.00000000  0.00000000  119.52516  119.52284  118
## 1388          NaN  0.00000000  0.00000000  120.45281  120.45049  111
## 1389 1.481951e-03  0.48002715  2.02462079  118.22645  118.22705  109
## 1390 1.481951e-03  0.26668174  1.12478934  117.66987  117.67046  133
## 1391 1.481951e-03  0.01777878  0.07498596  117.02051  117.02111  129
## 1392 1.481950e-03  0.55114230  2.32456459  118.41198  118.41258  126
## 1393 1.481951e-03  0.97783308  4.12422753  119.52516  119.52576  134
## 1394 1.481951e-03  0.26668174  1.12478934  117.66987  117.67046  118
## 1395 1.481951e-03  2.31124183  9.74817416  123.00384  123.00444  140
## 1396 1.481951e-03  0.97783308  4.12422753  119.52516  119.52576   86
## 1397 1.481951e-03  0.97783308  4.12422753  119.52516  119.52576  121
## 1398 1.481951e-03  1.33340875  5.62394663  120.45281  120.45341  129
## 1399 1.481951e-03  0.97783308  4.12422753  119.52516  119.52576  101
## 1400 1.481951e-03  0.97783308  4.12422753  119.52516  119.52576  133
## 1401 1.481951e-03  0.23112417  0.97481742  117.57710  117.57770   61
## 1402 1.481951e-03  0.37335445  1.57470506  117.94816  117.94876  104
## 1403 1.481951e-03  0.44446958  1.87464888  118.13369  118.13429   92
## 1404 1.481951e-03  0.62225739  2.62450845  118.59751  118.59811  122
## 1405 1.481951e-03  1.51119653  6.37380623  120.91663  120.91723  159
## 1406 1.481951e-03  0.16000905  0.67487360  117.39157  117.39217  154
## 1407 1.481951e-03  1.15562091  4.87408708  119.98898  119.98958  120
## 1408 1.481951e-03  0.23112417  0.97481742  117.57710  117.57770  138
## 1409 1.481951e-03  1.68898441  7.12366573  121.38046  121.38105  127
## 1410 1.481950e-03  0.80004528  3.37436795  119.06134  119.06194  107
## 1411 1.481950e-03  0.55114230  2.32456459  115.63154  115.63214  129
## 1412 1.481951e-03  0.48002715  2.02462079  118.22645  118.22705  129
## 1413 1.481951e-03  1.33340875  5.62394663  120.45281  120.45341  156
## 1414 1.481950e-03  0.08889392  0.37492977  117.20604  117.20664  124
## 1415 1.481950e-03  0.08889392  0.37492977  117.20604  117.20664   79
```

```
## 1416 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   112
## 1417 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   124
## 1418 1.481951e-03   0.01777878   0.07498596   117.02051   117.02111   134
## 1419 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   114
## 1420 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   124
## 1421 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   122
## 1422 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   104
## 1423 1.481951e-03   0.26668174   1.12478934   117.66987   117.67046   105
## 1424 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   113
## 1425 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   131
## 1426 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   107
## 1427 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   115
## 1428 1.481951e-03   0.48002715   2.02462079   118.22645   118.22705    97
## 1429 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   106
## 1430 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   132
## 1431 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   108
## 1432 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   114
## 1433 1.481951e-03   0.65781496   2.77448036   118.69028   118.69088   134
## 1434 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   134
## 1435 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   141
## 1436 1.481951e-03   0.40891202   1.72467697   118.04092   118.04152    84
## 1437 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958    88
## 1438 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   130
## 1439 1.481951e-03   0.62225739   2.62450845   118.59751   118.59811   132
## 1440 1.481950e-03   0.58669987   2.47453650   118.50475   118.50535   133
## 1441 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   108
## 1442 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723    92
## 1443 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   127
## 1444 1.481951e-03   0.40891202   1.72467697   118.04092   118.04152   131
## 1445 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   104
## 1446 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   122
## 1447 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576    97
## 1448 1.481951e-03   0.62225739   2.62450845   118.59751   118.59811   122
## 1449 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   118
## 1450 1.481951e-03   0.12445148   0.52490169   117.29881   117.29941   140
## 1451 1.481951e-03   0.01777878   0.07498596   117.02051   117.02111   131
## 1452 1.481951e-03   0.01777878   0.07498596   112.38644   112.38704   104
## 1453 1.481951e-03   0.12445148   0.52490169   117.29881   117.29941   114
## 1454 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   141
```

```
## 1455 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    107
## 1456 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    152
## 1457 1.481951e-03    0.26668174    1.12478934    108.40172    108.40231    119
## 1458 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    135
## 1459 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    138
## 1460 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    108
## 1461 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194     97
## 1462 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    131
## 1463 1.481951e-03    0.65781496    2.77448036    100.15398    100.15457    115
## 1464 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    123
## 1465 1.481951e-03    0.01777878    0.07498596    117.02051    117.02111    115
## 1466 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    132
## 1467 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    133
## 1468 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    125
## 1469 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    117
## 1470 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535    116
## 1471 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    152
## 1472 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    101
## 1473 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    107
## 1474 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    136
## 1475 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    120
## 1476 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    127
## 1477 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    123
## 1478 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046    135
## 1479 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958     86
## 1480 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     97
## 1481 1.481951e-03    0.26668174    1.12478934    113.03579    113.03639     93
## 1482 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576     96
## 1483 1.481951e-03    0.48002715    2.02462079    113.59238    113.59298    109
## 1484 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    117
## 1485 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    115
## 1486 1.481950e-03    0.80004528    3.37436795    109.79319    109.79378    121
## 1487 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    114
## 1488 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    118
## 1489 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    134
## 1490 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    156
## 1491 1.481951e-03    0.40891202    1.72467697    116.65070    116.65130    139
## 1492 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    136
## 1493 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046    115
```

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## 1494 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    23
## 1495 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    135
## 1496 1.481951e-03    0.97783308    4.12422753    114.89109    114.89168    106
## 1497 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046    116
## 1498 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    147
## 1499 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    115
## 1500 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429    85
## 1501 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    102
## 1502 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    122
## 1503 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    109
## 1504 1.481951e-03    1.33340875    5.62394663    111.18466    111.18526    97
## 1505 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    136
## 1506 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    131
## 1507 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    116
## 1508 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    86
## 1509 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    155
## 1510 1.481951e-03    0.23112417    0.97481742    99.04080     99.04140     122
## 1511 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    105
## 1512 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    131
## 1513 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046    126
## 1514 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    127
## 1515 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    125
## 1516 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    98
## 1517 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    144
## 1518 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    91
## 1519 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    106
## 1520 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    128
## 1521 1.481950e-03    0.08889392    0.37492977    117.20604    117.20664    144
## 1522 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    91
## 1523 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    122
## 1524 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    139
## 1525 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    126
## 1526 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    107
## 1527 1.481951e-03    0.12445148    0.52490169    117.29881    117.29941    79
## 1528 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    102
## 1529 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    126
## 1530 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    120
## 1531 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    101
## 1532 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    131
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## 1533 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    128
## 1534 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705    142
## 1535 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    144
## 1536 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723     58
## 1537 1.481951e-03    0.19556662    0.82484551    117.48434    117.48493     88
## 1538 1.481951e-03    0.19556662    0.82484551    117.48434    117.48493    123
## 1539 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    146
## 1540 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    135
## 1541 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    125
## 1542 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    125
## 1543 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     99
## 1544 1.481951e-03    1.15562091    4.87408708    118.13535    118.13595    120
## 1545 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    114
## 1546 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341     88
## 1547 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    106
## 1548 1.481951e-03    0.05333635    0.22495787    117.11328    117.11388    123
## 1549 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    135
## 1550 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    116
## 1551 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    128
## 1552 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    111
## 1553 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    123
## 1554 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    115
## 1555 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    167
## 1556 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341     82
## 1557 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    121
## 1558 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    114
## 1559 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    116
## 1560 1.481951e-03    0.30223930    1.27476125    115.44559    115.44619    141
## 1561 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    141
## 1562 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    120
## 1563 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429    110
## 1564 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    120
## 1565 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    125
## 1566 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     82
## 1567 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    141
## 1568 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    144
## 1569 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705    102
## 1570 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    121
## 1571 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576     80
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## 1572 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    106
## 1573 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    116
## 1574 1.481951e-03    1.15562091    4.87408708    115.35491    115.35551    116
## 1575 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    123
## 1576 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    132
## 1577 1.481951e-03    1.68898441    7.12366573    112.11230    112.11290    118
## 1578 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    131
## 1579 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    152
## 1580 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    120
## 1581 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    145
## 1582 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    124
## 1583 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    142
## 1584 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    117
## 1585 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    100
## 1586 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    120
## 1587 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    145
## 1588 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    123
## 1589 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    166
## 1590 1.481951e-03    1.15562091    4.87408708    116.28172    116.28232    103
## 1591 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    133
## 1592 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429    112
## 1593 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    119
## 1594 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    123
## 1595 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046    107
## 1596 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    145
## 1597 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    133
## 1598 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    146
## 1599 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    134
## 1600 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    140
## 1601 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364     95
## 1602 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    126
## 1603 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    134
## 1604 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429     64
## 1605 1.481951e-03    0.97783308    4.12422753    117.67153    117.67213    119
## 1606 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    140
## 1607 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    120
## 1608 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    103
## 1609 1.481951e-03    1.15562091    4.87408708    110.72083    110.72143     68
## 1610 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723     97
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## 1611 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    120
## 1612 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    121
## 1613 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599    130
## 1614 1.481950e-03    0.55114230    2.32456459    113.77791    113.77851    115
## 1615 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    112
## 1616 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    120
## 1617 1.481950e-03    0.80004528    3.37436795    113.50045    113.50104    103
## 1618 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    100
## 1619 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    117
## 1620 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    126
## 1621 1.481951e-03    0.19556662    0.82484551    117.48434    117.48493    142
## 1622 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    120
## 1623 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705    111
## 1624 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    152
## 1625 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    124
## 1626 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    146
## 1627 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    102
## 1628 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    129
## 1629 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    125
## 1630 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599    126
## 1631 1.481951e-03    0.01777878    0.07498596    117.02051    117.02111    101
## 1632 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    113
## 1633 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    136
## 1634 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    101
## 1635 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    106
## 1636 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    100
## 1637 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    130
## 1638 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    136
## 1639 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    100
## 1640 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    122
## 1641 1.481951e-03    0.05333635    0.22495787    117.11328    117.11388     90
## 1642 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     94
## 1643 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    108
## 1644 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    107
## 1645 1.481951e-03    0.62225739    2.62450845    109.32936    109.32996    119
## 1646 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    106
## 1647 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705    113
## 1648 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    132
## 1649 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088     99
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## 1650 1.481951e-03    0.48002715    2.02462079    113.59238    113.59298    110
## 1651 1.481951e-03    1.15562091    4.87408708    115.35491    115.35551     76
## 1652 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    123
## 1653 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    123
## 1654 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    129
## 1655 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705     95
## 1656 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535    118
## 1657 1.481951e-03    0.23112417    0.97481742    108.30895    108.30955    115
## 1658 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    133
## 1659 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    139
## 1660 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    124
## 1661 1.481951e-03    0.44446958    1.87464888    108.86554    108.86614     60
## 1662 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364     87
## 1663 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    130
## 1664 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    110
## 1665 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258     73
## 1666 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    126
## 1667 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    125
## 1668 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    166
## 1669 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    122
## 1670 1.481951e-03    1.15562091    4.87408708    118.13535    118.13595    120
## 1671 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    143
## 1672 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    122
## 1673 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    106
## 1674 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    126
## 1675 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    156
## 1676 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    129
## 1677 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    120
## 1678 1.481951e-03    1.15562091    4.87408708    119.52558    119.52618    113
## 1679 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     81
## 1680 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341     83
## 1681 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    129
## 1682 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    133
## 1683 1.481951e-03    0.65781496    2.77448036    109.42213    109.42273    112
## 1684 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    119
## 1685 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    139
## 1686 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    111
## 1687 1.481951e-03    0.97783308    4.12422753    100.98886    100.98946     81
## 1688 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    127
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## 1689 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    119
## 1690 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    107
## 1691 1.481951e-03    0.12445148    0.52490169    108.03066    108.03125     98
## 1692 1.481951e-03    0.65781496    2.77448036    114.05620    114.05680    113
## 1693 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    104
## 1694 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    108
## 1695 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    144
## 1696 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    110
## 1697 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    138
## 1698 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    107
## 1699 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    128
## 1700 1.481951e-03    0.51558472    2.17459270    113.68514    113.68574    144
## 1701 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    136
## 1702 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705    110
## 1703 1.481951e-03    0.16000905    0.67487360    108.12342    108.12402    105
## 1704 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    124
## 1705 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    117
## 1706 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    145
## 1707 1.481951e-03    0.40891202    1.72467697    118.04092    118.04152     96
## 1708 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    140
## 1709 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    101
## 1710 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    148
## 1711 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    135
## 1712 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    120
## 1713 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    130
## 1714 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    134
## 1715 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    128
## 1716 1.481951e-03    0.01777878    0.07498596    110.06940    110.07000    111
## 1717 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    128
## 1718 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    134
## 1719 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    141
## 1720 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    115
## 1721 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576     98
## 1722 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    118
## 1723 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    130
## 1724 1.481951e-03    0.16000905    0.67487360    117.39157    117.39217    136
## 1725 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    129
## 1726 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105     93
## 1727 1.481951e-03    0.44446958    1.87464888    108.86554    108.86614     91
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## 1728 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    110
## 1729 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599    112
## 1730 1.481951e-03    1.33340875    5.62394663    111.18466    111.18526    112
## 1731 1.481951e-03    0.97783308    4.12422753    113.96427    113.96487     98
## 1732 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    147
## 1733 1.481951e-03    0.26668174    1.12478934    113.96261    113.96320     92
## 1734 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     98
## 1735 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105     98
## 1736 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    137
## 1737 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    113
## 1738 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    137
## 1739 1.481951e-03    1.33340875    5.62394663    113.50170    113.50229     71
## 1740 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    129
## 1741 1.481950e-03    0.08889392    0.37492977    112.57197    112.57257    149
## 1742 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046    124
## 1743 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    138
## 1744 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    128
## 1745 1.481951e-03    1.15562091    4.87408708    115.35491    115.35551    122
## 1746 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    118
## 1747 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    128
## 1748 1.481950e-03    0.33779689    1.42473313    108.58724    108.58784    142
## 1749 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    127
## 1750 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    112
## 1751 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    113
## 1752 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    112
## 1753 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341     82
## 1754 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    141
## 1755 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    107
## 1756 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    117
## 1757 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    127
## 1758 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046    133
## 1759 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    118
## 1760 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    144
## 1761 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599    109
## 1762 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     79
## 1763 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    124
## 1764 1.481951e-03    0.19556662    0.82484551    112.85026    112.85086    130
## 1765 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    271
## 1766 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    160
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## 1767 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   127
## 1768 1.481951e-03   0.26668174   1.12478934   117.66987   117.67046   108
## 1769 1.481951e-03   0.48002715   2.02462079   118.22645   118.22705    90
## 1770 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   140
## 1771 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   126
## 1772 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   110
## 1773 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   127
## 1774 1.481951e-03   0.19556662   0.82484551   117.48434   117.48493   101
## 1775 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105    92
## 1776 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   121
## 1777 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   102
## 1778 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   125
## 1779 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   141
## 1780 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   121
## 1781 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   127
## 1782 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   119
## 1783 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   106
## 1784 1.481951e-03   0.62225739   2.62450845   118.59751   118.59811   105
## 1785 1.481951e-03   0.65781496   2.77448036   118.69028   118.69088   104
## 1786 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   131
## 1787 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341    96
## 1788 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   141
## 1789 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958    93
## 1790 1.481950e-03   0.08889392   0.37492977   117.20604   117.20664   114
## 1791 1.481951e-03   0.65781496   2.77448036   118.69028   118.69088   112
## 1792 1.481951e-03   0.16000905   0.67487360   117.39157   117.39217   138
## 1793 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   136
## 1794 1.481951e-03   0.16000905   0.67487360   108.12342   108.12402   113
## 1795 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   105
## 1796 1.481951e-03   0.69337252   2.92445227   118.78304   118.78364   120
## 1797 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576    35
## 1798 1.481951e-03   0.69337252   2.92445227   118.78304   118.78364   149
## 1799 1.481951e-03   0.65781496   2.77448036   118.69028   118.69088   122
## 1800 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   146
## 1801 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   161
## 1802 1.481951e-03   0.05333635   0.22495787   107.84513   107.84573   142
## 1803 1.481951e-03   0.16000905   0.67487360   117.39157   117.39217   119
## 1804 1.481951e-03   0.12445148   0.52490169   115.44518   115.44578    83
## 1805 1.481951e-03   0.12445148   0.52490169   117.29881   117.29941   136
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## 1806 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   116
## 1807 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341    93
## 1808 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   110
## 1809 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   124
## 1810 1.481950e-03   0.55114230   2.32456459   118.41198   118.41258   123
## 1811 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   129
## 1812 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   106
## 1813 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   130
## 1814 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   111
## 1815 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   115
## 1816 1.481951e-03   0.16000905   0.67487360   117.39157   117.39217   110
## 1817 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   117
## 1818 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   113
## 1819 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   114
## 1820 1.481951e-03   0.69337252   2.92445227   118.78304   118.78364   146
## 1821 1.481951e-03   0.16000905   0.67487360   108.12342   108.12402    98
## 1822 1.481951e-03   0.40891202   1.72467697   113.40685   113.40745   143
## 1823 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   116
## 1824 1.481950e-03   1.33340879   5.62394658   106.55058   106.55118   116
## 1825 1.481951e-03   0.23112417   0.97481742   117.57710   117.57770    75
## 1826 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   139
## 1827 1.481951e-03   0.65781496   2.77448036   118.69028   118.69088   120
## 1828 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   146
## 1829 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   145
## 1830 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   136
## 1831 1.481950e-03   0.58669987   2.47453650   118.50475   118.50535   120
## 1832 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   106
## 1833 1.481951e-03   1.33340875   5.62394663   113.50170   113.50229   109
## 1834 1.481951e-03   0.48002715   2.02462079   118.22645   118.22705    97
## 1835 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194    30
## 1836 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   122
## 1837 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   130
## 1838 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   115
## 1839 1.481950e-03   0.58669987   2.47453650   118.50475   118.50535   116
## 1840 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   134
## 1841 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   127
## 1842 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   101
## 1843 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   145
## 1844 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   128
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## 1845 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    130
## 1846 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535    138
## 1847 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    133
## 1848 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    106
## 1849 1.481951e-03    0.12445148    0.52490169    117.29881    117.29941    135
## 1850 1.481951e-03    0.97783308    4.12422753    112.57405    112.57465    104
## 1851 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    107
## 1852 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811     98
## 1853 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    123
## 1854 1.481951e-03    0.01777878    0.07498596    117.02051    117.02111     96
## 1855 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    119
## 1856 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    134
## 1857 1.481951e-03    0.01777878    0.07498596    117.02051    117.02111     83
## 1858 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    161
## 1859 1.481951e-03    0.26668174    1.12478934    115.35283    115.35343    109
## 1860 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    113
## 1861 1.481951e-03    0.16000905    0.67487360    117.39157    117.39217     98
## 1862 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    138
## 1863 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    120
## 1864 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    112
## 1865 1.481951e-03    0.40891202    1.72467697    118.04092    118.04152    104
## 1866 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    103
## 1867 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    156
## 1868 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    119
## 1869 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    134
## 1870 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    149
## 1871 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    106
## 1872 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    112
## 1873 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    139
## 1874 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    137
## 1875 1.481951e-03    0.51558472    2.17459270    109.05107    109.05167     90
## 1876 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    137
## 1877 1.481950e-03    0.55114230    2.32456459    109.14383    109.14443    140
## 1878 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    126
## 1879 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    112
## 1880 1.481950e-03    0.08889392    0.37492977    117.20604    117.20664     60
## 1881 1.481951e-03    0.19556662    0.82484551    117.48434    117.48493    109
## 1882 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    129
## 1883 1.481951e-03    0.12445148    0.52490169    114.98177    114.98237    104
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## 1884 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723     71
## 1885 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770     86
## 1886 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    124
## 1887 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    112
## 1888 1.481951e-03    0.12445148    0.52490169    117.29881    117.29941     79
## 1889 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576     95
## 1890 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    100
## 1891 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    100
## 1892 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    105
## 1893 1.481951e-03    0.44446958    1.87464888    108.86554    108.86614    107
## 1894 1.481951e-03    0.01777878    0.07498596    117.02051    117.02111    141
## 1895 1.481951e-03    0.05333635    0.22495787    117.11328    117.11388    142
## 1896 1.481950e-03    1.33340879    5.62394658    118.13577    118.13637     99
## 1897 1.481951e-03    0.65781496    2.77448036    116.37324    116.37384    112
## 1898 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    107
## 1899 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    147
## 1900 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     94
## 1901 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    148
## 1902 1.481951e-03    0.40891202    1.72467697    104.13870    104.13930     91
## 1903 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    131
## 1904 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    102
## 1905 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    161
## 1906 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    120
## 1907 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    105
## 1908 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    112
## 1909 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    130
## 1910 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    136
## 1911 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    110
## 1912 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    124
## 1913 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    124
## 1914 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    134
## 1915 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    136
## 1916 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    120
## 1917 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    108
## 1918 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    122
## 1919 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    137
## 1920 1.481951e-03    2.31124175    9.74817424    118.36976    118.37036    119
## 1921 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    144
## 1922 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    128
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## 1923 1.481951e-03     0.48002715    2.02462079    118.22645    118.22705    104
## 1924 1.481951e-03     1.15562091    4.87408708    119.98898    119.98958    118
## 1925 1.481951e-03     2.31124183    9.74817416    123.00384    123.00444     93
## 1926 1.481951e-03     1.51119653    6.37380623    118.13619    118.13678    138
## 1927 1.481951e-03     1.15562091    4.87408708    119.98898    119.98958    135
## 1928 1.481951e-03     1.51119653    6.37380623    120.91663    120.91723    128
## 1929 1.481951e-03     1.33340875    5.62394663    120.45281    120.45341    118
## 1930 1.481950e-03     0.33779689    1.42473313    117.85540    117.85599    114
## 1931 1.481951e-03     1.33340875    5.62394663    120.45281    120.45341    120
## 1932 1.481951e-03     2.31124183    9.74817416    123.00384    123.00444    113
## 1933 1.481951e-03     1.51119653    6.37380623    120.91663    120.91723    110
## 1934 1.481951e-03     1.33340875    5.62394663    120.45281    120.45341    106
## 1935 1.481950e-03     0.33779689    1.42473313    108.58724    108.58784    125
## 1936 1.481951e-03     0.69337252    2.92445227    118.78304    118.78364    107
## 1937 1.481951e-03     0.69337252    2.92445227    118.78304    118.78364    130
## 1938 1.481951e-03     1.68898441    7.12366573    121.38046    121.38105    116
## 1939 1.481951e-03     1.51119653    6.37380623    118.59959    118.60019    102
## 1940 1.481951e-03     0.97783308    4.12422753    119.52516    119.52576    112
## 1941 1.481951e-03     2.31124183    9.74817416    113.73569    113.73629    124
## 1942 1.481951e-03     1.15562091    4.87408708    119.98898    119.98958    118
## 1943 1.481951e-03     1.68898441    7.12366573    121.38046    121.38105    125
## 1944 1.481951e-03     2.31124183    9.74817416    123.00384    123.00444    103
## 1945 1.481951e-03     0.23112417    0.97481742    117.57710    117.57770    115
## 1946 1.481951e-03     1.51119653    6.37380623    120.91663    120.91723    136
## 1947 1.481951e-03     0.69337252    2.92445227    114.14897    114.14957    120
## 1948 1.481951e-03     2.31124175    9.74817424    122.07702    122.07762    139
## 1949 1.481951e-03     0.97783308    4.12422753    119.52516    119.52576    137
## 1950 1.481950e-03     1.33340879    5.62394658    118.13577    118.13637    120
## 1951 1.481951e-03     0.97783308    4.12422753    119.52516    119.52576    113
## 1952 1.481950e-03     0.80004528    3.37436795    119.06134    119.06194    102
## 1953 1.481951e-03     0.97783308    4.12422753    119.52516    119.52576    132
## 1954 1.481951e-03     1.33340875    5.62394663    119.98940    119.99000    141
## 1955 1.481950e-03     0.80004528    3.37436795    119.06134    119.06194    119
## 1956 1.481951e-03     0.97783308    4.12422753    110.25701    110.25761    103
## 1957 1.481951e-03     1.15562091    4.87408708    119.98898    119.98958    117
## 1958 1.481951e-03     1.15562091    4.87408708    119.98898    119.98958    113
## 1959 1.481951e-03     1.33340875    5.62394663    120.45281    120.45341    136
## 1960 1.481951e-03     1.33340875    5.62394663    120.45281    120.45341    128
## 1961 1.481951e-03     0.69337252    2.92445227    118.78304    118.78364    110
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## 1962 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    110
## 1963 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    123
## 1964 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    150
## 1965 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    117
## 1966 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    142
## 1967 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    111
## 1968 1.481950e-03    0.58669987    2.47453650    113.87067    113.87127    101
## 1969 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    124
## 1970 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    120
## 1971 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    123
## 1972 1.481951e-03    0.48002715    2.02462079    113.59238    113.59298     94
## 1973 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    110
## 1974 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341     87
## 1975 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    109
## 1976 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    112
## 1977 1.481951e-03    0.23112417    0.97481742    108.30895    108.30955    108
## 1978 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    139
## 1979 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    104
## 1980 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    121
## 1981 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    110
## 1982 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    155
## 1983 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    147
## 1984 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    117
## 1985 1.481951e-03    0.05333635    0.22495787    117.11328    117.11388    113
## 1986 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    136
## 1987 1.481951e-03    0.05333635    0.22495787    117.11328    117.11388    105
## 1988 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    129
## 1989 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    114
## 1990 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    109
## 1991 1.481951e-03    0.01777878    0.07498596    117.02051    117.02111    108
## 1992 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    142
## 1993 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     99
## 1994 1.481951e-03    0.40891202    1.72467697    108.77277    108.77337     79
## 1995 1.481951e-03    0.19556662    0.82484551    108.21619    108.21678    102
## 1996 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     74
## 1997 1.481950e-03    0.08889392    0.37492977    115.81582    115.81642    109
## 1998 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    142
## 1999 1.481951e-03    1.15562091    4.87408708    115.35491    115.35551     98
## 2000 1.481950e-03    0.08889392    0.37492977    117.20604    117.20664    128
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## 2001 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    107
## 2002 1.481951e-03    0.19556662    0.82484551    117.48434    117.48493     97
## 2003 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    125
## 2004 1.481951e-03    0.40891202    1.72467697    108.77277    108.77337     75
## 2005 1.481950e-03    0.80004528    3.37436795    100.52504    100.52563    136
## 2006 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    106
## 2007 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705    104
## 2008 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576     72
## 2009 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    112
## 2010 1.481951e-03    1.15562091    4.87408708    110.72083    110.72143    120
## 2011 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    103
## 2012 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    122
## 2013 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    136
## 2014 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    123
## 2015 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    138
## 2016 1.481951e-03    0.19556662    0.82484551    113.77708    113.77767     50
## 2017 1.481950e-03    0.80004528    3.37436795    109.79319    109.79378     75
## 2018 1.481951e-03    0.19556662    0.82484551    117.48434    117.48493     93
## 2019 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    119
## 2020 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046    117
## 2021 1.481951e-03    0.16000905    0.67487360    112.75750    112.75809    102
## 2022 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    112
## 2023 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    106
## 2024 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    108
## 2025 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    112
## 2026 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    145
## 2027 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    134
## 2028 1.481951e-03    0.12445148    0.52490169    117.29881    117.29941    117
## 2029 1.481951e-03    1.15562091    4.87408708    116.74513    116.74573    114
## 2030 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599     52
## 2031 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    125
## 2032 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    127
## 2033 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599    132
## 2034 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    100
## 2035 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341     80
## 2036 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    124
## 2037 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    123
## 2038 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    121
## 2039 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    136
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## 2040 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    152
## 2041 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    132
## 2042 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    143
## 2043 1.481950e-03    0.80004528    3.37436795    115.35408    115.35468    114
## 2044 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     88
## 2045 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341     81
## 2046 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    115
## 2047 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    150
## 2048 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    141
## 2049 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429    125
## 2050 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    135
## 2051 1.481951e-03    0.23112417    0.97481742    108.30895    108.30955    120
## 2052 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723     83
## 2053 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    143
## 2054 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    153
## 2055 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    150
## 2056 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    152
## 2057 1.481951e-03    0.97783308    4.12422753    114.89109    114.89168    148
## 2058 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    123
## 2059 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    117
## 2060 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    128
## 2061 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     92
## 2062 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    115
## 2063 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    105
## 2064 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    141
## 2065 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    104
## 2066 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    156
## 2067 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    131
## 2068 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    117
## 2069 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    141
## 2070 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    138
## 2071 1.481951e-03    0.16000905    0.67487360    117.39157    117.39217    136
## 2072 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    149
## 2073 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    144
## 2074 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    123
## 2075 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    114
## 2076 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    100
## 2077 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    127
## 2078 1.481951e-03    0.62225739    2.62450845    109.32936    109.32996     92
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## 2079 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    138
## 2080 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    139
## 2081 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046    124
## 2082 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    132
## 2083 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    151
## 2084 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    126
## 2085 1.481951e-03    1.15562091    4.87408708    117.67195    117.67255     95
## 2086 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    115
## 2087 1.481951e-03    0.16000905    0.67487360    117.39157    117.39217    109
## 2088 1.481950e-03    0.08889392    0.37492977    117.20604    117.20664     86
## 2089 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    128
## 2090 1.481950e-03    0.80004528    3.37436795    114.42726    114.42786     94
## 2091 1.481951e-03    0.05333635    0.22495787    117.11328    117.11388    144
## 2092 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194     92
## 2093 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    117
## 2094 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    130
## 2095 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723     82
## 2096 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429    121
## 2097 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105     98
## 2098 1.481951e-03    1.15562091    4.87408708    110.72083    110.72143    137
## 2099 1.481951e-03    1.33340875    5.62394663    113.50170    113.50229    114
## 2100 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    121
## 2101 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    124
## 2102 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    119
## 2103 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    151
## 2104 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    144
## 2105 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    124
## 2106 1.481951e-03    1.15562091    4.87408708    116.74513    116.74573    100
## 2107 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    160
## 2108 1.481951e-03    0.12445148    0.52490169    117.29881    117.29941    109
## 2109 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    138
## 2110 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    122
## 2111 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    109
## 2112 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    139
## 2113 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599    125
## 2114 1.481950e-03    0.80004528    3.37436795    112.11022    112.11082    118
## 2115 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    114
## 2116 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    152
## 2117 1.481951e-03    1.33340875    5.62394663    119.98940    119.99000    114
```

