Lab_05T

36-290 – Statistical Research Methodology

Week 5 Tuesday – Fall 2021

Preliminaries

Goal

The goal of this lab is to perform, and to interpret the results of, a multiple linear regression analysis.

Data

We'll begin by importing some data:

```
rm(list=ls())
file.path = "https://raw.githubusercontent.com/pefreeman/36-290/master/EXAMPLE_DATASETS/DM_GALAXY/Massive_Black_II.
Rdata"
load(url(file.path))
rm(file.path)
objects()
```

```
## [1] "pred.test"     "pred.train"    "resp.test.df"  "resp.train.df"
```

The split of the data into training and test sets was done for us by the client. For background on what these data represent, click here (https://github.com/pefreeman/36-290/tree/master/EXAMPLE_DATASETS/DM_GALAXY) and read the description. In short, the predictor variables are measurements relating to the dark matter haloes in which visible galaxies are embedded, and the response variables are measurements relating to the galaxies. To goal when building a statistical model would be to link the dark matter halo properties to a galaxy property, i.e., to be able to predict galaxy mass given a set of dark matter halo measurements, and/or determine which measurements most inform galaxy mass.

Digression: what is dark matter?

It turns out that when we look at large-scale structures, like gravitationally bound clusters of galaxies, the movements of those galaxies cannot be explained by the amount of light that we see. We basically understand balls of gas (stars) and thus when we see a galaxy of a particular brightness we expect it to have a certain mass. But galaxies and clusters of galaxies are more massive than they appear…about five times more massive. The leading explanation for why there is missing mass is that there is a constituent of the Universe that interacts with "normal," or "baryonic" matter via gravitation, but not via electromagnetism. The force carrier for electromagnetism is the photon: if matter does not interact via electromagnetism, then it must be "dark."

Dark matter is a "parameterization of ignorance." We don't know *what* it is, but we see what it does. This is kind of like gravitation itself between Newton and Einstein: in the 1800s, we could model gravity (we could see what it does and could build physical models based on mathematical laws) but we didn't know *what* gravity was. (The theory for gravity is General Relativity.)

Anyway: dark matter is such that it is easy to simulate the evolution of a Universe containing only dark matter particles. Basically, over time dark matter goes from being very uniformly distributed to clumping in structures dubbed "halos." In the simplest, most intuitive picture, you can envision a galaxy as sitting inside a halo: the halo is like a big sphere, and the galaxy is more like a disk inside the sphere. (Due to its properties, dark matter doesn't collapse to form structures like galaxies…the "light matter" has collapsed more over time, and the dark matter less.) The overall mass of a given halo is a random variable, with the underlying distribution of halo masses being something astronomers would like to accurately and precisely constrain. Problem is…we don't actually observe dark matter, we observe the "light matter," or baryonic matter. So: if we see a galaxy with particular properties (like mass and star-formation rate), can we predict the properties of the dark matter halo in which it is embedded? Or vice-versa?

Digression over…

To keep things simple, we'll concentrate on one response variable initially, galaxy stellar mass:

```
mass.train = resp.train.df$halos.m_star
mass.test  = resp.test.df$halos.m_star
rm(resp.test.df,resp.train.df)
```

Questions

To answer the questions below, it will help you to refer to Chapter 3 of ISLR (and especially Section 6); it might also help you to refer to your previous lab work (and, as always, to Google).

Question 1

The datasets above are *large*. Not too large to fit via multiple linear regression, but too large to effectively plot. Determine how many galaxies are in `pred.train` , set a random number seed, sample some number of indices, and histogram the predictors and the mass variable. Assess whether or not you should transform the mass variable in any way. For now, in this question, **you do not need to make any transformation…just note whether you think a transformation might be needed, and propose one**. (If so, look at the variable transformations text mentioned in the notes to propose possible transformations. Specifically, hone in on what John Tukey called the "ladder of transformations.") Also look at the predictor variables…while it is not explicitly required that one transform them to have a normal distribution (or any distribution for that matter), sometimes transformation can improve fits. Use facet wrapping for the predictors, and pass the argument `scales="free"` to `facet_wrap()` to allow the x-limits for each histogram to be different.

```
library(tidyverse)
```

```
## ── Attaching packages ─────────────────────────────────────── tidyverse 1.3.1 ──
```

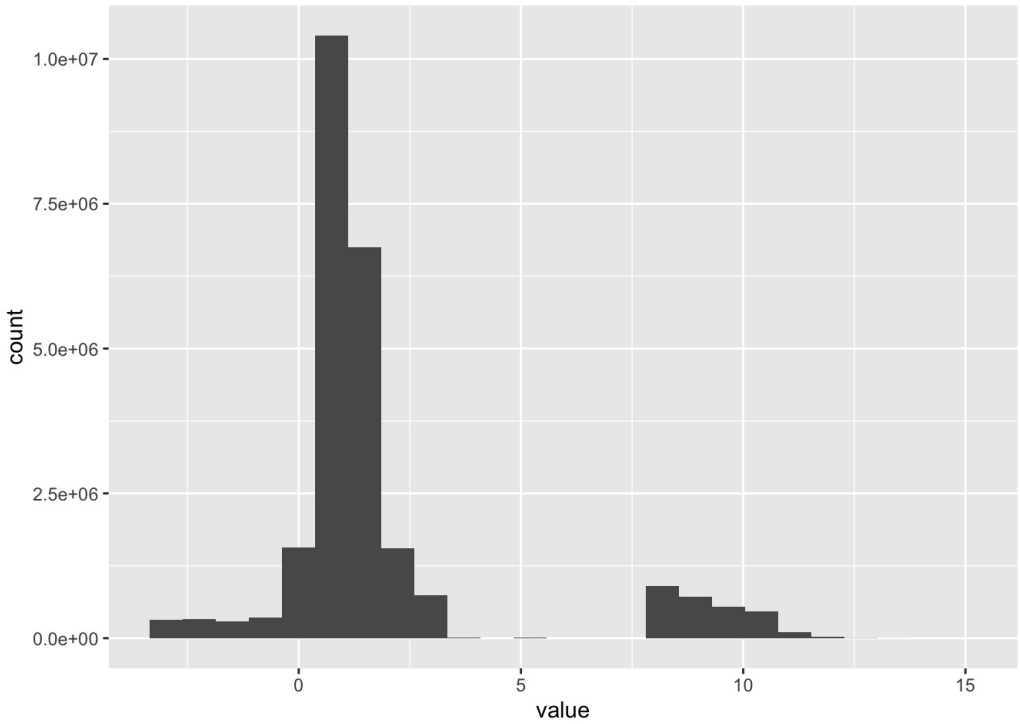
```
## ✓ ggplot2 3.3.5     ✓ purrr   0.3.4
## ✓ tibble  3.1.4     ✓ dplyr   1.0.7
## ✓ tidyr   1.1.3     ✓ stringr 1.4.0
## ✓ readr   2.0.1     ✓ forcats 0.5.1
```

```
## ── Conflicts ────────────────────────────────────────── tidyverse_conflicts() ──
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

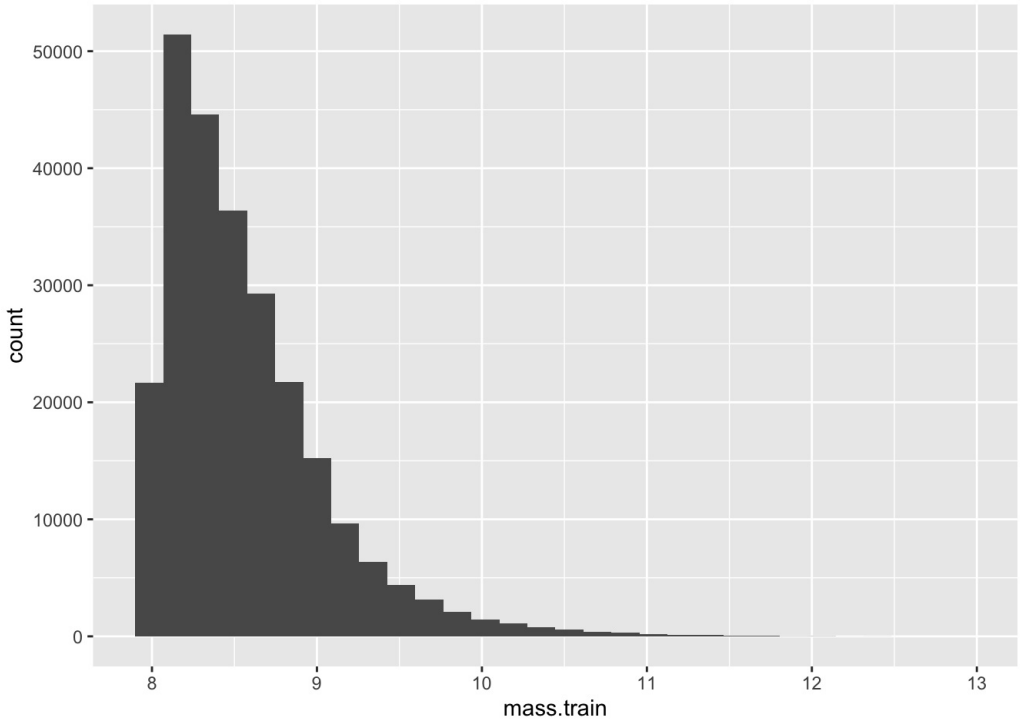
```
set.seed(103)

df = data.frame(x= pred.train, y= mass.train)
sample = gather(sample(df, 100, replace=TRUE))
#sample = sample(1:nrow(pred.train),100, replace=TRUE)

ggplot(data=sample,mapping=aes(x=value),facet_wrap(scales='free')) + geom_histogram(bins=25)
```




```
ggplot(data=data.frame(mass.train),mapping=aes(x=mass.train)) + geom_histogram(bins=30)
```




```
A transformation might be needed because the response variable is assumed to be distributed normally when we go to
run linear regression. Possible transformations: log transform, square root (more moderate of a transformation comp
ared to log, could be used if log overcorrects), negative reciprocal (stronger transformation,keeps the order of nu
mbers the same, might be used if log undercorrects data). I would maybe suggest the use of maybe a square root or l
og transformation to correct the upward straggle.


"ladder of transformations":


stronger:  -1/x^2

mild:  -1/x

(corrects upward straggle)

no shape change: x

(corrects downward straggle)

mild: x^2, x^3

stronger: antilog x
```

Question 2

If you stated in Q1 that a transformation would be helpful, apply it here and show the histogram. Did it help make the response variable more normal? (Make a new variable with the transformed response…do not permanently change the original response.) If you didn't think a transformation would be helpful, just plot the response as you did in Q1.

```
set.seed(103)

library(tidyverse)

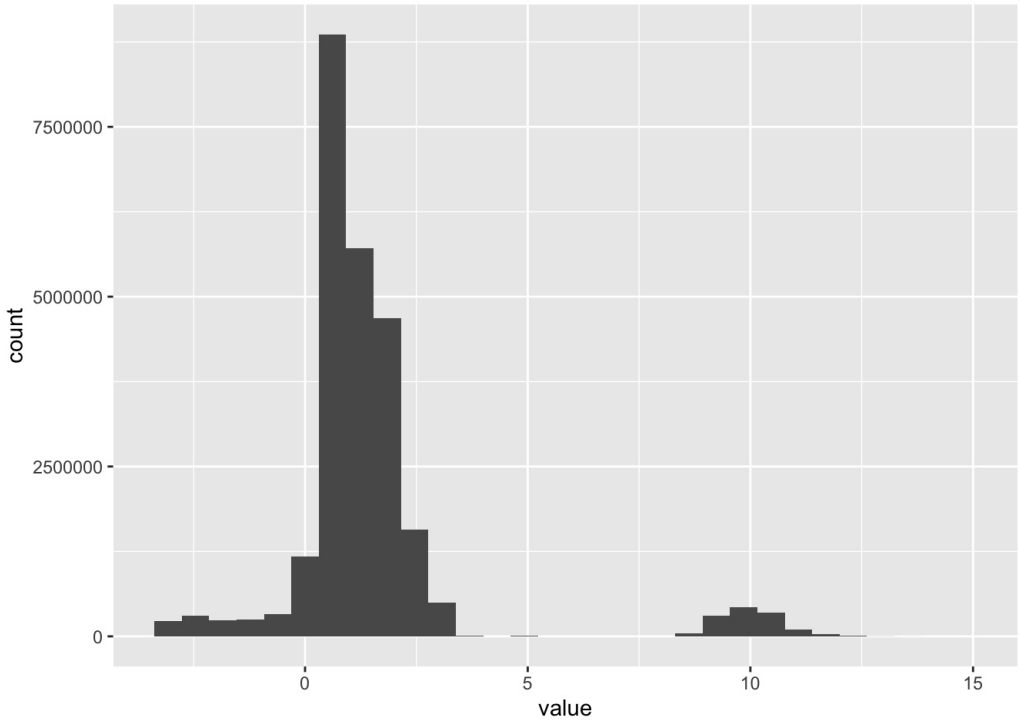
l.mass.train = log(mass.train)

df = data.frame(x= pred.train, y= l.mass.train)

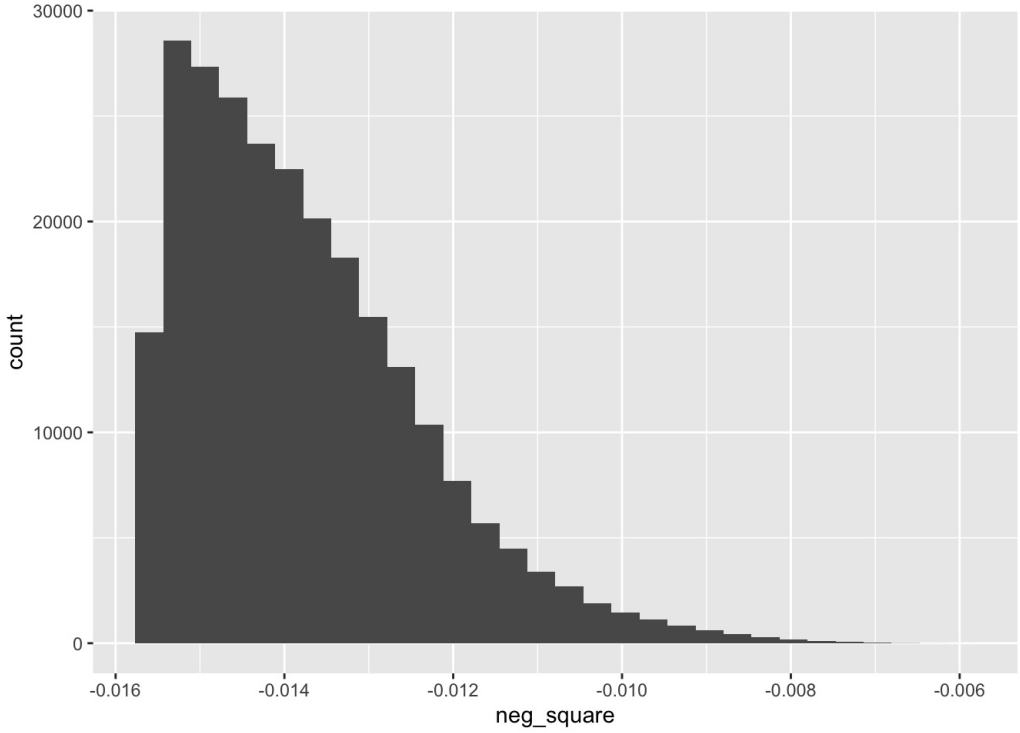
neg= -1/(mass.train)
neg_square = -1/(mass.train)^2
square =(mass.train)^2

sample = gather(sample(df, 100, replace=TRUE))


ggplot(data=sample,mapping=aes(x=value),facet_wrap(scales='free')) + geom_histogram(bins=30)
```




```
ggplot(data=data.frame(neg_square),mapping=aes(x=neg_square)) + geom_histogram(bins=30)
```




```
It didn't really help too much, the shape of it is still not close to normal.
```

Before moving on to performing linear regression, you should learn a bit about model syntax. Here we show this syntax within the context of a simple analysis:

```
> lm.out = lm(mass.train~.,data=pred.train)
> summary(lm.out)
> mass.test.pred = predict(lm.out,newdata=pred.test)
```

Let's break this down.

First, we call `lm()`, which stands for "linear model." For our model, we decide to regress the mass variable `mass.train` onto all the predictor variables (represented by the "."). (Note: that's a tilde before the period, not a minus sign! See below for what we would do if we don't want to include all the predictor variables when learning the model.) `R` doesn't know where these predictor variable are, so we specify that via the `data=` argument. We save the output as `lm.out`.

Second, we call the `summary()` function. `summary()` is a general function whose behavior depends on the class of object passed to it. If the object is a data frame, you get a numerical summary. (Try it with `pred.train`!) If the object is of class `lm`, then you get entirely different output. (Basically, you can think of it as `summary()` checking for the class, then calling another function depending on what the class is. Here,

`summary()` invisibly redirects `lm.out` to `summary.lm()`.) The `summary()` function provides the p-values for the individual coefficients and for the F statistic, plus the adjusted R^2, etc.

Third, we use the model embedded within `lm.out` to generate predictions for the mass for new data (the test data). `predict()` behaves like `summary()`; here, it redirects the arguments to `predict.lm()`.

Now, about the model syntax. For simplicity, assume that we have a predictor data frame `p`, with columns `a`, `b`, and `c`, and a response vector `r`.

- To include `a` only: `lm(r~a,data=p)`
- To include `a` and `c` only: `lm(r~a+c,data=p)` or `lm(r~.-b,data=p)`
- To regress through the origin: `lm(r~.-1,data=p)`
- To include `a`, `b`, and their interaction: `lm(r~a+b+a:b,data=p)`

There's more, but life is short and so's this course!

Question 3

Perform a multiple linear regression analysis. Use the `summary()` function to examine the output. Do you conclude that the linear model is informative or uninformative? (Also look at the p-values for the individual coefficients and for the F statistic…are these particularly informative here?)

```
lm.out = lm(mass.train~.,data=pred.train)
summary(lm.out)
```

```
##
## Call:
## lm(formula = mass.train ~ ., data = pred.train)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -8.3713 -0.0763 -0.0039  0.0701  1.2256
##
## Coefficients:
##                Estimate Std. Error  t value Pr(>|t|)
## (Intercept)   3.7457991  0.0096359  388.733  < 2e-16 ***
## halos.vdisp  -1.0241673  0.0074772 -136.972  < 2e-16 ***
## halos.vcirc   4.6090480  0.0069571  662.492  < 2e-16 ***
## halos.rcirc   0.0771571  0.0014184   54.397  < 2e-16 ***
## halos.m_dm   -0.1602274  0.0012962 -123.611  < 2e-16 ***
## r_parent      0.0412111  0.0002906  141.814  < 2e-16 ***
## shapesDM.q3d -0.1115770  0.0040357  -27.647  < 2e-16 ***
## shapesDM.s3d -0.0107378  0.0035017   -3.066  0.00217 **
## thetaTid     -0.0072308  0.0005977  -12.098  < 2e-16 ***
## phiTid        0.0000710  0.0001295    0.548  0.58350
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1201 on 251058 degrees of freedom
## Multiple R-squared:  0.9392, Adjusted R-squared:  0.9392
## F-statistic: 4.31e+05 on 9 and 251058 DF,  p-value: < 2.2e-16
```

```
mass.test.pred = predict(lm.out,newdata=pred.test)
```

```
I conclude that the linear model is informative. The p values for the coefficients are all less  than the .05 thres
hold except for phiTid. Also the F statistic has a significant p value of less than 2.2e-16.
```

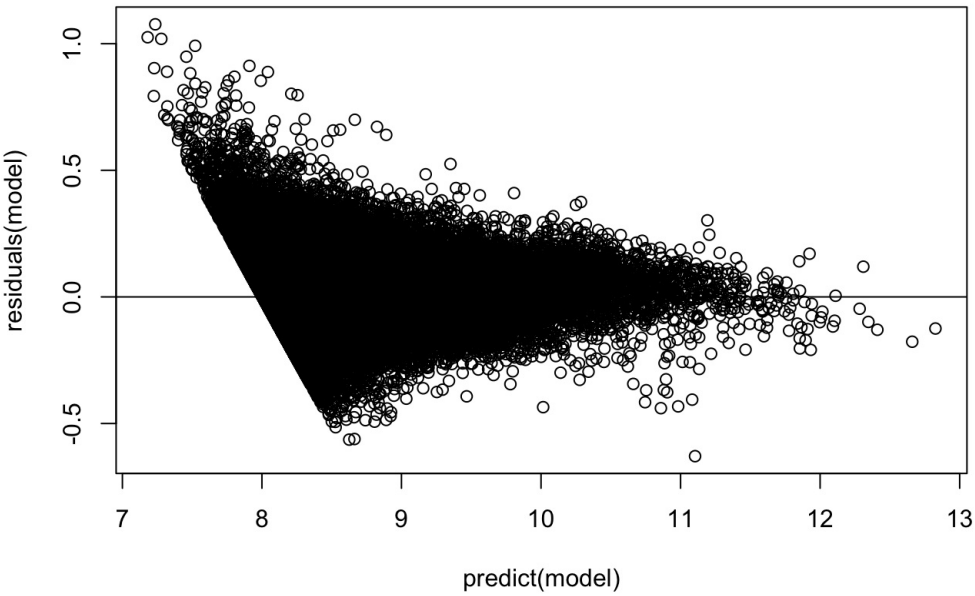
Question 4

Plot the residuals (observed minus predicted masses) versus the predicted mass, for the test data. What trends do you see? (Be sure to only plot a subset!) (Just note any trends…do not necessarily try to do anything about them.)