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## 2118 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    119
## 2119 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    149
## 2120 1.481951e-03    1.51119653    6.37380623    113.96552    113.96612    126
## 2121 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    114
## 2122 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    126
## 2123 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    115
## 2124 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    123
## 2125 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    160
## 2126 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876     58
## 2127 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    108
## 2128 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    113
## 2129 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    140
## 2130 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    118
## 2131 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    111
## 2132 1.481950e-03    0.58669987    2.47453650    116.18771    116.18831     88
## 2133 1.481951e-03    2.31124175    9.74817424    118.36976    118.37036    133
## 2134 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    106
## 2135 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429    137
## 2136 1.481951e-03    0.40891202    1.72467697    118.04092    118.04152    129
## 2137 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    132
## 2138 1.481951e-03    2.31124175    9.74817424    117.44295    117.44355    112
## 2139 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    122
## 2140 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     76
## 2141 1.481951e-03    2.31124175    9.74817424    118.36976    118.37036    122
## 2142 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    159
## 2143 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    116
## 2144 1.481950e-03    0.80004528    3.37436795    109.79319    109.79378    104
## 2145 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    116
## 2146 1.481951e-03    1.68898441    7.12366573    116.74638    116.74698    115
## 2147 1.481951e-03    0.97783308    4.12422753    114.89109    114.89168    159
## 2148 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    145
## 2149 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    121
## 2150 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    112
## 2151 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    107
## 2152 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    133
## 2153 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    136
## 2154 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    148
## 2155 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    133
## 2156 1.481950e-03    1.33340879    5.62394658    118.59918    118.59978    108
```

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## 2157 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    91
## 2158 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    94
## 2159 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576   123
## 2160 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444   129
## 2161 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576   108
## 2162 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194   144
## 2163 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194   132
## 2164 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705   130
## 2165 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194   105
## 2166 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    90
## 2167 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429   154
## 2168 1.481951e-03    0.23112417    0.97481742    115.72347    115.72407   103
## 2169 1.481950e-03    0.80004528    3.37436795    112.11022    112.11082    87
## 2170 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723   133
## 2171 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723   117
## 2172 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444   152
## 2173 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576   119
## 2174 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194   108
## 2175 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444   114
## 2176 1.481950e-03    1.33340879    5.62394658    119.06259    119.06318    89
## 2177 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444   132
## 2178 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958   130
## 2179 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444   124
## 2180 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444   107
## 2181 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194   125
## 2182 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194   117
## 2183 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811   117
## 2184 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364   125
## 2185 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576   106
## 2186 1.481951e-03    1.68898441    7.12366573    116.74638    116.74698   130
## 2187 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105   129
## 2188 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194   144
## 2189 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599   104
## 2190 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723   110
## 2191 1.481951e-03    0.37335445    1.57470506    113.31408    113.31468   113
## 2192 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    93
## 2193 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105   106
## 2194 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723   113
## 2195 1.481950e-03    0.80004528    3.37436795    109.79319    109.79378   120
```

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## 2196 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    116
## 2197 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    129
## 2198 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    106
## 2199 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    119
## 2200 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    112
## 2201 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    123
## 2202 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    129
## 2203 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    100
## 2204 1.481951e-03    0.16000905    0.67487360    116.46476    116.46536     97
## 2205 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    127
## 2206 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    128
## 2207 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429    122
## 2208 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     93
## 2209 1.481951e-03    0.69337252    2.92445227    114.14897    114.14957     90
## 2210 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194     73
## 2211 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    133
## 2212 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    112
## 2213 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258     98
## 2214 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    136
## 2215 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705     78
## 2216 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    107
## 2217 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    147
## 2218 1.481951e-03    1.15562091    4.87408708    110.72083    110.72143    149
## 2219 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    106
## 2220 1.481951e-03    1.68898441    7.12366573    116.74638    116.74698     97
## 2221 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    134
## 2222 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    136
## 2223 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    136
## 2224 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    131
## 2225 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    112
## 2226 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429    105
## 2227 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    120
## 2228 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    120
## 2229 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    115
## 2230 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    120
## 2231 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    141
## 2232 1.481951e-03    1.68898441    7.12366573    119.06342    119.06402    119
## 2233 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    114
## 2234 1.481951e-03    1.15562091    4.87408708    115.35491    115.35551    143
```

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## 2235 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   113
## 2236 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   118
## 2237 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   126
## 2238 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   120
## 2239 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   139
## 2240 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   104
## 2241 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   141
## 2242 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   114
## 2243 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   111
## 2244 1.481951e-03   0.19556662   0.82484551   117.48434   117.48493    94
## 2245 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   134
## 2246 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   113
## 2247 1.481950e-03   0.08889392   0.37492977   117.20604   117.20664   116
## 2248 1.481951e-03   0.23112417   0.97481742   117.57710   117.57770   114
## 2249 1.481951e-03   0.65781496   2.77448036   118.69028   118.69088   115
## 2250 1.481951e-03   0.48002715   2.02462079   118.22645   118.22705   122
## 2251 1.481951e-03   0.44446958   1.87464888   108.86554   108.86614   118
## 2252 1.481951e-03   0.69337252   2.92445227   118.78304   118.78364   115
## 2253 1.481950e-03   0.33779689   1.42473313   117.85540   117.85599   104
## 2254 1.481950e-03   0.33779689   1.42473313   117.85540   117.85599   134
## 2255 1.481951e-03   0.48002715   2.02462079   118.22645   118.22705   143
## 2256 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   143
## 2257 1.481951e-03   0.37335445   1.57470506   117.94816   117.94876   106
## 2258 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   127
## 2259 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   122
## 2260 1.481951e-03   0.69337252   2.92445227   118.78304   118.78364   115
## 2261 1.481950e-03   0.55114230   2.32456459   118.41198   118.41258   139
## 2262 1.481950e-03   0.58669987   2.47453650   113.87067   113.87127   114
## 2263 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   108
## 2264 1.481951e-03   0.40891202   1.72467697   118.04092   118.04152   127
## 2265 1.481951e-03   0.37335445   1.57470506   117.94816   117.94876   111
## 2266 1.481950e-03   0.58669987   2.47453650   118.50475   118.50535    91
## 2267 1.481950e-03   0.33779689   1.42473313   117.85540   117.85599    96
## 2268 1.481951e-03   0.44446958   1.87464888   113.49961   113.50021   103
## 2269 1.481950e-03   0.33779689   1.42473313   117.85540   117.85599    78
## 2270 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194    98
## 2271 1.481950e-03   0.80004528   3.37436795   105.15911   105.15971    94
## 2272 1.481951e-03   0.97783308   4.12422753   114.89109   114.89168   135
## 2273 1.481951e-03   0.40891202   1.72467697   108.77277   108.77337   124
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## 2274 1.481951e-03   0.19556662   0.82484551   117.48434   117.48493   108
## 2275 1.481951e-03   0.69337252   2.92445227   114.14897   114.14957   128
## 2276 1.481951e-03   0.40891202   1.72467697   118.04092   118.04152   139
## 2277 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   128
## 2278 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   102
## 2279 1.481951e-03   0.12445148   0.52490169   117.29881   117.29941   136
## 2280 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   146
## 2281 1.481950e-03   0.58669987   2.47453650   118.50475   118.50535   136
## 2282 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723    89
## 2283 1.481950e-03   0.08889392   0.37492977   103.30382   103.30441   102
## 2284 1.481951e-03   0.12445148   0.52490169   103.39658   103.39718   138
## 2285 1.481951e-03   0.30223932   1.27476124   117.76263   117.76323   128
## 2286 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   124
## 2287 1.481951e-03   0.44446958   1.87464888   118.13369   118.13429   122
## 2288 1.481951e-03   0.16000905   0.67487360   115.53794   115.53854   101
## 2289 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   118
## 2290 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958    70
## 2291 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   136
## 2292 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   152
## 2293 1.481951e-03   0.69337252   2.92445227   118.78304   118.78364    98
## 2294 1.481950e-03   0.33779689   1.42473313   113.22132   113.22192    68
## 2295 1.481951e-03   0.48002715   2.02462079   116.83623   116.83683   101
## 2296 1.481950e-03   0.08889392   0.37492977   117.20604   117.20664    94
## 2297 1.481951e-03   0.01777878   0.07498596   117.02051   117.02111   117
## 2298 1.481951e-03   0.37335445   1.57470506   117.94816   117.94876    96
## 2299 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   122
## 2300 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   132
## 2301 1.481951e-03   0.12445148   0.52490169   108.03066   108.03125   104
## 2302 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   130
## 2303 1.481951e-03   0.69337252   2.92445227   118.78304   118.78364    84
## 2304 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   159
## 2305 1.481951e-03   0.26668174   1.12478934   116.27964   116.28024   115
## 2306 1.481950e-03   0.80004528   3.37436795   109.79319   109.79378   126
## 2307 1.481950e-03   0.80004528   3.37436795   115.81748   115.81808   132
## 2308 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   101
## 2309 1.481951e-03   0.97783308   4.12422753   110.25701   110.25761    87
## 2310 1.481951e-03   0.16000905   0.67487360   117.39157   117.39217   147
## 2311 1.481951e-03   0.65781496   2.77448036   118.69028   118.69088   108
## 2312 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   103
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## 2313 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    128
## 2314 1.481951e-03    0.23112417    0.97481742    116.65029    116.65088     97
## 2315 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    113
## 2316 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    128
## 2317 1.481951e-03    0.51558472    2.17459270    113.68514    113.68574     74
## 2318 1.481951e-03    0.16000905    0.67487360    117.39157    117.39217     95
## 2319 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    128
## 2320 1.481951e-03    0.44446958    1.87464888    108.86554    108.86614    129
## 2321 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    117
## 2322 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    109
## 2323 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    109
## 2324 1.481951e-03    0.40891202    1.72467697    115.72389    115.72449    129
## 2325 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    144
## 2326 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    131
## 2327 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    104
## 2328 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    120
## 2329 1.481950e-03    0.80004528    3.37436795    114.42726    114.42786     99
## 2330 1.481950e-03    0.80004528    3.37436795    109.79319    109.79378    103
## 2331 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    123
## 2332 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    134
## 2333 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    147
## 2334 1.481951e-03    0.97783308    4.12422753    110.25701    110.25761     83
## 2335 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958     91
## 2336 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    124
## 2337 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    141
## 2338 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     56
## 2339 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    139
## 2340 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    133
## 2341 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    144
## 2342 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046    130
## 2343 1.481950e-03    1.33340879    5.62394658    118.13577    118.13637    102
## 2344 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    109
## 2345 1.481951e-03    0.05333635    0.22495787    117.11328    117.11388    104
## 2346 1.481951e-03    0.62225739    2.62450845    115.35366    115.35426    134
## 2347 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     91
## 2348 1.481951e-03    0.12445148    0.52490169    117.29881    117.29941    159
## 2349 1.481951e-03    0.16000905    0.67487360    117.39157    117.39217     93
## 2350 1.481950e-03    0.80004528    3.37436795    112.11022    112.11082    131
## 2351 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    119
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## 2352 1.481951e-03    0.12445148    0.52490169    117.29881    117.29941    126
## 2353 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    107
## 2354 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535     76
## 2355 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    122
## 2356 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    104
## 2357 1.481951e-03    0.12445148    0.52490169    115.44518    115.44578     92
## 2358 1.481951e-03    0.30223931    1.27476125    113.12856    113.12915    101
## 2359 1.481951e-03    0.05333635    0.22495787    117.11328    117.11388    109
## 2360 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    113
## 2361 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    136
## 2362 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    147
## 2363 1.481951e-03    0.62225739    2.62450845    111.64640    111.64700    104
## 2364 1.481951e-03    0.65781496    2.77448036    111.73917    111.73976    117
## 2365 1.481951e-03    0.19556662    0.82484551     98.94803     98.94863     89
## 2366 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705    101
## 2367 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    121
## 2368 1.481951e-03    0.69337252    2.92445227    114.14897    114.14957    120
## 2369 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    116
## 2370 1.481951e-03    0.40891202    1.72467697    118.04092    118.04152    112
## 2371 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    125
## 2372 1.481950e-03    0.08889392    0.37492977    117.20604    117.20664    128
## 2373 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    114
## 2374 1.481951e-03    0.37335445    1.57470506    108.68001    108.68061    104
## 2375 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    123
## 2376 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    123
## 2377 1.481951e-03    0.19556662    0.82484551    117.48434    117.48493    164
## 2378 1.481951e-03    0.01777878    0.07498596    117.02051    117.02111    113
## 2379 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    102
## 2380 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    113
## 2381 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982     99
## 2382 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    127
## 2383 1.481950e-03    0.80004528    3.37436795    109.79319    109.79378    132
## 2384 1.481951e-03    0.69337252    2.92445227    109.51489    109.51549    121
## 2385 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258     91
## 2386 1.481951e-03    0.01777878    0.07498596    112.38644    112.38704    109
## 2387 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    112
## 2388 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    124
## 2389 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    149
## 2390 1.481951e-03    0.62225739    2.62450845    113.96344    113.96404    103
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## 2391 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    120
## 2392 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    144
## 2393 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    116
## 2394 1.481950e-03    0.08889392    0.37492977    112.57197    112.57257    112
## 2395 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    128
## 2396 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    137
## 2397 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    127
## 2398 1.481951e-03    0.69337252    2.92445227    111.83193    111.83253    101
## 2399 1.481951e-03    1.15562091    4.87408708    113.03787    113.03847     92
## 2400 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    101
## 2401 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    121
## 2402 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    116
## 2403 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    127
## 2404 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    133
## 2405 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    128
## 2406 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    123
## 2407 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    122
## 2408 1.481950e-03    0.55114230    2.32456459    109.14383    109.14443    113
## 2409 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    128
## 2410 1.481951e-03    0.69337252    2.92445227    116.46601    116.46660    139
## 2411 1.481951e-03    0.05333635    0.22495787    117.11328    117.11388    141
## 2412 1.481951e-03    0.51558472    2.17459270    115.53877    115.53937    121
## 2413 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    123
## 2414 1.481951e-03    0.19556662    0.82484551    108.21619    108.21678    151
## 2415 1.481951e-03    0.19556662    0.82484551    117.48434    117.48493    119
## 2416 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    105
## 2417 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    133
## 2418 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    123
## 2419 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    111
## 2420 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    123
## 2421 1.481951e-03    0.97783308    4.12422753    114.89109    114.89168    123
## 2422 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705    130
## 2423 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    154
## 2424 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    120
## 2425 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     90
## 2426 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    114
## 2427 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    123
## 2428 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    123
## 2429 1.481951e-03    0.40891202    1.72467697    118.04092    118.04152    136
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## 2430 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   104
## 2431 1.481951e-03   0.62225739   2.62450845   109.32936   109.32996   128
## 2432 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   128
## 2433 1.481951e-03   0.37335445   1.57470506   117.94816   117.94876   160
## 2434 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   111
## 2435 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   141
## 2436 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   122
## 2437 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341    98
## 2438 1.481950e-03   0.08889392   0.37492977   112.57197   112.57257    96
## 2439 1.481950e-03   0.55114230   2.32456459   118.41198   118.41258   127
## 2440 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   119
## 2441 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194    43
## 2442 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   100
## 2443 1.481950e-03   0.08889392   0.37492977   117.20604   117.20664   139
## 2444 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   128
## 2445 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   115
## 2446 1.481951e-03   0.65781496   2.77448036   118.69028   118.69088   121
## 2447 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   134
## 2448 1.481950e-03   0.08889392   0.37492977   117.20604   117.20664   120
## 2449 1.481951e-03   0.23112417   0.97481742   108.30895   108.30955   104
## 2450 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   170
## 2451 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   132
## 2452 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   126
## 2453 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   142
## 2454 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   103
## 2455 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   112
## 2456 1.481951e-03   1.51119653   6.37380623   111.64848   111.64908   117
## 2457 1.481951e-03   0.62225739   2.62450845   118.59751   118.59811   131
## 2458 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   115
## 2459 1.481951e-03   0.69337252   2.92445227   114.14897   114.14957   118
## 2460 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   106
## 2461 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723   126
## 2462 1.481951e-03   0.51558472   2.17459270   109.05107   109.05167   104
## 2463 1.481950e-03   0.55114230   2.32456459   118.41198   118.41258   143
## 2464 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   156
## 2465 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   137
## 2466 1.481951e-03   0.23112417   0.97481742   117.57710   117.57770   126
## 2467 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   134
## 2468 1.481951e-03   1.51119653   6.37380623   120.91663   120.91723    89
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## 2469 1.481951e-03    0.97783308    4.12422753    110.25701    110.25761    64
## 2470 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444   114
## 2471 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444   121
## 2472 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576   109
## 2473 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    38
## 2474 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958   128
## 2475 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341   132
## 2476 1.481951e-03    0.65781496    2.77448036    114.05620    114.05680   143
## 2477 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194   100
## 2478 1.481951e-03    1.51119653    6.37380623    118.13619    118.13678   107
## 2479 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576   103
## 2480 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341   157
## 2481 1.481951e-03    0.40891202    1.72467697    118.04092    118.04152   126
## 2482 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088   125
## 2483 1.481951e-03    0.12445148    0.52490169    117.29881    117.29941   102
## 2484 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    98
## 2485 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705    96
## 2486 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194   134
## 2487 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    94
## 2488 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    84
## 2489 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535   155
## 2490 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576   117
## 2491 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723   169
## 2492 1.481951e-03    0.12445148    0.52490169    116.37199    116.37259   105
## 2493 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194   118
## 2494 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364   113
## 2495 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429   114
## 2496 1.481950e-03    0.33779689    1.42473313    108.58724    108.58784   116
## 2497 1.481951e-03    0.16000905    0.67487360    112.75750    112.75809    79
## 2498 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576   109
## 2499 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105   146
## 2500 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194   116
## 2501 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599    93
## 2502 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444   108
## 2503 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046   115
## 2504 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444   115
## 2505 1.481951e-03    0.16000905    0.67487360    117.39157    117.39217   119
## 2506 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576   128
## 2507 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364   119
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## 2508 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    102
## 2509 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535    130
## 2510 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    140
## 2511 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    107
## 2512 1.481950e-03    0.08889392    0.37492977    117.20604    117.20664    134
## 2513 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    126
## 2514 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    143
## 2515 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599    122
## 2516 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535    112
## 2517 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    151
## 2518 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    127
## 2519 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    158
## 2520 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     90
## 2521 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    114
## 2522 1.481951e-03    0.62225739    2.62450845    116.74388    116.74448    143
## 2523 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    109
## 2524 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    126
## 2525 1.481951e-03    1.51119653    6.37380623    118.13619    118.13678    153
## 2526 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    123
## 2527 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088     72
## 2528 1.481950e-03    0.80004528    3.37436795    114.42726    114.42786    121
## 2529 1.481950e-03    0.80004528    3.37436795    117.67111    117.67171    137
## 2530 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958     64
## 2531 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    119
## 2532 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429    137
## 2533 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599     98
## 2534 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    126
## 2535 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    142
## 2536 1.481951e-03    0.01777878    0.07498596    117.02051    117.02111    122
## 2537 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    112
## 2538 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    142
## 2539 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    108
## 2540 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    128
## 2541 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    124
## 2542 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429    104
## 2543 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    118
## 2544 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705     96
## 2545 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    106
## 2546 1.481950e-03    0.08889392    0.37492977    117.20604    117.20664    114
```

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## 2547 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    142
## 2548 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599     74
## 2549 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    146
## 2550 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    128
## 2551 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    115
## 2552 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599    139
## 2553 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    143
## 2554 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    125
## 2555 1.481951e-03    0.51558472    2.17459270    116.00218    116.00278    120
## 2556 1.481951e-03    1.15562091    4.87408708    117.67195    117.67255    120
## 2557 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    135
## 2558 1.481950e-03    0.08889392    0.37492977    117.20604    117.20664     91
## 2559 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    117
## 2560 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    119
## 2561 1.481951e-03    2.31124183    9.74817416    113.73569    113.73629    128
## 2562 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    135
## 2563 1.481950e-03    0.80004528    3.37436795    116.28089    116.28149     91
## 2564 1.481951e-03    0.01777878    0.07498596    117.02051    117.02111    108
## 2565 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    110
## 2566 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    136
## 2567 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    126
## 2568 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    115
## 2569 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    136
## 2570 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    116
## 2571 1.481951e-03    0.01777878    0.07498596    117.02051    117.02111    117
## 2572 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    152
## 2573 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    124
## 2574 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705    115
## 2575 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    134
## 2576 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    146
## 2577 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535    125
## 2578 1.481950e-03    0.33779689    1.42473313    108.58724    108.58784     89
## 2579 1.481951e-03    0.69337252    2.92445227    111.83193    111.83253    128
## 2580 1.481951e-03    0.40891202    1.72467697    118.04092    118.04152    133
## 2581 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    112
## 2582 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    143
## 2583 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    157
## 2584 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982     99
## 2585 1.481951e-03    0.16000905    0.67487360    113.68431    113.68491     96
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## 2586 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    128
## 2587 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    122
## 2588 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    119
## 2589 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535    160
## 2590 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    108
## 2591 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    114
## 2592 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    115
## 2593 1.481951e-03    0.26668174    1.12478934    117.66987    117.67046    131
## 2594 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    118
## 2595 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    149
## 2596 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    114
## 2597 1.481951e-03    0.16000905    0.67487360    115.07453    115.07513    133
## 2598 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    112
## 2599 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    101
## 2600 1.481951e-03    0.05333635    0.22495787    112.47920    112.47980     86
## 2601 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    125
## 2602 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    135
## 2603 1.481951e-03    0.44446958    1.87464888    118.13369    118.13429    105
## 2604 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535    107
## 2605 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105     97
## 2606 1.481951e-03    0.01777878    0.07498596    117.02051    117.02111    158
## 2607 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    123
## 2608 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    110
## 2609 1.481951e-03    0.48002715    2.02462079    118.22645    118.22705     74
## 2610 1.481950e-03    0.08889392    0.37492977    117.20604    117.20664     93
## 2611 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    159
## 2612 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    114
## 2613 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    142
## 2614 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    139
## 2615 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599    132
## 2616 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    151
## 2617 1.481950e-03    0.30223932    1.27476123    110.81152    110.81212    111
## 2618 1.481950e-03    0.33779689    1.42473313    117.85540    117.85599    115
## 2619 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    120
## 2620 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    155
## 2621 1.481951e-03    2.31124175    9.74817424    117.44295    117.44355    131
## 2622 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    124
## 2623 1.481950e-03    0.80004528    3.37436795    114.42726    114.42786    127
## 2624 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    125
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## 2625 1.481950e-03   0.08889392   0.37492977   117.20604   117.20664   106
## 2626 1.481950e-03   0.33779689   1.42473313   117.85540   117.85599   144
## 2627 1.481951e-03   0.16000905   0.67487360   117.39157   117.39217   109
## 2628 1.481951e-03   0.01777878   0.07498596    95.70377    95.70436   121
## 2629 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   111
## 2630 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   145
## 2631 1.481951e-03   0.19556662   0.82484551   117.48434   117.48493   131
## 2632 1.481951e-03   0.62225739   2.62450845   118.59751   118.59811   129
## 2633 1.481951e-03   0.37335445   1.57470506   108.68001   108.68061    92
## 2634 1.481951e-03   0.44446958   1.87464888   118.13369   118.13429   111
## 2635 1.481950e-03   0.33779689   1.42473313   117.85540   117.85599    91
## 2636 1.481950e-03   0.80004528   3.37436795   116.74430   116.74490   124
## 2637 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   130
## 2638 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   137
## 2639 1.481951e-03   0.30223932   1.27476124   117.76263   117.76323   128
## 2640 1.481951e-03   0.05333635   0.22495787   117.11328   117.11388   133
## 2641 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958    68
## 2642 1.481950e-03   0.55114230   2.32456459   118.41198   118.41258    97
## 2643 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   124
## 2644 1.481951e-03   1.68898441   7.12366573   121.38046   121.38105   129
## 2645 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   117
## 2646 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576    93
## 2647 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   103
## 2648 1.481951e-03   2.31124183   9.74817416   123.00384   123.00444   134
## 2649 1.481951e-03   1.15562091   4.87408708   119.98898   119.98958   101
## 2650 1.481951e-03   0.26668174   1.12478934   117.66987   117.67046   137
## 2651 1.481951e-03   0.16000905   0.67487360   117.39157   117.39217   153
## 2652 1.481950e-03   0.80004528   3.37436795   100.52504   100.52563    96
## 2653 1.481951e-03   0.30223932   1.27476124   117.76263   117.76323   103
## 2654 1.481951e-03   0.23112417   0.97481742   117.57710   117.57770   112
## 2655 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   108
## 2656 1.481951e-03   0.65781496   2.77448036   118.69028   118.69088    97
## 2657 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576    99
## 2658 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   130
## 2659 1.481950e-03   0.80004528   3.37436795   119.06134   119.06194   148
## 2660 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   119
## 2661 1.481951e-03   0.69337252   2.92445227   118.78304   118.78364    89
## 2662 1.481951e-03   0.97783308   4.12422753   119.52516   119.52576   128
## 2663 1.481951e-03   1.33340875   5.62394663   120.45281   120.45341   130
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## 2664 1.481951e-03    0.23112417    0.97481742    108.30895    108.30955    120
## 2665 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    146
## 2666 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    102
## 2667 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    132
## 2668 1.481951e-03    1.51119653    6.37380623    115.35574    115.35634     90
## 2669 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    112
## 2670 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    119
## 2671 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535    145
## 2672 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    125
## 2673 1.481951e-03    0.19556662    0.82484551    117.48434    117.48493    127
## 2674 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    134
## 2675 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    139
## 2676 1.481951e-03    0.97783308    4.12422753    114.89109    114.89168    106
## 2677 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723     69
## 2678 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    114
## 2679 1.481951e-03    0.16000905    0.67487360    108.12342    108.12402    111
## 2680 1.481951e-03    0.44446958    1.87464888    115.81665    115.81725    123
## 2681 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    172
## 2682 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    128
## 2683 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    138
## 2684 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958     77
## 2685 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    137
## 2686 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     93
## 2687 1.481951e-03    0.30223932    1.27476124    117.76263    117.76323    160
## 2688 1.481951e-03    1.68898441    7.12366573    121.38046    121.38105    104
## 2689 1.481951e-03    0.12445148    0.52490169    117.29881    117.29941    115
## 2690 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    176
## 2691 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     87
## 2692 1.481951e-03    0.97783308    4.12422753     96.35478     96.35538     90
## 2693 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    116
## 2694 1.481951e-03    0.37335445    1.57470506    117.94816    117.94876    134
## 2695 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444     86
## 2696 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    110
## 2697 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194     97
## 2698 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    109
## 2699 1.481951e-03    0.69337252    2.92445227    118.78304    118.78364    108
## 2700 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    126
## 2701 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535    100
## 2702 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    137
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## 2703 1.481951e-03    2.31124183    9.74817416    123.00384    123.00444    115
## 2704 1.481950e-03    0.80004528    3.37436795    109.79319    109.79378    128
## 2705 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    131
## 2706 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723    130
## 2707 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    129
## 2708 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    114
## 2709 1.481951e-03    0.51558472    2.17459270    118.31922    118.31982    111
## 2710 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    192
## 2711 1.481951e-03    2.31124175    9.74817424    120.68680    120.68740     87
## 2712 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258     98
## 2713 1.481950e-03    0.80004528    3.37436795    112.11022    112.11082    115
## 2714 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    151
## 2715 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770     96
## 2716 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258     54
## 2717 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    110
## 2718 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    125
## 2719 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    108
## 2720 1.481950e-03    0.80004528    3.37436795    114.42726    114.42786    112
## 2721 1.481951e-03    0.16000905    0.67487360    113.22090    113.22150    128
## 2722 1.481951e-03    0.65781496    2.77448036    118.69028    118.69088    131
## 2723 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194     87
## 2724 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    125
## 2725 1.481951e-03    0.19556662    0.82484551    110.53322    110.53382    104
## 2726 1.481950e-03    0.58669987    2.47453650    118.50475    118.50535    149
## 2727 1.481951e-03    0.62225739    2.62450845    118.59751    118.59811    166
## 2728 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    113
## 2729 1.481951e-03    0.23112417    0.97481742    117.57710    117.57770    139
## 2730 1.481951e-03    1.15562091    4.87408708    119.98898    119.98958    102
## 2731 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    139
## 2732 1.481950e-03    0.55114230    2.32456459    118.41198    118.41258    119
## 2733 1.481951e-03    0.23112417    0.97481742    112.94303    112.94362     91
## 2734 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    153
## 2735 1.481951e-03    1.51119653    6.37380623    120.91663    120.91723     87
## 2736 1.481950e-03    0.33779689    1.42473313    110.90428    110.90488     80
## 2737 1.481951e-03    1.15562091    4.87408708    110.72083    110.72143    124
## 2738 1.481950e-03    0.80004528    3.37436795    119.06134    119.06194    149
## 2739 1.481951e-03    0.16000905    0.67487360    117.39157    117.39217    135
## 2740 1.481951e-03    0.97783308    4.12422753    119.52516    119.52576    132
## 2741 1.481951e-03    1.33340875    5.62394663    120.45281    120.45341    142
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## 2742 1.481951e-03    0.30223932   1.27476124   117.76263   117.76323   130
## 2743 1.481951e-03    0.97783308   4.12422753   119.52516   119.52576   123
## 2744 1.481951e-03    1.68898441   7.12366573   121.38046   121.38105   126
## 2745 1.481951e-03    1.15562091   4.87408708   119.98898   119.98958   116
## 2746 1.481951e-03    0.97783308   4.12422753   119.52516   119.52576   116
## 2747 1.481951e-03    0.23112417   0.97481742   117.57710   117.57770    99
## 2748 1.481951e-03    0.44446958   1.87464888   116.74347   116.74407   119
## 2749 1.481951e-03    1.15562091   4.87408708   119.98898   119.98958   122
## 2750 1.481951e-03    0.19556662   0.82484551   112.85026   112.85086   115
## 2751 1.481950e-03    0.80004528   3.37436795   119.06134   119.06194   111
## 2752 1.481951e-03    0.37335445   1.57470506   117.94816   117.94876   108
## 2753 1.481951e-03    1.15562091   4.87408708   119.98898   119.98958   140
## 2754 1.481951e-03    1.15562091   4.87408708   119.98898   119.98958   119
## 2755 1.481951e-03    0.97783308   4.12422753   119.52516   119.52576   134
## 2756 1.481951e-03    0.44446958   1.87464888   111.18258   111.18317   130
## 2757 1.481951e-03    0.30223932   1.27476124   117.76263   117.76323   107
## 2758 1.481951e-03    1.51119653   6.37380623   120.91663   120.91723   147
## 2759 1.481951e-03    0.16000905   0.67487360   117.39157   117.39217   109
## 2760 1.481951e-03    1.33340875   5.62394663   120.45281   120.45341   114
## 2761 1.481951e-03    0.65781496   2.77448036   118.69028   118.69088   118
## 2762 1.481951e-03    1.51119653   6.37380623   120.91663   120.91723   110
## 2763 1.481951e-03    1.51119653   6.37380623   120.91663   120.91723   127
## 2764 1.481951e-03    0.62225739   2.62450845   109.32936   109.32996   102
## 2765 1.481951e-03    1.68898441   7.12366573   121.38046   121.38105   158
## 2766 1.481950e-03    0.80004528   3.37436795   119.06134   119.06194   113
## 2767 1.481950e-03    0.55114230   2.32456459   118.41198   118.41258   121
## 2768 1.481951e-03    0.05333635   0.22495787   117.11328   117.11388   130
## 2769 1.481951e-03    0.19556662   0.82484551   117.48434   117.48493    85
## 2770 1.481951e-03    0.44446958   1.87464888   118.13369   118.13429    87
## 2771 1.481950e-03    0.80004528   3.37436795   119.06134   119.06194   135
## 2772 1.481951e-03    0.97783308   4.12422753   119.52516   119.52576   110
## 2773 1.481951e-03    0.19556662   0.82484551   117.48434   117.48493   146
## 2774 1.481951e-03    2.31124183   9.74817416   123.00384   123.00444   135
## 2775 1.481951e-03    0.97783308   4.12422753   119.52516   119.52576   118
## 2776 1.481951e-03    1.33340875   5.62394663   120.45281   120.45341   111
##      cigs faminc      eps
## 1       0   13.5 0.00500
## 2       0    7.5 0.00500
## 3       0    0.5 0.00500
```

```
## 4      0   15.5 0.00500
## 5      0   27.5 0.00500
## 6      0    7.5 0.00500
## 7      0   65.0 0.00500
## 8      0   27.5 0.00500
## 9      0   27.5 0.00500
## 10     0   37.5 0.00500
## 11     0   27.5 0.00500
## 12     0   27.5 0.00500
## 13     0    6.5 0.00500
## 14     0   10.5 0.00500
## 15     0   12.5 0.00500
## 16     0   17.5 0.00500
## 17     0   42.5 0.00500
## 18     0    4.5 0.00500
## 19     0   32.5 0.00500
## 20     0    6.5 0.00500
## 21     0   47.5 0.00500
## 22     0   22.5 0.00500
## 23     6   15.5 0.00500
## 24     0   13.5 0.00500
## 25     0   37.5 0.00500
## 26     0    2.5 0.00500
## 27     0    2.5 0.00500
## 28     0   32.5 0.00500
## 29     0   22.5 0.00500
## 30     0    0.5 0.00500
## 31     0   65.0 0.00500
## 32     0   65.0 0.00500
## 33     0   65.0 0.00500
## 34     0   27.5 0.00500
## 35     0    7.5 0.00500
## 36     0   47.5 0.00500
## 37     0   65.0 0.00500
## 38     0   65.0 0.00500
## 39     0   32.5 0.00500
## 40     0   13.5 0.00500
## 41     0   65.0 0.00500
## 42     0   47.5 0.00500
```