```
model = lm(mass.test~.,data=pred.test)
summary(model)
```

```
##
## Call:
## lm(formula = mass.test ~ ., data = pred.test)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.62900 -0.07649 -0.00366  0.07019  1.07658
##
## Coefficients:
##                Estimate Std. Error  t value Pr(>|t|)
## (Intercept)   3.7115748  0.0136137  272.636  < 2e-16 ***
## halos.vdisp  -1.0761391  0.0105762 -101.751  < 2e-16 ***
## halos.vcirc   4.6676383  0.0098763  472.612  < 2e-16 ***
## halos.rcirc   0.0787344  0.0019985   39.396  < 2e-16 ***
## halos.m_dm   -0.1595573  0.0018243  -87.460  < 2e-16 ***
## r_parent      0.0412494  0.0004102  100.549  < 2e-16 ***
## shapesDM.q3d -0.1023050  0.0057189  -17.889  < 2e-16 ***
## shapesDM.s3d -0.0233639  0.0049631   -4.708 2.51e-06 ***
## thetaTid     -0.0061222  0.0008444   -7.251 4.17e-13 ***
## phiTid        0.0001271  0.0001826    0.696    0.486
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1187 on 123651 degrees of freedom
## Multiple R-squared:  0.9399, Adjusted R-squared:  0.9399
## F-statistic: 2.148e+05 on 9 and 123651 DF,  p-value: < 2.2e-16
```

```
plot(predict(model), residuals(model))
abline(0, 0)
```




```
There is kind of a more broader spread of points near the left and then they narrow in towards the right.
```

Question 5

Load the `car` library (install it if necessary!) and use the `vif()` function to check for possible (multi)collinearity. If present, remove a variable and redo the fit. Rinse, lather, and repeat until the `vif()` outputs are all less than 5. Do the results change markedly from those in Q3? (Make a mental note that before you interpret your R^2 value in a linear model fit, you need to check for multicollinearity first, since the latter can increase the value of the former. How does the R^2 look after you are done here?)

```
library(car)
```

```
## Loading required package: carData
```

```
##
## Attaching package: 'car'
```

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

```
## The following object is masked from 'package:purrr':
##
##     some
```

```
vif(lm.out)
```

```
##  halos.vdisp  halos.vcirc  halos.rcirc   halos.m_dm     r_parent shapesDM.q3d
##    36.732766    21.344405     3.407582    13.045960     1.511159     1.896764
## shapesDM.s3d     thetaTid       phiTid
##     1.881207     1.021637     1.000024
```

```
removed.lm.out = lm(mass.train~halos.rcirc+halos.vcirc+r_parent+shapesDM.q3d+shapesDM.s3d+thetaTid+phiTid,data=pred
.train)




summary(removed.lm.out)
```

```
##
## Call:
## lm(formula = mass.train ~ halos.rcirc + halos.vcirc + r_parent +
##     shapesDM.q3d + shapesDM.s3d + thetaTid + phiTid, data = pred.train)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -6.0387 -0.0888 -0.0040  0.0821  1.1335
##
## Coefficients:
##                Estimate Std. Error  t value Pr(>|t|)
## (Intercept)   3.3398481  0.0043825  762.086  < 2e-16 ***
## halos.rcirc  -0.1548319  0.0012574 -123.136  < 2e-16 ***
## halos.vcirc   3.1424458  0.0023801 1320.304  < 2e-16 ***
## r_parent      0.0706838  0.0002835  249.308  < 2e-16 ***
## shapesDM.q3d -0.1305557  0.0045706  -28.565  < 2e-16 ***
## shapesDM.s3d  0.0050931  0.0039765    1.281    0.200
## thetaTid     -0.0054617  0.0006774   -8.063 7.48e-16 ***
## phiTid        0.0001550  0.0001471    1.054    0.292
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1364 on 251060 degrees of freedom
## Multiple R-squared:  0.9216, Adjusted R-squared:  0.9216
## F-statistic: 4.213e+05 on 7 and 251060 DF,  p-value: < 2.2e-16
```

```
vif(removed.lm.out)
```

```
##  halos.rcirc  halos.vcirc     r_parent shapesDM.q3d shapesDM.s3d     thetaTid
##     2.074976     1.935625     1.114543     1.885040     1.879731     1.016767
##       phiTid
##     1.000015
```

```
THRESHOLD = 5
pred.vif = pred.train
istop = 0
while ( istop == 0 ) {
  lm.out = lm(mass.train~.,data=pred.vif)
  v = vif(lm.out)
  if ( max(v) > THRESHOLD ) {
    pred.vif = pred.vif[,-which.max(v)]
    } else {
      istop = 1
      }
  }
print(v)
```

```
##  halos.vcirc  halos.rcirc     r_parent shapesDM.q3d shapesDM.s3d     thetaTid
##     1.935625     2.074976     1.114543     1.885040     1.879731     1.016767
##       phiTid
##     1.000015
```

```
pred.vif
```

```
##       halos.vcirc  halos.rcirc      r_parent shapesDM.q3d shapesDM.s3d
## 1        1.600099  0.325809062  1.129624e+00     0.851391     0.746586
## 2        1.868203  0.859530367  7.864542e-01     0.920967     0.657067
## 3        1.662224  0.475762686  2.820211e+00     0.897909     0.871214
## 4        1.620601  0.680656356  2.587220e+00     0.924205     0.800591
## 5        1.524075  0.358869098 -1.214502e-01     0.920010     0.824457
## 6        1.449734  0.398762651  2.250338e+00     0.916165     0.737710
## 7        1.790389  1.010783180  2.870033e-01     0.816415     0.773429
## 8        1.703057  0.648479060  2.730870e+00     0.898550     0.826680
## 9        1.673031  1.112159085  1.195953e+00     0.587234     0.485945
## 10       2.010792  1.511411394  1.001268e+00     0.715404     0.525478
## 11       1.521261  0.290502061  2.526294e+00     0.897489     0.757334
## 12       1.731962  0.438130800  2.262547e+00     0.859982     0.758740
## 13       1.650174  0.481767869 -2.804499e-01     0.900204     0.885152
## 14       1.690063  0.778963345  5.053688e-01     0.968144     0.740360
## 15       1.672734  0.672708213  1.458521e+00     0.930727     0.716975
## 16       1.635425  0.631161589  3.953914e-01     0.831197     0.648176
## 17       1.757640  0.969159081  1.017559e+00     0.927197     0.771471
## 18       1.698958  0.518386265 -7.839315e-02     0.856948     0.766540
## 19       1.534131  0.515705654  3.216689e+00     0.845927     0.760813
## 20       1.642718  0.866970446  3.907106e-01     0.878564     0.722765
## 21       1.638472  0.414122300  1.599768e-01     0.949050     0.764440
## 22       1.662715  0.831102205  1.656634e+00     0.774204     0.750003
## 23       1.631520  0.696025955  4.036532e-01     0.836974     0.739641
## 24       1.749562  0.450637028  2.858264e+00     0.788036     0.650633
## 25       1.843099  0.848558572  1.296336e+00     0.924613     0.631014
## 26       1.652941  0.701615470  2.622521e-01     0.988784     0.791078
## 27       1.933746  0.978512390  2.427549e+00     0.971436     0.821191
## 28       1.680380  0.806551680  1.900900e-01     0.903894     0.819179
## 29       1.606649  0.346161217  2.127005e+00     0.959372     0.868502
## 30       1.774171  0.832470591  2.473184e-01     0.953099     0.800555
## 31       1.751797  0.784423279  1.812696e+00     0.950189     0.893558
## 32       1.845852  0.956937373  8.516948e-01     0.974765     0.770420
## 33       1.660379  0.589518442  2.587912e-01     0.938110     0.649316
## 34       1.580713  0.367976165  1.945940e+00     0.720300     0.661228
## 35       1.691341  0.531550442  2.203076e+00     0.652242     0.553969
## 36       1.511628  0.349182303  1.674256e+00     0.691550     0.593223
## 37       1.696599  0.631732864  2.733724e+00     0.907663     0.823446
## 38       1.726397  0.856772378  9.348312e-02     0.929675     0.875827
## 39       1.696859  0.776775255  1.108223e+00     0.723552     0.508815
## 40       1.562588  0.229597381  2.073736e+00     0.759962     0.681021
## 41       1.647124  0.688265834  4.176293e-01     0.852927     0.785118
## 42       1.399525  0.557350780  2.451951e+00     0.909661     0.770346
## 43       1.587526  0.626002451  1.971742e+00     0.868114     0.833578
## 44       1.852620  1.142517733  9.352398e-01     0.793641     0.783058
## 45       1.646454  0.384156207  2.629461e+00     0.890599     0.778645
## 46       2.181149  1.256676864  2.007860e+00     0.687107     0.558233
## 47       1.828212  1.322093124  1.406141e+00     0.863901     0.672678
## 48       1.541824  0.511379287  1.993989e+00     0.850045     0.812157
## 49       1.848211  0.938530733  7.882176e-01     0.870036     0.654914
## 50       1.809966  0.795816779  1.082998e-01     0.963397     0.764145
## 51       1.775485  0.685220272  1.376048e-01     0.939822     0.723684
## 52       1.502969  0.599333855  9.109838e-01     0.767801     0.712668
## 53       1.562415  0.461151733  3.097480e+00     0.851885     0.786578
## 54       1.673123  0.446117581  1.983016e+00     0.942285     0.784300
## 55       1.741965  0.531743245  9.050396e-01     0.863099     0.735758
## 56       1.633682  0.415180424  1.417392e+00     0.923335     0.784023
## 57       1.749724  0.565847819  5.088392e-01     0.825714     0.726471
## 58       1.788664  0.487782973  2.904945e+00     0.945788     0.816811
## 59       1.579553  0.443949491  2.802937e+00     0.674137     0.437547
## 60       1.839878  1.608822237  1.160639e+00     0.701291     0.570424
## 61       1.598034  0.752649894  2.396952e-01     0.966291     0.753345
## 62       2.226773  2.021553127  1.556803e+00     0.500646     0.428773
## 63       1.786831  0.739818296  1.598072e+00     0.719346     0.633069
## 64       1.652800  0.712618559  3.659765e-01     0.892443     0.863235
## 65       1.501685  0.321927599  2.712129e+00     0.686385     0.650780
## 66       1.680427  0.845192334  5.293394e-01     0.839310     0.762870
## 67       1.622557  0.453446774  2.375141e-01     0.851311     0.821737
## 68       2.013027  0.999629823  6.327265e-01     0.996201     0.765692
## 69       1.551927  0.621492018  2.835470e+00     0.956347     0.754573
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## 70       1.718234  0.560245075  3.273274e-01     0.912892     0.684270
## 71       1.714619  1.261897783  7.053446e-01     0.783160     0.619688
## 72       1.690010  0.876112719  2.382847e-01     0.899932     0.815160
## 73       1.826515  0.560560565  2.447499e+00     0.905328     0.830819
## 74       1.846421  0.753710188  2.624821e+00     0.946084     0.829209
## 75       1.915113  0.964242183 -2.427009e-03     0.961276     0.697855
## 76       1.713725  0.905364069  6.411449e-01     0.859659     0.759389
## 77       1.694009  0.918037155  5.187195e-01     0.877154     0.818700
## 78       1.556956  0.481000943  1.753739e+00     0.894813     0.780491
## 79       1.701342  1.235139428  7.110335e-01     0.928135     0.654593
## 80       1.763972  0.963479936  4.122838e-01     0.824131     0.693948
## 81       1.783239  0.581456974  1.514483e+00     0.965676     0.884670
## 82       2.040705  0.825828417  2.589689e+00     0.847407     0.763779
## 83       1.582684  0.725357799  4.519859e-01     0.910794     0.885589
## 84       1.566899  0.726056101  2.009199e+00     0.833351     0.636041
## 85       1.997318  1.337225578  6.097167e-01     0.936396     0.822740
## 86       1.942682  0.864865729  2.741399e+00     0.703892     0.672826
## 87       1.664587  0.740387957  6.506219e-01     0.950831     0.688571
## 88       1.636842  0.516071085  1.051650e+00     0.779569     0.706236
## 89       1.715428  1.133120379  2.358399e-01     0.914640     0.643177
## 90       1.653910  0.386134969  5.203567e-01     0.836734     0.809010
## 91       1.463889  0.422153028  2.415193e+00     0.803638     0.643014
## 92       1.551044  0.354500280  1.705131e+00     0.797201     0.617402
## 93       1.635662  0.788707721  1.330985e+00     0.824411     0.687385
## 94       1.564930  0.556167366  2.517591e-01     0.858649     0.704223
## 95       1.714796  1.039751112  9.492513e-01     0.951791     0.535657
## 96       1.759660  0.380406630  2.055393e+00     0.905529     0.816409
## 97       1.701757  0.501052412  2.252862e+00     0.871618     0.745251
## 98       1.589616  0.672879808  1.842045e-01     0.836061     0.642454
## 99       2.130244  1.383987614  2.490989e+00     0.949239     0.698261
## 100      1.700286  0.751129693  2.077083e-01     0.886793     0.647074
## 101      1.668206  0.785623774  2.742616e-01     0.886088     0.706360
## 102      1.953039  1.374944376  7.281798e-01     0.850493     0.714930
## 103      1.647038  0.582698424  2.156216e+00     0.864674     0.643560
## 104      1.800660  0.759417014  1.167089e-01     0.797358     0.719592
## 105      1.928344  0.805320034  2.443500e-01     0.944110     0.784465
## 106      1.597122  0.738793238  5.526524e-01     0.880588     0.816026
## 107      1.498672  0.409535824  2.819472e+00     0.800352     0.645912
## 108      1.726559  0.649519833  7.312527e-01     0.848864     0.635022
## 109      1.823121  0.745777218  1.679095e-01     0.937148     0.792773
## 110      1.708836  0.497142594  2.719113e+00     0.969553     0.861406
## 111      2.114267  1.136254322  5.245956e-01     0.989823     0.730262
## 112      1.684271  0.427684061  4.313638e-01     0.708448     0.537884
## 113      1.572388  0.528576070  2.810662e+00     0.895711     0.783210
## 114      1.716216  1.061772804  2.206441e-01     0.904618     0.723808
## 115      2.013322  1.220631019  9.999193e-01     0.801279     0.677368
## 116      1.603143  0.386120688  2.639606e+00     0.932719     0.766059
## 117      1.554425  0.403667765  3.391068e-01     0.946630     0.827095
## 118      1.768582  0.690770918  2.223103e-01     0.912820     0.846274
## 119      1.818213  0.795599894  5.291046e-02     0.890987     0.562574
## 120      1.832480  0.677300284 -3.403619e-02     0.883609     0.660593
## 121      1.741194  0.813705055  2.814650e+00     0.860915     0.801834
## 122      1.701790  1.461348434  7.607553e-01     0.840308     0.818381
## 123      1.614608  0.690990378  3.268221e-01     0.964913     0.894405
## 124      1.687349  0.921020741  1.848006e-01     0.861233     0.793567
## 125      1.960353  1.443392865  5.130995e-01     0.890652     0.863895
## 126      1.608125  0.439233190  2.470938e+00     0.936761     0.745351
## 127      1.628993  0.412373176  2.277210e+00     0.887034     0.759354
## 128      1.762339  0.588750008  6.222381e-01     0.944632     0.860707
## 129      1.539033  0.198747785  2.786510e+00     0.863415     0.736572
## 130      1.568078  0.316827598  1.619539e+00     0.951380     0.859284
## 131      1.706760  0.680883702  8.629921e-01     0.878877     0.799967
## 132      1.783204  0.551327988  2.089328e+00     0.859987     0.779857
## 133      1.491811  0.734627837  2.335566e+00     0.829313     0.771194
## 134      1.633148  0.655132670  2.314445e-01     0.958758     0.723006
## 135      1.767414  0.465913497  2.470149e+00     0.872517     0.789342
## 136      1.455227  0.371850734  2.651814e+00     0.879041     0.841008
## 137      1.677311  0.355152564  2.783735e+00     0.860427     0.754180
## 138      1.626462  0.487747658  2.034312e-01     0.874416     0.794554
## 139      1.755062  0.777856554  2.262180e+00     0.698864     0.656816
## 140      1.761183  1.472339502  1.350769e+00     0.840122     0.624312
## 141      1.631790  0.874389035  1.874392e+00     0.926817     0.707068
## 142      1.669621  0.425217840  5.889167e-02     0.893952     0.864842
## 143      1.669875  0.236040713  2.767105e+00     0.530320     0.455657
## 144      1.630105  0.563770519  3.085138e+00     0.912441     0.833987
## 145      1.884449  1.144720504  6.232493e-01     0.759017     0.704806
## 146      1.613766  0.728374076  7.159214e-01     0.906460     0.847173
## 147      1.683838  0.563560580  1.042459e+00     0.820833     0.695973
## 148      1.496616  0.412445427  2.001782e+00     0.560604     0.454842
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## 149      1.675912  0.675778342  3.883158e-01     0.905629     0.874170
## 150      1.596817  0.517877825  2.627840e+00     0.873969     0.690748
## 151      1.690834  0.640071795 -1.601400e-01     0.868293     0.719234
## 152      1.714251  1.320191999  5.799380e-01     0.934035     0.837252
## 153      1.538961  0.677773887  2.540153e-01     0.840717     0.802032
## 154      1.610730  0.675316315 -2.218487e-01     0.881755     0.818339
## 155      1.646560  0.524011644 -2.078779e-01     0.872069     0.803604
## 156      1.824059  0.976816583  2.247672e+00     0.938988     0.875998
## 157      1.650994  0.526066465 -9.691001e-02     0.815806     0.541889
## 158      1.835887  0.949846508  4.493896e-01     0.887420     0.638034
## 159      1.637720  1.067465152  2.605724e+00     0.905963     0.643686
## 160      1.840191  1.387519739  4.163055e-01     0.897747     0.683529
## 161      1.716074  0.674680224  3.376889e-01     0.879417     0.773309
## 162      1.608854  0.873004213  1.500376e+00     0.637104     0.598436
## 163      1.621947  1.123848376  2.214788e-01     0.942883     0.789424
## 164      1.564962  0.375674585  1.687251e-01     0.851799     0.702995
## 165      1.608689  0.482514857  2.147062e-01     0.996812     0.864695
## 166      1.814731  0.840757675  1.775853e-01     0.932769     0.773970
## 167      1.621634  0.785752532  3.252989e-01     0.928140     0.806936
## 168      1.596761  0.846193561  1.481751e+00     0.893065     0.819482
## 169      1.593787  0.335742656  1.573728e+00     0.875788     0.691866
## 170      1.568667  0.554537614  2.466632e+00     0.794689     0.764139
## 171      1.818835  0.547535962  7.538716e-01     0.869251     0.769331
## 172      1.781666  0.859185148 -5.968705e-13     0.922458     0.799512
## 173      1.668257  0.616890180  4.468706e-01     0.805836     0.718325
## 174      1.698461  0.556995612  1.444833e+00     0.825792     0.639702
## 175      1.595163  0.700445832 -7.143442e-02     0.904380     0.802392
## 176      1.696378  0.509988381  1.920763e+00     0.947651     0.803170
## 177      1.734778  0.991438739  8.081982e-02     0.920378     0.851589
## 178      1.581875  0.730309784  2.725947e+00     0.798316     0.675585
## 179      1.532976  0.399794823  2.322156e+00     0.782930     0.765432
## 180      1.751408  0.881969220  6.163115e-01     0.936126     0.779211
## 181      1.591444  0.436722256  2.423927e+00     0.680841     0.617218
## 182      1.602353  0.393876911  2.611963e+00     0.812454     0.751194
## 183      1.640781  0.366915812  1.816412e+00     0.855591     0.776963
## 184      2.055367  1.273239779  2.317118e+00     0.944074     0.862494
## 185      1.851231  0.552978316  3.166518e+00     0.866480     0.833014
## 186      1.793685  1.173978352  1.143862e+00     0.905506     0.709690
## 187      1.663288  0.792311828  2.114756e+00     0.927580     0.731749
## 188      1.780324  1.265129270  6.996779e-01     0.899131     0.702696
## 189      1.645153  0.688743642  2.345637e+00     0.841345     0.624282
## 190      1.998170  1.352564529  9.642024e-01     0.871234     0.636377
## 191      2.368577  1.331680308  3.001340e+00     0.950304     0.724301
## 192      1.670583  0.526969581  2.329961e-01     0.921145     0.773481
## 193      1.719922  0.497482537  2.850050e+00     0.877639     0.868237
## 194      1.686844  0.840469946  2.155648e-01     0.853354     0.566346
## 195      2.049032  1.367924046  6.835856e-01     0.753027     0.687636
## 196      1.639117  0.917144060  2.186608e-01     0.885155     0.650286
## 197      1.651270  0.490405193  2.566870e-01     0.912895     0.813390
## 198      1.481437  0.269445226  2.102419e+00     0.839633     0.633959
## 199      1.936592  0.841396390  2.970890e+00     0.815589     0.706281
## 200      1.676507  0.664764162  2.202428e+00     0.852691     0.774749
## 201      1.730647  0.590412676 -1.549020e-01     0.783289     0.739854
## 202      1.846884  0.920385807  9.953690e-02     0.967562     0.635129
## 203      1.547301  0.429900787  2.690484e+00     0.813621     0.769852
## 204      1.474687  0.308656171  2.278034e+00     0.956085     0.691639
## 205      1.659619  0.611545944  1.520101e-01     0.827174     0.637072
## 206      1.746774  0.413212561  1.597888e+00     0.914618     0.764537
## 207      1.785621  1.214144177  1.367890e+00     0.898324     0.730257
## 208      1.727247  0.479048137  2.274774e+00     0.956613     0.870165
## 209      1.686523  0.537960061  1.363583e-01     0.866300     0.782932
## 210      1.679692  0.570647998  2.272915e-02     0.816509     0.741056
## 211      1.859851  0.927216331  1.878607e+00     0.879049     0.667149
## 212      1.639065  0.658331034  9.298443e-01     0.970613     0.797090
## 213      1.799921  0.760712670  8.081982e-02     0.951942     0.739905
## 214      1.471651  0.334606532  3.033035e-01     0.866177     0.684406
## 215      1.644892  0.570132969  5.886421e-01     0.954700     0.786611
## 216      1.747059  0.732936289  7.778443e-01     0.859248     0.636670
## 217      1.775415  0.712921471  1.986034e+00     0.882138     0.673753
## 218      2.007223  0.956786764  4.225216e-01     0.972471     0.723317
## 219      1.659282  0.659150521  1.845005e-02     0.974287     0.779125
## 220      1.391262  0.403691766  1.978854e+00     0.946593     0.770063
## 221      1.717124  0.548143637  2.793876e-01     0.970038     0.682670
## 222      1.712541  0.728925700  4.040052e-01     0.862616     0.654028
## 223      1.795219  0.685877826  1.276076e+00     0.938622     0.755042
## 224      1.575008  0.338697480  2.574819e+00     0.926961     0.848671
## 225      1.712763  0.974625433  1.345772e+00     0.991526     0.849122
## 226      1.633489  0.590045604  1.528680e+00     0.943044     0.611121
## 227      1.857097  0.896739454  2.174529e+00     0.973896     0.788176
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## 228      1.823232  1.235412283  1.207896e-01     0.865300     0.716373
## 229      1.531134  0.454273044  2.728629e+00     0.826815     0.696252
## 230      1.739333  1.301878213  1.019472e+00     0.814881     0.740889
## 231      1.819838  1.182046402  1.227894e+00     0.808366     0.714841
## 232      1.730536  0.648285833 -1.762359e-02     0.948133     0.859776
## 233      1.753236  0.490938401  3.940914e-02     0.895388     0.782184
## 234      1.628405  0.521901352  2.149284e+00     0.883992     0.695677
## 235      1.791834  0.970428706  2.064435e-02     0.867249     0.776017
## 236      1.696730  0.913697319 -1.601400e-01     0.968731     0.876670
## 237      1.617260  0.302742080  2.458394e-01     0.896320     0.670875
## 238      1.663318  0.595976546  2.219471e+00     0.917532     0.810461
## 239      1.745591  0.873358390  7.456349e-01     0.897136     0.676204
## 240      1.708214  0.625812322  1.496771e-01     0.923985     0.756229
## 241      1.699408  0.358612427  4.099023e-01     0.899124     0.853085
## 242      1.604494  0.636139719  2.589944e+00     0.906348     0.798384
## 243      1.606619  0.708934780  3.798175e-01     0.889142     0.815419
## 244      1.626874  0.606168466  4.428054e-01     0.758633     0.702393
## 245      1.648077  0.596433242  3.083313e-01     0.911608     0.735767
## 246      1.629111  0.778473233  2.495177e-01     0.855005     0.719690
## 247      1.826997  0.911871077  2.184993e+00     0.893185     0.625041
## 248      1.543742  0.426306265  3.484465e-01     0.843489     0.801275
## 249      1.996526  1.317756297  2.795017e+00     0.883128     0.754204
## 250      1.577537  0.627281858  2.187566e+00     0.817755     0.713440
## 251      1.760915  0.710969878 -2.026940e-02     0.915649     0.778828
## 252      1.845355  0.694267283  2.085948e+00     0.951918     0.847073
## 253      1.655591  0.408618112  2.339004e+00     0.793046     0.713792
## 254      1.740291  0.400655397  2.688877e+00     0.760650     0.697913
## 255      1.735841  0.650625112  2.266223e-01     0.886434     0.837884
## 256      1.948715  0.683002886  2.517299e+00     0.915832     0.830178
## 257      1.711603  1.432707995  8.485323e-01     0.850176     0.658858
## 258      1.758994  0.464122761  1.548782e+00     0.828419     0.585208
## 259      1.738895  0.612622820  1.673206e+00     0.857953     0.543948
## 260      1.579318  0.519259496  2.471915e+00     0.841597     0.711669
## 261      1.508027  0.274771895  2.320853e+00     0.898437     0.748476
## 262      1.526646  0.280692164  2.107832e+00     0.806887     0.708610
## 263      1.710562  0.576721336  2.398709e-03     0.897972     0.789310
## 264      1.646604  0.458578932  2.181198e-01     0.798440     0.637260
## 265      1.578127  0.636342439  2.898046e+00     0.901212     0.823761
## 266      1.562232  0.507259319  4.406279e-01     0.907503     0.806233
## 267      1.571725  0.836137950  1.253792e+00     0.986357     0.839881
## 268      1.693717  1.151158322  3.148545e-01     0.841865     0.758847
## 269      1.544381  0.420086182  1.681718e+00     0.956690     0.617762
## 270      1.643328  0.686271523  2.981533e-01     0.890780     0.870738
## 271      1.912580  1.039267346  7.257677e-01     0.969161     0.798963
## 272      1.653977  0.508820498  2.347660e+00     0.864712     0.767314
## 273      1.688135  0.830168284  1.667647e+00     0.861419     0.774651
## 274      2.116588  1.143289662  1.084513e+00     0.940868     0.648949
## 275      1.932599  1.111793292  2.157505e+00     0.911855     0.679046
## 276      1.834522  1.464072043  1.488342e+00     0.727369     0.608377
## 277      1.700718  0.439073619  2.022269e+00     0.848997     0.803061
## 278      1.892437  0.579543525  2.597489e+00     0.894413     0.841708
## 279      1.797872  0.440553318  6.121208e-01     0.855989     0.694004
## 280      1.563163  0.385692052  2.120380e+00     0.769273     0.693791
## 281      1.671760  0.633663339  2.390797e+00     0.746920     0.626989
## 282      2.034227  1.281651399  6.546335e-01     0.922339     0.797797
## 283      1.624261  0.469159027  2.108018e+00     0.669285     0.587540
## 284      1.615583  0.453113378  2.256036e-01     0.964167     0.773002
## 285      1.842313  1.184225663  2.592997e+00     0.856783     0.721113
## 286      1.650359  0.905058843  6.608341e-01     0.850591     0.712088
## 287      1.629290  0.568496240  2.877302e+00     0.813235     0.741908
## 288      1.573626  0.575029576  2.354143e+00     0.875210     0.618006
## 289      1.507263  0.510593262  2.317283e+00     0.758931     0.713920
## 290      1.557364  0.529314835  2.243662e+00     0.940701     0.786727
## 291      1.664463  0.323940648  2.473410e+00     0.841981     0.748135
## 292      1.688485  0.854521010 -2.531654e-01     0.961710     0.596876
## 293      1.501647  0.316173808  1.642165e+00     0.917907     0.775953
## 294      1.664549  0.619497162  5.747835e-01     0.959146     0.764377
## 295      1.445954  0.414451882  2.523793e+00     0.776196     0.646983
## 296      1.697912  0.604828462  2.436013e-01     0.932221     0.797639
## 297      1.903945  0.600075079  1.929361e+00     0.737857     0.650535
## 298      1.642509  0.572167335  3.754374e-01     0.815332     0.706247
## 299      1.724325  0.475383500  2.843921e-01     0.898959     0.812406
## 300      1.558651  0.383888939  2.015981e+00     0.944280     0.803121
## 301      1.672075  0.918938363  4.316729e-01     0.825336     0.620009
## 302      1.689439  1.262531771  1.813039e+00     0.848746     0.645779
## 303      1.530517  0.465990736  1.010886e+00     0.871181     0.703435
## 304      1.517370  0.392142742  2.318683e+00     0.740659     0.557588
## 305      1.734948  0.345075602  8.302089e-01     0.833834     0.731798
## 306      2.182828  0.756777554  2.883362e+00     0.702731     0.689222
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## 307      1.615937  0.426407148  1.097250e-01     0.796024     0.729706