```
## 43      0   37.5 0.00500
## 44      0   32.5 0.00500
## 45      0   18.5 0.00500
## 46      0   65.0 0.00500
## 47      0   65.0 0.00500
## 48      0   11.5 0.00500
## 49      0   32.5 0.00500
## 50      0   65.0 0.00500
## 51      0   17.5 0.00500
## 52      0   16.5 0.00500
## 53      0   22.5 0.00500
## 54      0   42.5 0.00500
## 55      0   32.5 0.00500
## 56      0   11.5 0.00500
## 57      0   65.0 0.00500
## 58      0   27.5 0.00500
## 59      0   27.5 0.00500
## 60      0   17.5 0.00500
## 61      0   65.0 0.00500
## 62      0    3.5 0.00500
## 63      0    0.5 0.00500
## 64     10    0.5 0.00500
## 65      0    3.5 0.00500
## 66      0   65.0 0.00500
## 67      0   22.5 0.00500
## 68      0   22.5 0.00500
## 69     20    7.5 0.00500
## 70      0   27.5 0.00500
## 71      0   18.5 0.00500
## 72      0   37.5 0.00500
## 73      0   22.5 0.00500
## 74      0   27.5 0.00500
## 75     40   18.5 0.00500
## 76      0   22.5 0.00500
## 77      0    0.5 0.00500
## 78      0   32.5 0.00500
## 79      0   27.5 0.00500
## 80      0   32.5 0.00500
## 81      0   15.5 0.00500
```

```
## 82     0   16.5 0.00500
## 83     0   19.5 0.00500
## 84     0   15.5 0.00500
## 85     0   14.5 0.00500
## 86     0   32.5 0.00500
## 87     0   14.5 0.00500
## 88     0    8.5 0.00500
## 89     0    8.5 0.00500
## 90     0    7.5 0.00500
## 91     0   32.5 0.00500
## 92     0   65.0 0.00500
## 93    10    7.5 0.00500
## 94     0   27.5 0.00500
## 95    10   13.5 0.00500
## 96     0   27.5 0.00500
## 97     0   18.5 0.00500
## 98    20   22.5 0.00500
## 99     0   65.0 0.00500
## 100    0   22.5 0.00500
## 101    0   42.5 0.00500
## 102    0   37.5 0.00500
## 103    3   11.5 0.00500
## 104    0   65.0 0.00500
## 105    0    7.5 0.00500
## 106    0   22.5 0.00500
## 107    0   65.0 0.00500
## 108   10   27.5 0.00500
## 109    0    7.5 0.00500
## 110    0   65.0 0.00500
## 111    0    8.5 0.00500
## 112    0   12.5 0.00500
## 113    0   37.5 0.00500
## 114    0   14.5 0.00500
## 115    0   65.0 0.00500
## 116   20   37.5 0.00500
## 117    0   27.5 0.00500
## 118    0   65.0 0.00500
## 119    0   32.5 0.00500
## 120    0    6.5 0.00500
```

```
## 121      0   65.0 0.00500
## 122     40    6.5 0.00500
## 123      0   65.0 0.00500
## 124      0   65.0 0.00500
## 125      0    7.5 0.00500
## 126      0   17.5 0.00500
## 127      0   27.5 0.00500
## 128      0   37.5 0.00500
## 129      0   22.5 0.00500
## 130      0   22.5 0.00500
## 131      0   65.0 0.00500
## 132      0   42.5 0.00500
## 133      0    2.5 0.00500
## 134      0   10.5 0.00500
## 135      0   42.5 0.00500
## 136      0   14.5 0.00500
## 137      0   42.5 0.00500
## 138      0   32.5 0.00500
## 139      0    3.5 0.00500
## 140      0   42.5 0.00500
## 141      0   15.5 0.00500
## 142      0   32.5 0.00500
## 143      0   19.5 0.00500
## 144      0   42.5 0.00500
## 145      0   65.0 0.00500
## 146      0   13.5 0.00500
## 147      0   27.5 0.00500
## 148      0   42.5 0.00500
## 149      0    5.5 0.00500
## 150      0    5.5 0.00500
## 151      0   65.0 0.00500
## 152      0   22.5 0.00500
## 153      0   18.5 0.00500
## 154      0   27.5 0.00500
## 155      0   65.0 0.00500
## 156      4   32.5 0.00500
## 157      0   22.5 0.00500
## 158      0   37.5 0.00500
## 159      0   65.0 0.00500
```

```
## 160       0    1.5 0.00500
## 161       0   27.5 0.00500
## 162       0   47.5 0.00500
## 163       0   32.5 0.00500
## 164       0   65.0 0.00500
## 165       0    8.5 0.00500
## 166       0   65.0 0.00500
## 167       0   27.5 0.00500
## 168       0   37.5 0.00500
## 169       0   37.5 0.00500
## 170       0   22.5 0.00500
## 171       0   37.5 0.00500
## 172       5    8.5 0.00500
## 173       0   42.5 0.00500
## 174       0   65.0 0.00500
## 175       0   12.5 0.00500
## 176       0   27.5 0.00500
## 177       0   27.5 0.00500
## 178       0   65.0 0.00500
## 179       0   22.5 0.00500
## 180       0   18.5 0.00500
## 181       0   13.5 0.00500
## 182       0   18.5 0.00500
## 183       0   27.5 0.00500
## 184       0   22.5 0.00500
## 185       0   65.0 0.00500
## 186      10   32.5 0.00500
## 187       0   22.5 0.00500
## 188       0   37.5 0.00500
## 189      20   47.5 0.00500
## 190       0   65.0 0.00500
## 191       0   32.5 0.00500
## 192       0   10.5 0.00500
## 193       0   22.5 0.00500
## 194       0   37.5 0.00500
## 195       0   65.0 0.00500
## 196       0   65.0 0.00500
## 197       0   10.5 0.00500
## 198       0   32.5 0.00500
```

```
## 199    0   32.5 0.00500
## 200    0   65.0 0.00500
## 201    0   47.5 0.00500
## 202    8   32.5 0.00500
## 203    0    6.5 0.00500
## 204    0   12.5 0.00500
## 205    0   47.5 0.00500
## 206    0   19.5 0.00500
## 207    0    7.5 0.00500
## 208    0    8.5 0.00500
## 209    0   19.5 0.00500
## 210    0   65.0 0.00500
## 211    0   32.5 0.00500
## 212    0   65.0 0.00500
## 213    0   19.5 0.00500
## 214    0   17.5 0.00500
## 215    0   27.5 0.00500
## 216    0   12.5 0.00500
## 217    4   27.5 0.00500
## 218    0   32.5 0.00500
## 219    0   22.5 0.00500
## 220    0   18.5 0.00500
## 221   20   32.5 0.00500
## 222    0   42.5 0.00500
## 223    0   37.5 0.00500
## 224    0   32.5 0.00500
## 225    0    9.5 0.00500
## 226   10   15.5 0.00500
## 227    0   65.0 0.00500
## 228    0   65.0 0.00500
## 229   12   22.5 0.00500
## 230    0   32.5 0.00500
## 231    0   65.0 0.00500
## 232    0   65.0 0.00500
## 233    0    5.5 0.00500
## 234    0   22.5 0.00500
## 235    0   13.5 0.00500
## 236    0   65.0 0.00500
## 237    0   65.0 0.00500
```

```
## 238      0   27.5 0.00500
## 239      0   27.5 0.00500
## 240      0   27.5 0.00500
## 241      0   10.5 0.00500
## 242      0    9.5 0.00500
## 243      0    0.5 0.00500
## 244      0   32.5 0.00500
## 245      0   19.5 0.00500
## 246      0   42.5 0.00500
## 247      0   65.0 0.00500
## 248      0   65.0 0.00500
## 249      0   42.5 0.00500
## 250      0   37.5 0.00500
## 251      0    6.5 0.00500
## 252      0   65.0 0.00500
## 253      0    1.5 0.00500
## 254      0   65.0 0.00500
## 255      0   32.5 0.00500
## 256      0   65.0 0.00500
## 257     20   17.5 0.00500
## 258      0   18.5 0.00500
## 259      0   13.5 0.00500
## 260      0   10.5 0.00500
## 261      0   18.5 0.00500
## 262     10   13.5 0.00500
## 263     10   32.5 0.00500
## 264      0   15.5 0.00500
## 265      0   10.5 0.00500
## 266      0   32.5 0.00500
## 267      0   13.5 0.00500
## 268      0   16.5 0.00500
## 269     20    6.5 0.00500
## 270      0    8.5 0.00500
## 271      0   22.5 0.00500
## 272      0   27.5 0.00500
## 273     20   12.5 0.00500
## 274      0   19.5 0.00500
## 275      0   65.0 0.00500
## 276      0   65.0 0.00500
```

```
## 277    0   15.5 0.00500
## 278    0   37.5 0.00500
## 279    0   47.5 0.00500
## 280    0   47.5 0.00500
## 281    0   37.5 0.00500
## 282    4   32.5 0.00500
## 283    0   65.0 0.00500
## 284    0   27.5 0.00500
## 285    0   65.0 0.00500
## 286    0   65.0 0.00500
## 287    0   32.5 0.00500
## 288    0   22.5 0.00500
## 289    0   17.5 0.00500
## 290    1   32.5 0.00500
## 291    0   65.0 0.00500
## 292    0   37.5 0.00500
## 293    0   37.5 0.00500
## 294    0   14.5 0.00500
## 295   20   18.5 0.00500
## 296    0   65.0 0.00500
## 297    0   47.5 0.00500
## 298    0   27.5 0.00500
## 299   40   27.5 0.00500
## 300    0   27.5 0.00500
## 301    0   22.5 0.00500
## 302    0   32.5 0.00500
## 303   20    3.5 0.00500
## 304   10   18.5 0.00500
## 305    0   19.5 0.00500
## 306    0   32.5 0.00500
## 307    0   22.5 0.00500
## 308    0   65.0 0.00500
## 309    0   65.0 0.00500
## 310    0   14.5 0.00500
## 311    0   65.0 0.00500
## 312   10   14.5 0.00500
## 313    0   37.5 0.00500
## 314    0   13.5 0.00500
## 315   20    4.5 0.00500
```

```
## 316      0   22.5 0.00500
## 317      0   37.5 0.00500
## 318      0   65.0 0.00500
## 319      0   11.5 0.00500
## 320      0   22.5 0.00500
## 321      0   65.0 0.00500
## 322      0   37.5 0.00500
## 323      0   10.5 0.00500
## 324      0   37.5 0.00500
## 325      0   22.5 0.00500
## 326      0   15.5 0.00500
## 327      0   65.0 0.00500
## 328     15    0.5 0.00500
## 329      0   32.5 0.00500
## 330      0   10.5 0.00500
## 331      0   22.5 0.00500
## 332      0   47.5 0.00500
## 333      0   27.5 0.00500
## 334      0   65.0 0.00500
## 335      0   47.5 0.00500
## 336      0    4.5 0.00500
## 337      0    8.5 0.00500
## 338      0   47.5 0.00500
## 339     20   12.5 0.00500
## 340      0   65.0 0.00500
## 341      0    9.5 0.00500
## 342     20   37.5 0.00500
## 343     12   27.5 0.00500
## 344      0   65.0 0.00500
## 345      8    7.5 0.00500
## 346      0   65.0 0.00500
## 347      0   47.5 0.00500
## 348      0   65.0 0.00500
## 349      0   42.5 0.00500
## 350      0   27.5 0.00500
## 351     15   37.5 0.00500
## 352      0   47.5 0.00500
## 353     10    2.5 0.00500
## 354      0    7.5 0.00500
```

```
## 355     0    6.5 0.00500
## 356     0   37.5 0.00500
## 357    10   32.5 0.00500
## 358     0   47.5 0.00500
## 359     0   42.5 0.00500
## 360    20    9.5 0.00500
## 361     0   47.5 0.00500
## 362     0   65.0 0.00500
## 363     0   22.5 0.00500
## 364     0   42.5 0.00500
## 365     0   37.5 0.00500
## 366     0   19.5 0.00500
## 367     0   42.5 0.00500
## 368     0   14.5 0.00500
## 369     0   37.5 0.00500
## 370     0    7.5 0.00500
## 371     0   37.5 0.00500
## 372     0   32.5 0.00500
## 373     0    9.5 0.00500
## 374     0   65.0 0.00500
## 375     0   32.5 0.00500
## 376    10    5.5 0.00500
## 377     0   42.5 0.00500
## 378     0   22.5 0.00500
## 379     0   42.5 0.00500
## 380     0    7.5 0.00500
## 381     0   13.5 0.00500
## 382     0   27.5 0.00500
## 383     0   42.5 0.00500
## 384     0   32.5 0.00500
## 385     0   32.5 0.00500
## 386     0    5.5 0.00500
## 387     0   47.5 0.00500
## 388     0   47.5 0.00500
## 389     0   42.5 0.00500
## 390     0   37.5 0.00500
## 391     0   32.5 0.00500
## 392     0   65.0 0.00500
## 393     0   47.5 0.00500
```

```
## 394     0   42.5 0.00500
## 395     0   27.5 0.00500
## 396     0   17.5 0.00500
## 397     0   18.5 0.00500
## 398     0   42.5 0.00500
## 399     0   37.5 0.00500
## 400     0   42.5 0.00500
## 401     0   32.5 0.00500
## 402     0    2.5 0.00500
## 403     0   18.5 0.00500
## 404     0    4.5 0.00500
## 405     0   22.5 0.00500
## 406    20    4.5 0.00500
## 407     0   27.5 0.00500
## 408     0   19.5 0.00500
## 409     0   27.5 0.00500
## 410     0   19.5 0.00500
## 411     0   18.5 0.00500
## 412     0   22.5 0.00500
## 413     0   22.5 0.00500
## 414    20    1.5 0.00500
## 415     0    4.5 0.00500
## 416     4    3.5 0.00500
## 417     0    3.5 0.00500
## 418     0   42.5 0.00500
## 419     0   37.5 0.00500
## 420     0   22.5 0.00500
## 421     0   37.5 0.00500
## 422     0   15.5 0.00500
## 423     0   27.5 0.00500
## 424     0   32.5 0.00500
## 425     0   22.5 0.00500
## 426     0   27.5 0.00500
## 427     0   27.5 0.00500
## 428     0    4.5 0.00500
## 429     0   27.5 0.00500
## 430     0   22.5 0.00500
## 431     0   27.5 0.00500
## 432     0   19.5 0.00500
```

```
## 433   20    4.5 0.00500
## 434   10   11.5 0.00500
## 435    0   27.5 0.00500
## 436   30   37.5 0.00500
## 437    0    6.5 0.00500
## 438    0   32.5 0.00500
## 439    0   18.5 0.00500
## 440    0   32.5 0.00500
## 441    0   42.5 0.00500
## 442    0   22.5 0.00500
## 443    0   16.5 0.00500
## 444    0   42.5 0.00500
## 445   15   37.5 0.00500
## 446    0   13.5 0.00500
## 447    0   22.5 0.00500
## 448    0   22.5 0.00500
## 449    0   37.5 0.00500
## 450    0   27.5 0.00500
## 451    0   16.5 0.00500
## 452    0   47.5 0.00500
## 453    0   22.5 0.00500
## 454    0   22.5 0.00500
## 455    0   47.5 0.00500
## 456    0   22.5 0.00500
## 457    0   14.5 0.00500
## 458    0   16.5 0.00500
## 459    0   14.5 0.00500
## 460    0   18.5 0.00500
## 461    0    3.5 0.00500
## 462   15   27.5 0.00500
## 463    0   22.5 0.00500
## 464    0   17.5 0.00500
## 465    0   18.5 0.00500
## 466    0    0.5 0.00500
## 467    0   17.5 0.00500
## 468    0   18.5 0.00500
## 469    0    0.5 0.00500
## 470    0   37.5 0.00500
## 471    5    7.5 0.00500
```

```
## 472     0   18.5 0.00500
## 473     0    4.5 0.00500
## 474     0   27.5 0.00500
## 475     0    6.5 0.00500
## 476     0   27.5 0.00500
## 477     0   11.5 0.00500
## 478     0   42.5 0.00500
## 479     0   22.5 0.00500
## 480     0   19.5 0.00500
## 481     0   65.0 0.00500
## 482     0   37.5 0.00500
## 483     0   42.5 0.00500
## 484     0   42.5 0.00500
## 485     0   37.5 0.00500
## 486     0   47.5 0.00500
## 487    20   14.5 0.00500
## 488     0   32.5 0.00500
## 489    20   15.5 0.00500
## 490     0   32.5 0.00500
## 491     0   18.5 0.00500
## 492     0    2.5 0.00500
## 493     0    5.5 0.00500
## 494     0   47.5 0.00500
## 495     5    3.5 0.00500
## 496     0   42.5 0.00500
## 497     0    6.5 0.00500
## 498     0   32.5 0.00500
## 499     0   47.5 0.00500
## 500     0    3.5 0.00500
## 501     0   27.5 0.00500
## 502     0   22.5 0.00500
## 503     0   27.5 0.00500
## 504     0   18.5 0.00500
## 505    20   12.5 0.00500
## 506     0    0.5 0.00500
## 507     0    1.5 0.00500
## 508     5   37.5 0.00500
## 509     5   18.5 0.00500
## 510     0   22.5 0.00500
```

```
## 511    0   47.5 0.00500
## 512    0   65.0 0.00500
## 513    0   65.0 0.00500
## 514   30   11.5 0.00500
## 515    0   32.5 0.00500
## 516    0   22.5 0.00500
## 517    0   32.5 0.00500
## 518    0   65.0 0.00500
## 519    0   27.5 0.00500
## 520    0   18.5 0.00500
## 521    0   37.5 0.00500
## 522    0   32.5 0.00500
## 523    0   19.5 0.00500
## 524    0   22.5 0.00500
## 525    0   27.5 0.00500
## 526    0   22.5 0.00500
## 527    0   47.5 0.00500
## 528    0   22.5 0.00500
## 529    0   18.5 0.00500
## 530    0   17.5 0.00500
## 531    0   18.5 0.00500
## 532   10   65.0 0.00500
## 533    0   32.5 0.00500
## 534    0   47.5 0.00500
## 535    0   13.5 0.00500
## 536    0   32.5 0.00500
## 537    0   65.0 0.00500
## 538    6   42.5 0.00500
## 539    0   32.5 0.00500
## 540    0   42.5 0.00500
## 541    0   37.5 0.00500
## 542    0    9.5 0.00500
## 543    0   37.5 0.00500
## 544    0   65.0 0.00500
## 545    0   42.5 0.00500
## 546    0   37.5 0.00500
## 547   20    9.5 0.00500
## 548    0   19.5 0.00500
## 549    0   19.5 0.00500
```

```
## 550    0   47.5 0.00500
## 551    5   42.5 0.00500
## 552    0   27.5 0.00500
## 553   20   65.0 0.00500
## 554    0   32.5 0.00500
## 555    0   47.5 0.00500
## 556    0   65.0 0.00500
## 557    0    6.5 0.00500
## 558    0   42.5 0.00500
## 559   10   19.5 0.00500
## 560    2   65.0 0.00500
## 561    0   27.5 0.00500
## 562    5   37.5 0.00500
## 563    0   27.5 0.00500
## 564    0   22.5 0.00500
## 565    0   27.5 0.00500
## 566    1   37.5 0.00500
## 567    0   22.5 0.00500
## 568   20   27.5 0.00500
## 569    0   32.5 0.00500
## 570    0   32.5 0.00500
## 571    0   37.5 0.00500
## 572    0   37.5 0.00500
## 573    0   19.5 0.00500
## 574    0   65.0 0.00500
## 575    0   65.0 0.00500
## 576    0   32.5 0.00500
## 577    0   42.5 0.00500
## 578    0   22.5 0.00500
## 579    0   22.5 0.00500
## 580   10   16.5 0.00500
## 581    0   22.5 0.00500
## 582    0   22.5 0.00500
## 583    0   65.0 0.00500
## 584   10   13.5 0.00500
## 585    0   32.5 0.00500
## 586    0   37.5 0.00500
## 587    0   37.5 0.00500
## 588    0   27.5 0.00500
```

```
## 589   20    6.5 0.00500
## 590    0   19.5 0.00500
## 591    0   32.5 0.00500
## 592    0   22.5 0.00500
## 593    0   65.0 0.00500
## 594    0   27.5 0.00500
## 595    0   18.5 0.00500
## 596    0   47.5 0.00500
## 597    0    1.5 0.00500
## 598    0   42.5 0.00500
## 599    0    1.5 0.00500
## 600    0   65.0 0.00500
## 601    0   22.5 0.00500
## 602    0   42.5 0.00500
## 603    0    0.5 0.00500
## 604    0   47.5 0.00500
## 605    0   65.0 0.00500
## 606   20   11.5 0.00500
## 607   20    5.5 0.00500
## 608    0   65.0 0.00500
## 609    3    2.5 0.00500
## 610    0   65.0 0.00500
## 611   10   32.5 0.00500
## 612    0    2.5 0.00500
## 613    0   47.5 0.00500
## 614    0    5.5 0.00500
## 615    0   65.0 0.00500
## 616   20   11.5 0.00500
## 617   40   22.5 0.00500
## 618    0   65.0 0.00500
## 619    0   13.5 0.00500
## 620    0   27.5 0.00500
## 621    0   65.0 0.00500
## 622   20   32.5 0.00500
## 623    0   65.0 0.00500
## 624    0    8.5 0.00500
## 625    0   27.5 0.00500
## 626    0   65.0 0.00500
## 627    0   32.5 0.00500
```