## 308      1.617329  0.657074984  2.256036e-01     0.882084     0.658833
## 309      1.727675  0.304544380  3.372921e+00     0.923900     0.770841
## 310      1.578415  0.607801248  1.611870e+00     0.924689     0.705286
## 311      1.608993  0.274681920  9.238116e-01     0.796353     0.721940
## 312      2.073275  1.006097913  8.197544e-01     0.876159     0.677095
## 313      1.970402  1.474076335  1.494588e+00     0.800633     0.674755
## 314      1.552534  0.917764853  2.671178e+00     0.826010     0.716465
## 315      1.474368  0.679166151  2.187102e+00     0.793709     0.737888
## 316      1.619719  0.304699439  2.208167e+00     0.938154     0.748216
## 317      1.647779  0.610867681  5.077607e-01     0.890168     0.710240
## 318      1.718664  0.384946288  2.722075e+00     0.872574     0.750286
## 319      1.660983  0.706531738  4.231655e-01     0.903598     0.753881
## 320      1.644053  0.943447523  1.569663e+00     0.564336     0.519763
## 321      1.695458  0.511084862  2.403275e+00     0.933535     0.840393
## 322      1.820037  0.953962058  1.607894e+00     0.780478     0.642445
## 323      2.015959  1.211278098  2.597930e+00     0.882436     0.785544
## 324      1.600135  0.572887859  1.068790e-01     0.912428     0.751090
## 325      1.891482  0.918785499  4.809823e-01     0.971627     0.837309
## 326      1.674362  0.497700735  2.061101e-01     0.922957     0.672487
## 327      1.703695  0.639491470  2.572789e+00     0.869991     0.821635
## 328      1.493781  0.479691893  2.616836e+00     0.962022     0.710465
## 329      1.595674  0.494995920  1.272695e+00     0.745845     0.720855
## 330      1.705780  0.536590004  2.055514e+00     0.870144     0.766944
## 331      1.542192  0.450363057  2.676201e+00     0.950702     0.791011
## 332      1.681768  0.516992564  2.866067e+00     0.879961     0.813415
## 333      1.564917  0.402116880  2.664813e+00     0.837250     0.798412
## 334      1.807007  0.574192216 -2.147400e-01     0.899445     0.855478
## 335      1.387562  0.338041923  4.994370e+00     0.936570     0.785529
## 336      1.771022  0.645538197  2.349620e+00     0.860842     0.714853
## 337      1.692241  0.567133455  1.641819e+00     0.854913     0.685384
## 338      2.101537  1.463028016  2.020397e+00     0.888518     0.731806
## 339      1.746942  0.923777490  8.311971e-01     0.849810     0.646464
## 340      1.544180  0.383021425  2.596050e+00     0.915118     0.795697
## 341      1.818112  1.183360965  4.914198e-02     0.968649     0.705796
## 342      2.045303  1.394611010  6.316924e-01     0.956600     0.840167
## 343      1.524143  0.513947028  2.266705e+00     0.901402     0.824807
## 344      1.591372  0.486652883  1.842904e+00     0.884847     0.665856
## 345      1.655473  0.425134629  1.211198e+00     0.763218     0.673165
## 346      1.527050  0.475994973  1.938039e+00     0.722185     0.646924
## 347      1.695928  0.687246176  1.426786e+00     0.916871     0.757136
## 348      1.563647  0.320484862  1.875136e+00     0.890786     0.826228
## 349      1.564499  0.447771814  3.011689e+00     0.858731     0.732728
## 350      1.651115  0.509764187  2.875985e+00     0.939720     0.824461
## 351      1.662743  0.840617282  1.002551e+00     0.774672     0.727106
## 352      1.986600  1.319718014  3.507186e-01     0.964811     0.692664
## 353      1.753971  0.792469435  2.345008e+00     0.818953     0.725206
## 354      1.914865  0.654860667  6.798323e-01     0.890722     0.856965
## 355      1.730260  0.551768283  2.892809e-01     0.922978     0.704946
## 356      1.557640  0.344946088  2.267167e+00     0.888069     0.775473
## 357      1.736332  0.737010455  4.494550e-01     0.883899     0.850278
## 358      1.557389  0.308109607  2.656671e+00     0.818257     0.731194
## 359      1.744232  0.730330795 -1.352187e-01     0.886194     0.685348
## 360      1.595109  0.481122882  2.345398e+00     0.879070     0.676117
## 361      1.614984  0.687993328  5.411150e-01     0.915178     0.816601
## 362      1.684423  0.577817973  2.121092e-01     0.906225     0.799484
## 363      1.603858  0.348376915  2.868194e+00     0.906863     0.678545
## 364      1.666296  0.547127087  6.885278e-01     0.794976     0.624314
## 365      1.768389  0.794200746  4.282589e-01     0.951436     0.647862
## 366      1.605809  0.658695230  2.922799e-01     0.975318     0.873930
## 367      1.620922  0.626777522  1.781944e+00     0.812486     0.759039
## 368      1.616986  0.571037660  2.328705e+00     0.944343     0.855108
## 369      1.608798  0.586876363  2.928746e-01     0.964393     0.926329
## 370      1.673686  0.917819432  2.004693e-01     0.775297     0.693378
## 371      1.596943  0.892047830  2.400779e-02     0.900695     0.787548
## 372      1.633850  0.691721406  1.859720e+00     0.891174     0.809929
## 373      2.052247  1.093911741  3.569715e-01     0.897140     0.714972
## 374      1.804004  0.642335895  2.553221e+00     0.799212     0.726951
## 375      1.798542  1.010948369  5.162399e-01     0.852454     0.790160
## 376      1.640491  0.779276785 -1.261199e-01     0.782471     0.678710
## 377      1.440204  0.328165462  2.343858e+00     0.975712     0.667865
## 378      1.612358  0.388291297  9.913174e-01     0.817281     0.685518
## 379      1.604773  0.427820303  3.498127e-01     0.860820     0.760929
## 380      1.751504  0.610142533  2.038701e+00     0.889347     0.727117
## 381      1.564744  0.406386873  1.154747e+00     0.906719     0.777176
## 382      1.585508  0.541806316  2.310581e+00     0.852634     0.761620
## 383      1.673892  1.062950320  6.181450e-01     0.886244     0.633654
## 384      1.511116  0.328783126  2.232503e+00     0.777148     0.625546
## 385      1.505025  0.349943518  2.405797e-01     0.828572     0.704214
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## 386      2.018692  1.227122806  6.888996e-01     0.899243     0.798621
## 387      1.625256  0.423986002  1.831801e+00     0.936518     0.726246
## 388      1.627712  0.522251171  2.344032e-01     0.797620     0.656241
## 389      1.553142  0.399258261  1.620840e+00     0.810660     0.759254
## 390      1.922726  1.292437728  3.833352e-01     0.875838     0.763147
## 391      1.592232  0.496446677  1.275418e+00     0.693276     0.598235
## 392      1.631525  0.405691200  1.635492e+00     0.810400     0.709126
## 393      1.699368  1.080922168  1.281027e+00     0.879061     0.767695
## 394      1.592898  0.356895488  1.965923e+00     0.736475     0.663436
## 395      2.178165  1.480818688  2.853590e+00     0.781986     0.618502
## 396      1.504950  0.431241501  1.794060e+00     0.853124     0.763721
## 397      1.568259  0.374168900  2.282981e+00     0.797747     0.608795
## 398      1.685684  0.326417796  7.906044e-01     0.925083     0.752800
## 399      1.755496  0.532480471  1.247920e-01     0.900321     0.858413
## 400      1.668191  0.683991187  2.601937e+00     0.938764     0.916570
## 401      1.508479  0.247686095  2.171900e+00     0.951010     0.795353
## 402      1.648572  0.766264091  6.341887e-01     0.916264     0.796255
## 403      1.751491  0.383084347  2.847808e+00     0.895905     0.848138
## 404      1.609180  0.456859269  4.653965e-02     0.934040     0.840780
## 405      1.783282  0.852397031  2.564022e+00     0.782684     0.689498
## 406      1.927801  0.560158993  2.290145e+00     0.982087     0.837493
## 407      1.768906  0.580143455  2.851383e+00     0.959091     0.885796
## 408      1.681489  0.847794685  2.940355e-01     0.911597     0.789240
## 409      1.938282  1.248282315  7.034433e-01     0.833883     0.645958
## 410      1.558344  0.895591590  2.975066e+00     0.837789     0.771299
## 411      1.899788  1.220751205  6.434814e-01     0.916302     0.870576
## 412      1.496010  0.349578612  3.085024e+00     0.873399     0.606156
## 413      1.625975  1.071870966  8.156623e-01     0.621991     0.539162
## 414      1.579585  0.357261931  3.283526e+00     0.799895     0.683919
## 415      1.570909  0.502694716  1.370851e+00     0.808793     0.731905
## 416      1.873030  0.916924837  5.882624e-01     0.871579     0.755138
## 417      1.656411  0.558086676  6.414926e-01     0.841067     0.602786
## 418      1.635745  0.594908314  8.244557e-02     0.989767     0.823413
## 419      1.654558  0.241763076  2.285821e+00     0.899867     0.827624
## 420      1.751412  0.460789631  2.815886e+00     0.900729     0.841321
## 421      1.630031  0.511756395  2.199104e+00     0.859078     0.743165
## 422      1.510546  0.318616291  2.110861e+00     0.890448     0.843009
## 423      1.678241  0.392119855  1.867707e+00     0.801209     0.682018
## 424      1.465114  0.398970668  7.201623e-01     0.648979     0.623867
## 425      1.660564  0.527677580  1.708541e+00     0.861567     0.797879
## 426      1.764258  0.414023544  2.577767e+00     0.919867     0.752152
## 427      1.519019  0.403953978  2.117358e+00     0.751530     0.641769
## 428      1.765223  0.861530827  1.068646e-01     0.899371     0.806219
## 429      1.690116  0.551480495  1.353917e+00     0.699128     0.508499
## 430      1.630197  0.547457173  2.379763e+00     0.865588     0.659586
## 431      1.592815  0.736972258  2.610800e+00     0.879557     0.837357
## 432      1.645874  0.719610505  3.148545e-01     0.932994     0.806527
## 433      1.626336  0.406340870  1.402892e+00     0.881494     0.627199
## 434      1.815059  0.584416039  1.486265e+00     0.800993     0.725210
## 435      1.739752  0.876147378  1.184189e-01     0.952620     0.822443
## 436      1.688334  1.130382021  1.287923e+00     0.682625     0.533641
## 437      1.836329  0.456159466  3.418107e+00     0.913145     0.834440
## 438      1.870781  1.270294438  4.749538e-01     0.917392     0.740277
## 439      1.668419  0.677614252  2.353744e+00     0.903617     0.873639
## 440      1.750342  0.982862105  4.018842e-01     0.991232     0.829172
## 441      1.865141  0.544115194  2.833039e+00     0.872183     0.754438
## 442      1.661211  1.155302629  5.742200e-01     0.815505     0.751552
## 443      1.744968  0.715437557  3.709652e-01     0.781358     0.700288
## 444      1.767852  1.124412922  4.689810e-01     0.673996     0.535128
## 445      1.794575  1.297414688  1.413384e+00     0.875587     0.804407
## 446      1.574294  0.350007539  1.534992e+00     0.813429     0.676688
## 447      1.597055  0.552089989  2.161076e+00     0.892179     0.725627
## 448      1.673929  1.314760189  1.165469e+00     0.906839     0.740196
## 449      1.550873  0.371003175  2.446391e+00     0.744016     0.622315
## 450      1.525318  0.686368103  2.621798e+00     0.740969     0.699132
## 451      1.579037  0.783601325 -4.276359e-02     0.892417     0.762579
## 452      1.656630  0.709232637  2.536575e+00     0.807337     0.778347
## 453      1.478533  0.394749281  2.251257e+00     0.817597     0.645370
## 454      1.631292  0.447122356 -2.147400e-01     0.950538     0.872435
## 455      1.935264  0.947162080  2.588600e+00     0.812605     0.654070
## 456      1.643480  0.676173059  2.608745e-01     0.889169     0.698771
## 457      1.629573  0.790108454  2.209051e+00     0.830427     0.778284
## 458      1.567907  0.680588400  2.354447e+00     0.929942     0.780188
## 459      1.680042  0.511430122  8.724788e-02     0.889000     0.637386
## 460      1.622263  0.340380652  1.691563e+00     0.927609     0.830660
## 461      1.880583  0.655946700  2.748610e+00     0.857568     0.728507
## 462      1.797503  0.867259425  3.604365e-01     0.888459     0.684624
## 463      1.475776  0.382600515  2.181784e+00     0.973130     0.743080
## 464      1.722089  1.055053253  2.368258e+00     0.811056     0.586289
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## 465      1.691127  0.562889758  1.983485e+00     0.905120     0.679661
## 466      1.516579  0.391258060  2.773456e+00     0.953725     0.806869
## 467      1.645384  0.405713383  2.237981e+00     0.913041     0.687545
## 468      1.704670  0.645068401  4.054076e-01     0.877610     0.769196
## 469      1.605915  0.393512029  2.892231e+00     0.950500     0.853760
## 470      1.737935  0.886485085  3.179842e-01     0.962189     0.715315
## 471      1.832341  0.834446137  2.133056e+00     0.863517     0.748575
## 472      1.787965  0.833457576  1.577313e-01     0.957091     0.719834
## 473      1.743589  0.667819847  1.890730e+00     0.970931     0.940638
## 474      1.603089  0.442743088  2.333317e+00     0.894534     0.827468
## 475      1.928553  0.966183047  3.055528e-01     0.881796     0.811702
## 476      1.767740  0.678501990  1.139434e-01     0.842364     0.787802
## 477      1.515211  0.432634226  2.636091e+00     0.859218     0.729083
## 478      1.981479  1.110020378  8.255463e-01     0.869271     0.746651
## 479      1.493186  0.486560818  3.276399e+00     0.826197     0.697666
## 480      2.183167  1.547496569  1.294410e+00     0.814629     0.645391
## 481      1.491701  0.483054978  2.624839e+00     0.732186     0.718739
## 482      1.564382  0.879043669  1.508512e+00     0.566872     0.459811
## 483      1.581812  0.438126049  1.329789e+00     0.830754     0.704679
## 484      1.629961  0.544494684  2.831520e-01     0.785762     0.733430
## 485      1.685728  0.529810068  5.588721e-01     0.876726     0.846632
## 486      1.727962  0.473431494  7.342823e-01     0.900298     0.752052
## 487      1.690146  0.967519428  5.822565e-01     0.826562     0.724847
## 488      1.714512  0.742226938  4.153072e-01     0.832126     0.756886
## 489      1.608429  0.694788529  2.566588e-01     0.822170     0.802756
## 490      1.610088  0.649869121 -6.142295e-02     0.907943     0.746784
## 491      1.746897  1.051588528  5.786998e-01     0.812558     0.644047
## 492      1.607031  0.414348182  2.816114e+00     0.795682     0.707179
## 493      1.805756  1.261331874  1.494642e+00     0.649572     0.568971
## 494      1.574345  0.271090813  3.624305e-01     0.864500     0.821093
## 495      1.494443  0.464829219  2.334296e+00     0.837071     0.655294
## 496      1.691323  0.579703588  4.182881e-01     0.906119     0.732049
## 497      1.660931  0.697513547  5.817820e-01     0.911742     0.759768
## 498      1.629805  0.596058016  3.689008e-01     0.820837     0.748380
## 499      1.541517  0.425033450  2.892661e+00     0.929190     0.762554
## 500      2.020175  1.451682070  9.258310e-01     0.844678     0.752308
## 501      1.645446  0.514906196  2.852397e+00     0.616752     0.565351
## 502      1.672593  0.685180823  3.148545e-01     0.944523     0.757073
## 503      1.756088  1.167783877  2.413392e-01     0.870449     0.743190
## 504      1.544033  0.499502881  2.112194e+00     0.816948     0.770648
## 505      1.687038  0.803680351  9.337545e-01     0.878906     0.702401
## 506      1.511758  0.678278859  2.055500e+00     0.781419     0.714734
## 507      1.834815  0.482667816  6.922177e-01     0.974041     0.646768
## 508      1.755440  0.853144955  1.345883e+00     0.808889     0.558360
## 509      1.334578  0.393487458  2.203291e+00     0.900827     0.630856
## 510      1.602473  0.792500250  1.645180e+00     0.835037     0.742565
## 511      1.651594  0.808251496  5.197442e-01     0.808276     0.668241
## 512      2.362328  1.515700356  1.804161e+00     0.746979     0.663913
## 513      1.598046  0.656891287  2.786932e+00     0.942780     0.855148
## 514      1.712693  0.982169433  1.223022e+00     0.931618     0.878070
## 515      1.568894  0.691069993  2.318595e+00     0.867342     0.789959
## 516      1.583175  0.587140509  2.940657e+00     0.903707     0.870719
## 517      1.994976  1.208435981  6.383424e-01     0.825603     0.688598
## 518      1.684728  0.953693021  2.622521e-01     0.865869     0.720427
## 519      1.682035  0.247506824  2.517344e+00     0.882142     0.770328
## 520      1.830443  0.919967224  1.933878e+00     0.768674     0.623862
## 521      1.839133  1.358098629  6.729999e-01     0.957376     0.811343
## 522      1.940112  1.068723757  2.922799e-01     0.962677     0.661880
## 523      1.729930  0.581774495  2.121092e-01     0.916643     0.676149
## 524      1.596462  0.757159076  2.741970e+00     0.835371     0.791148
## 525      1.800610  0.688965018  2.706965e+00     0.860820     0.842065
## 526      1.518496  0.781276310  2.253206e+00     0.910720     0.839853
## 527      1.516213  0.481418261  2.294157e+00     0.755724     0.724407
## 528      1.526633  0.650118996  2.028105e+00     0.845890     0.819523
## 529      1.457802  0.477286255  1.720398e+00     0.580420     0.453131
## 530      1.800164  0.448233129  2.227259e+00     0.802584     0.754443
## 531      1.743033  0.823381622  3.755018e-01     0.979192     0.788972
## 532      1.611317  0.741145293  5.008360e-01     0.916459     0.755472
## 533      1.524139  0.458668060  3.052118e+00     0.939487     0.842942
## 534      1.666401  0.434113614  8.948607e-01     0.911107     0.742738
## 535      1.700442  0.620896706  1.950399e+00     0.951017     0.817640
## 536      1.905983  0.931389721  2.509085e+00     0.914070     0.698248
## 537      1.934253  1.330833659  6.835390e-01     0.871479     0.750858
## 538      1.719747  0.499339233  9.427442e-01     0.832945     0.810817
## 539      1.635045  0.563762218  3.543041e-01     0.939252     0.717180
## 540      1.646448  0.628023969  2.661095e+00     0.901548     0.731548
## 541      1.646661  0.581267944  7.085896e-01     0.847890     0.760754
## 542      1.663887  0.593351428  3.121609e-01     0.733780     0.649473
## 543      1.654725  0.930536943  2.241160e+00     0.783996     0.608737
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## 544      1.708688  0.586180948  2.549795e+00     0.897633     0.884884
## 545      1.666544  0.958194409  2.013880e-01     0.903387     0.862382
## 546      1.577400  0.415841070  2.816191e+00     0.850380     0.782824
## 547      1.669282  0.459543258  1.438493e+00     0.645660     0.617036
## 548      1.660995  1.277354751  5.331772e-01     0.903126     0.775323
## 549      1.534046  0.442788526  2.141019e+00     0.883959     0.847868
## 550      1.613318  0.395710709  2.959947e+00     0.911878     0.875137
## 551      1.570418  0.464034746  1.721307e+00     0.818419     0.803193
## 552      1.578306  0.685197858  3.534134e-01     0.875053     0.790625
## 553      1.676531  1.036313438  2.771219e-01     0.892076     0.765683
## 554      1.701883  0.844635580  1.313196e+00     0.882667     0.769663
## 555      1.572324  0.387274118  2.793121e+00     0.928686     0.774584
## 556      1.588273  0.531944895  2.566870e-01     0.918788     0.769773
## 557      1.553422  0.445677358  4.989550e+00     0.959366     0.779028
## 558      1.671464  0.740092553  6.623378e-01     0.873451     0.753497
## 559      2.107064  1.635660646  1.498675e+00     0.781019     0.695680
## 560      1.591801  0.578604832  8.337545e-01     0.804888     0.627417
## 561      1.983375  1.481856659  7.232341e-01     0.885412     0.683837
## 562      1.949829  1.291814906  8.130699e-01     0.850433     0.734790
## 563      1.694176  0.464669845  2.387382e+00     0.852378     0.693697
## 564      1.959123  1.136187675  1.268837e+00     0.833280     0.750755
## 565      1.493777  0.457453444  2.507225e+00     0.557602     0.448713
## 566      1.655338  0.805896233 -1.948279e-01     0.877685     0.800319
## 567      1.527703  0.685116263  1.995190e+00     0.821876     0.696157
## 568      1.898805  0.613812234  3.071802e+00     0.889889     0.834078
## 569      1.732256  0.578910702  2.115578e+00     0.809898     0.732524
## 570      1.669959  0.734459779  1.851970e-01     0.784458     0.720177
## 571      1.685225  0.713647600  5.982683e-01     0.894050     0.618535
## 572      1.501263  0.377823307  6.263789e-01     0.915946     0.767351
## 573      1.750343  0.784631555  8.594918e-01     0.852533     0.658970
## 574      1.692349  0.558047028  1.565995e-01     0.873687     0.785903
## 575      1.802746  1.327146334  5.828504e-01     0.804240     0.734689
## 576      1.622445  1.098522591 -5.635112e-01     0.935319     0.826192
## 577      1.709508  0.632018727  5.183926e-01     0.979339     0.766901
## 578      2.140165  1.090550777  2.613618e+00     0.792451     0.695117
## 579      1.702106  0.765591075  6.654681e-01     0.736582     0.605321
## 580      1.572997  0.460240644  2.799205e+00     0.950696     0.808702
## 581      1.626034  0.523270302  1.827790e+00     0.951531     0.845598
## 582      1.833129  0.813511603  3.442945e-01     0.967865     0.640474
## 583      1.586028  0.562116731  8.580957e-01     0.835937     0.696873
## 584      1.702411  0.678459194  1.310504e+00     0.917465     0.742314
## 585      1.593685  0.812797752  1.777950e-01     0.900865     0.775726
## 586      1.724667  0.692912983  3.459835e-01     0.989003     0.780919
## 587      2.033540  0.643330267  1.045016e+00     0.939272     0.692694
## 588      1.761768  1.050893799  7.919894e-01     0.990251     0.825372
## 589      1.540551  0.459701511  2.114106e+00     0.760454     0.631499
## 590      1.610134  0.351413619  1.055552e+00     0.753420     0.549833
## 591      1.469968  0.326028468  1.814645e+00     0.926853     0.690734
## 592      1.662785  0.756800364  5.704720e-01     0.915077     0.688654
## 593      1.775844  0.635471683  1.799218e+00     0.753343     0.517084
## 594      1.964291  0.989717609  2.998278e+00     0.894526     0.770949
## 595      1.908266  0.571602865  1.945577e+00     0.890513     0.710494
## 596      1.918221  1.136428826  9.594387e-01     0.910125     0.760565
## 597      1.677666  0.688628909  9.075447e-01     0.964819     0.942763
## 598      1.527537  0.395586717  2.006864e+00     0.694158     0.633264
## 599      1.904750  1.019818075  1.137426e+00     0.890967     0.726568
## 600      1.898811  0.661205763  1.655671e+00     0.829856     0.779400
## 601      1.800695  1.122012614  3.298354e+00     0.780214     0.602781
## 602      1.634582  0.961320934  3.347659e-01     0.946154     0.638137
## 603      1.804917  1.013435548  6.114557e-01     0.930805     0.748541
## 604      1.628905  0.607766960  1.332296e-01     0.961548     0.666741
## 605      1.560214  0.454356957  1.843285e+00     0.761649     0.654997
## 606      1.662475  0.555042427  2.386976e+00     0.855577     0.758821
## 607      2.076273  1.187199111  2.509206e+00     0.973470     0.830460
## 608      1.597319  0.444758140  2.197176e+00     0.877481     0.757472
## 609      1.556597  0.407059320  2.671118e+00     0.636644     0.603126
## 610      1.687284  0.419465032  2.489210e+00     0.780679     0.732247
## 611      1.616666  1.042362841  2.580921e-01     0.806051     0.643436
## 612      1.719978  0.464970671 -5.551733e-02     0.807512     0.754852
## 613      1.647802  1.197018524  3.447598e-01     0.839760     0.705443
## 614      1.623998  0.362565405  2.980524e+00     0.831314     0.787157
## 615      1.628851  1.006367620  9.746871e-01     0.970274     0.895722
## 616      1.694751  0.443093932  1.001486e+00     0.922807     0.871801
## 617      2.400881  1.617630345  1.417410e+00     0.956295     0.837957
## 618      1.607380  0.711797953  4.897210e-01     0.942328     0.771716
## 619      1.610714  0.671721614  6.038620e-01     0.777221     0.560563
## 620      1.599791  0.583544484 -3.981290e-02     0.918407     0.763986
## 621      1.647048  0.549897919  3.578300e-01     0.899779     0.828309
## 622      1.794758  1.455905680  1.082390e+00     0.615690     0.561451
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## 623      1.679464  0.725576803  4.231655e-01     0.804516     0.781639
## 624      1.754814  0.397199340  2.073710e+00     0.864771     0.747414
## 625      1.541763  0.764450376  2.596468e+00     0.765078     0.634508
## 626      1.503904  0.369115624  1.726955e+00     0.888484     0.715552
## 627      1.611081  0.548908787  4.955237e-01     0.832690     0.773763
## 628      1.630885  0.296195547  8.300643e-01     0.887073     0.804489
## 629      1.725552  0.668953111  2.554427e+00     0.959011     0.875754
## 630      1.619527  0.389906413  2.010057e+00     0.804169     0.747809
## 631      1.599599  0.401014330 -2.531654e-01     0.909306     0.780149
## 632      1.708559  0.835639214  4.172991e-01     0.933982     0.685822
## 633      1.852594  0.898026019  1.163747e+00     0.892896     0.838203
## 634      1.956304  1.463736257  8.384785e-01     0.898021     0.779249
## 635      1.563684  0.531328165  2.221458e+00     0.778336     0.702718
## 636      1.882934  0.915117954  8.724788e-02     0.980123     0.746266
## 637      1.670552  0.838585917  2.716513e-01     0.755355     0.678228
## 638      1.578109  0.358536347  2.597648e+00     0.859123     0.630422
## 639      1.698418  0.537628971  1.920157e-01     0.939069     0.771006
## 640      1.706223  0.918312956  4.438465e-01     0.969506     0.728006
## 641      1.454477  0.500456037  2.813705e+00     0.965551     0.656304
## 642      1.622270  0.739845967  2.630571e+00     0.923935     0.786148
## 643      1.803734  0.859883107  2.282807e+00     0.730482     0.644707
## 644      1.970929  0.975332990  2.540153e+00     0.946889     0.704584
## 645      1.797875  0.608267091  2.328304e-01     0.910889     0.798927
## 646      1.683929  0.627153779  4.880675e-01     0.906405     0.629056
## 647      1.995438  1.567372252  1.327659e+00     0.707499     0.629707
## 648      1.914638  0.920415542  2.116782e+00     0.859208     0.756447
## 649      1.934391  1.597452747  1.259841e+00     0.604634     0.521874
## 650      1.544661  0.563445486  1.889990e+00     0.974170     0.896158
## 651      1.456053  0.335351571  2.893804e+00     0.934402     0.832857
## 652      2.174717  1.308321055  9.544006e-01     0.898103     0.608991
## 653      1.820980  0.687018566  1.207896e-01     0.919035     0.706154
## 654      1.627223  0.409711695  6.677350e-01     0.800325     0.629078
## 655      1.685097  0.588492440  3.196183e-01     0.952985     0.802858
## 656      2.069664  0.749355948  2.460393e+00     0.941757     0.856134
## 657      1.608884  1.028498051  3.852647e-01     0.733005     0.686323
## 658      1.746630  0.871325948  1.351044e-01     0.974113     0.692208
## 659      1.495361  0.387784783  2.761713e+00     0.655183     0.631582
## 660      1.686106  0.767079394  8.723049e-01     0.885037     0.824923
## 661      1.828760  1.016456681  9.808619e-01     0.876156     0.668870
## 662      1.835932  0.720473536  1.112384e+00     0.699389     0.611910
## 663      1.595418  0.732024453  3.391068e-01     0.854824     0.627721
## 664      1.604225  0.193208108  1.130070e+00     0.967799     0.693709
## 665      1.529184  0.419238488  2.292377e+00     0.927215     0.816820
## 666      1.558716  0.422750660 -2.618431e-01     0.941564     0.839430
## 667      1.802529  0.810915020  2.808902e+00     0.910599     0.836671
## 668      1.604878  0.325252873  2.522472e+00     0.975227     0.842013
## 669      1.692187  0.858213461  8.211576e-01     0.798240     0.670237
## 670      1.731525  0.607753029  2.416416e+00     0.915644     0.834547
## 671      1.728207  0.678144926  2.289646e+00     0.929893     0.892499
## 672      1.497879  0.506679527  1.503750e+00     0.872522     0.710383
## 673      1.746130  0.895048870  1.287190e-01     0.913725     0.693028
## 674      1.534999  0.669393131  5.094837e-01     0.902595     0.854927
## 675      1.821966  0.910403467  2.761777e+00     0.735951     0.716350
## 676      1.648544  0.509554656  2.392012e+00     0.795300     0.673379
## 677      1.526986  0.534017217  3.006156e+00     0.909970     0.819783
## 678      1.665304  0.513695594  7.127861e-01     0.924249     0.797993
## 679      1.659787  0.512504292  2.301023e+00     0.829823     0.715754
## 680      1.775178  0.391649516  2.823197e+00     0.897233     0.875143
## 681      1.604561  0.551603682  3.208762e+00     0.858565     0.833273
## 682      1.853366  0.759600618  2.604410e+00     0.889362     0.848139
## 683      1.794128  0.799346754  3.516207e-01     0.960216     0.874789
## 684      1.804387  0.956937373  2.897260e-01     0.943269     0.705275
## 685      1.623140  0.427301056  2.908125e+00     0.798110     0.756872
## 686      1.674821  0.828049264  3.055528e-01     0.961734     0.697050
## 687      1.699622  0.740810966  2.046035e+00     0.800209     0.651051
## 688      1.934367  1.005716612  2.653646e+00     0.888995     0.810702
## 689      1.622549  0.848884663  5.530028e-01     0.831404     0.639253
## 690      1.636391  0.481140094  2.878693e+00     0.905720     0.898485
## 691      1.642939  0.713874266  4.402574e-01     0.925629     0.822120
## 692      1.608420  0.825514396  6.479951e-01     0.723300     0.662425
## 693      1.668497  0.388198925  2.892809e-01     0.956804     0.786192
## 694      1.577357  0.431712668  2.270620e+00     0.692134     0.593793
## 695      1.638049  1.007961033  6.870161e-01     0.886829     0.844128
## 696      1.656148  0.765995456  2.975733e-01     0.940947     0.683030
## 697      1.624033  0.446762333  3.352526e-01     0.738899     0.662461
## 698      1.777339  1.024292696  3.553857e-01     0.858678     0.744868
## 699      1.653803  0.526194488  2.523243e+00     0.815906     0.706858
## 700      1.652003  0.553679176  2.662125e+00     0.915264     0.852992
## 701      1.776239  0.957908364  6.298307e-01     0.963345     0.805926
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## 702      1.714049  0.688000454  3.276004e+00     0.858232     0.820232
## 703      1.409466  0.448979793  2.743886e+00     0.666708     0.620328
## 704      1.666917  0.525635564  1.334757e+00     0.907321     0.764309
## 705      1.553751  0.302543045  7.549203e-01     0.783387     0.633492
## 706      2.118992  0.810183439  3.231172e+00     0.934729     0.822785
## 707      1.837862  0.874889828  2.220994e+00     0.769410     0.664977
## 708      1.643375  0.438627775  1.616353e+00     0.736322     0.666435
## 709      1.532582  0.641489975  2.882299e+00     0.889305     0.767509
## 710      1.691495  0.602364976  7.921619e-01     0.416398     0.348807
## 711      1.693307  0.929800937  2.916835e-01     0.853749     0.676888
## 712      1.623077  0.335768716  1.198504e+00     0.827307     0.526256
## 713      1.804029  0.638840544  3.256858e-01     0.906229     0.858345
## 714      1.649501  0.752183711  1.259206e+00     0.859266     0.716089
## 715      1.730362  1.045264286  2.559809e-01     0.821673     0.729895
## 716      1.548737  0.587214666  3.022720e+00     0.866935     0.813719
## 717      1.965842  0.981970742  1.799394e+00     0.847310     0.758073
## 718      1.542275  0.474983617  2.069557e+00     0.891542     0.785877
## 719      1.569748  0.606671514  2.548984e+00     0.929729     0.785328
## 720      1.820354  1.052782407  2.825293e-01     0.897813     0.687453
## 721      1.713022  0.376799522  1.828213e+00     0.828983     0.719531
## 722      1.869350  0.990243815  3.034016e+00     0.786008     0.639651
## 723      1.627278  0.704984831  2.531328e-01     0.890982     0.781252
## 724      1.499291  0.286815613  7.785802e-01     0.947485     0.785303
## 725      1.729503  0.588072166  3.864140e-01     0.957573     0.753589
## 726      1.612267  0.416265954  1.053661e+00     0.878562     0.647074
## 727      1.856985  0.683719584  2.446884e+00     0.823981     0.739816
## 728      1.676565  0.775988880  1.517822e+00     0.943756     0.606176
## 729      1.901034  1.333797793  3.652602e-01     0.918772     0.902280
## 730      1.707162  0.844437410 -6.043929e-01     0.928534     0.838169
## 731      1.873816  1.130160016  6.867911e-01     0.938744     0.750535
## 732      1.516660  0.290056882  2.678215e+00     0.834546     0.737680
## 733      1.746780  0.490349028  7.953568e-01     0.814251     0.683235
## 734      1.692577  0.648983191  2.035795e+00     0.921679     0.759189
## 735      1.909596  1.326505858  4.758696e-01     0.917499     0.659305
## 736      1.585566  0.393440068  3.190943e-01     0.873787     0.759762
## 737      1.738435  0.889013572 -3.230111e-12     0.837946     0.693981
## 738      1.637090  0.417325520  2.336158e+00     0.822070     0.757066
## 739      1.783451  0.955239277  9.116122e-01     0.969787     0.792350
## 740      1.927476  0.492612341  1.501765e+00     0.902485     0.822144
## 741      1.651337  0.719902787  1.964367e+00     0.973061     0.929493
## 742      1.731127  0.906591986  2.072772e+00     0.960585     0.832698
## 743      1.689834  0.624371834  2.028019e+00     0.909684     0.738737
## 744      1.603781  0.623827964  4.793954e-01     0.914227     0.758348
## 745      1.585158  0.506613254  2.199637e+00     0.891550     0.732118
## 746      1.494329  0.425467376  1.754898e+00     0.807053     0.751359
## 747      1.592664  0.475163973  2.217718e+00     0.646865     0.587316
## 748      1.622179  0.425542372  1.816292e+00     0.924896     0.788910
## 749      1.630432  0.421190822  2.557886e+00     0.801803     0.767303
## 750      1.776473  0.719185393  2.601823e-01     0.968506     0.685638
## 751      1.605289  0.681373315  6.024777e-02     0.946521     0.756178
## 752      1.561788  0.597473595  3.107308e+00     0.870315     0.840371
## 753      2.157711  0.601596134  3.038636e+00     0.711568     0.645518
## 754      1.722662  0.763555268  6.193041e-01     0.901189     0.648553
## 755      1.624392  0.563001435  1.941587e+00     0.972655     0.843836
## 756      1.942090  1.334075590  1.081961e+00     0.784339     0.652118
## 757      1.642561  0.538939262  2.161257e+00     0.877398     0.703803
## 758      1.553606  0.402221821  3.300167e+00     0.931991     0.780065
## 759      1.746298  0.533712336  1.848583e+00     0.924838     0.723935
## 760      1.576416  0.548083400  1.412287e+00     0.582749     0.552933
## 761      1.573103  0.398960270  1.601781e+00     0.925275     0.769955
## 762      1.894725  0.774874473  1.830890e+00     0.960585     0.881485
## 763      1.584687  0.644257349  2.280778e+00     0.854261     0.796671
## 764      1.684675  0.356503892  2.717432e+00     0.861054     0.798397
## 765      1.967333  1.189349924  1.438105e+00     0.852586     0.672653
## 766      1.504824  0.329316505  3.024621e+00     0.854145     0.517191
## 767      1.596944  0.431606579  2.224150e+00     0.930414     0.830163
## 768      1.456000  0.360506319  1.857705e+00     0.905447     0.752283
## 769      1.618654  0.495418055  2.305646e+00     0.921222     0.707863
## 770      1.621126  0.744274985  8.323659e-01     0.709023     0.489841
## 771      1.534198  0.528980940  1.954599e+00     0.882641     0.674075
## 772      1.836108  0.487327896  2.080654e+00     0.902448     0.613153
## 773      1.878140  0.898631952  2.498647e+00     0.913161     0.877515
## 774      1.927824  1.170317466  9.279422e-01     0.697171     0.536876
## 775      1.613741  0.523602111  2.605210e+00     0.896968     0.711018
## 776      1.548742  0.481406794  2.529430e+00     0.971526     0.757001
## 777      1.803147  1.475456167  9.090539e-01     0.918386     0.795903
## 778      1.450746  0.233336301  2.408514e+00     0.763453     0.558869
## 779      1.475684  0.387389826  2.755756e+00     0.813728     0.795152
## 780      1.708683  0.804982658  2.993087e-01     0.988941     0.947294
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## 781      1.581110  0.699310358  1.172343e-02     0.879264     0.759045
## 782      1.629343  0.498806607  2.395760e+00     0.931640     0.815886
## 783      1.608990  0.435466901  3.494910e+00     0.875355     0.673346
## 784      1.968301  1.015883444  1.350178e+00     0.785678     0.631561
## 785      1.625467  0.738992107  2.819047e-01     0.850608     0.779544
## 786      1.720174  0.719701605  1.739030e+00     0.909436     0.810470
## 787      1.729165  0.556132369  1.749243e+00     0.714469     0.651183
## 788      1.608195  0.425314083  2.779543e+00     0.862456     0.688845
## 789      1.680474  0.413118631  2.405590e+00     0.909612     0.783448
## 790      1.635446  0.841230540  1.183331e+00     0.908844     0.781703
## 791      1.617427  0.601565700  1.665720e-01     0.830131     0.642905
## 792      1.712660  0.817175189  2.694134e-01     0.896948     0.626753
## 793      1.532808  0.675693124  2.313420e+00     0.905970     0.829295
## 794      1.699803  0.952191180  1.535793e+00     0.884413     0.808966
## 795      1.828123  1.286941244  1.838560e+00     0.876929     0.642030
## 796      1.601305  0.516569746  5.768289e-01     0.887207     0.711955
## 797      1.664178  0.379232978  1.888071e+00     0.924853     0.789166
## 798      1.668269  0.200226504  1.221184e+00     0.686751     0.574969
## 799      1.532321  0.408258626  2.440998e+00     0.878231     0.755999
## 800      1.848423  0.832528072  2.633630e+00     0.854119     0.635231
## 801      2.180046  1.358323253  7.502229e-01     0.973724     0.708462
## 802      1.590798  0.555192426  5.221836e-01     0.959250     0.770143
## 803      1.692374  0.736068067  1.039644e-01     0.892548     0.816037
## 804      1.768827  1.128761030 -8.196390e-02     0.944587     0.723552
## 805      1.597478  0.366954992  2.202039e+00     0.923635     0.676154
## 806      1.618977  0.987001357  3.479892e-01     0.781721     0.740636
## 807      1.476495  0.451659044  2.522541e+00     0.906519     0.651781
## 808      1.590895  0.376025528  1.245567e+00     0.767319     0.711095
## 809      1.576925  0.617253082  2.247524e+00     0.872807     0.783758
## 810      1.649533  0.444847031 -3.120784e-02     0.968613     0.802464
## 811      1.628936  0.867719035  1.010614e+00     0.769112     0.643949
## 812      1.864391  0.923776972  7.179596e-01     0.915118     0.705360
## 813      1.707646  0.730441487  5.053688e-01     0.934954     0.731954
## 814      1.706098  0.363504803  2.324366e+00     0.954853     0.865160
## 815      1.971922  0.690706298  3.040364e+00     0.951856     0.906509
## 816      1.860615  1.053738991  2.295480e+00     0.936477     0.675082
## 817      1.556465  0.553895158  2.450960e-01     0.828565     0.744930
## 818      1.646033  0.559626576  2.342296e+00     0.804687     0.701235
## 819      1.445788  0.603607662  3.231693e+00     0.686371     0.634765
## 820      1.567920  0.516926525  1.498339e+00     0.763819     0.720675
## 821      1.751808  0.879319567  2.749092e-01     0.956621     0.891107
## 822      1.498935  0.249794949  2.768698e+00     0.836155     0.685575
## 823      1.983101  1.258357080  8.183262e-01     0.874414     0.700583
## 824      2.030644  0.728748932  2.260763e+00     0.870887     0.811511
## 825      1.515145  0.379015287  2.541760e+00     0.734281     0.674227
## 826      1.873302  0.642148825  9.101541e-01     0.958306     0.893941
## 827      1.762642  0.660193604  2.932691e+00     0.899967     0.785900
## 828      1.648533  0.567085210  2.662997e+00     0.865994     0.751264
## 829      1.811782  0.604759411  1.620988e+00     0.944971     0.784075
## 830      1.897809  0.619857892  3.086182e+00     0.950698     0.923851
## 831      1.605826  0.434227082  2.911124e+00     0.884325     0.790497
## 832      1.514218  0.559063539  2.134696e+00     0.875697     0.738625
## 833      1.617490  0.382134160  2.675918e+00     0.925018     0.668989
## 834      1.610752  0.354671120 -5.501178e-02     0.924188     0.770091
## 835      1.635417  0.642652443  2.530837e+00     0.841936     0.791394
## 836      1.704320  0.593386874  2.614057e+00     0.942691     0.777273
## 837      1.727495  0.696602739 -1.762359e-02     0.963755     0.627683
## 838      1.702931  0.904080676  3.604365e-01     0.924043     0.769402
## 839      1.518532  0.573275517  2.731810e+00     0.800106     0.741230
## 840      1.875431  0.709593017  2.866940e+00     0.847199     0.670185
## 841      1.490797  0.269571313  2.710983e+00     0.885370     0.602050
## 842      1.741605  0.547736565  1.279454e+00     0.747923     0.685949
## 843      1.804341  0.971912903  3.770406e-01     0.974010     0.867239
## 844      1.782288  0.660663456  1.972432e+00     0.939324     0.798897
## 845      2.346635  1.566317264  1.208472e+00     0.910217     0.876715
## 846      1.816261  0.769343349  3.020186e+00     0.972844     0.915789
## 847      1.596089  0.295624269  7.286435e-01     0.949554     0.760967
## 848      1.809445  1.293039753  3.419521e-01     0.788824     0.646667
## 849      1.546376  0.706302060  1.779445e+00     0.764425     0.595820
## 850      1.506344  0.456162505  1.811685e+00     0.960136     0.678654
## 851      1.920810  0.555254104  2.154133e+00     0.793492     0.752211
## 852      1.681207  0.434159964  2.962671e+00     0.889841     0.854486
## 853      1.518893  0.464510412  2.744866e+00     0.814549     0.690604
## 854      1.597067  0.478414971  2.520643e+00     0.860258     0.675323
## 855      1.626322  0.419503054  1.826790e+00     0.976827     0.783647
## 856      1.867847  0.798409611  2.644391e+00     0.849067     0.704231
## 857      1.582188  0.497159183  3.366398e+00     0.905610     0.789381
## 858      1.678487  0.463150622  2.878203e+00     0.890684     0.806101
## 859      1.466497  0.338548124  2.621955e+00     0.763754     0.545374
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## 860      1.651045  0.631557401  3.875571e-01     0.942543     0.738493
## 861      1.700694  0.349009290  2.566870e-01     0.904197     0.635446
## 862      2.146162  1.506522620  1.219918e+00     0.901723     0.611374
## 863      1.629310  1.300758477  2.872413e-01     0.900364     0.789853
## 864      1.920079  1.200363421  3.010300e-01     0.793288     0.664667
## 865      2.181575  1.607766960  1.277127e+00     0.906392     0.805462
## 866      1.612457  0.455939121  2.534262e+00     0.859335     0.778664
## 867      1.760643  1.045182104  2.396625e+00     0.820461     0.751053
## 868      1.632849  0.696494432  2.743950e+00     0.948768     0.780385
## 869      1.909466  0.994838697  1.355454e+00     0.806556     0.701330
## 870      1.612889  0.383567640  2.372090e+00     0.686645     0.451200
## 871      1.622167  0.325287784  2.706371e+00     0.853434     0.753270
## 872      1.525422  0.543013290  3.940914e-02     0.876247     0.745049
## 873      1.577356  0.469223897  2.237730e+00     0.872000     0.831746
## 874      1.679279  0.888968709  6.058801e-01     0.854980     0.695950
## 875      1.834034  0.521072673  1.211504e+00     0.851657     0.737645
## 876      1.621491  0.537777552  2.670040e-01     0.928321     0.844558
## 877      1.550669  0.311571631  1.042693e+00     0.904683     0.831984
## 878      2.064061  1.310366141  7.512680e-01     0.840306     0.806038
## 879      1.754660  1.199393114  5.458851e-01     0.885860     0.821712
## 880      1.656879  0.753117111  2.121092e-01     0.935455     0.873754
## 881      1.555225  0.511059425  1.350434e+00     0.876269     0.765097
## 882      1.725392  0.946680652  6.024777e-02     0.887088     0.823928
## 883      1.686167  0.403232084  2.108794e+00     0.810021     0.614132
## 884      1.755591  1.103790042  1.551565e+00     0.920644     0.711758
## 885      1.743037  0.594409126  2.256036e-01     0.804554     0.676806
## 886      1.642312  0.523983054  2.975207e+00     0.824961     0.725225
## 887      1.722569  0.664079473  1.381739e+00     0.856808     0.811887
## 888      1.533140  0.441198515  2.892264e+00     0.790786     0.566566
## 889      1.722295  0.606766040  2.485110e+00     0.888218     0.813981
## 890      1.569235  0.578660981  2.077083e-01     0.811951     0.785250
## 891      1.611407  0.936762988  5.398294e-01     0.839659     0.661190
## 892      1.645974  0.657011847 -1.157525e-01     0.864200     0.740194
## 893      1.607145  0.668613256  3.756023e-01     0.894963     0.697790
## 894      1.728338  0.762205758  1.327305e+00     0.729819     0.609659
## 895      1.741908  0.701842462  9.363029e-01     0.890767     0.853644
## 896      1.702786  0.621801299  9.563723e-02     0.921056     0.844104
## 897      1.702968  0.784408296  1.801871e-01     0.978192     0.724197
## 898      1.673998  0.537390884 -1.886110e-01     0.950446     0.857981
## 899      1.771151  1.638536178  1.300730e+00     0.606078     0.577108
## 900      1.676961  0.559807312  1.980814e+00     0.857749     0.788320
## 901      1.955238  1.084386791  6.479951e-01     0.880122     0.755522
## 902      1.497308  0.399182050  2.599711e+00     0.952008     0.708689
## 903      1.523294  0.307027260  1.986063e+00     0.913201     0.653500
## 904      1.617186  1.072378586  2.243151e+00     0.788479     0.634996
## 905      1.560230  0.464564060  1.644454e+00     0.910268     0.785019
## 906      1.715106  0.325008417  2.813436e+00     0.902248     0.848265
## 907      2.118685  1.458728475  2.186240e+00     0.805714     0.555879
## 908      1.736574  0.726340001  5.411283e-01     0.916082     0.768199
## 909      1.778348  0.819795227  3.758434e-01     0.874429     0.715001
## 910      1.810749  0.984964088  1.845005e-02     0.945701     0.734267
## 911      1.514011  0.472428777  1.745049e+00     0.933498     0.712942
## 912      1.626602  0.709468402  5.229906e-01     0.817513     0.736690
## 913      1.598182  0.766584597  2.243270e+00     0.885039     0.813332
## 914      1.651676  0.448976704  7.987839e-01     0.896967     0.752690
## 915      1.610302  0.659339926  6.103872e-01     0.941504     0.842162
## 916      1.618563  0.494446809  8.081982e-02     0.870758     0.732268
## 917      1.569304  0.328616056  3.044408e+00     0.928322     0.776712
## 918      1.511320  0.262942063  3.281871e+00     0.880203     0.654117
## 919      1.636819  0.246643814  6.218577e-01     0.869277     0.648073
## 920      1.837134  0.604811200  2.295620e+00     0.945163     0.815193
## 921      1.824951  0.682317496  2.702198e+00     0.904932     0.815359
## 922      1.630046  0.613596603  2.749383e+00     0.820183     0.722150
## 923      1.719353  0.747868393  2.339012e-01     0.902361     0.729832
## 924      1.790479  1.004596483  2.730127e+00     0.883781     0.768927
## 925      1.918372  1.170751488  1.207415e+00     0.892070     0.716515
## 926      1.807210  1.246813601  7.636906e-01     0.716361     0.665462
## 927      1.694379  0.868491615  3.148545e-01     0.848435     0.786354
## 928      1.737450  0.628087374  2.711509e+00     0.853390     0.804140
## 929      1.584003  0.582742695  1.829020e+00     0.957609     0.854896
## 930      1.781616  0.511918103  2.632530e+00     0.930890     0.804881
## 931      1.746853  0.573847088  1.859974e-01     0.815140     0.750963
## 932      1.617544  0.410829514  3.239586e+00     0.885428     0.777964
## 933      1.593819  0.435226235  9.953690e-02     0.928712     0.769544
## 934      1.562138  0.690626616  1.183362e+00     0.942949     0.762314
## 935      1.643768  0.569810326  3.055230e+00     0.977100     0.831414
## 936      1.711477  1.011718425  4.417740e-01     0.859296     0.771552
## 937      1.555417  0.450804711  7.893852e-01     0.868929     0.819368
## 938      1.593740  0.628346009  2.365036e+00     0.764217     0.636323
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## 939      1.824154  0.796008549  2.292063e+00     0.791158     0.739386