```
## 628        8     5.5 0.00500
## 629       20    22.5 0.00500
## 630        0     5.5 0.00500
## 631        0    27.5 0.00500
## 632        0     7.5 0.00500
## 633       10     4.5 0.00500
## 634        0    42.5 0.00500
## 635        0    32.5 0.00500
## 636        0    22.5 0.00500
## 637        0    27.5 0.00500
## 638        0    47.5 0.00500
## 639        0    32.5 0.00500
## 640        0     3.5 0.00500
## 641        7    32.5 0.00500
## 642        0     9.5 0.00500
## 643        0    47.5 0.00500
## 644        0    42.5 0.00500
## 645        0     9.5 0.00500
## 646        0    18.5 0.00500
## 647        0    37.5 0.00500
## 648        0    27.5 0.00500
## 649        0    37.5 0.00500
## 650        0    18.5 0.00500
## 651        0    65.0 0.00500
## 652        0    32.5 0.00500
## 653        0    27.5 0.00500
## 654        0    65.0 0.00500
## 655        8    22.5 0.00500
## 656        0    65.0 0.00500
## 657        0    37.5 0.00500
## 658        0    22.5 0.00500
## 659        0    47.5 0.00500
## 660        0    42.5 0.00500
## 661        0    12.5 0.00500
## 662        0    18.5 0.00500
## 663       20     6.5 0.00500
## 664        0    42.5 0.00500
## 665        0    27.5 0.00500
## 666        0    65.0 0.00500
```

```
## 667     0   65.0 0.00500
## 668     0   27.5 0.00500
## 669    10   27.5 0.00500
## 670     0   42.5 0.00500
## 671     0   27.5 0.00500
## 672     0   65.0 0.00500
## 673     0   65.0 0.00500
## 674     0   27.5 0.00500
## 675     0   27.5 0.00500
## 676     0   65.0 0.00500
## 677     0   14.5 0.00500
## 678     0   22.5 0.00500
## 679     0   10.5 0.00500
## 680     0   15.5 0.00500
## 681     0   32.5 0.00500
## 682     0   32.5 0.00500
## 683     0    4.5 0.00500
## 684     0    6.5 0.00500
## 685     0    8.5 0.00500
## 686     0   32.5 0.00500
## 687     0   32.5 0.00500
## 688     0   32.5 0.00500
## 689     0   47.5 0.00500
## 690    20   17.5 0.00500
## 691     0   37.5 0.00500
## 692     0   27.5 0.00500
## 693     0    7.5 0.00500
## 694     0   10.5 0.00500
## 695     0   22.5 0.00500
## 696     0   27.5 0.00500
## 697     5   32.5 0.00500
## 698     0   37.5 0.00500
## 699     0    4.5 0.00500
## 700     0    2.5 0.00500
## 701     0   47.5 0.00500
## 702    10   22.5 0.00500
## 703     0    1.5 0.00500
## 704     0   22.5 0.00500
## 705     0   27.5 0.00500
```

```
## 706     0   65.0 0.00500
## 707     0   42.5 0.00500
## 708     0   12.5 0.00500
## 709     0   47.5 0.00500
## 710    20   32.5 0.00500
## 711    15   37.5 0.00500
## 712     0   42.5 0.00500
## 713     0   22.5 0.00500
## 714     0   17.5 0.00500
## 715     0   32.5 0.00500
## 716     0   22.5 0.00500
## 717     0   18.5 0.00500
## 718     7   32.5 0.00500
## 719     0   27.5 0.00500
## 720     0    3.5 0.00500
## 721     0   15.5 0.00500
## 722     0   65.0 0.00500
## 723     0   37.5 0.00500
## 724     0   32.5 0.00500
## 725     0    9.5 0.00500
## 726    15   22.5 0.00500
## 727     0   42.5 0.00500
## 728     0   65.0 0.00500
## 729     1   37.5 0.00500
## 730     0   22.5 0.00500
## 731     0   15.5 0.00500
## 732    15   42.5 0.00500
## 733     0   14.5 0.00500
## 734     0   37.5 0.00500
## 735     0   22.5 0.00500
## 736     0   65.0 0.00500
## 737     0   47.5 0.00500
## 738     0   10.5 0.00500
## 739     0   65.0 0.00500
## 740     0   27.5 0.00500
## 741     0   65.0 0.00500
## 742     0   27.5 0.00500
## 743     0   65.0 0.00500
## 744     5   16.5 0.00500
```

```
## 745   10   65.0 0.00500
## 746    0   42.5 0.00500
## 747    0   12.5 0.00500
## 748    0   11.5 0.00500
## 749    0   37.5 0.00500
## 750   12   65.0 0.00500
## 751    0   32.5 0.00500
## 752    0   65.0 0.00500
## 753   10   65.0 0.00500
## 754    0   65.0 0.00500
## 755    0   65.0 0.00500
## 756   20   22.5 0.00500
## 757    0   65.0 0.00500
## 758   10   47.5 0.00500
## 759   10   27.5 0.00500
## 760    0   65.0 0.00500
## 761    0   65.0 0.00500
## 762    0   32.5 0.00500
## 763    0   22.5 0.00500
## 764    0   65.0 0.00500
## 765    0   65.0 0.00500
## 766    0    6.5 0.00500
## 767    0   65.0 0.00500
## 768    4   37.5 0.00500
## 769    0   65.0 0.00500
## 770    0   32.5 0.00500
## 771    0   27.5 0.00500
## 772    0   65.0 0.00500
## 773    0   27.5 0.00500
## 774    0   22.5 0.00500
## 775    0   22.5 0.00500
## 776    0   13.5 0.00500
## 777    0   22.5 0.00500
## 778    0   32.5 0.00500
## 779    0   12.5 0.00500
## 780    4    6.5 0.00500
## 781   15   22.5 0.00500
## 782    0   42.5 0.00500
## 783    0   42.5 0.00500
```

```
## 784    0   65.0 0.00500
## 785    0   27.5 0.00500
## 786    0   22.5 0.00500
## 787    0   65.0 0.00500
## 788    3   37.5 0.00500
## 789    0   65.0 0.00500
## 790    0   32.5 0.00500
## 791    0   65.0 0.00500
## 792    0   65.0 0.00500
## 793    0   22.5 0.00500
## 794    0   22.5 0.00500
## 795    0   17.5 0.00500
## 796    0   19.5 0.00500
## 797    0   27.5 0.00500
## 798   10   47.5 0.00500
## 799    0   47.5 0.00500
## 800    0   22.5 0.00500
## 801    0    9.5 0.00500
## 802    0   42.5 0.00500
## 803   10   10.5 0.00500
## 804    0   65.0 0.00500
## 805    0   47.5 0.00500
## 806    0   42.5 0.00500
## 807   20   22.5 0.00500
## 808    0   27.5 0.00500
## 809    0   65.0 0.00500
## 810    0    8.5 0.00500
## 811    0   22.5 0.00500
## 812    0   19.5 0.00500
## 813    0    8.5 0.00500
## 814    0   47.5 0.00500
## 815    0    8.5 0.00500
## 816    2    4.5 0.00500
## 817    0   65.0 0.00500
## 818    0   32.5 0.00500
## 819    0   12.5 0.00500
## 820    0   65.0 0.00500
## 821   10   19.5 0.00500
## 822    0   22.5 0.00500
```

```
## 823     0   27.5 0.00500
## 824     0   19.5 0.00500
## 825     0   15.5 0.00500
## 826     0   37.5 0.00500
## 827     0   13.5 0.00500
## 828     0   42.5 0.00500
## 829     0   65.0 0.00500
## 830    20   32.5 0.00500
## 831     0   37.5 0.00500
## 832    10   47.5 0.00500
## 833     0   65.0 0.00500
## 834     0   22.5 0.00500
## 835     0   27.5 0.00500
## 836     0   22.5 0.00500
## 837     0   27.5 0.00500
## 838     0   12.5 0.00500
## 839     0   19.5 0.00500
## 840     0   42.5 0.00500
## 841     0   27.5 0.00500
## 842     0   32.5 0.00500
## 843     0   65.0 0.00500
## 844     5   47.5 0.00500
## 845     0   27.5 0.00500
## 846    10   32.5 0.00500
## 847     0   65.0 0.00500
## 848     0   22.5 0.00500
## 849     0   65.0 0.00500
## 850     0   42.5 0.00500
## 851     0   32.5 0.00500
## 852     0   65.0 0.00500
## 853     0   42.5 0.00500
## 854     0   27.5 0.00500
## 855     0   65.0 0.00500
## 856     0    5.5 0.00500
## 857     0   22.5 0.00500
## 858     0   37.5 0.00500
## 859     0    2.5 0.00500
## 860     0    6.5 0.00500
## 861     0   18.5 0.00500
```

```
## 862    0   13.5 0.00500
## 863   20   12.5 0.00500
## 864    0   19.5 0.00500
## 865    0    9.5 0.00500
## 866    0    9.5 0.00500
## 867    0   13.5 0.00500
## 868    0   47.5 0.00500
## 869    0   10.5 0.00500
## 870    0   37.5 0.00500
## 871    0   27.5 0.00500
## 872    0   19.5 0.00500
## 873    0   15.5 0.00500
## 874   10   16.5 0.00500
## 875    0   32.5 0.00500
## 876    0   11.5 0.00500
## 877    0   10.5 0.00500
## 878    0   16.5 0.00500
## 879    0    9.5 0.00500
## 880   10   12.5 0.00500
## 881    0    9.5 0.00500
## 882    0   22.5 0.00500
## 883   30   22.5 0.00500
## 884   10   27.5 0.00500
## 885   20   11.5 0.00500
## 886    0    5.5 0.00500
## 887   10   19.5 0.00500
## 888    0   11.5 0.00500
## 889    0   27.5 0.00500
## 890    0   42.5 0.00500
## 891    0    3.5 0.00500
## 892    0   65.0 0.00500
## 893    0   16.5 0.00500
## 894    0   42.5 0.00500
## 895   30    2.5 0.00500
## 896   30    3.5 0.00500
## 897    0    8.5 0.00500
## 898    0   27.5 0.00500
## 899    0   12.5 0.00500
## 900    4    4.5 0.00500
```

385

```
## 901     0  37.5 0.00500
## 902     0  32.5 0.00500
## 903     0  22.5 0.00500
## 904     0  37.5 0.00500
## 905     0  19.5 0.00500
## 906    10   9.5 0.00500
## 907     3  13.5 0.00500
## 908     0   2.5 0.00500
## 909     0   0.5 0.00500
## 910     0  10.5 0.00500
## 911     0  47.5 0.00500
## 912     0  42.5 0.00500
## 913    20   3.5 0.00500
## 914     0  27.5 0.00500
## 915     0  19.5 0.00500
## 916     0  37.5 0.00500
## 917     3   7.5 0.00500
## 918    20  22.5 0.00500
## 919     7  22.5 0.00500
## 920     0  47.5 0.00500
## 921    20  27.5 0.00500
## 922     0   4.5 0.00500
## 923     0  18.5 0.00500
## 924     0  32.5 0.00500
## 925     0  37.5 0.00500
## 926     2   6.5 0.00500
## 927     0  42.5 0.00500
## 928     0  47.5 0.00500
## 929    10  14.5 0.00500
## 930     0   4.5 0.00500
## 931     0  65.0 0.00500
## 932    20  12.5 0.00500
## 933     0  37.5 0.00500
## 934     0  32.5 0.00500
## 935     0   6.5 0.00500
## 936     5  11.5 0.00500
## 937     0  14.5 0.00500
## 938     0  27.5 0.00500
## 939     0  32.5 0.00500
```

```
## 940    0   15.5 0.00500
## 941   10   22.5 0.00500
## 942   20   22.5 0.00500
## 943    0   65.0 0.00500
## 944    0   47.5 0.00500
## 945    0   17.5 0.00500
## 946   20   27.5 0.00500
## 947    0   32.5 0.00500
## 948    0   65.0 0.00500
## 949    0   65.0 0.00500
## 950    0   65.0 0.00500
## 951    0   32.5 0.00500
## 952    0   18.5 0.00500
## 953    0   42.5 0.00500
## 954    0    7.5 0.00500
## 955    5   37.5 0.00500
## 956    0   37.5 0.00500
## 957    0    1.5 0.00500
## 958    7   17.5 0.00500
## 959    0   65.0 0.00500
## 960    0    3.5 0.00500
## 961    0    4.5 0.00500
## 962   15   22.5 0.00500
## 963    0   22.5 0.00500
## 964    0    3.5 0.00500
## 965    0   17.5 0.00500
## 966    0   16.5 0.00500
## 967    0   10.5 0.00500
## 968    0   22.5 0.00500
## 969    4    3.5 0.00500
## 970   10    8.5 0.00500
## 971    0    1.5 0.00500
## 972    0   65.0 0.00500
## 973    0   42.5 0.00500
## 974    0   22.5 0.00500
## 975   15   17.5 0.00500
## 976   15   18.5 0.00500
## 977   40    5.5 0.00500
## 978    0   13.5 0.00500
```

```
## 979      0   17.5 0.00500
## 980     10   19.5 0.00500
## 981      0   65.0 0.00500
## 982      0   11.5 0.00500
## 983      0   65.0 0.00500
## 984      0    2.5 0.00500
## 985      0   65.0 0.00500
## 986     20   10.5 0.00500
## 987      0   42.5 0.00500
## 988      0   19.5 0.00500
## 989      0    5.5 0.00500
## 990      0    0.5 0.00500
## 991      0   65.0 0.00500
## 992      0   47.5 0.00500
## 993      0   14.5 0.00500
## 994      0   27.5 0.00500
## 995     20   22.5 0.00500
## 996     20   19.5 0.00500
## 997      0   15.5 0.00500
## 998     10    0.5 0.00500
## 999      0   47.5 0.00500
## 1000     0   22.5 0.00500
## 1001     0   15.5 0.00500
## 1002    10   17.5 0.00500
## 1003     0   47.5 0.00500
## 1004     0   15.5 0.00500
## 1005     0   18.5 0.00500
## 1006    10    2.5 0.00500
## 1007     0   18.5 0.00500
## 1008     0   27.5 0.00500
## 1009     0   32.5 0.00500
## 1010    15   19.5 0.00500
## 1011    15   32.5 0.00500
## 1012     0   22.5 0.00500
## 1013     0   19.5 0.00500
## 1014     0    6.5 0.00500
## 1015     0   27.5 0.00500
## 1016     0   10.5 0.00500
## 1017     0   47.5 0.00500
```

```
## 1018    0   19.5 0.00500
## 1019    0   22.5 0.00500
## 1020   20   15.5 0.00500
## 1021    0    8.5 0.00500
## 1022    5   19.5 0.00500
## 1023    0    1.5 0.00500
## 1024    6   14.5 0.00500
## 1025    0   27.5 0.00500
## 1026   20    5.5 0.00500
## 1027    0    5.5 0.00500
## 1028    0   14.5 0.00500
## 1029    0   32.5 0.00500
## 1030    0   22.5 0.00500
## 1031    0   22.5 0.00500
## 1032    0   27.5 0.00500
## 1033   10   27.5 0.00500
## 1034    0   13.5 0.00500
## 1035    0   22.5 0.00500
## 1036    0   22.5 0.00500
## 1037    0   65.0 0.00500
## 1038    0   19.5 0.00500
## 1039    0   37.5 0.00500
## 1040    0   32.5 0.00500
## 1041    0   11.5 0.00500
## 1042    0   27.5 0.00500
## 1043   20   17.5 0.00500
## 1044    0   37.5 0.00500
## 1045    0   10.5 0.00500
## 1046    0   32.5 0.00500
## 1047    0   37.5 0.00500
## 1048    0   32.5 0.00500
## 1049    0   37.5 0.00500
## 1050   10    2.5 0.00500
## 1051    0   15.5 0.00500
## 1052    0   42.5 0.00500
## 1053    0   22.5 0.00500
## 1054    0   22.5 0.00500
## 1055    0    2.5 0.00500
## 1056    0   32.5 0.00500
```

```
## 1057     0   32.5 0.00500
## 1058     0   18.5 0.00500
## 1059     0   27.5 0.00500
## 1060     0    2.5 0.00500
## 1061    20    6.5 0.00500
## 1062     0   37.5 0.00500
## 1063     0   65.0 0.00500
## 1064     0   47.5 0.00500
## 1065     0   42.5 0.00500
## 1066     0   27.5 0.00500
## 1067     0   32.5 0.00500
## 1068    20   42.5 0.00500
## 1069     0   17.5 0.00500
## 1070     0   42.5 0.00500
## 1071    10   19.5 0.00500
## 1072     0   32.5 0.00500
## 1073     0   42.5 0.00500
## 1074    20   14.5 0.00500
## 1075     0   15.5 0.00500
## 1076     0   32.5 0.00500
## 1077     0   37.5 0.00500
## 1078     0    6.5 0.00500
## 1079     0   32.5 0.00500
## 1080     0   42.5 0.00500
## 1081    20   27.5 0.00500
## 1082     0   65.0 0.00500
## 1083     0   65.0 0.00500
## 1084     0   27.5 0.00500
## 1085     0   32.5 0.00500
## 1086     0   32.5 0.00500
## 1087     0   37.5 0.00500
## 1088    10   18.5 0.00500
## 1089     0   22.5 0.00500
## 1090     6   42.5 0.00500
## 1091     0   27.5 0.00500
## 1092     0   37.5 0.00500
## 1093     0   11.5 0.00500
## 1094     0   18.5 0.00500
## 1095     0    3.5 0.00500
```

```
## 1096    0   18.5 0.00500
## 1097    0   13.5 0.00500
## 1098    0   22.5 0.00500
## 1099    0   65.0 0.00500
## 1100    0   22.5 0.00500
## 1101    0   16.5 0.00500
## 1102    0   27.5 0.00500
## 1103    0   42.5 0.00500
## 1104    2    3.5 0.00500
## 1105    0   22.5 0.00500
## 1106    0   19.5 0.00500
## 1107    0   12.5 0.00500
## 1108   20    9.5 0.00500
## 1109   10    4.5 0.00500
## 1110    0   27.5 0.00500
## 1111    0   47.5 0.00500
## 1112    0   22.5 0.00500
## 1113    0    9.5 0.00500
## 1114    0   65.0 0.00500
## 1115    0    7.5 0.00500
## 1116    0   65.0 0.00500
## 1117    0    4.5 0.00500
## 1118    0   27.5 0.00500
## 1119    0   19.5 0.00500
## 1120    0    6.5 0.00500
## 1121    0   16.5 0.00500
## 1122    0   65.0 0.00500
## 1123    0   22.5 0.00500
## 1124    0    2.5 0.00500
## 1125    0   22.5 0.00500
## 1126    0   32.5 0.00500
## 1127    0    9.5 0.00500
## 1128    0   16.5 0.00500
## 1129    0   32.5 0.00500
## 1130    0   17.5 0.00500
## 1131    0    6.5 0.00500
## 1132    0   65.0 0.00500
## 1133    0   37.5 0.00500
## 1134    4   17.5 0.00500
```

```
## 1135    0   19.5 0.00500
## 1136    0   32.5 0.00500
## 1137    6   42.5 0.00500
## 1138    0   32.5 0.00500
## 1139    0   18.5 0.00500
## 1140   10   22.5 0.00500
## 1141    3   22.5 0.00500
## 1142    0   32.5 0.00500
## 1143    0   18.5 0.00500
## 1144    0   12.5 0.00500
## 1145    0    9.5 0.00500
## 1146    0   22.5 0.00500
## 1147    0   27.5 0.00500
## 1148    0    0.5 0.00500
## 1149    0   22.5 0.00500
## 1150    0    6.5 0.00500
## 1151    0   65.0 0.00500
## 1152    0   19.5 0.00500
## 1153    0   27.5 0.00500
## 1154    0   12.5 0.00500
## 1155    0   42.5 0.00500
## 1156    0   13.5 0.00500
## 1157    0   65.0 0.00500
## 1158    0    2.5 0.00500
## 1159    0   65.0 0.00500
## 1160    0    9.5 0.00500
## 1161    0   37.5 0.00500
## 1162    0   19.5 0.00500
## 1163    0   17.5 0.00500
## 1164    0    9.5 0.00500
## 1165    0   65.0 0.00500
## 1166    0   65.0 0.00500
## 1167    5   14.5 0.00500
## 1168    5   32.5 0.00500
## 1169    0   17.5 0.00500
## 1170    0    2.5 0.00500
## 1171    0   18.5 0.00500
## 1172    0   22.5 0.00500
## 1173   20   65.0 0.00500
```

```
## 1174    0   65.0 0.00500
## 1175    6   22.5 0.00500
## 1176    0    0.5 0.00500
## 1177    0   22.5 0.00500
## 1178    0   47.5 0.00500
## 1179    0   65.0 0.00500
## 1180    0   65.0 0.00500
## 1181    0   32.5 0.00500
## 1182    0   65.0 0.00500
## 1183    0    0.5 0.00500
## 1184    0   65.0 0.00500
## 1185    0   42.5 0.00500
## 1186    0   13.5 0.00500
## 1187    0   22.5 0.00500
## 1188    0   65.0 0.00500
## 1189    0   16.5 0.00500
## 1190   20    9.5 0.00500
## 1191   15   19.5 0.00500
## 1192    0   11.5 0.00500
## 1193    0    8.5 0.00500
## 1194    0   42.5 0.00500
## 1195    0   27.5 0.00500
## 1196    0   14.5 0.00500
## 1197    8    4.5 0.00500
## 1198    0   15.5 0.00500
## 1199    0   27.5 0.00500
## 1200    0   65.0 0.00500
## 1201    0   16.5 0.00500
## 1202    0   37.5 0.00500
## 1203    0   65.0 0.00500
## 1204    0   37.5 0.00500
## 1205    0    7.5 0.00500
## 1206    0   22.5 0.00500
## 1207    0   47.5 0.00500
## 1208    0   32.5 0.00500
## 1209    5    4.5 0.00500
## 1210    0   32.5 0.00500
## 1211    0   15.5 0.00500
## 1212   10    1.5 0.00500
```