## 940      1.628258  0.375628869  1.687251e-01     0.856546     0.798802
## 941      1.785086  0.396584634  2.000473e+00     0.904002     0.844833
## 942      1.540302  0.533784764  2.907646e+00     0.960816     0.778456
## 943      1.839825  0.965999449  2.282912e+00     0.871696     0.838635
## 944      1.825383  0.898029864  2.387229e+00     0.818382     0.787678
## 945      1.640111  0.493679673  2.803214e+00     0.884864     0.725673
## 946      2.090787  1.486879419  2.272608e+00     0.849025     0.784664
## 947      1.726098  0.847128885  3.221141e+00     0.874644     0.679427
## 948      1.723114  0.947014420  3.905757e-01     0.966192     0.853419
## 949      1.511522  0.396666529  3.270022e+00     0.885581     0.641841
## 950      1.743991  0.462475864  2.879611e+00     0.610332     0.596612
## 951      1.910358  0.884492895  2.301689e+00     0.802316     0.716489
## 952      1.893447  0.813654365  5.398294e-01     0.877012     0.600755
## 953      1.704605  0.629640957  6.558516e-02     0.810885     0.631239
## 954      1.541125  0.616399886  6.722143e-01     0.850550     0.825431
## 955      1.918019  0.802933051  2.898835e+00     0.919709     0.727067
## 956      1.503600  0.359235780  1.705665e+00     0.715102     0.426711
## 957      1.639746  0.695423883  2.039319e+00     0.854959     0.707335
## 958      1.716204  0.445752056  5.467878e-01     0.728001     0.625623
## 959      1.620251  0.618183073  2.152351e+00     0.750903     0.683776
## 960      1.702984  0.565758118  1.771581e+00     0.931335     0.693823
## 961      1.383810  0.457144332  2.128047e+00     0.845676     0.762182
## 962      1.606411  0.561684426  1.167089e-01     0.988436     0.861075
## 963      1.762112  0.502328778  2.931035e+00     0.948134     0.897113
## 964      1.651756  0.584540404 -1.762359e-02     0.888748     0.788494
## 965      1.718282  0.819503794  2.436597e+00     0.884082     0.691297
## 966      1.630554  0.820995079  8.724788e-02     0.853147     0.749174
## 967      1.754234  0.668341180  1.714292e+00     0.864261     0.698148
## 968      1.593898  0.329810619 -4.276359e-02     0.871658     0.695283
## 969      1.646446  0.856599610  4.344348e-01     0.880408     0.805065
## 970      1.704420  1.114167123  5.823932e-01     0.737363     0.606409
## 971      1.587288  0.652433947  2.442878e+00     0.809161     0.748098
## 972      1.616423  0.601310186  2.355640e+00     0.966326     0.870341
## 973      1.513910  0.287828593  2.642038e+00     0.963538     0.740017
## 974      1.724150  0.402569149  1.129009e+00     0.727022     0.627151
## 975      1.763390  0.794491532  6.378717e-01     0.821043     0.739533
## 976      1.502381  0.443788518  2.635998e+00     0.892849     0.563155
## 977      1.520058  0.399426224  2.416192e+00     0.844673     0.695748
## 978      1.574852  0.395232009  2.448852e+00     0.926267     0.727241
## 979      1.827031  1.272924830  9.502202e-01     0.934099     0.639849
## 980      1.590820  0.851257125  2.157317e+00     0.899878     0.867169
## 981      1.769470  0.514769492  1.000351e+00     0.919807     0.746779
## 982      1.960397  0.970818114  2.141980e-01     0.931527     0.820028
## 983      1.637601  0.508681864  4.925260e-01     0.926571     0.724371
## 984      1.650413  0.605153070  1.715726e+00     0.942454     0.763229
## 985      1.688766  0.991929240  9.197789e-01     0.823361     0.700516
## 986      1.570034  0.294239099  2.308429e+00     0.901833     0.806284
## 987      1.652843  0.978800234  2.390170e+00     0.832000     0.775214
## 988      1.623464  0.400047296  2.004446e+00     0.765300     0.694924
## 989      1.808182  0.970809288  1.897752e+00     0.847491     0.692915
## 990      1.498082  0.450907751  2.557294e+00     0.824273     0.724298
## 991      1.762482  0.552552632  6.482197e-01     0.856274     0.764545
## 992      2.007739  0.941527830  4.927581e-01     0.785119     0.664319
## 993      1.544635  0.542812983  1.927299e+00     0.783373     0.635895
## 994      1.939976  1.044962874  2.157535e+00     0.835200     0.767946
## 995      1.547353  0.442531505  2.411277e+00     0.896258     0.732734
## 996      1.621999  0.633791531  4.572555e-01     0.957051     0.818063
## 997      1.685149  0.581065158  8.081982e-02     0.851951     0.633967
## 998      1.826333  1.054463668  6.906572e-01     0.795235     0.783691
## 999      1.662573  0.785631600  2.919540e-02     0.903220     0.834902
## 1000     1.647520  1.033520255  6.427629e-01     0.658069     0.569170
## 1001     1.678889  0.484822102  1.108223e+00     0.797271     0.713249
## 1002     1.816471  0.900988353  1.591226e+00     0.917704     0.642732
## 1003     1.578894  0.591360717  2.940481e+00     0.793065     0.753787
## 1004     1.824564  0.611899538  2.385115e+00     0.792889     0.767038
## 1005     1.785128  0.582632575  2.635511e+00     0.885335     0.829270
## 1006     1.513722  0.635932889  1.979094e+00     0.752346     0.561109
## 1007     1.902814  1.097975333  2.147062e-01     0.808596     0.583029
## 1008     2.010291  1.266182289  3.638628e-01     0.656626     0.552547
## 1009     1.570619  0.618813455  1.656278e+00     0.943999     0.827275
## 1010     1.627652  0.547839906  2.462036e+00     0.943471     0.797802
## 1011     1.681085  0.441582032  2.183390e+00     0.929385     0.711108
## 1012     1.726559  0.559004797  2.567208e+00     0.873635     0.849718
## 1013     1.603783  0.259075187  6.906860e-02     0.817168     0.734557
## 1014     1.498997  0.272245522  2.465627e+00     0.723986     0.635810
## 1015     1.424539  0.448110882  2.318007e+00     0.725707     0.540573
## 1016     1.973831  1.207090149  1.328109e+00     0.639875     0.504495
## 1017     1.671692  0.625710543  1.456070e+00     0.924717     0.845288
```

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## 1018     1.522004  0.621882215 -2.904667e-01     0.787518     0.751332
## 1019     1.460039  0.414948292  1.861561e+00     0.724759     0.501237
## 1020     1.744916  0.393885679  3.740637e-02     0.948845     0.900921
## 1021     1.906022  1.051719630  5.405726e-01     0.922764     0.766860
## 1022     1.729024  0.842846913  2.451383e+00     0.790343     0.647847
## 1023     1.815018  0.361408607  4.504076e-01     0.942690     0.875384
## 1024     1.566679  0.416225983  2.941088e+00     0.815584     0.685306
## 1025     1.533614  0.250114913  2.988309e+00     0.803443     0.616172
## 1026     2.142261  1.153811817  2.065757e+00     0.979955     0.765365
## 1027     1.616338  0.584084602  2.272357e+00     0.950419     0.794315
## 1028     1.781682  0.759404167  2.329141e+00     0.910931     0.811655
## 1029     1.564381  0.477537977  5.632543e-01     0.899195     0.883160
## 1030     1.793007  0.956814107  4.995456e+00     0.850326     0.726029
## 1031     1.565452  0.538568707  2.666051e+00     0.778649     0.671130
## 1032     1.821685  0.969085872  2.052760e+00     0.751693     0.689867
## 1033     1.605591  0.634333153  2.390525e-01     0.901557     0.689164
## 1034     1.746071  0.573571251  4.149733e-01     0.934341     0.830984
## 1035     1.616422  0.470647127  2.181198e-01     0.941360     0.845301
## 1036     1.835669  1.162199852  1.163595e+00     0.815227     0.573152
## 1037     1.485416  0.361185574  3.160724e+00     0.930048     0.735230
## 1038     1.583331  0.836866329  2.095100e+00     0.850968     0.677849
## 1039     1.570407  0.819830081  2.390676e+00     0.955648     0.860158
## 1040     1.703291  0.679124330  1.643036e+00     0.913366     0.855835
## 1041     1.664997  0.506215406  2.058134e+00     0.881356     0.816597
## 1042     1.734168  0.894017383 -2.294978e-02     0.868275     0.655766
## 1043     1.567056  0.475233769 -4.169796e-01     0.855178     0.821289
## 1044     1.834710  0.494891712  2.310929e+00     0.897364     0.772561
## 1045     1.468660  0.498602743  2.392600e+00     0.793960     0.743317
## 1046     1.955326  0.554857276  3.226588e+00     0.863352     0.652905
## 1047     1.631897  0.490601714  2.005269e+00     0.900131     0.770090
## 1048     2.244351  1.001184008  3.389994e+00     0.930475     0.817071
## 1049     1.706922  0.832028368  2.330238e+00     0.839924     0.783233
## 1050     1.657916  0.577790418  5.442669e-01     0.896223     0.745945
## 1051     1.499970  0.471381202  3.059153e+00     0.790876     0.761371
## 1052     1.683208  1.046694122  1.483598e+00     0.822797     0.705780
## 1053     1.689274  0.877434124  1.187567e+00     0.899748     0.872232
## 1054     1.834484  0.815583725  3.504518e-01     0.786128     0.716936
## 1055     1.707674  0.640243852  2.093116e+00     0.927490     0.704012
## 1056     1.676737  0.658919125  2.236611e+00     0.957879     0.818372
## 1057     1.541634  0.267504951  2.776880e+00     0.928571     0.766092
## 1058     2.211489  1.685715770  1.105547e+00     0.734438     0.614356
## 1059     1.678316  0.503583697  2.822424e+00     0.913768     0.802870
## 1060     1.714481  0.596205504  9.291146e-01     0.816478     0.577399
## 1061     1.654664  0.514935390  2.514154e+00     0.786077     0.692239
## 1062     1.648013  0.842040416  2.008100e+00     0.957503     0.786682
## 1063     1.553309  0.636533029  3.158438e+00     0.818200     0.615593
## 1064     1.464513  0.394266015  2.356621e+00     0.849305     0.672427
## 1065     1.658144  0.913889053  1.635673e+00     0.838268     0.601356
## 1066     1.739864  0.661193446  5.375841e-01     0.899052     0.671050
## 1067     1.785794  0.798646503  1.474489e+00     0.597960     0.427393
## 1068     1.766437  1.108527816  1.855200e+00     0.768550     0.560907
## 1069     1.515471  0.318100917  2.747042e+00     0.848214     0.762744
## 1070     1.931453  1.385892135  4.018842e-01     0.889964     0.844646
## 1071     1.580857  0.649990674  2.767218e+00     0.910264     0.733405
## 1072     1.861374  1.024005133  2.064287e+00     0.892104     0.862920
## 1073     1.638220  0.744450240 -2.776392e-01     0.944865     0.681310
## 1074     1.585062  0.478068431  4.192726e-01     0.930756     0.644485
## 1075     1.580163  0.356763722  4.618625e-01     0.826301     0.743018
## 1076     1.425855  0.871238330  4.088872e-01     0.830190     0.762050
## 1077     1.695916  0.735617261 -1.762359e-02     0.924980     0.717137
## 1078     1.892833  0.946635966  5.820878e-01     0.962591     0.776042
## 1079     1.751882  0.706144887  3.612983e-01     0.954450     0.864430
## 1080     1.671641  0.498747386  4.368601e-01     0.945533     0.796041
## 1081     1.560067  0.302856700  2.495177e-01     0.883620     0.791067
## 1082     1.562511  0.522625478  2.508869e+00     0.914202     0.747369
## 1083     1.790557  1.210864056  2.077839e+00     0.828903     0.748927
## 1084     1.928849  1.191308462  8.681032e-01     0.835752     0.707961
## 1085     1.627438  0.320316646  2.177134e-01     0.875451     0.803952
## 1086     1.656693  1.057099098  4.483039e-01     0.845366     0.566028
## 1087     1.832386  1.202150340  7.532741e-01     0.851601     0.519723
## 1088     1.715900  1.093621275  5.007265e-01     0.902303     0.806049
## 1089     1.633617  0.635285655  2.558421e+00     0.801281     0.736882
## 1090     1.894652  1.265317918  5.385225e-01     0.946337     0.901156
## 1091     1.615877  0.623837258  2.517440e+00     0.839552     0.737522
## 1092     1.788160  1.328461153  3.498127e-01     0.916220     0.723762
## 1093     1.686925  1.201071965  2.798675e+00     0.855046     0.709964
## 1094     1.887884  0.652232799  2.838989e+00     0.926077     0.843895
## 1095     1.806826  0.768817109  1.508469e-01     0.984672     0.816236
## 1096     1.497848  0.589653644  2.084861e+00     0.965604     0.787232
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## 1097     1.820272  1.194347807  1.694337e+00     0.588405     0.496516
## 1098     1.630605  0.257380945  1.829845e+00     0.592469     0.495893
## 1099     1.649499  0.424170837  1.937753e+00     0.860412     0.833055
## 1100     1.663870  1.471018724  6.892708e-01     0.800745     0.636738
## 1101     1.872665  0.991541489  7.784577e-01     0.929718     0.791234
## 1102     2.017050  0.590167252  3.208576e+00     0.920876     0.730500
## 1103     2.506678  1.957544078  1.923323e+00     0.742847     0.552463
## 1104     1.697888  0.682214594 -3.120784e-02     0.845377     0.757613
## 1105     1.850315  1.203136278  4.335739e-02     0.877346     0.701460
## 1106     1.709026  0.670021224  6.078673e-01     0.812963     0.642162
## 1107     1.612413  0.680190422  2.735576e+00     0.917351     0.727223
## 1108     2.189541  1.664546082  1.069542e+00     0.632397     0.587268
## 1109     1.690385  0.995040374  7.565161e-01     0.845585     0.778741
## 1110     1.630750  0.456077420  2.487826e+00     0.936511     0.816691
## 1111     1.449901  0.242489250  2.410560e+00     0.924891     0.748887
## 1112     1.605204  0.885882852  4.505772e-01     0.933422     0.777779
## 1113     1.570321  0.537632749  3.405342e-01     0.914726     0.751066
## 1114     1.647451  0.637713824  3.077564e-01     0.938524     0.826746
## 1115     1.609530  0.763604671  2.077083e-01     0.884124     0.795554
## 1116     1.803609  0.684161078  5.665653e-01     0.956901     0.742185
## 1117     1.650595  0.499592242  7.122035e-01     0.896247     0.791117
## 1118     1.662986  0.761010946  2.629375e-01     0.936567     0.875538
## 1119     1.759927  0.564325122  9.519806e-01     0.937236     0.893450
## 1120     1.399624  0.314056919  2.347458e+00     0.949577     0.656028
## 1121     1.685114  1.048231986  4.591645e-01     0.823520     0.761857
## 1122     1.571073  0.351102195  2.663585e+00     0.762239     0.650741
## 1123     1.545862  0.572433603  2.400413e+00     0.877802     0.814462
## 1124     1.471008  0.326042818  1.763091e+00     0.776533     0.543924
## 1125     1.612029  0.350703401  1.898241e+00     0.871223     0.791137
## 1126     1.668301  0.847733022  2.120890e+00     0.828454     0.648425
## 1127     2.153370  1.062051483  8.770087e-01     0.909270     0.784633
## 1128     1.596042  0.544409142  1.880142e+00     0.861920     0.710203
## 1129     1.883488  1.007547222  1.516547e+00     0.968916     0.786882
## 1130     1.425694  0.209616874  1.843884e+00     0.701932     0.625173
## 1131     1.770789  1.186362940  5.845186e-01     0.846642     0.709620
## 1132     1.496840  0.440625754  2.736736e+00     0.895398     0.658525
## 1133     1.686144  0.740599513  4.040052e-01     0.970773     0.811690
## 1134     1.511583  0.499555125  2.800486e+00     0.809026     0.751879
## 1135     1.539118  0.322386776  2.189733e+00     0.881271     0.775585
## 1136     1.613238  1.299834041  1.233876e+00     0.654960     0.517473
## 1137     1.714544  0.643159429  2.492202e+00     0.841618     0.704942
## 1138     1.639312  0.615539749  3.709652e-01     0.885404     0.667144
## 1139     1.643419  1.234380596  3.956989e-01     0.870729     0.712866
## 1140     1.771996  0.883384875  9.501316e-02     0.926136     0.806334
## 1141     1.626650  0.490694329  2.633272e+00     0.932130     0.816895
## 1142     1.625166  0.922568212  2.064435e-02     0.914847     0.846407
## 1143     1.527665  0.475877393 -1.082594e-01     0.931886     0.889187
## 1144     1.594689  0.515644719  5.239330e-01     0.881966     0.730756
## 1145     1.700417  0.534123875  8.414711e-01     0.884169     0.781116
## 1146     1.554914  0.545236584  2.451372e+00     0.907281     0.854869
## 1147     1.690983  0.591410791  1.432250e+00     0.753747     0.644318
## 1148     1.546319  0.290888996  2.322812e+00     0.889659     0.782132
## 1149     1.752294  1.027341452  2.716211e+00     0.910044     0.778600
## 1150     1.655830  0.980593702  9.241858e-01     0.620895     0.591124
## 1151     1.863044  1.313487574  9.836942e-01     0.843210     0.775287
## 1152     1.647895  0.797713382  5.073278e-01     0.934265     0.704945
## 1153     1.760213  0.794813471  4.933511e-01     0.912059     0.775685
## 1154     1.534628  0.303983986  1.940406e+00     0.733918     0.678916
## 1155     1.629753  0.868995728  1.825839e+00     0.875872     0.685109
## 1156     1.851052  1.281215233  4.718143e-01     0.882262     0.719395
## 1157     1.601521  0.310415020  1.743579e+00     0.785372     0.656451
## 1158     1.709073  0.657533888  2.951667e+00     0.890272     0.841402
## 1159     1.641476  1.467753093  1.104092e+00     0.822693     0.654727
## 1160     1.585560  0.483167776  1.547645e+00     0.911170     0.804397
## 1161     1.685965  0.735188361  1.478658e+00     0.799644     0.782758
## 1162     1.935833  1.172801354  2.379479e+00     0.883551     0.801785
## 1163     1.550316  0.376343324  2.950682e+00     0.812420     0.700553
## 1164     1.809000  1.278110827  9.501316e-02     0.872392     0.805562
## 1165     1.606577  0.629055699  2.198060e-01     0.866791     0.704615
## 1166     1.765441  0.836921967  6.109221e-01     0.946194     0.753635
## 1167     1.962137  0.846309891  3.146570e+00     0.858071     0.799561
## 1168     1.580694  0.343030268  3.097134e+00     0.695352     0.587638
## 1169     1.664971  0.751655483  5.678754e-01     0.921482     0.693087
## 1170     1.740951  0.639616957  1.363637e+00     0.836730     0.797804
## 1171     1.734795  0.924920947  2.968293e+00     0.891373     0.647310
## 1172     1.840841  0.946566719  2.193286e+00     0.962408     0.834958
## 1173     1.681988  0.785591757  3.909501e-01     0.868940     0.782482
## 1174     1.799819  1.289336953  6.429931e-01     0.820337     0.581741
## 1175     1.432162  0.060856423  2.144196e+00     0.743777     0.613562
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## 1176     2.170810  1.355371052  5.196235e-01     0.905835     0.673164
## 1177     1.534910  0.581320334  4.085294e-01     0.864712     0.713617
## 1178     1.915858  0.657048200  2.783817e+00     0.906495     0.792358
## 1179     1.713112  0.301029996  6.485562e-01     0.691000     0.607105
## 1180     1.656021  0.390716139  5.189248e-01     0.865100     0.689869
## 1181     1.589860  0.360045941  2.114988e+00     0.854990     0.765143
## 1182     1.683634  0.511380625  7.589146e-01     0.941523     0.792797
## 1183     1.725394  0.463621283  2.655323e+00     0.959707     0.947720
## 1184     1.817556  0.869513333  1.558214e+00     0.822547     0.672797
## 1185     1.885508  0.850525547  2.744950e-01     0.860285     0.734311
## 1186     1.603254  0.400304807  1.723957e+00     0.951271     0.625204
## 1187     1.795282  1.043149992  1.537109e+00     0.776124     0.561587
## 1188     1.693343  0.599022360  1.144616e+00     0.921881     0.846711
## 1189     1.870821  1.258505586  7.907202e-01     0.871016     0.696545
## 1190     1.624586  0.480893322  1.891205e-01     0.884614     0.835338
## 1191     1.745571  0.980155234  4.231655e-01     0.952758     0.533319
## 1192     1.629844  0.470378146  2.279513e-01     0.903454     0.774823
## 1193     2.015502  0.624477020  2.078041e+00     0.632640     0.603286
## 1194     1.751323  0.674691246  6.668105e-01     0.939486     0.815759
## 1195     1.972387  1.081221250  2.324165e+00     0.875372     0.752989
## 1196     1.707768  0.812910016  1.898382e+00     0.858452     0.750669
## 1197     1.411887  0.341835987  2.622503e+00     0.877252     0.650487
## 1198     1.739939  0.947966215  7.133671e-01     0.900354     0.823151
## 1199     1.594009  0.399621811  4.218758e-01     0.880026     0.823782
## 1200     1.608134  0.441182790  2.220464e+00     0.943858     0.626783
## 1201     1.588692  0.332080777  2.311334e+00     0.947227     0.810933
## 1202     1.601491  0.904938855  3.105281e-01     0.913172     0.791263
## 1203     1.648705  0.928434773  1.054196e-01     0.964886     0.874619
## 1204     1.701839  0.713267879  2.697481e+00     0.825856     0.790110
## 1205     1.822942  0.651936711  5.191299e-01     0.961379     0.808255
## 1206     1.767624  1.263830097  2.382847e-01     0.945988     0.689252
## 1207     1.820044  0.712612667  2.813033e+00     0.939989     0.839408
## 1208     1.588611  1.005459367  6.754859e-01     0.955552     0.856084
## 1209     1.709633  0.565064675  6.757823e-01     0.921118     0.659534
## 1210     1.660139  0.769704401  4.936839e-01     0.931994     0.648036
## 1211     1.724353  0.680252092  2.193920e+00     0.524514     0.483850
## 1212     1.568557  0.325911602  2.720596e+00     0.920105     0.859756
## 1213     1.632302  0.519203000  2.293441e+00     0.953406     0.900123
## 1214     1.667509  0.715913135  2.188784e+00     0.838085     0.648568
## 1215     1.483917  0.419294722  2.320581e+00     0.910247     0.624348
## 1216     1.681591  0.567060496  8.856728e-01     0.818578     0.711238
## 1217     1.876463  0.799085413  1.372000e+00     0.648811     0.606472
## 1218     1.592621  0.603650934  2.005365e+00     0.878975     0.781433
## 1219     1.695412  1.014927761  1.535544e+00     0.820327     0.729984
## 1220     1.568409  0.610592033  2.549661e+00     0.824520     0.704542
## 1221     1.631963  0.849133066  3.498127e-01     0.901591     0.751217
## 1222     1.781549  0.395095640  1.870529e+00     0.792337     0.672300
## 1223     1.590385  0.578876346 -2.359832e-02     0.924985     0.833708
## 1224     1.501517  0.362354279  2.995215e+00     0.913851     0.807112
## 1225     1.577678  0.268449256  1.591847e+00     0.783846     0.511955
## 1226     2.014982  1.112584895  1.293724e+00     0.701159     0.522722
## 1227     1.590572  0.533157920  6.171094e-01     0.931076     0.871730
## 1228     1.476572  0.361329235  3.027086e+00     0.921757     0.739655
## 1229     1.704566  1.051167964  7.424726e-01     0.678362     0.571405
## 1230     1.699951  0.648383433  2.608745e-01     0.968270     0.927204
## 1231     1.944759  0.936334257  2.105041e+00     0.937380     0.899304
## 1232     1.833464  1.152034422  9.089537e-01     0.955953     0.822764
## 1233     1.920452  0.765691647  2.463047e+00     0.948960     0.745869
## 1234     1.635935  0.816254561  3.202496e+00     0.879792     0.826216
## 1235     1.599078  0.542809249  2.714214e+00     0.749592     0.698480
## 1236     1.542549  0.433248047  1.947906e+00     0.974610     0.848583
## 1237     1.550508  0.283405266  2.748196e+00     0.819275     0.745561
## 1238     1.758992  0.672783871  7.249451e-02     0.842318     0.651626
## 1239     1.653368  0.535642176  2.096707e+00     0.868614     0.761975
## 1240     1.628366  0.312987199  2.415990e+00     0.799599     0.772232
## 1241     1.849093  1.206626217  1.808176e+00     0.830863     0.791323
## 1242     2.019764  1.338412664  2.721938e+00     0.959157     0.820204
## 1243     1.747270  0.578232226  1.364020e+00     0.787787     0.601162
## 1244     1.623420  0.966218725  7.371956e-01     0.965627     0.690778
## 1245     1.525191  0.741050698  3.250490e+00     0.864279     0.737311
## 1246     1.696977  0.870420879  9.517339e-01     0.929485     0.685379
## 1247     1.667616  0.567320504  3.883158e-01     0.834351     0.643335
## 1248     1.785283  0.540678522  2.392678e+00     0.909334     0.884475
## 1249     1.682208  1.011642327  2.854366e+00     0.917633     0.835343
## 1250     1.621174  0.411559103  2.104805e+00     0.907416     0.791071
## 1251     2.224875  1.334721082  1.057460e+00     0.850129     0.684864
## 1252     2.724800  2.283611005  2.226281e+00     0.611483     0.410824
## 1253     2.021475  1.073241648  5.450312e-01     0.849168     0.749736
## 1254     1.638449  0.680310126  3.043209e+00     0.895883     0.875013
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## 1255     2.251468  1.461531540  1.167550e+00     0.873940     0.687696
## 1256     1.628365  0.627539949  1.117605e-01     0.868805     0.771680
## 1257     2.114167  1.578915283  5.617475e-01     0.795662     0.701453
## 1258     1.602124  0.589262448  9.285962e-01     0.748272     0.646178
## 1259     1.569695  0.573102623  2.054028e+00     0.927687     0.837746
## 1260     1.671643  0.788987382  2.468839e+00     0.868126     0.792583
## 1261     1.589158  0.662362066  8.565941e-02     0.900548     0.827222
## 1262     1.732441  0.706297790  8.906799e-01     0.890136     0.751078
## 1263     1.697298  0.535805350  2.716513e-01     0.909128     0.849093
## 1264     1.766313  0.490951021  1.648835e+00     0.877751     0.813108
## 1265     1.597912  0.868423415  3.185689e-01     0.875473     0.693118
## 1266     1.909757  1.169345209  5.832216e-01     0.959730     0.674672
## 1267     1.584551  0.370613001  2.459375e+00     0.795187     0.567658
## 1268     1.522775  0.341539376  1.974016e+00     0.853518     0.782874
## 1269     1.773711  1.094303388  5.698258e-01     0.960944     0.714497
## 1270     1.837144  1.002425265  1.312966e-01     0.847138     0.718857
## 1271     1.633165  0.319651449  2.392759e+00     0.878211     0.793380
## 1272     1.624254  0.452011965  2.607861e+00     0.789584     0.640902
## 1273     2.132516  1.640144405  2.066350e+00     0.663731     0.480310
## 1274     1.875148  1.264016945  5.580617e-01     0.835715     0.591890
## 1275     1.634776  0.480442457 -3.981290e-02     0.848498     0.628092
## 1276     1.740337  1.119311988  8.781688e-01     0.800375     0.666088
## 1277     1.849027  1.060712946  5.437028e-01     0.925489     0.735288
## 1278     2.082936  0.818087267 -1.601400e-01     0.885745     0.823531
## 1279     1.678206  0.411121160  2.126441e+00     0.792371     0.648785
## 1280     1.713789  0.514087981  1.190641e+00     0.632762     0.505827
## 1281     1.774527  0.602423561  9.508545e-01     0.979114     0.766554
## 1282     1.699615  0.464254005  2.386986e+00     0.939118     0.746635
## 1283     1.699903  0.965561974  9.470484e-01     0.796405     0.782370
## 1284     1.712968  0.711028174  1.041556e+00     0.759353     0.618303
## 1285     1.532940  0.401312639  2.758141e+00     0.885217     0.809479
## 1286     1.942728  0.946314192  9.102342e-01     0.898091     0.767486
## 1287     1.821484  1.125305560  7.059461e-01     0.837926     0.797353
## 1288     1.540006  0.550088867  2.352527e+00     0.828310     0.786450
## 1289     1.546291  0.405814046  1.889969e+00     0.823240     0.632560
## 1290     1.895126  0.840555846  2.470642e+00     0.959974     0.712301
## 1291     1.697159  0.582028118  5.580190e-01     0.941636     0.864820
## 1292     1.551932  0.579912723  2.615644e-01     0.910494     0.870982
## 1293     1.689616  0.830147735  4.842395e-01     0.825170     0.723970
## 1294     1.681141  0.800433870  5.785445e-01     0.902594     0.786005
## 1295     1.576886  0.503600042  2.551467e+00     0.895849     0.706956
## 1296     1.797371  0.943714081  2.778234e+00     0.876026     0.767425
## 1297     1.688573  1.181606376  2.004693e-01     0.646044     0.597529
## 1298     1.677224  0.452952706  2.518450e+00     0.899864     0.790507
## 1299     1.565368  0.601887325  2.331848e+00     0.930320     0.879851
## 1300     1.655231  0.476198122  2.502457e-01     0.946509     0.870193
## 1301     2.050778  1.460332441  4.666344e-01     0.861114     0.753004
## 1302     1.633147  0.662201390  3.055528e-01     0.837331     0.590626
## 1303     1.861822  1.191638218  1.590382e+00     0.855630     0.664667
## 1304     2.328094  1.732685604  9.809337e-01     0.949650     0.891476
## 1305     1.574347  0.595236008  2.590875e-01     0.788359     0.737437
## 1306     1.755318  0.640659292  2.539984e-01     0.835320     0.740674
## 1307     1.652220  0.701513587  1.446461e+00     0.931258     0.718287
## 1308     1.510216  0.545193269  3.226037e+00     0.882459     0.681059
## 1309     1.494443  0.485982492  2.050228e-01     0.836138     0.791036
## 1310     1.531681  0.423268817  1.984992e+00     0.710393     0.548672
## 1311     1.527577  0.464338994  1.805073e+00     0.830435     0.765227
## 1312     1.943966  0.869688662  4.547420e-02     0.957224     0.805614
## 1313     1.703678  0.557519232  2.669683e+00     0.961108     0.846941
## 1314     1.552180  0.480570297 -4.622451e-01     0.904129     0.824045
## 1315     1.568553  0.287447882  1.704989e+00     0.906808     0.879522
## 1316     1.516816  0.245463313  2.328418e+00     0.964534     0.901416
## 1317     1.764989  0.851239998  1.739832e+00     0.882563     0.835413
## 1318     1.682808  0.694241819  6.957554e-01     0.934165     0.651955
## 1319     1.591860  0.741202040  1.755765e+00     0.936929     0.806150
## 1320     1.835560  0.962039108  1.363910e+00     0.782578     0.758432
## 1321     1.753513  1.240963378  5.964185e-01     0.910053     0.750776
## 1322     1.673989  0.815325333  8.005049e-01     0.868858     0.770051
## 1323     1.696700  0.584495185  2.547141e+00     0.759467     0.727275
## 1324     1.660183  0.529178740  2.332185e+00     0.895489     0.824849
## 1325     1.762604  0.384923018  3.595755e-01     0.921940     0.584652
## 1326     1.701018  0.376841468  1.498526e+00     0.870780     0.771513
## 1327     1.900925  1.083187176  1.364644e+00     0.830214     0.782449
## 1328     2.035298  1.113268001  1.943704e+00     0.733768     0.665297
## 1329     1.774191  0.743668872  1.045412e+00     0.925436     0.838104
## 1330     1.681134  0.670445323  2.937018e+00     0.824520     0.645854
## 1331     1.668548  0.545620042  3.587024e-01     0.840001     0.811892
## 1332     1.656393  0.593079950  3.928119e-01     0.931591     0.842093
## 1333     2.207317  0.660099572  3.297172e+00     0.911462     0.890996
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## 1334     1.542840  0.452704695  2.893381e+00     0.845741     0.744628
## 1335     1.608164  0.499589493 -2.531654e-01     0.924445     0.842745
## 1336     2.292584  1.664640095  9.202554e-01     0.815900     0.686505
## 1337     1.774306  0.751059591  1.254844e+00     0.867242     0.838399
## 1338     1.621331  0.455555911  4.530361e-02     0.997287     0.734725
## 1339     1.549393  0.657286331  1.832074e-01     0.881574     0.719530
## 1340     1.844215  1.157426545  2.919540e-02     0.811118     0.756561
## 1341     1.766724  0.987912831  2.013880e-01     0.791937     0.685755
## 1342     1.714212  0.593717931  6.399816e-01     0.881632     0.871834
## 1343     1.646099  0.484244303  7.280288e-01     0.827134     0.779657
## 1344     1.592797  0.735791256  1.162395e+00     0.831036     0.677936
## 1345     1.726776  0.770548636  6.585298e-01     0.951240     0.754801
## 1346     1.551025  0.470764663  2.660514e+00     0.610720     0.587367
## 1347     1.603838  0.461798558  9.169407e-02     0.941675     0.840621
## 1348     1.700026  0.670790236  3.405342e-01     0.859232     0.686539
## 1349     1.594024  0.383897910  2.440630e+00     0.824948     0.698829
## 1350     1.559065  0.256212459  2.389499e+00     0.885850     0.721780
## 1351     1.729879  0.650439637  2.261294e+00     0.982581     0.805057
## 1352     2.369503  0.767399300  2.358091e+00     0.744498     0.736730
## 1353     1.954940  1.269872373  7.788427e-01     0.833562     0.693069
## 1354     1.542405  0.313082251  1.411675e+00     0.645631     0.490548
## 1355     1.566540  0.453882251  3.437841e+00     0.853712     0.714792
## 1356     1.637043  0.780816140  1.071955e+00     0.791629     0.730977
## 1357     1.712837  0.996849082 -7.368693e-03     0.971144     0.925867
## 1358     1.586569  0.476834526  1.853413e+00     0.843419     0.805187
## 1359     1.645194  0.523589104  2.789819e+00     0.889170     0.797410
## 1360     1.452861  0.425539111  1.821830e+00     0.712510     0.658433
## 1361     1.588807  0.370468677  2.672309e+00     0.861571     0.717520
## 1362     1.702745  1.786245870  1.251081e+00     0.669980     0.506046
## 1363     1.900639  1.154731249  6.507861e-01     0.809216     0.728282
## 1364     1.788393  0.479258507  1.790059e+00     0.920325     0.786142
## 1365     1.637322  0.656825252  2.670040e-01     0.842037     0.796209
## 1366     1.605026  0.529815197  1.533911e+00     0.719021     0.614298
## 1367     1.560682  0.450967717  2.904173e+00     0.907838     0.758507
## 1368     1.611106  0.247310277  2.193413e+00     0.941601     0.789282
## 1369     1.659873  0.440883905  5.665653e-01     0.918012     0.583178
## 1370     1.652233  0.643845338  2.288462e-01     0.881503     0.826428
## 1371     2.776817  2.407326308  1.784351e+00     0.825595     0.657693
## 1372     1.821654  1.049311076  1.449464e+00     0.923871     0.789046
## 1373     1.674539  0.576261857  2.334849e+00     0.944428     0.838259
## 1374     1.746830  0.723724047  3.035749e+00     0.959810     0.801861
## 1375     1.841827  0.916268083  2.195144e+00     0.831386     0.656814
## 1376     2.029250  1.137537666  2.891099e+00     0.748214     0.538310
## 1377     1.682131  1.085204924  4.793559e-01     0.959738     0.852009
## 1378     1.633372  0.602522269  8.549405e-01     0.987235     0.839763
## 1379     1.697419  1.099514901  2.201113e+00     0.749825     0.598006
## 1380     1.731328  0.651415648 -1.710462e-01     0.840064     0.735163
## 1381     1.772724  0.532233168  2.691272e+00     0.920054     0.871844
## 1382     1.634194  0.533561086  1.883505e+00     0.833013     0.792338
## 1383     1.759779  0.512209294  9.831030e-01     0.936574     0.844445
## 1384     1.688798  0.533918154  1.879130e+00     0.810620     0.766209
## 1385     1.574387  0.619127781  2.728510e+00     0.872099     0.642737
## 1386     1.643444  0.519502479  4.064533e-01     0.897114     0.670810
## 1387     1.512747  0.458394576  2.450255e+00     0.801153     0.612420
## 1388     1.515976  0.525316966  1.498359e+00     0.750463     0.467531
## 1389     1.524719  0.390136401  2.519483e+00     0.824730     0.737002
## 1390     1.702407  1.035117414  1.015610e+00     0.737958     0.649624
## 1391     1.575187  0.488402636  2.790837e+00     0.844468     0.762362
## 1392     1.632072  0.883086537  1.623975e+00     0.761318     0.687505
## 1393     1.606304  0.341149518  2.192596e+00     0.903654     0.789891
## 1394     1.648081  0.765975358  3.829472e-01     0.948864     0.814296
## 1395     1.615213  0.553056110  2.507144e+00     0.930762     0.694171
## 1396     1.551685  0.556335072  2.085117e+00     0.954012     0.912955
## 1397     1.660786  0.706968560  5.342192e-01     0.830678     0.699650
## 1398     1.751982  0.475566596  1.770718e+00     0.901166     0.823580
## 1399     1.622016  0.540754800  2.764865e+00     0.881664     0.767311
## 1400     1.631683  1.142817917  2.330224e+00     0.793132     0.780398
## 1401     2.080172  1.175311725  7.983934e-01     0.846798     0.626150
## 1402     1.714903  0.655803779  1.510802e+00     0.812407     0.729430
## 1403     1.569807  0.346958999  2.004764e+00     0.970421     0.736838
## 1404     1.682570  1.080460529  1.929720e-01     0.807902     0.649786
## 1405     1.667694  0.627549164  2.349170e+00     0.775183     0.690505
## 1406     1.767692  0.661553356  1.930019e+00     0.905712     0.756714
## 1407     1.512771  0.350356578  1.706464e+00     0.826707     0.764492
## 1408     1.591838  0.766458208  1.643966e-01     0.930879     0.757097
## 1409     1.685564  0.703174404  4.800956e-01     0.897270     0.764311
## 1410     1.559531  0.683244318  2.979890e+00     0.819060     0.775830
## 1411     1.645670  0.774878119  1.060133e-01     0.871357     0.760746
## 1412     1.605771  0.473908651  7.547836e-01     0.867211     0.785516
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## 1413     1.665434  1.195484523  3.764649e-01     0.860846     0.695657
## 1414     1.555017  0.438964572  2.846331e+00     0.865172     0.805153
## 1415     1.620250  0.439998628  2.120741e+00     0.887192     0.779327
## 1416     1.625705  0.878917995  2.800197e-01     0.819120     0.626479
## 1417     1.569838  0.634512536  7.918125e-02     0.844139     0.759597
## 1418     1.902014  0.718788909  2.651084e+00     0.856658     0.798813
## 1419     1.641658  0.934114992  5.650817e-01     0.866733     0.707686
## 1420     1.506470  0.542450702  2.151117e+00     0.693307     0.506166
## 1421     1.468102  0.439809366  2.479748e+00     0.852672     0.663394
## 1422     1.782366  0.719748805  5.790100e-01     0.863169     0.819184
## 1423     1.629106  0.858705589  9.309040e-01     0.839872     0.638537
## 1424     1.629647  1.076476597  9.653127e-01     0.804682     0.632738
## 1425     1.588584  0.843256455  1.186273e+00     0.893342     0.761233
## 1426     1.728865  0.692316280  1.451955e+00     0.780034     0.715282
## 1427     1.711298  0.575123158 -2.078779e-01     0.839978     0.779384
## 1428     2.040638  1.005588009  2.387751e+00     0.865296     0.760640
## 1429     1.662622  0.412997833  1.578660e+00     0.736202     0.663745
## 1430     1.508578  0.361351914  2.543756e+00     0.831871     0.772971
## 1431     1.542456  0.372370638  2.380993e+00     0.929522     0.799406
## 1432     1.655130  0.510397540  1.636587e+00     0.849476     0.744780
## 1433     1.779513  0.735309007  3.086276e+00     0.827624     0.738212
## 1434     1.614576  0.912922635  1.199933e-01     0.940724     0.813416
## 1435     1.764536  0.988354692  6.589478e-01     0.802478     0.754967
## 1436     1.751929  0.794115635  8.920946e-01     0.956033     0.626505
## 1437     1.544342  0.467708714  1.147259e+00     0.859961     0.807572
## 1438     1.556305  0.468390167  1.581560e+00     0.866590     0.813254
## 1439     1.586647  0.709303889  2.059218e-01     0.840682     0.639620
## 1440     1.576481  0.411240796  2.361701e+00     0.899798     0.617842
## 1441     1.443667  0.420094436  2.518123e+00     0.984621     0.795870
## 1442     1.645560  0.655034653  2.255154e+00     0.966411     0.822302
## 1443     1.521952  0.292080989  1.977923e+00     0.925306     0.733776
## 1444     1.562883  0.455945201  3.332436e+00     0.744634     0.615561
## 1445     1.649510  0.444408638  1.924786e+00     0.928038     0.799508
## 1446     1.815071  0.640248823  2.496650e+00     0.870730     0.752315
## 1447     1.808967  0.682699103  3.016007e-01     0.870622     0.730026
## 1448     1.849946  0.666949253  4.547756e-01     0.920618     0.680995
## 1449     1.624435  1.071782623 -1.260554e-01     0.834774     0.784499
## 1450     1.568814  0.777735576  2.339011e+00     0.779394     0.659254
## 1451     1.495891  0.565358962  3.209679e+00     0.924911     0.761924
## 1452     1.509301  0.458373415  1.582427e+00     0.780181     0.743453
## 1453     1.740678  0.422458514  1.957340e+00     0.925772     0.770776
## 1454     1.646209  0.474423160  1.610905e-01     0.842994     0.683097
## 1455     1.738972  0.990875396  2.292546e+00     0.812549     0.693744
## 1456     1.657536  0.635254475  1.659652e-01     0.904488     0.740439
## 1457     1.575277  0.545418460  2.924404e+00     0.878531     0.772451
## 1458     1.674362  0.534839329  4.422183e-01     0.935488     0.845496
## 1459     1.633977  0.746152160  7.496607e-01     0.866703     0.539325
## 1460     1.672715  0.428533255  1.514753e+00     0.798790     0.730081
## 1461     1.882861  0.562612816  2.831370e+00     0.925069     0.835439
## 1462     1.601543  0.518068889  5.584101e-01     0.849964     0.748479
## 1463     1.699381  0.531568321  1.485008e-01     0.949231     0.883748
## 1464     1.566231  1.163569825  1.290430e-01     0.879653     0.871792
## 1465     1.529651  0.362667161  1.931628e+00     0.856384     0.773684
## 1466     2.010334  0.732761146  2.273342e+00     0.903193     0.747312
## 1467     1.833553  0.767374072  1.023372e-01     0.877425     0.774963
## 1468     1.583916  0.338356873  3.072104e+00     0.889620     0.821615
## 1469     1.787569  1.169647988  1.490492e+00     0.600832     0.543212
## 1470     1.652137  0.244420625  2.444378e+00     0.910076     0.744497
## 1471     1.680620  1.394104807  1.205998e+00     0.819051     0.742405
## 1472     1.742620  0.505790091  1.039644e-01     0.897593     0.816975
## 1473     1.828522  0.915353395  8.627851e-01     0.825796     0.654958
## 1474     1.632761  0.641841816  1.748566e+00     0.636081     0.597269
## 1475     1.582535  0.599668054  2.539187e+00     0.835003     0.764585
## 1476     1.624355  0.706037224  3.149187e-01     0.963732     0.599493
## 1477     1.587924  0.389899334  2.606065e+00     0.820728     0.632678
## 1478     1.667840  0.592357768  1.449315e-01     0.987608     0.834387
## 1479     1.585470  0.487797098  2.344032e-01     0.912781     0.666097
## 1480     1.608279  0.654070603  2.919540e-02     0.893247     0.798449
## 1481     1.772501  0.558708571  3.850956e-01     0.864112     0.627477
## 1482     1.730707  0.768423490  5.042726e-01     0.962507     0.794555
## 1483     1.592116  0.487435348  2.022813e+00     0.765091     0.606718
## 1484     1.651222  1.053024634  4.304338e-01     0.928407     0.652420
## 1485     1.673906  0.522111538  4.586208e-01     0.957828     0.800832
## 1486     1.532529  0.719638665  1.874803e+00     0.678583     0.470078
## 1487     1.568779  0.565916262  5.147802e-01     0.935225     0.785130
## 1488     1.684718  1.203516981  6.102533e-01     0.930832     0.601068
## 1489     1.950974  0.931395316  2.892432e+00     0.961606     0.832773
## 1490     1.708551  0.314120134  2.658865e+00     0.926982     0.788702
## 1491     1.789447  0.702601119  7.510594e-01     0.885834     0.710053
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## 1492     1.612495  0.549307407  1.824920e+00     0.810300     0.688329
## 1493     2.204622  1.720141931  2.574836e+00     0.927886     0.842167
## 1494     1.548937  0.442929509  2.742468e+00     0.849731     0.706668
## 1495     1.828134  0.541978412  3.152805e+00     0.856900     0.718625
## 1496     1.630481  0.547351277  2.138270e+00     0.954091     0.673138
## 1497     1.690192  0.813677710  2.899406e+00     0.766332     0.660328
## 1498     1.568162  0.863231232  1.729930e+00     0.915478     0.774347
## 1499     1.611461  0.845440997  1.207896e-01     0.942389     0.760258
## 1500     1.707856  0.499146627  1.920823e+00     0.882590     0.841831
## 1501     1.648173  0.690870043  5.763617e-02     0.943307     0.844441
## 1502     1.495769  0.406351093  2.913062e+00     0.893881     0.727674
## 1503     1.485543  0.446221739  2.583157e+00     0.895901     0.717782
## 1504     1.598038  0.693324997  4.674195e-01     0.801561     0.630128
## 1505     1.621589  0.494041830  2.357153e+00     0.820045     0.656977
## 1506     1.771910  1.003934206  6.692670e-01     0.827237     0.665998
## 1507     1.955946  0.727556709  3.011728e-01     0.834787     0.739187
## 1508     1.627806  0.553944891  2.004693e-01     0.954604     0.713321
## 1509     1.662638  0.800761742  3.940914e-02     0.958202     0.860302
## 1510     1.604271  0.685575152  2.575994e+00     0.791839     0.721883
## 1511     1.657545  0.461229823  2.829896e+00     0.871182     0.793706
## 1512     1.629098  0.431804269  2.211054e+00     0.842827     0.837328
## 1513     1.483619  0.397253281  1.688698e+00     0.798061     0.751876
## 1514     1.710926  0.947567029  2.288462e-01     0.682114     0.543522
## 1515     1.584733  0.336723833  3.127023e-01     0.796023     0.699908
## 1516     1.636775  0.687303283  4.868786e-01     0.990177     0.763738
## 1517     1.774567  0.850070674  4.676805e-01     0.654226     0.523641
## 1518     1.917317  0.970023592  4.567069e-01     0.938374     0.781496
## 1519     1.808237  1.005223425  1.189802e+00     0.854977     0.756943
## 1520     1.709366  0.381252300  2.670850e+00     0.861843     0.825348
## 1521     1.653614  0.918440834  2.439716e+00     0.931551     0.809896
## 1522     1.545814  0.268482023  2.347222e+00     0.879557     0.768696
## 1523     1.893776  1.325948511  3.617278e-01     0.976663     0.829004
## 1524     2.107305  1.383946352  4.241277e-01     0.908037     0.665749
## 1525     1.705524  0.700634501  2.014424e+00     0.961787     0.914291
## 1526     1.550671  0.574641168  1.028020e+00     0.946494     0.858753
## 1527     1.667968  0.572006798  2.127032e+00     0.955968     0.875394
## 1528     1.541958  0.527725255  4.748630e-01     0.860609     0.719102
## 1529     1.785483  1.257949624  4.416296e-01     0.910254     0.840348
## 1530     1.716537  0.983352907  1.086507e+00     0.777281     0.658095
## 1531     1.649882  0.451018452  2.639540e+00     0.968652     0.859152
## 1532     2.384110  1.879639984  1.565571e+00     0.837768     0.496882
## 1533     1.716797  0.698086620  6.661920e-01     0.924581     0.862548
## 1534     1.617999  0.485173245  1.769620e+00     0.748383     0.667264
## 1535     1.535619  0.464374774  2.168904e+00     0.851288     0.769242
## 1536     1.800382  0.786728004  5.094837e-01     0.911347     0.697345
## 1537     1.687353  1.153519139  7.263147e-01     0.755687     0.496784
## 1538     1.588522  0.410061534  1.917252e+00     0.791761     0.738213
## 1539     1.650982  0.687322912  8.088510e-02     0.839758     0.756875
## 1540     1.874801  1.253456741  4.448477e-01     0.926452     0.847290
## 1541     1.826642  0.468806494  2.694994e+00     0.948611     0.863951
## 1542     1.673879  0.494983416  4.994622e+00     0.973651     0.921977
## 1543     1.470845  0.503962189 -2.026940e-02     0.851937     0.686414
## 1544     2.019963  1.326536573  7.338305e-01     0.719059     0.588478
## 1545     1.581715  0.478152203  2.027840e+00     0.846768     0.710890
## 1546     1.882380  0.687332726  2.912974e+00     0.955988     0.891303
## 1547     1.530321  0.603438857  6.873148e-01     0.888757     0.818067
## 1548     1.721995  0.585130089  2.668487e+00     0.952102     0.722793
## 1549     1.746812  0.722537676  1.989208e+00     0.701608     0.619375
## 1550     1.641021  0.436793745  2.865311e+00     0.906599     0.840063
## 1551     1.603841  0.653115993  1.053395e+00     0.918140     0.757975
## 1552     1.663025  0.517699862 -1.240651e-02     0.893289     0.561409
## 1553     1.932144  0.972467131  9.387342e-01     0.932259     0.596793
## 1554     1.538117  0.490587680  2.585767e+00     0.874821     0.741530
## 1555     1.608542  0.350837018  2.857964e+00     0.885824     0.810122
## 1556     1.645244  0.460867787  3.094144e+00     0.870320     0.679852
## 1557     1.591535  0.279240195  8.112891e-01     0.735143     0.687275
## 1558     1.816885  0.731609714  1.810516e+00     0.902393     0.888966
## 1559     1.701259  0.544391783  4.522665e-01     0.914018     0.716426
## 1560     2.165354  1.077080704  6.643714e-01     0.933449     0.784925
## 1561     1.625502  0.920436407  1.366275e+00     0.912707     0.799455
## 1562     2.010745  1.260426791  2.828012e+00     0.732960     0.702917
## 1563     1.734245  0.533043388  3.074960e-01     0.895772     0.817627
## 1564     1.894101  0.858498699  2.559456e+00     0.901087     0.710738
## 1565     1.686751  0.666870702 -7.368693e-03     0.979500     0.832626
## 1566     1.528381  0.565886762  2.025047e+00     0.755715     0.509599
## 1567     1.739865  0.533520405  2.025653e+00     0.880610     0.825517
## 1568     1.624312  0.404263973  2.019840e+00     0.758336     0.655404
## 1569     1.609663  0.714301253  3.006448e+00     0.934216     0.830656
## 1570     1.623824  0.385965356  1.767936e+00     0.850560     0.620823
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## 1571     1.953639  1.209707991  3.077785e-01     0.854971     0.774064