```
## 1213    0   65.0 0.00500
## 1214    0   37.5 0.00500
## 1215    0   12.5 0.00500
## 1216    0   16.5 0.00500
## 1217    0   47.5 0.00500
## 1218    0    0.5 0.00500
## 1219    0   18.5 0.00500
## 1220    0   32.5 0.00500
## 1221    0   13.5 0.00500
## 1222    0    2.5 0.00500
## 1223    0   47.5 0.00500
## 1224    0   32.5 0.00500
## 1225    0   22.5 0.00500
## 1226    0   65.0 0.00500
## 1227    0    9.5 0.00500
## 1228    0   65.0 0.00500
## 1229   15    8.5 0.00500
## 1230    0    9.5 0.00500
## 1231    0   22.5 0.00500
## 1232    0   22.5 0.00500
## 1233   12   65.0 0.00500
## 1234    0   22.5 0.00500
## 1235   10   22.5 0.00500
## 1236    0   10.5 0.00500
## 1237    0    2.5 0.00500
## 1238    0    9.5 0.00500
## 1239    0    4.5 0.00500
## 1240   46    0.5 0.00500
## 1241    0   32.5 0.00500
## 1242    0   47.5 0.00500
## 1243    0    5.5 0.00500
## 1244    0   17.5 0.00500
## 1245   20   10.5 0.00500
## 1246    0   12.5 0.00500
## 1247    0    9.5 0.00500
## 1248    5   22.5 0.00500
## 1249    0   32.5 0.00500
## 1250    0   22.5 0.00500
## 1251    0    8.5 0.00500
```

```
## 1252    0    1.5 0.00500
## 1253    0   32.5 0.00500
## 1254    0   15.5 0.00500
## 1255    0   37.5 0.00500
## 1256    0   47.5 0.00500
## 1257    0   65.0 0.00500
## 1258    0   27.5 0.00500
## 1259    0   27.5 0.00500
## 1260    0   65.0 0.00500
## 1261    0   32.5 0.00500
## 1262    0    7.5 0.00500
## 1263    0    4.5 0.00500
## 1264   40   22.5 0.00500
## 1265    0    8.5 0.00500
## 1266    0    6.5 0.00500
## 1267    0   27.5 0.00500
## 1268    0   18.5 0.00500
## 1269    0   27.5 0.00500
## 1270    0   27.5 0.00500
## 1271    0   22.5 0.00500
## 1272    0   27.5 0.00500
## 1273    0   19.5 0.00500
## 1274    0   27.5 0.00500
## 1275    0   37.5 0.00500
## 1276   20    6.5 0.00500
## 1277    0   32.5 0.00500
## 1278    0   15.5 0.00500
## 1279    0   27.5 0.00500
## 1280   12   42.5 0.00500
## 1281    0   32.5 0.00500
## 1282    0   47.5 0.00500
## 1283    0   16.5 0.00500
## 1284    0   42.5 0.00500
## 1285    0    5.5 0.00500
## 1286    0   22.5 0.00500
## 1287    0   65.0 0.00500
## 1288   10   27.5 0.00500
## 1289    0   42.5 0.00500
## 1290    0   32.5 0.00500
```

```
## 1291   20    4.5 0.00500
## 1292    5   12.5 0.00500
## 1293    0   65.0 0.00500
## 1294    0   65.0 0.00500
## 1295    0   22.5 0.00500
## 1296    0   32.5 0.00500
## 1297    0   65.0 0.00500
## 1298    0   65.0 0.00500
## 1299    0    8.5 0.00500
## 1300    0   47.5 0.00500
## 1301    0    3.5 0.00500
## 1302    0   22.5 0.00500
## 1303    0   65.0 0.00500
## 1304   50   27.5 0.00500
## 1305    0   65.0 0.00500
## 1306    0   10.5 0.00500
## 1307    0   65.0 0.00500
## 1308    0   19.5 0.00500
## 1309    0   22.5 0.00500
## 1310    0   18.5 0.00500
## 1311    0   19.5 0.00500
## 1312    0   22.5 0.00500
## 1313    0   16.5 0.00500
## 1314    0   65.0 0.00500
## 1315    0   65.0 0.00500
## 1316   20   22.5 0.00500
## 1317    0   32.5 0.00500
## 1318    0   42.5 0.00500
## 1319    0    6.5 0.00500
## 1320    0   27.5 0.00500
## 1321    0   14.5 0.00500
## 1322    0   32.5 0.00500
## 1323    5   65.0 0.00500
## 1324    0   15.5 0.00500
## 1325   15   22.5 0.00500
## 1326    0   32.5 0.00500
## 1327    0    6.5 0.00500
## 1328    0   15.5 0.00500
## 1329    0   27.5 0.00500
```

```
## 1330    0   17.5 0.00500
## 1331    0   37.5 0.00500
## 1332   10   22.5 0.00500
## 1333    9    4.5 0.00500
## 1334    0   18.5 0.00500
## 1335    0   22.5 0.00500
## 1336    0   37.5 0.00500
## 1337   15    5.5 0.00500
## 1338    0   16.5 0.00500
## 1339    0   17.5 0.00500
## 1340    0    6.5 0.00500
## 1341    0    6.5 0.00500
## 1342    0   32.5 0.00500
## 1343    0   22.5 0.00500
## 1344    0   15.5 0.00500
## 1345   10    6.5 0.00500
## 1346    0   27.5 0.00500
## 1347    0   42.5 0.00500
## 1348   15    9.5 0.00500
## 1349   20   32.5 0.00500
## 1350    0   22.5 0.00500
## 1351    0    4.5 0.00500
## 1352    0   27.5 0.00500
## 1353    0   37.5 0.00500
## 1354    0    8.5 0.00500
## 1355    0   27.5 0.00500
## 1356    0   47.5 0.00500
## 1357    0   32.5 0.00500
## 1358    0   27.5 0.00500
## 1359    0    6.5 0.00500
## 1360    3   12.5 0.00500
## 1361    0   32.5 0.00500
## 1362   10    5.5 0.00500
## 1363    0   22.5 0.00500
## 1364    0   10.5 0.00500
## 1365    0   32.5 0.00500
## 1366    0   32.5 0.00500
## 1367    0   27.5 0.00500
## 1368   15   12.5 0.00500
```

```
## 1369    0     8.5 0.00500
## 1370    0    42.5 0.00500
## 1371    0     4.5 0.00500
## 1372    0    37.5 0.00500
## 1373    0    18.5 0.00500
## 1374    0    42.5 0.00500
## 1375    0    42.5 0.00500
## 1376   20    17.5 0.00500
## 1377    0    47.5 0.00500
## 1378    0    22.5 0.00500
## 1379    0    15.5 0.00500
## 1380    0     1.5 0.00500
## 1381    0     5.5 0.00500
## 1382    0    12.5 0.00500
## 1383    0    22.5 0.00500
## 1384    0    27.5 0.00500
## 1385    0     5.5 0.00500
## 1386    0    65.0 0.00500
## 1387    0    27.5 0.00500
## 1388    0    37.5 0.00500
## 1389    0    13.5 0.00645
## 1390    0     7.5 0.00645
## 1391    0     0.5 0.00645
## 1392    0    15.5 0.00645
## 1393    0    27.5 0.00645
## 1394    0     7.5 0.00645
## 1395    0    65.0 0.00645
## 1396    0    27.5 0.00645
## 1397    0    27.5 0.00645
## 1398    0    37.5 0.00645
## 1399    0    27.5 0.00645
## 1400    0    27.5 0.00645
## 1401    0     6.5 0.00645
## 1402    0    10.5 0.00645
## 1403    0    12.5 0.00645
## 1404    0    17.5 0.00645
## 1405    0    42.5 0.00645
## 1406    0     4.5 0.00645
## 1407    0    32.5 0.00645
```

```
## 1408    0     6.5 0.00645
## 1409    0    47.5 0.00645
## 1410    0    22.5 0.00645
## 1411    6    15.5 0.00645
## 1412    0    13.5 0.00645
## 1413    0    37.5 0.00645
## 1414    0     2.5 0.00645
## 1415    0     2.5 0.00645
## 1416    0    32.5 0.00645
## 1417    0    22.5 0.00645
## 1418    0     0.5 0.00645
## 1419    0    65.0 0.00645
## 1420    0    65.0 0.00645
## 1421    0    65.0 0.00645
## 1422    0    27.5 0.00645
## 1423    0     7.5 0.00645
## 1424    0    47.5 0.00645
## 1425    0    65.0 0.00645
## 1426    0    65.0 0.00645
## 1427    0    32.5 0.00645
## 1428    0    13.5 0.00645
## 1429    0    65.0 0.00645
## 1430    0    47.5 0.00645
## 1431    0    37.5 0.00645
## 1432    0    32.5 0.00645
## 1433    0    18.5 0.00645
## 1434    0    65.0 0.00645
## 1435    0    65.0 0.00645
## 1436    0    11.5 0.00645
## 1437    0    32.5 0.00645
## 1438    0    65.0 0.00645
## 1439    0    17.5 0.00645
## 1440    0    16.5 0.00645
## 1441    0    22.5 0.00645
## 1442    0    42.5 0.00645
## 1443    0    32.5 0.00645
## 1444    0    11.5 0.00645
## 1445    0    65.0 0.00645
## 1446    0    27.5 0.00645
```

```
## 1447    0   27.5 0.00645
## 1448    0   17.5 0.00645
## 1449    0   65.0 0.00645
## 1450    0    3.5 0.00645
## 1451    0    0.5 0.00645
## 1452   10    0.5 0.00645
## 1453    0    3.5 0.00645
## 1454    0   65.0 0.00645
## 1455    0   22.5 0.00645
## 1456    0   22.5 0.00645
## 1457   20    7.5 0.00645
## 1458    0   27.5 0.00645
## 1459    0   18.5 0.00645
## 1460    0   37.5 0.00645
## 1461    0   22.5 0.00645
## 1462    0   27.5 0.00645
## 1463   40   18.5 0.00645
## 1464    0   22.5 0.00645
## 1465    0    0.5 0.00645
## 1466    0   32.5 0.00645
## 1467    0   27.5 0.00645
## 1468    0   32.5 0.00645
## 1469    0   15.5 0.00645
## 1470    0   16.5 0.00645
## 1471    0   19.5 0.00645
## 1472    0   15.5 0.00645
## 1473    0   14.5 0.00645
## 1474    0   32.5 0.00645
## 1475    0   14.5 0.00645
## 1476    0    8.5 0.00645
## 1477    0    8.5 0.00645
## 1478    0    7.5 0.00645
## 1479    0   32.5 0.00645
## 1480    0   65.0 0.00645
## 1481   10    7.5 0.00645
## 1482    0   27.5 0.00645
## 1483   10   13.5 0.00645
## 1484    0   27.5 0.00645
## 1485    0   18.5 0.00645
```

```
## 1486   20   22.5 0.00645
## 1487    0   65.0 0.00645
## 1488    0   22.5 0.00645
## 1489    0   42.5 0.00645
## 1490    0   37.5 0.00645
## 1491    3   11.5 0.00645
## 1492    0   65.0 0.00645
## 1493    0    7.5 0.00645
## 1494    0   22.5 0.00645
## 1495    0   65.0 0.00645
## 1496   10   27.5 0.00645
## 1497    0    7.5 0.00645
## 1498    0   65.0 0.00645
## 1499    0    8.5 0.00645
## 1500    0   12.5 0.00645
## 1501    0   37.5 0.00645
## 1502    0   14.5 0.00645
## 1503    0   65.0 0.00645
## 1504   20   37.5 0.00645
## 1505    0   27.5 0.00645
## 1506    0   65.0 0.00645
## 1507    0   32.5 0.00645
## 1508    0    6.5 0.00645
## 1509    0   65.0 0.00645
## 1510   40    6.5 0.00645
## 1511    0   65.0 0.00645
## 1512    0   65.0 0.00645
## 1513    0    7.5 0.00645
## 1514    0   17.5 0.00645
## 1515    0   27.5 0.00645
## 1516    0   37.5 0.00645
## 1517    0   22.5 0.00645
## 1518    0   22.5 0.00645
## 1519    0   65.0 0.00645
## 1520    0   42.5 0.00645
## 1521    0    2.5 0.00645
## 1522    0   10.5 0.00645
## 1523    0   42.5 0.00645
## 1524    0   14.5 0.00645
```

```
## 1525    0    42.5 0.00645
## 1526    0    32.5 0.00645
## 1527    0     3.5 0.00645
## 1528    0    42.5 0.00645
## 1529    0    15.5 0.00645
## 1530    0    32.5 0.00645
## 1531    0    19.5 0.00645
## 1532    0    42.5 0.00645
## 1533    0    65.0 0.00645
## 1534    0    13.5 0.00645
## 1535    0    27.5 0.00645
## 1536    0    42.5 0.00645
## 1537    0     5.5 0.00645
## 1538    0     5.5 0.00645
## 1539    0    65.0 0.00645
## 1540    0    22.5 0.00645
## 1541    0    18.5 0.00645
## 1542    0    27.5 0.00645
## 1543    0    65.0 0.00645
## 1544    4    32.5 0.00645
## 1545    0    22.5 0.00645
## 1546    0    37.5 0.00645
## 1547    0    65.0 0.00645
## 1548    0     1.5 0.00645
## 1549    0    27.5 0.00645
## 1550    0    47.5 0.00645
## 1551    0    32.5 0.00645
## 1552    0    65.0 0.00645
## 1553    0     8.5 0.00645
## 1554    0    65.0 0.00645
## 1555    0    27.5 0.00645
## 1556    0    37.5 0.00645
## 1557    0    37.5 0.00645
## 1558    0    22.5 0.00645
## 1559    0    37.5 0.00645
## 1560    5     8.5 0.00645
## 1561    0    42.5 0.00645
## 1562    0    65.0 0.00645
## 1563    0    12.5 0.00645
```

```
## 1564     0   27.5 0.00645
## 1565     0   27.5 0.00645
## 1566     0   65.0 0.00645
## 1567     0   22.5 0.00645
## 1568     0   18.5 0.00645
## 1569     0   13.5 0.00645
## 1570     0   18.5 0.00645
## 1571     0   27.5 0.00645
## 1572     0   22.5 0.00645
## 1573     0   65.0 0.00645
## 1574    10   32.5 0.00645
## 1575     0   22.5 0.00645
## 1576     0   37.5 0.00645
## 1577    20   47.5 0.00645
## 1578     0   65.0 0.00645
## 1579     0   32.5 0.00645
## 1580     0   10.5 0.00645
## 1581     0   22.5 0.00645
## 1582     0   37.5 0.00645
## 1583     0   65.0 0.00645
## 1584     0   65.0 0.00645
## 1585     0   10.5 0.00645
## 1586     0   32.5 0.00645
## 1587     0   32.5 0.00645
## 1588     0   65.0 0.00645
## 1589     0   47.5 0.00645
## 1590     8   32.5 0.00645
## 1591     0    6.5 0.00645
## 1592     0   12.5 0.00645
## 1593     0   47.5 0.00645
## 1594     0   19.5 0.00645
## 1595     0    7.5 0.00645
## 1596     0    8.5 0.00645
## 1597     0   19.5 0.00645
## 1598     0   65.0 0.00645
## 1599     0   32.5 0.00645
## 1600     0   65.0 0.00645
## 1601     0   19.5 0.00645
## 1602     0   17.5 0.00645
```

```
## 1603    0   27.5 0.00645
## 1604    0   12.5 0.00645
## 1605    4   27.5 0.00645
## 1606    0   32.5 0.00645
## 1607    0   22.5 0.00645
## 1608    0   18.5 0.00645
## 1609   20   32.5 0.00645
## 1610    0   42.5 0.00645
## 1611    0   37.5 0.00645
## 1612    0   32.5 0.00645
## 1613    0    9.5 0.00645
## 1614   10   15.5 0.00645
## 1615    0   65.0 0.00645
## 1616    0   65.0 0.00645
## 1617   12   22.5 0.00645
## 1618    0   32.5 0.00645
## 1619    0   65.0 0.00645
## 1620    0   65.0 0.00645
## 1621    0    5.5 0.00645
## 1622    0   22.5 0.00645
## 1623    0   13.5 0.00645
## 1624    0   65.0 0.00645
## 1625    0   65.0 0.00645
## 1626    0   27.5 0.00645
## 1627    0   27.5 0.00645
## 1628    0   27.5 0.00645
## 1629    0   10.5 0.00645
## 1630    0    9.5 0.00645
## 1631    0    0.5 0.00645
## 1632    0   32.5 0.00645
## 1633    0   19.5 0.00645
## 1634    0   42.5 0.00645
## 1635    0   65.0 0.00645
## 1636    0   65.0 0.00645
## 1637    0   42.5 0.00645
## 1638    0   37.5 0.00645
## 1639    0    6.5 0.00645
## 1640    0   65.0 0.00645
## 1641    0    1.5 0.00645
```

```
## 1642    0    65.0 0.00645
## 1643    0    32.5 0.00645
## 1644    0    65.0 0.00645
## 1645   20    17.5 0.00645
## 1646    0    18.5 0.00645
## 1647    0    13.5 0.00645
## 1648    0    10.5 0.00645
## 1649    0    18.5 0.00645
## 1650   10    13.5 0.00645
## 1651   10    32.5 0.00645
## 1652    0    15.5 0.00645
## 1653    0    10.5 0.00645
## 1654    0    32.5 0.00645
## 1655    0    13.5 0.00645
## 1656    0    16.5 0.00645
## 1657   20     6.5 0.00645
## 1658    0     8.5 0.00645
## 1659    0    22.5 0.00645
## 1660    0    27.5 0.00645
## 1661   20    12.5 0.00645
## 1662    0    19.5 0.00645
## 1663    0    65.0 0.00645
## 1664    0    65.0 0.00645
## 1665    0    15.5 0.00645
## 1666    0    37.5 0.00645
## 1667    0    47.5 0.00645
## 1668    0    47.5 0.00645
## 1669    0    37.5 0.00645
## 1670    4    32.5 0.00645
## 1671    0    65.0 0.00645
## 1672    0    27.5 0.00645
## 1673    0    65.0 0.00645
## 1674    0    65.0 0.00645
## 1675    0    32.5 0.00645
## 1676    0    22.5 0.00645
## 1677    0    17.5 0.00645
## 1678    1    32.5 0.00645
## 1679    0    65.0 0.00645
## 1680    0    37.5 0.00645
```

```
## 1681     0   37.5 0.00645
## 1682     0   14.5 0.00645
## 1683    20   18.5 0.00645
## 1684     0   65.0 0.00645
## 1685     0   47.5 0.00645
## 1686     0   27.5 0.00645
## 1687    40   27.5 0.00645
## 1688     0   27.5 0.00645
## 1689     0   22.5 0.00645
## 1690     0   32.5 0.00645
## 1691    20    3.5 0.00645
## 1692    10   18.5 0.00645
## 1693     0   19.5 0.00645
## 1694     0   32.5 0.00645
## 1695     0   22.5 0.00645
## 1696     0   65.0 0.00645
## 1697     0   65.0 0.00645
## 1698     0   14.5 0.00645
## 1699     0   65.0 0.00645
## 1700    10   14.5 0.00645
## 1701     0   37.5 0.00645
## 1702     0   13.5 0.00645
## 1703    20    4.5 0.00645
## 1704     0   22.5 0.00645
## 1705     0   37.5 0.00645
## 1706     0   65.0 0.00645
## 1707     0   11.5 0.00645
## 1708     0   22.5 0.00645
## 1709     0   65.0 0.00645
## 1710     0   37.5 0.00645
## 1711     0   10.5 0.00645
## 1712     0   37.5 0.00645
## 1713     0   22.5 0.00645
## 1714     0   15.5 0.00645
## 1715     0   65.0 0.00645
## 1716    15    0.5 0.00645
## 1717     0   32.5 0.00645
## 1718     0   10.5 0.00645
## 1719     0   22.5 0.00645
```

```
## 1720    0   47.5 0.00645
## 1721    0   27.5 0.00645
## 1722    0   65.0 0.00645
## 1723    0   47.5 0.00645
## 1724    0    4.5 0.00645
## 1725    0    8.5 0.00645
## 1726    0   47.5 0.00645
## 1727   20   12.5 0.00645
## 1728    0   65.0 0.00645
## 1729    0    9.5 0.00645
## 1730   20   37.5 0.00645
## 1731   12   27.5 0.00645
## 1732    0   65.0 0.00645
## 1733    8    7.5 0.00645
## 1734    0   65.0 0.00645
## 1735    0   47.5 0.00645
## 1736    0   65.0 0.00645
## 1737    0   42.5 0.00645
## 1738    0   27.5 0.00645
## 1739   15   37.5 0.00645
## 1740    0   47.5 0.00645
## 1741   10    2.5 0.00645
## 1742    0    7.5 0.00645
## 1743    0    6.5 0.00645
## 1744    0   37.5 0.00645
## 1745   10   32.5 0.00645
## 1746    0   47.5 0.00645
## 1747    0   42.5 0.00645
## 1748   20    9.5 0.00645
## 1749    0   47.5 0.00645
## 1750    0   65.0 0.00645
## 1751    0   22.5 0.00645
## 1752    0   42.5 0.00645
## 1753    0   37.5 0.00645
## 1754    0   19.5 0.00645
## 1755    0   42.5 0.00645
## 1756    0   14.5 0.00645
## 1757    0   37.5 0.00645
## 1758    0    7.5 0.00645
```

```
## 1759    0   37.5 0.00645
## 1760    0   32.5 0.00645
## 1761    0    9.5 0.00645
## 1762    0   65.0 0.00645
## 1763    0   32.5 0.00645
## 1764   10    5.5 0.00645
## 1765    0   42.5 0.00645
## 1766    0   22.5 0.00645
## 1767    0   42.5 0.00645
## 1768    0    7.5 0.00645
## 1769    0   13.5 0.00645
## 1770    0   27.5 0.00645
## 1771    0   42.5 0.00645
## 1772    0   32.5 0.00645
## 1773    0   32.5 0.00645
## 1774    0    5.5 0.00645
## 1775    0   47.5 0.00645
## 1776    0   47.5 0.00645
## 1777    0   42.5 0.00645
## 1778    0   37.5 0.00645
## 1779    0   32.5 0.00645
## 1780    0   65.0 0.00645
## 1781    0   47.5 0.00645
## 1782    0   42.5 0.00645
## 1783    0   27.5 0.00645
## 1784    0   17.5 0.00645
## 1785    0   18.5 0.00645
## 1786    0   42.5 0.00645
## 1787    0   37.5 0.00645
## 1788    0   42.5 0.00645
## 1789    0   32.5 0.00645
## 1790    0    2.5 0.00645
## 1791    0   18.5 0.00645
## 1792    0    4.5 0.00645
## 1793    0   22.5 0.00645
## 1794   20    4.5 0.00645
## 1795    0   27.5 0.00645
## 1796    0   19.5 0.00645
## 1797    0   27.5 0.00645
```

```
## 1798    0   19.5 0.00645
## 1799    0   18.5 0.00645
## 1800    0   22.5 0.00645
## 1801    0   22.5 0.00645
## 1802   20    1.5 0.00645
## 1803    0    4.5 0.00645
## 1804    4    3.5 0.00645
## 1805    0    3.5 0.00645
## 1806    0   42.5 0.00645
## 1807    0   37.5 0.00645
## 1808    0   22.5 0.00645
## 1809    0   37.5 0.00645
## 1810    0   15.5 0.00645
## 1811    0   27.5 0.00645
## 1812    0   32.5 0.00645
## 1813    0   22.5 0.00645
## 1814    0   27.5 0.00645
## 1815    0   27.5 0.00645
## 1816    0    4.5 0.00645
## 1817    0   27.5 0.00645
## 1818    0   22.5 0.00645
## 1819    0   27.5 0.00645
## 1820    0   19.5 0.00645
## 1821   20    4.5 0.00645
## 1822   10   11.5 0.00645
## 1823    0   27.5 0.00645
## 1824   30   37.5 0.00645
## 1825    0    6.5 0.00645
## 1826    0   32.5 0.00645
## 1827    0   18.5 0.00645
## 1828    0   32.5 0.00645
## 1829    0   42.5 0.00645
## 1830    0   22.5 0.00645
## 1831    0   16.5 0.00645
## 1832    0   42.5 0.00645
## 1833   15   37.5 0.00645
## 1834    0   13.5 0.00645
## 1835    0   22.5 0.00645
## 1836    0   22.5 0.00645
```

```
## 1837    0   37.5 0.00645
## 1838    0   27.5 0.00645
## 1839    0   16.5 0.00645
## 1840    0   47.5 0.00645
## 1841    0   22.5 0.00645
## 1842    0   22.5 0.00645
## 1843    0   47.5 0.00645
## 1844    0   22.5 0.00645
## 1845    0   14.5 0.00645
## 1846    0   16.5 0.00645
## 1847    0   14.5 0.00645
## 1848    0   18.5 0.00645
## 1849    0    3.5 0.00645
## 1850   15   27.5 0.00645
## 1851    0   22.5 0.00645
## 1852    0   17.5 0.00645
## 1853    0   18.5 0.00645
## 1854    0    0.5 0.00645
## 1855    0   17.5 0.00645
## 1856    0   18.5 0.00645
## 1857    0    0.5 0.00645
## 1858    0   37.5 0.00645
## 1859    5    7.5 0.00645
## 1860    0   18.5 0.00645
## 1861    0    4.5 0.00645
## 1862    0   27.5 0.00645
## 1863    0    6.5 0.00645
## 1864    0   27.5 0.00645
## 1865    0   11.5 0.00645
## 1866    0   42.5 0.00645
## 1867    0   22.5 0.00645
## 1868    0   19.5 0.00645
## 1869    0   65.0 0.00645
## 1870    0   37.5 0.00645
## 1871    0   42.5 0.00645
## 1872    0   42.5 0.00645
## 1873    0   37.5 0.00645
## 1874    0   47.5 0.00645
## 1875   20   14.5 0.00645
```

```
## 1876    0   32.5 0.00645
## 1877   20   15.5 0.00645
## 1878    0   32.5 0.00645
## 1879    0   18.5 0.00645
## 1880    0    2.5 0.00645
## 1881    0    5.5 0.00645
## 1882    0   47.5 0.00645
## 1883    5    3.5 0.00645
## 1884    0   42.5 0.00645
## 1885    0    6.5 0.00645
## 1886    0   32.5 0.00645
## 1887    0   47.5 0.00645
## 1888    0    3.5 0.00645
## 1889    0   27.5 0.00645
## 1890    0   22.5 0.00645
## 1891    0   27.5 0.00645
## 1892    0   18.5 0.00645
## 1893   20   12.5 0.00645
## 1894    0    0.5 0.00645
## 1895    0    1.5 0.00645
## 1896    5   37.5 0.00645
## 1897    5   18.5 0.00645
## 1898    0   22.5 0.00645
## 1899    0   47.5 0.00645
## 1900    0   65.0 0.00645
## 1901    0   65.0 0.00645
## 1902   30   11.5 0.00645
## 1903    0   32.5 0.00645
## 1904    0   22.5 0.00645
## 1905    0   32.5 0.00645
## 1906    0   65.0 0.00645
## 1907    0   27.5 0.00645
## 1908    0   18.5 0.00645
## 1909    0   37.5 0.00645
## 1910    0   32.5 0.00645
## 1911    0   19.5 0.00645
## 1912    0   22.5 0.00645
## 1913    0   27.5 0.00645
## 1914    0   22.5 0.00645
```

```
## 1915    0   47.5 0.00645
## 1916    0   22.5 0.00645
## 1917    0   18.5 0.00645
## 1918    0   17.5 0.00645
## 1919    0   18.5 0.00645
## 1920   10   65.0 0.00645
## 1921    0   32.5 0.00645
## 1922    0   47.5 0.00645
## 1923    0   13.5 0.00645
## 1924    0   32.5 0.00645
## 1925    0   65.0 0.00645
## 1926    6   42.5 0.00645
## 1927    0   32.5 0.00645
## 1928    0   42.5 0.00645
## 1929    0   37.5 0.00645
## 1930    0    9.5 0.00645
## 1931    0   37.5 0.00645
## 1932    0   65.0 0.00645
## 1933    0   42.5 0.00645
## 1934    0   37.5 0.00645
## 1935   20    9.5 0.00645
## 1936    0   19.5 0.00645
## 1937    0   19.5 0.00645
## 1938    0   47.5 0.00645
## 1939    5   42.5 0.00645
## 1940    0   27.5 0.00645
## 1941   20   65.0 0.00645
## 1942    0   32.5 0.00645
## 1943    0   47.5 0.00645
## 1944    0   65.0 0.00645
## 1945    0    6.5 0.00645
## 1946    0   42.5 0.00645
## 1947   10   19.5 0.00645
## 1948    2   65.0 0.00645
## 1949    0   27.5 0.00645
## 1950    5   37.5 0.00645
## 1951    0   27.5 0.00645
## 1952    0   22.5 0.00645
## 1953    0   27.5 0.00645
```

```
## 1954    1   37.5 0.00645
## 1955    0   22.5 0.00645
## 1956   20   27.5 0.00645
## 1957    0   32.5 0.00645
## 1958    0   32.5 0.00645
## 1959    0   37.5 0.00645
## 1960    0   37.5 0.00645
## 1961    0   19.5 0.00645
## 1962    0   65.0 0.00645
## 1963    0   65.0 0.00645
## 1964    0   32.5 0.00645
## 1965    0   42.5 0.00645
## 1966    0   22.5 0.00645
## 1967    0   22.5 0.00645
## 1968   10   16.5 0.00645
## 1969    0   22.5 0.00645
## 1970    0   22.5 0.00645
## 1971    0   65.0 0.00645
## 1972   10   13.5 0.00645
## 1973    0   32.5 0.00645
## 1974    0   37.5 0.00645
## 1975    0   37.5 0.00645
## 1976    0   27.5 0.00645
## 1977   20    6.5 0.00645
## 1978    0   19.5 0.00645
## 1979    0   32.5 0.00645
## 1980    0   22.5 0.00645
## 1981    0   65.0 0.00645
## 1982    0   27.5 0.00645
## 1983    0   18.5 0.00645
## 1984    0   47.5 0.00645
## 1985    0    1.5 0.00645
## 1986    0   42.5 0.00645
## 1987    0    1.5 0.00645
## 1988    0   65.0 0.00645
## 1989    0   22.5 0.00645
## 1990    0   42.5 0.00645
## 1991    0    0.5 0.00645
## 1992    0   47.5 0.00645
```

```
## 1993    0    65.0 0.00645
## 1994   20    11.5 0.00645
## 1995   20     5.5 0.00645
## 1996    0    65.0 0.00645
## 1997    3     2.5 0.00645
## 1998    0    65.0 0.00645
## 1999   10    32.5 0.00645
## 2000    0     2.5 0.00645
## 2001    0    47.5 0.00645
## 2002    0     5.5 0.00645
## 2003    0    65.0 0.00645
## 2004   20    11.5 0.00645
## 2005   40    22.5 0.00645
## 2006    0    65.0 0.00645
## 2007    0    13.5 0.00645
## 2008    0    27.5 0.00645
## 2009    0    65.0 0.00645
## 2010   20    32.5 0.00645
## 2011    0    65.0 0.00645
## 2012    0     8.5 0.00645
## 2013    0    27.5 0.00645
## 2014    0    65.0 0.00645
## 2015    0    32.5 0.00645
## 2016    8     5.5 0.00645
## 2017   20    22.5 0.00645
## 2018    0     5.5 0.00645
## 2019    0    27.5 0.00645
## 2020    0     7.5 0.00645
## 2021   10     4.5 0.00645
## 2022    0    42.5 0.00645
## 2023    0    32.5 0.00645
## 2024    0    22.5 0.00645
## 2025    0    27.5 0.00645
## 2026    0    47.5 0.00645
## 2027    0    32.5 0.00645
## 2028    0     3.5 0.00645
## 2029    7    32.5 0.00645
## 2030    0     9.5 0.00645
## 2031    0    47.5 0.00645
```

```
## 2032    0    42.5 0.00645
## 2033    0     9.5 0.00645
## 2034    0    18.5 0.00645
## 2035    0    37.5 0.00645
## 2036    0    27.5 0.00645
## 2037    0    37.5 0.00645
## 2038    0    18.5 0.00645
## 2039    0    65.0 0.00645
## 2040    0    32.5 0.00645
## 2041    0    27.5 0.00645
## 2042    0    65.0 0.00645
## 2043    8    22.5 0.00645
## 2044    0    65.0 0.00645
## 2045    0    37.5 0.00645
## 2046    0    22.5 0.00645
## 2047    0    47.5 0.00645
## 2048    0    42.5 0.00645
## 2049    0    12.5 0.00645
## 2050    0    18.5 0.00645
## 2051   20     6.5 0.00645
## 2052    0    42.5 0.00645
## 2053    0    27.5 0.00645
## 2054    0    65.0 0.00645
## 2055    0    65.0 0.00645
## 2056    0    27.5 0.00645
## 2057   10    27.5 0.00645
## 2058    0    42.5 0.00645
## 2059    0    27.5 0.00645
## 2060    0    65.0 0.00645
## 2061    0    65.0 0.00645
## 2062    0    27.5 0.00645
## 2063    0    27.5 0.00645
## 2064    0    65.0 0.00645
## 2065    0    14.5 0.00645
## 2066    0    22.5 0.00645
## 2067    0    10.5 0.00645
## 2068    0    15.5 0.00645
## 2069    0    32.5 0.00645
## 2070    0    32.5 0.00645
```

```
## 2071    0    4.5 0.00645
## 2072    0    6.5 0.00645
## 2073    0    8.5 0.00645
## 2074    0   32.5 0.00645
## 2075    0   32.5 0.00645
## 2076    0   32.5 0.00645
## 2077    0   47.5 0.00645
## 2078   20   17.5 0.00645
## 2079    0   37.5 0.00645
## 2080    0   27.5 0.00645
## 2081    0    7.5 0.00645
## 2082    0   10.5 0.00645
## 2083    0   22.5 0.00645
## 2084    0   27.5 0.00645
## 2085    5   32.5 0.00645
## 2086    0   37.5 0.00645
## 2087    0    4.5 0.00645
## 2088    0    2.5 0.00645
## 2089    0   47.5 0.00645
## 2090   10   22.5 0.00645
## 2091    0    1.5 0.00645
## 2092    0   22.5 0.00645
## 2093    0   27.5 0.00645
## 2094    0   65.0 0.00645
## 2095    0   42.5 0.00645
## 2096    0   12.5 0.00645
## 2097    0   47.5 0.00645
## 2098   20   32.5 0.00645
## 2099   15   37.5 0.00645
## 2100    0   42.5 0.00645
## 2101    0   22.5 0.00645
## 2102    0   17.5 0.00645
## 2103    0   32.5 0.00645
## 2104    0   22.5 0.00645
## 2105    0   18.5 0.00645
## 2106    7   32.5 0.00645
## 2107    0   27.5 0.00645
## 2108    0    3.5 0.00645
## 2109    0   15.5 0.00645
```

```
## 2110    0   65.0 0.00645
## 2111    0   37.5 0.00645
## 2112    0   32.5 0.00645
## 2113    0    9.5 0.00645
## 2114   15   22.5 0.00645
## 2115    0   42.5 0.00645
## 2116    0   65.0 0.00645
## 2117    1   37.5 0.00645
## 2118    0   22.5 0.00645
## 2119    0   15.5 0.00645
## 2120   15   42.5 0.00645
## 2121    0   14.5 0.00645
## 2122    0   37.5 0.00645
## 2123    0   22.5 0.00645
## 2124    0   65.0 0.00645
## 2125    0   47.5 0.00645
## 2126    0   10.5 0.00645
## 2127    0   65.0 0.00645
## 2128    0   27.5 0.00645
## 2129    0   65.0 0.00645
## 2130    0   27.5 0.00645
## 2131    0   65.0 0.00645
## 2132    5   16.5 0.00645
## 2133   10   65.0 0.00645
## 2134    0   42.5 0.00645
## 2135    0   12.5 0.00645
## 2136    0   11.5 0.00645
## 2137    0   37.5 0.00645
## 2138   12   65.0 0.00645
## 2139    0   32.5 0.00645
## 2140    0   65.0 0.00645
## 2141   10   65.0 0.00645
## 2142    0   65.0 0.00645
## 2143    0   65.0 0.00645
## 2144   20   22.5 0.00645
## 2145    0   65.0 0.00645
## 2146   10   47.5 0.00645
## 2147   10   27.5 0.00645
## 2148    0   65.0 0.00645
```

```
## 2149    0    65.0 0.00645
## 2150    0    32.5 0.00645
## 2151    0    22.5 0.00645
## 2152    0    65.0 0.00645
## 2153    0    65.0 0.00645
## 2154    0     6.5 0.00645
## 2155    0    65.0 0.00645
## 2156    4    37.5 0.00645
## 2157    0    65.0 0.00645
## 2158    0    32.5 0.00645
## 2159    0    27.5 0.00645
## 2160    0    65.0 0.00645
## 2161    0    27.5 0.00645
## 2162    0    22.5 0.00645
## 2163    0    22.5 0.00645
## 2164    0    13.5 0.00645
## 2165    0    22.5 0.00645
## 2166    0    32.5 0.00645
## 2167    0    12.5 0.00645
## 2168    4     6.5 0.00645
## 2169   15    22.5 0.00645
## 2170    0    42.5 0.00645
## 2171    0    42.5 0.00645
## 2172    0    65.0 0.00645
## 2173    0    27.5 0.00645
## 2174    0    22.5 0.00645
## 2175    0    65.0 0.00645
## 2176    3    37.5 0.00645
## 2177    0    65.0 0.00645
## 2178    0    32.5 0.00645
## 2179    0    65.0 0.00645
## 2180    0    65.0 0.00645
## 2181    0    22.5 0.00645
## 2182    0    22.5 0.00645
## 2183    0    17.5 0.00645
## 2184    0    19.5 0.00645
## 2185    0    27.5 0.00645
## 2186   10    47.5 0.00645
## 2187    0    47.5 0.00645
```

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## 2188    0   22.5 0.00645
## 2189    0    9.5 0.00645
## 2190    0   42.5 0.00645
## 2191   10   10.5 0.00645
## 2192    0   65.0 0.00645
## 2193    0   47.5 0.00645
## 2194    0   42.5 0.00645
## 2195   20   22.5 0.00645
## 2196    0   27.5 0.00645
## 2197    0   65.0 0.00645
## 2198    0    8.5 0.00645
## 2199    0   22.5 0.00645
## 2200    0   19.5 0.00645
## 2201    0    8.5 0.00645
## 2202    0   47.5 0.00645
## 2203    0    8.5 0.00645
## 2204    2    4.5 0.00645
## 2205    0   65.0 0.00645
## 2206    0   32.5 0.00645
## 2207    0   12.5 0.00645
## 2208    0   65.0 0.00645
## 2209   10   19.5 0.00645
## 2210    0   22.5 0.00645
## 2211    0   27.5 0.00645
## 2212    0   19.5 0.00645
## 2213    0   15.5 0.00645
## 2214    0   37.5 0.00645
## 2215    0   13.5 0.00645
## 2216    0   42.5 0.00645
## 2217    0   65.0 0.00645
## 2218   20   32.5 0.00645
## 2219    0   37.5 0.00645
## 2220   10   47.5 0.00645
## 2221    0   65.0 0.00645
## 2222    0   22.5 0.00645
## 2223    0   27.5 0.00645
## 2224    0   22.5 0.00645
## 2225    0   27.5 0.00645
## 2226    0   12.5 0.00645
```

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## 2227    0   19.5 0.00645
## 2228    0   42.5 0.00645
## 2229    0   27.5 0.00645
## 2230    0   32.5 0.00645
## 2231    0   65.0 0.00645
## 2232    5   47.5 0.00645
## 2233    0   27.5 0.00645
## 2234   10   32.5 0.00645
## 2235    0   65.0 0.00645
## 2236    0   22.5 0.00645
## 2237    0   65.0 0.00645
## 2238    0   42.5 0.00645
## 2239    0   32.5 0.00645
## 2240    0   65.0 0.00645
## 2241    0   42.5 0.00645
## 2242    0   27.5 0.00645
## 2243    0   65.0 0.00645
## 2244    0    5.5 0.00645
## 2245    0   22.5 0.00645
## 2246    0   37.5 0.00645
## 2247    0    2.5 0.00645
## 2248    0    6.5 0.00645
## 2249    0   18.5 0.00645
## 2250    0   13.5 0.00645
## 2251   20   12.5 0.00645
## 2252    0   19.5 0.00645
## 2253    0    9.5 0.00645
## 2254    0    9.5 0.00645
## 2255    0   13.5 0.00645
## 2256    0   47.5 0.00645
## 2257    0   10.5 0.00645
## 2258    0   37.5 0.00645
## 2259    0   27.5 0.00645
## 2260    0   19.5 0.00645
## 2261    0   15.5 0.00645
## 2262   10   16.5 0.00645
## 2263    0   32.5 0.00645
## 2264    0   11.5 0.00645
## 2265    0   10.5 0.00645
```

```
## 2266     0   16.5 0.00645
## 2267     0    9.5 0.00645
## 2268    10   12.5 0.00645
## 2269     0    9.5 0.00645
## 2270     0   22.5 0.00645
## 2271    30   22.5 0.00645
## 2272    10   27.5 0.00645
## 2273    20   11.5 0.00645
## 2274     0    5.5 0.00645
## 2275    10   19.5 0.00645
## 2276     0   11.5 0.00645
## 2277     0   27.5 0.00645
## 2278     0   42.5 0.00645
## 2279     0    3.5 0.00645
## 2280     0   65.0 0.00645
## 2281     0   16.5 0.00645
## 2282     0   42.5 0.00645
## 2283    30    2.5 0.00645
## 2284    30    3.5 0.00645
## 2285     0    8.5 0.00645
## 2286     0   27.5 0.00645
## 2287     0   12.5 0.00645
## 2288     4    4.5 0.00645
## 2289     0   37.5 0.00645
## 2290     0   32.5 0.00645
## 2291     0   22.5 0.00645
## 2292     0   37.5 0.00645
## 2293     0   19.5 0.00645
## 2294    10    9.5 0.00645
## 2295     3   13.5 0.00645
## 2296     0    2.5 0.00645
## 2297     0    0.5 0.00645
## 2298     0   10.5 0.00645
## 2299     0   47.5 0.00645
## 2300     0   42.5 0.00645
## 2301    20    3.5 0.00645
## 2302     0   27.5 0.00645
## 2303     0   19.5 0.00645
## 2304     0   37.5 0.00645
```

```
## 2305    3    7.5 0.00645
## 2306   20   22.5 0.00645
## 2307    7   22.5 0.00645
## 2308    0   47.5 0.00645
## 2309   20   27.5 0.00645
## 2310    0    4.5 0.00645
## 2311    0   18.5 0.00645
## 2312    0   32.5 0.00645
## 2313    0   37.5 0.00645
## 2314    2    6.5 0.00645
## 2315    0   42.5 0.00645
## 2316    0   47.5 0.00645
## 2317   10   14.5 0.00645
## 2318    0    4.5 0.00645
## 2319    0   65.0 0.00645
## 2320   20   12.5 0.00645
## 2321    0   37.5 0.00645
## 2322    0   32.5 0.00645
## 2323    0    6.5 0.00645
## 2324    5   11.5 0.00645
## 2325    0   14.5 0.00645
## 2326    0   27.5 0.00645
## 2327    0   32.5 0.00645
## 2328    0   15.5 0.00645
## 2329   10   22.5 0.00645
## 2330   20   22.5 0.00645
## 2331    0   65.0 0.00645
## 2332    0   47.5 0.00645
## 2333    0   17.5 0.00645
## 2334   20   27.5 0.00645
## 2335    0   32.5 0.00645
## 2336    0   65.0 0.00645
## 2337    0   65.0 0.00645
## 2338    0   65.0 0.00645
## 2339    0   32.5 0.00645
## 2340    0   18.5 0.00645
## 2341    0   42.5 0.00645
## 2342    0    7.5 0.00645
## 2343    5   37.5 0.00645
```

```
## 2344    0   37.5 0.00645
## 2345    0    1.5 0.00645
## 2346    7   17.5 0.00645
## 2347    0   65.0 0.00645
## 2348    0    3.5 0.00645
## 2349    0    4.5 0.00645
## 2350   15   22.5 0.00645
## 2351    0   22.5 0.00645
## 2352    0    3.5 0.00645
## 2353    0   17.5 0.00645
## 2354    0   16.5 0.00645
## 2355    0   10.5 0.00645
## 2356    0   22.5 0.00645
## 2357    4    3.5 0.00645
## 2358   10    8.5 0.00645
## 2359    0    1.5 0.00645
## 2360    0   65.0 0.00645
## 2361    0   42.5 0.00645
## 2362    0   22.5 0.00645
## 2363   15   17.5 0.00645
## 2364   15   18.5 0.00645
## 2365   40    5.5 0.00645
## 2366    0   13.5 0.00645
## 2367    0   17.5 0.00645
## 2368   10   19.5 0.00645
## 2369    0   65.0 0.00645
## 2370    0   11.5 0.00645
## 2371    0   65.0 0.00645
## 2372    0    2.5 0.00645
## 2373    0   65.0 0.00645
## 2374   20   10.5 0.00645
## 2375    0   42.5 0.00645
## 2376    0   19.5 0.00645
## 2377    0    5.5 0.00645
## 2378    0    0.5 0.00645
## 2379    0   65.0 0.00645
## 2380    0   47.5 0.00645
## 2381    0   14.5 0.00645
## 2382    0   27.5 0.00645
```

```
## 2383   20   22.5 0.00645
## 2384   20   19.5 0.00645
## 2385    0   15.5 0.00645
## 2386   10    0.5 0.00645
## 2387    0   47.5 0.00645
## 2388    0   22.5 0.00645
## 2389    0   15.5 0.00645
## 2390   10   17.5 0.00645
## 2391    0   47.5 0.00645
## 2392    0   15.5 0.00645
## 2393    0   18.5 0.00645
## 2394   10    2.5 0.00645
## 2395    0   18.5 0.00645
## 2396    0   27.5 0.00645
## 2397    0   32.5 0.00645
## 2398   15   19.5 0.00645
## 2399   15   32.5 0.00645
## 2400    0   22.5 0.00645
## 2401    0   19.5 0.00645
## 2402    0    6.5 0.00645
## 2403    0   27.5 0.00645
## 2404    0   10.5 0.00645
## 2405    0   47.5 0.00645
## 2406    0   19.5 0.00645
## 2407    0   22.5 0.00645
## 2408   20   15.5 0.00645
## 2409    0    8.5 0.00645
## 2410    5   19.5 0.00645
## 2411    0    1.5 0.00645
## 2412    6   14.5 0.00645
## 2413    0   27.5 0.00645
## 2414   20    5.5 0.00645
## 2415    0    5.5 0.00645
## 2416    0   14.5 0.00645
## 2417    0   32.5 0.00645
## 2418    0   22.5 0.00645
## 2419    0   22.5 0.00645
## 2420    0   27.5 0.00645
## 2421   10   27.5 0.00645
```

```
## 2422    0   13.5 0.00645
## 2423    0   22.5 0.00645
## 2424    0   22.5 0.00645
## 2425    0   65.0 0.00645
## 2426    0   19.5 0.00645
## 2427    0   37.5 0.00645
## 2428    0   32.5 0.00645
## 2429    0   11.5 0.00645
## 2430    0   27.5 0.00645
## 2431   20   17.5 0.00645
## 2432    0   37.5 0.00645
## 2433    0   10.5 0.00645
## 2434    0   32.5 0.00645
## 2435    0   37.5 0.00645
## 2436    0   32.5 0.00645
## 2437    0   37.5 0.00645
## 2438   10    2.5 0.00645
## 2439    0   15.5 0.00645
## 2440    0   42.5 0.00645
## 2441    0   22.5 0.00645
## 2442    0   22.5 0.00645
## 2443    0    2.5 0.00645
## 2444    0   32.5 0.00645
## 2445    0   32.5 0.00645
## 2446    0   18.5 0.00645
## 2447    0   27.5 0.00645
## 2448    0    2.5 0.00645
## 2449   20    6.5 0.00645
## 2450    0   37.5 0.00645
## 2451    0   65.0 0.00645
## 2452    0   47.5 0.00645
## 2453    0   42.5 0.00645
## 2454    0   27.5 0.00645
## 2455    0   32.5 0.00645
## 2456   20   42.5 0.00645
## 2457    0   17.5 0.00645
## 2458    0   42.5 0.00645
## 2459   10   19.5 0.00645
## 2460    0   32.5 0.00645
```

```
## 2461    0   42.5 0.00645
## 2462   20   14.5 0.00645
## 2463    0   15.5 0.00645
## 2464    0   32.5 0.00645
## 2465    0   37.5 0.00645
## 2466    0    6.5 0.00645
## 2467    0   32.5 0.00645
## 2468    0   42.5 0.00645
## 2469   20   27.5 0.00645
## 2470    0   65.0 0.00645
## 2471    0   65.0 0.00645
## 2472    0   27.5 0.00645
## 2473    0   32.5 0.00645
## 2474    0   32.5 0.00645
## 2475    0   37.5 0.00645
## 2476   10   18.5 0.00645
## 2477    0   22.5 0.00645
## 2478    6   42.5 0.00645
## 2479    0   27.5 0.00645
## 2480    0   37.5 0.00645
## 2481    0   11.5 0.00645
## 2482    0   18.5 0.00645
## 2483    0    3.5 0.00645
## 2484    0   18.5 0.00645
## 2485    0   13.5 0.00645
## 2486    0   22.5 0.00645
## 2487    0   65.0 0.00645
## 2488    0   22.5 0.00645
## 2489    0   16.5 0.00645
## 2490    0   27.5 0.00645
## 2491    0   42.5 0.00645
## 2492    2    3.5 0.00645
## 2493    0   22.5 0.00645
## 2494    0   19.5 0.00645
## 2495    0   12.5 0.00645
## 2496   20    9.5 0.00645
## 2497   10    4.5 0.00645
## 2498    0   27.5 0.00645
## 2499    0   47.5 0.00645
```

```
## 2500    0   22.5 0.00645
## 2501    0    9.5 0.00645
## 2502    0   65.0 0.00645
## 2503    0    7.5 0.00645
## 2504    0   65.0 0.00645
## 2505    0    4.5 0.00645
## 2506    0   27.5 0.00645
## 2507    0   19.5 0.00645
## 2508    0    6.5 0.00645
## 2509    0   16.5 0.00645
## 2510    0   65.0 0.00645
## 2511    0   22.5 0.00645
## 2512    0    2.5 0.00645
## 2513    0   22.5 0.00645
## 2514    0   32.5 0.00645
## 2515    0    9.5 0.00645
## 2516    0   16.5 0.00645
## 2517    0   32.5 0.00645
## 2518    0   17.5 0.00645
## 2519    0    6.5 0.00645
## 2520    0   65.0 0.00645
## 2521    0   37.5 0.00645
## 2522    4   17.5 0.00645
## 2523    0   19.5 0.00645
## 2524    0   32.5 0.00645
## 2525    6   42.5 0.00645
## 2526    0   32.5 0.00645
## 2527    0   18.5 0.00645
## 2528   10   22.5 0.00645
## 2529    3   22.5 0.00645
## 2530    0   32.5 0.00645
## 2531    0   18.5 0.00645
## 2532    0   12.5 0.00645
## 2533    0    9.5 0.00645
## 2534    0   22.5 0.00645
## 2535    0   27.5 0.00645
## 2536    0    0.5 0.00645
## 2537    0   22.5 0.00645
## 2538    0    6.5 0.00645
```

```
## 2539    0   65.0 0.00645
## 2540    0   19.5 0.00645
## 2541    0   27.5 0.00645
## 2542    0   12.5 0.00645
## 2543    0   42.5 0.00645
## 2544    0   13.5 0.00645
## 2545    0   65.0 0.00645
## 2546    0    2.5 0.00645
## 2547    0   65.0 0.00645
## 2548    0    9.5 0.00645
## 2549    0   37.5 0.00645
## 2550    0   19.5 0.00645
## 2551    0   17.5 0.00645
## 2552    0    9.5 0.00645
## 2553    0   65.0 0.00645
## 2554    0   65.0 0.00645
## 2555    5   14.5 0.00645
## 2556    5   32.5 0.00645
## 2557    0   17.5 0.00645
## 2558    0    2.5 0.00645
## 2559    0   18.5 0.00645
## 2560    0   22.5 0.00645
## 2561   20   65.0 0.00645
## 2562    0   65.0 0.00645
## 2563    6   22.5 0.00645
## 2564    0    0.5 0.00645
## 2565    0   22.5 0.00645
## 2566    0   47.5 0.00645
## 2567    0   65.0 0.00645
## 2568    0   65.0 0.00645
## 2569    0   32.5 0.00645
## 2570    0   65.0 0.00645
## 2571    0    0.5 0.00645
## 2572    0   65.0 0.00645
## 2573    0   42.5 0.00645
## 2574    0   13.5 0.00645
## 2575    0   22.5 0.00645
## 2576    0   65.0 0.00645
## 2577    0   16.5 0.00645
```

```
## 2578    20    9.5 0.00645
## 2579    15   19.5 0.00645
## 2580     0   11.5 0.00645
## 2581     0    8.5 0.00645
## 2582     0   42.5 0.00645
## 2583     0   27.5 0.00645
## 2584     0   14.5 0.00645
## 2585     8    4.5 0.00645
## 2586     0   15.5 0.00645
## 2587     0   27.5 0.00645
## 2588     0   65.0 0.00645
## 2589     0   16.5 0.00645
## 2590     0   37.5 0.00645
## 2591     0   65.0 0.00645
## 2592     0   37.5 0.00645
## 2593     0    7.5 0.00645
## 2594     0   22.5 0.00645
## 2595     0   47.5 0.00645
## 2596     0   32.5 0.00645
## 2597     5    4.5 0.00645
## 2598     0   32.5 0.00645
## 2599     0   15.5 0.00645
## 2600    10    1.5 0.00645
## 2601     0   65.0 0.00645
## 2602     0   37.5 0.00645
## 2603     0   12.5 0.00645
## 2604     0   16.5 0.00645
## 2605     0   47.5 0.00645
## 2606     0    0.5 0.00645
## 2607     0   18.5 0.00645
## 2608     0   32.5 0.00645
## 2609     0   13.5 0.00645
## 2610     0    2.5 0.00645
## 2611     0   47.5 0.00645
## 2612     0   32.5 0.00645
## 2613     0   22.5 0.00645
## 2614     0   65.0 0.00645
## 2615     0    9.5 0.00645
## 2616     0   65.0 0.00645
```

```
## 2617   15    8.5 0.00645
## 2618    0    9.5 0.00645
## 2619    0   22.5 0.00645
## 2620    0   22.5 0.00645
## 2621   12   65.0 0.00645
## 2622    0   22.5 0.00645
## 2623   10   22.5 0.00645
## 2624    0   10.5 0.00645
## 2625    0    2.5 0.00645
## 2626    0    9.5 0.00645
## 2627    0    4.5 0.00645
## 2628   46    0.5 0.00645
## 2629    0   32.5 0.00645
## 2630    0   47.5 0.00645
## 2631    0    5.5 0.00645
## 2632    0   17.5 0.00645
## 2633   20   10.5 0.00645
## 2634    0   12.5 0.00645
## 2635    0    9.5 0.00645
## 2636    5   22.5 0.00645
## 2637    0   32.5 0.00645
## 2638    0   22.5 0.00645
## 2639    0    8.5 0.00645
## 2640    0    1.5 0.00645
## 2641    0   32.5 0.00645
## 2642    0   15.5 0.00645
## 2643    0   37.5 0.00645
## 2644    0   47.5 0.00645
## 2645    0   65.0 0.00645
## 2646    0   27.5 0.00645
## 2647    0   27.5 0.00645
## 2648    0   65.0 0.00645
## 2649    0   32.5 0.00645
## 2650    0    7.5 0.00645
## 2651    0    4.5 0.00645
## 2652   40   22.5 0.00645
## 2653    0    8.5 0.00645
## 2654    0    6.5 0.00645
## 2655    0   27.5 0.00645
```

```
## 2656    0   18.5 0.00645
## 2657    0   27.5 0.00645
## 2658    0   27.5 0.00645
## 2659    0   22.5 0.00645
## 2660    0   27.5 0.00645
## 2661    0   19.5 0.00645
## 2662    0   27.5 0.00645
## 2663    0   37.5 0.00645
## 2664   20    6.5 0.00645
## 2665    0   32.5 0.00645
## 2666    0   15.5 0.00645
## 2667    0   27.5 0.00645
## 2668   12   42.5 0.00645
## 2669    0   32.5 0.00645
## 2670    0   47.5 0.00645
## 2671    0   16.5 0.00645
## 2672    0   42.5 0.00645
## 2673    0    5.5 0.00645
## 2674    0   22.5 0.00645
## 2675    0   65.0 0.00645
## 2676   10   27.5 0.00645
## 2677    0   42.5 0.00645
## 2678    0   32.5 0.00645
## 2679   20    4.5 0.00645
## 2680    5   12.5 0.00645
## 2681    0   65.0 0.00645
## 2682    0   65.0 0.00645
## 2683    0   22.5 0.00645
## 2684    0   32.5 0.00645
## 2685    0   65.0 0.00645
## 2686    0   65.0 0.00645
## 2687    0    8.5 0.00645
## 2688    0   47.5 0.00645
## 2689    0    3.5 0.00645
## 2690    0   22.5 0.00645
## 2691    0   65.0 0.00645
## 2692   50   27.5 0.00645
## 2693    0   65.0 0.00645
## 2694    0   10.5 0.00645
```

```
## 2695     0   65.0 0.00645
## 2696     0   19.5 0.00645
## 2697     0   22.5 0.00645
## 2698     0   18.5 0.00645
## 2699     0   19.5 0.00645
## 2700     0   22.5 0.00645
## 2701     0   16.5 0.00645
## 2702     0   65.0 0.00645
## 2703     0   65.0 0.00645
## 2704    20   22.5 0.00645
## 2705     0   32.5 0.00645
## 2706     0   42.5 0.00645
## 2707     0    6.5 0.00645
## 2708     0   27.5 0.00645
## 2709     0   14.5 0.00645
## 2710     0   32.5 0.00645
## 2711     5   65.0 0.00645
## 2712     0   15.5 0.00645
## 2713    15   22.5 0.00645
## 2714     0   32.5 0.00645
## 2715     0    6.5 0.00645
## 2716     0   15.5 0.00645
## 2717     0   27.5 0.00645
## 2718     0   17.5 0.00645
## 2719     0   37.5 0.00645
## 2720    10   22.5 0.00645
## 2721     9    4.5 0.00645
## 2722     0   18.5 0.00645
## 2723     0   22.5 0.00645
## 2724     0   37.5 0.00645
## 2725    15    5.5 0.00645
## 2726     0   16.5 0.00645
## 2727     0   17.5 0.00645
## 2728     0    6.5 0.00645
## 2729     0    6.5 0.00645
## 2730     0   32.5 0.00645
## 2731     0   22.5 0.00645
## 2732     0   15.5 0.00645
## 2733    10    6.5 0.00645
```

```
## 2734    0   27.5 0.00645
## 2735    0   42.5 0.00645
## 2736   15    9.5 0.00645
## 2737   20   32.5 0.00645
## 2738    0   22.5 0.00645
## 2739    0    4.5 0.00645
## 2740    0   27.5 0.00645
## 2741    0   37.5 0.00645
## 2742    0    8.5 0.00645
## 2743    0   27.5 0.00645
## 2744    0   47.5 0.00645
## 2745    0   32.5 0.00645
## 2746    0   27.5 0.00645
## 2747    0    6.5 0.00645
## 2748    3   12.5 0.00645
## 2749    0   32.5 0.00645
## 2750   10    5.5 0.00645
## 2751    0   22.5 0.00645
## 2752    0   10.5 0.00645
## 2753    0   32.5 0.00645
## 2754    0   32.5 0.00645
## 2755    0   27.5 0.00645
## 2756   15   12.5 0.00645
## 2757    0    8.5 0.00645
## 2758    0   42.5 0.00645
## 2759    0    4.5 0.00645
## 2760    0   37.5 0.00645
## 2761    0   18.5 0.00645
## 2762    0   42.5 0.00645
## 2763    0   42.5 0.00645
## 2764   20   17.5 0.00645
## 2765    0   47.5 0.00645
## 2766    0   22.5 0.00645
## 2767    0   15.5 0.00645
## 2768    0    1.5 0.00645
## 2769    0    5.5 0.00645
## 2770    0   12.5 0.00645
## 2771    0   22.5 0.00645
## 2772    0   27.5 0.00645
```

```
## 2773   0    5.5 0.00645
## 2774   0   65.0 0.00645
## 2775   0   27.5 0.00645
## 2776   0   37.5 0.00645
```

Note: Calculating standard errors for nonlinear functions of multiple parameters $(\hat{\beta}, \bar{x}, \bar{y})$ is a little tricky, and I won't address it. If you're interested a couple of methods include the delta method (which is more theoretically-grounded and used by `marginaleffects`) and the bootstrap.

Interpreting Effects for Transformed Variables

Choice of functional form should be guided by theory as well as the data.

Logs

1. Log-linear form: $ln(y) = \beta_0 + \beta_1 x_1 + controls + u$

$$\beta_1 = \frac{\delta ln(y)}{\delta x_1} = \frac{\delta y/y}{\delta x_1} = \frac{\%\Delta y}{\Delta x_1}$$

2. Linear-log form: $y = \beta_0 + \beta_1 ln(x_1) + controls + u$

$$\beta_1 = \frac{\delta y}{\delta ln(x_1)} = \frac{\delta y}{\delta x_1/x_1} = \frac{\Delta y}{\%\Delta x_1}$$

3. Double-log form: $ln(y) = \beta_0 + \beta_1 ln(x_1) + controls + u$

$$\beta_1 = \frac{\delta ln(y)}{\delta ln(x_1)} = \frac{\delta y/y}{\delta x_1/x_1} = \frac{\%\Delta y}{\%\Delta x_1} = E_{yx}$$

Family Income and Birthweight

Estimate the birth weight model using: 1. The log of *birthweight* and levels of the explanatory variables (`bwght.lm7`) 2. The log of *family income* and levels of birthweight and other variables (`bwght.lm8`) 3. The logs of birthweight *and* family income (`bwght.lm9`)

Output the results using a text `stargazer` table.

```
bwght.lm7 <- lm(log(bwght) ~ cigs + faminc, data = bwght)
bwght.lm8 <- lm(bwght ~ cigs + log(faminc), data = bwght)
bwght.lm9 <- lm(log(bwght) ~ cigs + log(faminc), data = bwght)
stargazer(bwght.lm7, bwght.lm8, bwght.lm9, type = 'text')
```

```
## 
## ====================================================================
##                             Dependent variable:
##                      ----------------------------------
##                      log(bwght)    bwght    log(bwght)
##                         (1)         (2)         (3)
##                      ----------------------------------
## cigs                  -0.004***   -0.467***  -0.004***
##                        (0.001)     (0.091)    (0.001)
## 
## faminc                 0.001***
##                        (0.0003)
## 
## log(faminc)                        1.851***   0.016***
##                                    (0.595)    (0.006)
## 
## Constant               4.744***  113.991***   4.719***
##                        (0.010)     (1.944)    (0.018)
## 
## --------------------------------------------------------------------
## Observations            1,388       1,388      1,388
## R2                      0.026       0.030      0.026
## Adjusted R2             0.025       0.028      0.024
## Residual Std. Error (df = 1385)   0.188      20.066     0.188
## F Statistic (df = 2; 1385)   18.822***  21.058***  18.310***
## ====================================================================
## Note:                           *p<0.1; **p<0.05; ***p<0.01
```

Quadratics

The coefficients themselves do not reveal the effect of x_j on y because that effect depends on the value of x_j. Some calculus shows that

$$\frac{\delta y}{\delta x_j} = \beta_1 + 2\beta_2 x_1$$

This also means that there is a value of x that maximizes or minimizes the predicted value of y.

Choice of functional form should be guided by theory as well as the data.

Family Income and Birthweight

Estimate the birth weight model using a quadratic of family income (`bwght.lmX`) and summarize the results with `summary()`. Calculate the effect of a \$1,000/year increase in family income for a family with a median income level (the units for `faminc` are in \$1,000/year).

```
bwght.lmX <- lm(bwghtlbs ~ cigs + faminc + I(faminc^2), data = bwght)
summary(bwght.lmX)
```

```
##
## Call:
## lm(formula = bwghtlbs ~ cigs + faminc + I(faminc^2), data = bwght)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -6.0419 -0.7277  0.0473  0.8341  9.3260
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)  7.1695876  0.1010221  70.970  < 2e-16 ***
## cigs        -0.0284928  0.0057244  -4.977 7.25e-07 ***
## faminc       0.0175664  0.0066598   2.638  0.00844 **
## I(faminc^2) -0.0001687  0.0000918  -1.837  0.06639 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.253 on 1384 degrees of freedom
## Multiple R-squared:  0.03217,    Adjusted R-squared:  0.03007
## F-statistic: 15.33 on 3 and 1384 DF,  p-value: 8.128e-10
```