## 1572     1.587877  0.407416400  3.439715e+00     0.903854     0.782242
## 1573     1.764832  0.906476730  2.578713e+00     0.881733     0.791140
## 1574     1.623182  0.426166291  1.406459e-01     0.981590     0.759781
## 1575     1.658648  0.696678713  1.915628e+00     0.888158     0.691423
## 1576     1.784297  0.985738946  8.668063e-01     0.916841     0.832972
## 1577     1.507095  0.521999278  1.645049e+00     0.832419     0.637210
## 1578     1.806477  0.418050920  2.614951e+00     0.913159     0.760975
## 1579     1.757403  0.984007649  6.503420e-01     0.964998     0.738658
## 1580     1.605495  0.335201059  1.621261e+00     0.942984     0.631326
## 1581     1.717263  0.634214195  2.038089e+00     0.930349     0.778823
## 1582     1.798874  0.686891767  3.913237e-01     0.897152     0.767149
## 1583     1.714630  1.190681795  5.963271e-01     0.900191     0.786116
## 1584     1.758286  0.553433943  2.759276e+00     0.916399     0.862441
## 1585     1.494789  0.405783338  2.829795e+00     0.848589     0.791251
## 1586     1.505406  0.560384923  2.492218e+00     0.805169     0.607861
## 1587     1.505663  0.584661344  2.894423e+00     0.879944     0.828163
## 1588     1.870671  0.819475496  2.416436e+00     0.975800     0.777255
## 1589     1.670042  0.573149044  2.224640e+00     0.922677     0.891436
## 1590     1.670831  0.650744512  4.852030e-01     0.864199     0.692564
## 1591     1.598832  0.559135457  7.716754e-01     0.784470     0.612853
## 1592     1.756654  0.837352921  5.205604e-01     0.823191     0.640681
## 1593     1.472813  0.508720901  2.213460e+00     0.860653     0.616751
## 1594     1.745002  0.567027543  5.552496e-01     0.924569     0.690424
## 1595     1.634999  0.927575142  4.769780e-03     0.889677     0.793580
## 1596     1.467639  0.496900602  2.330908e+00     0.475285     0.441596
## 1597     1.653193  0.362972288  6.769638e-01     0.936192     0.745781
## 1598     1.731479  1.116169244  6.784316e-01     0.975751     0.777877
## 1599     1.627017  0.416017739  2.289268e+00     0.946441     0.759919
## 1600     1.628286  0.718384588  3.476409e-01     0.931447     0.762036
## 1601     1.789748  1.182291937  1.915263e-01     0.921022     0.804458
## 1602     1.550593  0.501014049  2.457768e+00     0.841758     0.724532
## 1603     1.522078  0.510106473  2.639294e+00     0.895231     0.775153
## 1604     1.549479  0.349528122  2.833429e+00     0.866497     0.839856
## 1605     1.927021  1.750428163  1.255952e+00     0.622229     0.479828
## 1606     1.767372  0.481327948 -6.804230e-02     0.865438     0.737934
## 1607     2.005751  1.228056278  2.711692e+00     0.875647     0.739548
## 1608     1.819382  0.576169672  1.719103e+00     0.953302     0.895974
## 1609     2.074110  1.594245551  8.527687e-01     0.862926     0.782017
## 1610     1.756490  0.659023887  3.303342e-01     0.980042     0.801410
## 1611     1.647308  0.315548434  2.517996e+00     0.916307     0.802558
## 1612     1.590447  0.359469307  2.862021e+00     0.955110     0.850065
## 1613     1.382008  0.345943919  2.442796e+00     0.951779     0.606405
## 1614     1.533903  0.792445623  2.703569e+00     0.759405     0.492089
## 1615     1.994976  1.205115005  1.373518e+00     0.834617     0.737732
## 1616     1.691547  0.592471001  1.663992e+00     0.782403     0.613405
## 1617     1.915550  0.677631586  2.608863e+00     0.779083     0.705932
## 1618     1.761098  0.889814148  7.117864e-01     0.808384     0.733870
## 1619     1.653686  0.315619831  1.587136e+00     0.826267     0.700915
## 1620     1.719021  0.592650779  8.585609e-01     0.877873     0.674560
## 1621     2.042733  0.767092016  2.732179e+00     0.873888     0.845205
## 1622     1.757023  0.642147835  4.050578e-01     0.910941     0.724172
## 1623     1.571294  0.481175950  2.511006e+00     0.957706     0.811305
## 1624     1.867011  0.758642455  6.851518e-01     0.905440     0.720506
## 1625     1.484742  0.269692696  2.323080e+00     0.752330     0.674045
## 1626     1.730606  0.734916586  1.994702e+00     0.806684     0.669934
## 1627     1.745920  0.778313357  2.683616e+00     0.902749     0.838777
## 1628     1.453084  0.312431256  2.603395e+00     0.957274     0.867418
## 1629     1.790365  0.952995744  3.689008e-01     0.862348     0.699187
## 1630     1.960464  0.735276252  1.749666e+00     0.978178     0.849128
## 1631     1.822983  1.101709278  4.316729e-01     0.905093     0.766180
## 1632     1.859234  1.043240423  8.377820e-01     0.989803     0.840659
## 1633     1.715085  0.958549550  4.849625e-01     0.754052     0.604001
## 1634     1.938685  0.684112545  2.191322e+00     0.955768     0.883237
## 1635     1.683491  0.593990117  1.957137e+00     0.846169     0.707508
## 1636     1.754791  0.964261988 -3.981290e-02     0.941238     0.775190
## 1637     1.638794  0.302631756  2.428500e-01     0.981180     0.869515
## 1638     1.649371  0.357258116  2.299786e+00     0.879394     0.776108
## 1639     1.582529  0.470497224  2.199536e+00     0.952821     0.684927
## 1640     1.732218  0.980449715  8.711721e-01     0.879616     0.713296
## 1641     1.494283  0.494613701  2.459824e+00     0.891864     0.786497
## 1642     1.828718  0.828750741  7.221379e-01     0.962819     0.837000
## 1643     1.685516  1.096569393  1.167089e-01     0.797895     0.725759
## 1644     1.645987  0.561565258  3.551911e-01     0.933779     0.796891
## 1645     1.604840  0.567378132  9.218991e-01     0.892979     0.693117
## 1646     1.641701  1.273813511  1.804947e+00     0.595231     0.476225
## 1647     1.729531  0.489816502  2.123817e+00     0.760179     0.710249
## 1648     1.746331  0.790026763  3.621565e-01     0.921114     0.666389
## 1649     1.896181  1.271848574  2.217345e+00     0.992902     0.653218
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## 1650     1.624999  0.595514960  2.781177e-01     0.881719     0.845765
## 1651     1.657516  0.853614264  1.845005e-02     0.938540     0.726308
## 1652     1.623245  0.354673039  3.569540e-01     0.923132     0.851763
## 1653     1.589053  0.504847224  2.394122e+00     0.799670     0.648167
## 1654     1.638857  0.402333616  1.552801e+00     0.805421     0.654669
## 1655     2.065385  1.098204018  9.627478e-01     0.883747     0.736270
## 1656     1.925405  1.175885644  7.711849e-01     0.931024     0.782174
## 1657     1.717910  1.144163068  7.331512e-01     0.706120     0.691857
## 1658     1.688905  0.822407399  7.500133e-01     0.924471     0.825399
## 1659     1.654296  0.430455622  2.614269e+00     0.848640     0.784722
## 1660     1.665182  0.549046199  1.210354e+00     0.807936     0.691343
## 1661     2.078787  1.271667389  1.244538e+00     0.873340     0.659629
## 1662     1.506559  0.306478641  2.358349e+00     0.942552     0.791875
## 1663     1.681683  0.832647482  3.057820e-01     0.812311     0.769309
## 1664     1.771830  0.961848533  2.928746e-01     0.927730     0.690275
## 1665     1.539384  0.614312845  2.483260e+00     0.943318     0.690683
## 1666     1.643568  0.603090218  2.884331e+00     0.716628     0.642239
## 1667     1.727304  0.651524174  2.615644e-01     0.955458     0.690931
## 1668     1.681495  1.022832370  9.500337e-01     0.851428     0.791705
## 1669     1.726986  0.519749263  2.250613e+00     0.870995     0.819808
## 1670     1.670741  0.980287503  3.181530e-01     0.950468     0.775282
## 1671     1.714427  1.037892417  2.729605e-01     0.908689     0.737315
## 1672     1.569946  0.348030177  3.445923e+00     0.777045     0.765040
## 1673     1.527761  0.349836795  2.577429e+00     0.868905     0.760857
## 1674     1.567922  0.648970522  1.371230e+00     0.711320     0.645484
## 1675     1.597777  0.549155361  2.223103e-01     0.928767     0.749851
## 1676     1.591147  0.454532360  2.951714e+00     0.935532     0.829773
## 1677     1.603047  0.397275899  2.580163e+00     0.935261     0.750928
## 1678     1.460884  0.488344801  5.365452e-01     0.832125     0.765988
## 1679     1.673592  1.106979189  9.673889e-01     0.780004     0.674344
## 1680     1.625134  0.529834430 -9.306900e-02     0.829998     0.772370
## 1681     1.597836  0.539066057  1.954791e+00     0.887887     0.731283
## 1682     1.692894  0.503394328  2.328304e-01     0.924069     0.728483
## 1683     1.797521  0.994773648  7.416020e-01     0.902913     0.708197
## 1684     1.655845  0.671349673  8.348789e-01     0.780785     0.727847
## 1685     1.587361  0.602848605  2.672731e+00     0.776451     0.689494
## 1686     1.779420  0.652037365  1.820652e+00     0.910470     0.797823
## 1687     1.581806  0.373257829  1.611809e+00     0.972282     0.781019
## 1688     1.689581  0.565879682  4.260392e-01     0.930360     0.761222
## 1689     1.714282  0.829516043  6.331074e-01     0.930861     0.719159
## 1690     1.741891  0.908808207  5.620833e-01     0.980906     0.819842
## 1691     1.573164  0.478912639 -1.601400e-01     0.922021     0.852616
## 1692     1.617842  0.571675065  2.380066e+00     0.877875     0.787895
## 1693     1.657458  0.937200832  2.566392e+00     0.712526     0.607951
## 1694     1.757909  0.808614686  8.399442e-02     0.844409     0.569171
## 1695     1.747481  0.864992572  1.521197e+00     0.884428     0.778474
## 1696     1.605975  0.605428959  1.597917e+00     0.916080     0.672963
## 1697     1.594757  0.552267799  2.316622e+00     0.761620     0.738790
## 1698     1.662190  0.214396082  2.294760e+00     0.875112     0.777151
## 1699     1.722268  0.508428709  1.987969e+00     0.941601     0.789433
## 1700     1.745015  0.412490787  2.895488e+00     0.878807     0.806275
## 1701     1.770052  0.824517629  6.748215e-01     0.939723     0.587505
## 1702     1.625591  0.331186292  4.530361e-02     0.901263     0.751491
## 1703     1.590882  0.422927821  3.153891e-01     0.903448     0.774081
## 1704     1.599534  0.433643446  5.888554e-01     0.895089     0.858276
## 1705     1.557049  0.427922456  1.093668e+00     0.916075     0.757632
## 1706     1.607110  0.725534318  2.285664e+00     0.906864     0.783689
## 1707     1.658164  0.490399577  2.716215e+00     0.857472     0.792945
## 1708     1.544221  0.349034566  1.503029e+00     0.883483     0.800507
## 1709     1.940952  1.424456931  7.872606e-01     0.833210     0.547853
## 1710     1.747685  0.612985069  6.786266e-01     0.769296     0.636677
## 1711     1.554825  0.399171657  2.338188e+00     0.941062     0.808654
## 1712     1.791326  0.968343298  1.016650e+00     0.928757     0.668603
## 1713     1.609539  0.498449781  2.140399e+00     0.898857     0.817873
## 1714     1.585504  0.432765718  2.239292e+00     0.838309     0.776711
## 1715     1.515083  0.528669930  2.155586e+00     0.914104     0.688583
## 1716     1.653794  0.526579624  2.777728e+00     0.657960     0.432457
## 1717     1.610094  0.551205944  1.923843e+00     0.962969     0.644411
## 1718     1.751619  0.538133687  2.698104e+00     0.881586     0.826018
## 1719     1.752579  0.670873641  5.343624e-01     0.948237     0.640901
## 1720     1.682713  0.640954233  6.493393e-01     0.914494     0.627502
## 1721     1.666367  0.617681670  2.833474e+00     0.974834     0.756768
## 1722     1.729227  0.912110412  1.054196e-01     0.867174     0.736714
## 1723     1.700784  0.657363768 -3.981290e-02     0.856084     0.689654
## 1724     1.411023  0.471948525  2.738998e+00     0.560494     0.396689
## 1725     1.567195  0.324241288  2.543062e+00     0.976235     0.887895
## 1726     1.718981  0.488319407  2.644839e+00     0.958036     0.907443
## 1727     1.622818  1.093544251  6.262546e-01     0.756415     0.738098
## 1728     1.661211  0.514444147  2.288462e-01     0.963254     0.821623
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## 1729     1.602848  0.446791829  3.083960e+00     0.814382     0.683595
## 1730     1.670172  0.670847695  4.338241e-01     0.850878     0.709510
## 1731     1.642227  1.076563989  2.868506e-01     0.881010     0.637077
## 1732     1.599392  0.415230508  2.582657e+00     0.850257     0.669928
## 1733     1.673230  0.521552559  4.666764e-01     0.896850     0.710177
## 1734     1.571740  0.398542391  1.955233e+00     0.879038     0.672204
## 1735     1.630450  0.738977848  1.720136e+00     0.742533     0.629916
## 1736     1.657387  0.630994021  1.588571e-01     0.946825     0.660879
## 1737     1.828236  1.218275481  5.510689e-01     0.859879     0.833291
## 1738     1.639973  0.885738802  4.918282e-01     0.845068     0.793289
## 1739     1.794857  0.627843932  2.898841e-01     0.931483     0.782333
## 1740     1.910764  1.139860204  3.189053e-01     0.842671     0.710230
## 1741     1.607736  0.476967777  5.906246e-01     0.976667     0.838564
## 1742     1.716177  0.649787419  3.509400e-01     0.897724     0.678059
## 1743     1.633135  0.446919104  4.869645e-01     0.962572     0.713304
## 1744     1.622554  0.482570615  2.094886e-01     0.932214     0.766365
## 1745     1.655286  0.597369343  2.678360e+00     0.761726     0.710185
## 1746     1.978017  1.079311515  2.851076e+00     0.805792     0.638363
## 1747     1.541669  0.373377332  2.668748e+00     0.584739     0.439279
## 1748     1.780855  0.559718749  2.668737e+00     0.946217     0.649669
## 1749     1.872957  0.736498490  2.568477e+00     0.976888     0.804630
## 1750     1.509014  0.535652297  2.043838e+00     0.866816     0.772827
## 1751     1.643235  0.363179350  2.084712e+00     0.886463     0.762660
## 1752     1.729765  0.794323499  5.088392e-01     0.914643     0.827400
## 1753     1.545089  0.603357677  3.381517e+00     0.864239     0.834615
## 1754     1.649119  0.738465819  1.975370e+00     0.890301     0.703095
## 1755     1.597769  0.334317007  1.359407e+00     0.849527     0.763472
## 1756     1.611213  0.829168638  1.958150e-01     0.876597     0.676007
## 1757     1.876629  0.495595673  3.143611e+00     0.877311     0.841007
## 1758     1.727982  0.492246193  2.925757e+00     0.818334     0.805195
## 1759     1.582929  0.696503168  9.146296e-01     0.958791     0.802542
## 1760     1.749817  0.668877714  3.782352e-01     0.862649     0.673193
## 1761     1.782650  0.810766654  5.261271e-01     0.935473     0.794579
## 1762     1.772195  0.522321623  2.920045e+00     0.957172     0.675570
## 1763     1.916607  1.182774038  2.045716e+00     0.995888     0.785170
## 1764     1.686004  0.499033775  1.905127e+00     0.830578     0.678481
## 1765     1.617730  0.641230123  5.235939e-01     0.898569     0.685967
## 1766     1.690104  0.645878923  6.450190e-01     0.963107     0.900681
## 1767     1.693199  0.954988373  2.382847e-01     0.921849     0.713871
## 1768     1.696453  0.798848070  4.682016e-01     0.782622     0.698355
## 1769     1.581384  0.469860291  9.077818e-02     0.878499     0.688446
## 1770     1.631943  0.576819157  1.144992e+00     0.771634     0.559784
## 1771     2.301620  1.120817331  3.293366e-01     0.942727     0.627891
## 1772     1.815371  0.895153930  2.059218e-01     0.913322     0.807451
## 1773     1.755597  0.791131108  2.261404e+00     0.878255     0.773593
## 1774     1.990054  1.246939053  7.546639e-01     0.982076     0.632214
## 1775     1.388279  0.502582783  3.106808e+00     0.816011     0.597087
## 1776     1.539757  0.350995757  6.023382e-01     0.852891     0.802129
## 1777     1.798654  0.919078616  2.041200e-01     0.910679     0.697607
## 1778     1.640413  0.639380891  9.594123e-01     0.983642     0.863041
## 1779     1.831502  0.941237055  2.466070e+00     0.665555     0.543176
## 1780     1.643581  0.669909794  2.020834e-01     0.888784     0.644798
## 1781     1.687374  0.654852975  1.053250e+00     0.834520     0.731423
## 1782     1.791496  0.909252666  9.721382e-01     0.936191     0.770775
## 1783     1.512309  0.482215930  3.364103e+00     0.672631     0.613619
## 1784     2.295888  0.770351917  2.490014e+00     0.876001     0.630733
## 1785     1.629247  0.547513804  3.516207e-01     0.747495     0.710632
## 1786     1.665441  0.669140151  8.379680e-01     0.879198     0.786321
## 1787     1.589785  0.506513150  2.344032e-01     0.925944     0.830552
## 1788     1.815535  0.938076699  8.790156e-01     0.971821     0.791510
## 1789     1.780931  0.817801953 -7.995656e-02     0.930184     0.739170
## 1790     1.701399  0.618923129  2.629053e+00     0.924969     0.710033
## 1791     1.776092  0.468224706  1.223810e+00     0.980786     0.745355
## 1792     1.678898  0.787331513  3.254263e-01     0.936452     0.636808
## 1793     1.650645  0.301631077  1.615982e+00     0.745229     0.689996
## 1794     1.674843  0.522287703  2.859535e+00     0.814720     0.783300
## 1795     1.835774  0.900745537  1.473178e-01     0.815880     0.661890
## 1796     1.607993  0.905519031  3.648123e-01     0.910705     0.797517
## 1797     1.899057  0.927467889  5.044066e-01     0.940571     0.806452
## 1798     1.543565  0.366426693  1.401500e+00     0.842866     0.665376
## 1799     1.945791  0.529929301  2.508422e+00     0.935345     0.750447
## 1800     2.010194  1.011075396  2.593115e+00     0.869184     0.810988
## 1801     1.745254  1.350430229  4.973478e-01     0.923438     0.676382
## 1802     2.194844  1.694283965  2.121046e+00     0.921248     0.634573
## 1803     1.880192  0.858367537  4.586236e-01     0.663323     0.579202
## 1804     1.629796  0.383529930  2.906902e+00     0.924470     0.688678
## 1805     1.621060  0.650258942  3.567959e-01     0.813922     0.792607
## 1806     1.726734  0.506625428  1.912972e+00     0.898166     0.791156
## 1807     1.912125  1.382157580  7.811362e-01     0.728478     0.567328
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## 1808     1.609410  0.596494832  6.733419e-02     0.864597     0.852619
## 1809     1.735683  0.775609720  5.050383e-01     0.951563     0.721415
## 1810     1.589844  0.589642472  2.168617e+00     0.879149     0.589231
## 1811     1.871957  1.063989747  6.709902e-01     0.941488     0.848192
## 1812     1.803095  1.654396041  6.624891e-01     0.855936     0.773143
## 1813     1.685737  0.650855147  3.120942e+00     0.964224     0.899687
## 1814     1.556640  0.455248490  2.314082e+00     0.960662     0.694009
## 1815     1.555189  0.379354475  2.622521e-01     0.856998     0.762735
## 1816     1.703497  1.573030660  9.006366e-01     0.792545     0.667133
## 1817     1.669770  0.942693449  5.580300e-02     0.775964     0.700490
## 1818     1.609422  0.538776006  4.982540e-01     0.993119     0.833835
## 1819     1.717026  0.761503856  8.247448e-01     0.899269     0.798773
## 1820     1.566896  0.558008577  3.054968e+00     0.945651     0.837255
## 1821     1.550981  0.686796196  1.987700e+00     0.821251     0.736758
## 1822     1.645637  0.677636148  4.172991e-01     0.940570     0.845319
## 1823     1.770082  0.503234866  2.526432e+00     0.925157     0.853856
## 1824     1.649112  0.936890068  2.227039e+00     0.891384     0.679985
## 1825     1.616712  0.426695025  2.768908e+00     0.770662     0.676131
## 1826     1.504464  0.420107642  2.150857e+00     0.676536     0.496228
## 1827     1.598842  0.647997785  2.723069e-01     0.916022     0.833960
## 1828     1.999718  1.551014265  2.295866e+00     0.886975     0.799840
## 1829     2.535779  1.812553077  2.290473e+00     0.747388     0.683230
## 1830     1.631408  0.586487158  2.446582e+00     0.813347     0.623218
## 1831     1.701838  0.442402938  2.800197e-01     0.814190     0.795439
## 1832     1.642474  0.547991184  4.215521e-01     0.884430     0.729845
## 1833     1.889491  0.582513341 -2.147400e-01     0.994976     0.865722
## 1834     1.858992  1.051360934  1.717480e+00     0.935341     0.817927
## 1835     1.589228  0.465708450  2.272051e+00     0.947848     0.848434
## 1836     1.631210  0.582733614  2.199461e+00     0.774334     0.693101
## 1837     1.721653  1.197666426  4.934528e-01     0.792750     0.731717
## 1838     1.508612  0.567637949  1.371218e+00     0.952115     0.710065
## 1839     1.594399  0.715970770  3.192465e+00     0.848450     0.750263
## 1840     1.608400  0.499740679  1.668205e+00     0.832356     0.719359
## 1841     1.436311  0.408789272  2.339198e+00     0.772901     0.748748
## 1842     1.897128  0.841651614  2.459304e+00     0.967972     0.745194
## 1843     1.604455  0.503004430  2.478570e+00     0.860644     0.689069
## 1844     1.537237  0.435573644  2.757829e+00     0.884485     0.813774
## 1845     1.684613  0.773450724  3.770406e-01     0.817301     0.640569
## 1846     1.595828  0.488822770  1.904828e+00     0.858356     0.732531
## 1847     1.917396  0.867055980  3.234537e+00     0.816153     0.746940
## 1848     2.181421  1.270310752  8.969918e-01     0.703357     0.589582
## 1849     2.090117  1.207507803  3.189601e+00     0.917583     0.766138
## 1850     1.559200  0.524250684  2.502680e+00     0.770547     0.632338
## 1851     1.594654  0.474750788 -6.989700e-01     0.846350     0.636754
## 1852     1.682225  1.077945369  1.305396e-01     0.872107     0.772045
## 1853     1.665245  0.593177480  7.543730e-01     0.774608     0.604242
## 1854     1.752146  0.592855991  1.901859e+00     0.903741     0.797920
## 1855     1.626882  1.198272098  4.996062e-01     0.843517     0.729326
## 1856     1.621407  0.262308675  1.870305e+00     0.780113     0.685743
## 1857     1.594170  0.433813021  1.668329e+00     0.839189     0.646703
## 1858     1.655642  0.649165392  3.371884e-01     0.703825     0.696265
## 1859     1.453519  0.464520844  5.878166e-01     0.892932     0.795942
## 1860     1.663710  0.799720219  3.180422e-01     0.808700     0.723915
## 1861     1.678849  0.892838947  7.600518e-01     0.751978     0.648808
## 1862     1.591654  0.683714186  2.225656e+00     0.957660     0.796981
## 1863     1.847740  0.598538827  6.737986e-01     0.940561     0.740069
## 1864     1.650508  0.719839048  2.588716e+00     0.898553     0.795623
## 1865     1.486096  0.507568495  2.787663e+00     0.762555     0.697896
## 1866     1.408306  0.426286737  2.059039e-01     0.755836     0.648064
## 1867     1.703523  0.365276402  1.410424e+00     0.786428     0.689225
## 1868     1.812465  0.793793178 -3.120784e-02     0.788904     0.700640
## 1869     1.666968  0.791998545  1.965185e+00     0.720452     0.645820
## 1870     1.577078  0.587134890  1.569668e+00     0.872096     0.778693
## 1871     1.611942  0.264300610  7.841996e-01     0.834859     0.598684
## 1872     1.691569  1.202722566  1.307628e+00     0.606707     0.506912
## 1873     1.768060  0.599652769 -6.142295e-02     0.928141     0.824140
## 1874     1.703913  0.474345950  3.211193e+00     0.847580     0.783685
## 1875     1.672983  0.378394267  2.628730e+00     0.950198     0.813618
## 1876     2.010279  0.553373220  2.843890e+00     0.937811     0.883999
## 1877     1.557683  0.541944746  3.081868e+00     0.882401     0.787111
## 1878     1.823048  1.218107301  1.136756e+00     0.893846     0.813588
## 1879     1.576023  0.404671253  1.682973e+00     0.759864     0.709398
## 1880     1.610927  1.068968371  4.677431e-01     0.957594     0.800233
## 1881     1.546404  0.593961357  2.732976e+00     0.828674     0.776252
## 1882     1.930606  0.538300957  2.470808e+00     0.952824     0.864319
## 1883     1.598241  0.340257665  2.140954e+00     0.813117     0.774596
## 1884     1.665415  0.722536853  1.987604e+00     0.789458     0.705242
## 1885     1.752394  0.603699611  2.341895e+00     0.867319     0.723815
## 1886     1.710123  1.241048151  3.556332e-01     0.919754     0.786574
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## 1887     1.553674  0.279039227  2.476160e+00     0.826676     0.583212
## 1888     2.223584  1.602008959  1.122984e+00     0.903187     0.742619
## 1889     1.777086  1.096826620  5.275688e-01     0.770130     0.584317
## 1890     1.509208  0.485915822  2.727016e+00     0.738059     0.655679
## 1891     1.710772  0.626741622  1.538348e+00     0.793828     0.664923
## 1892     2.059048  1.203533289  4.485894e-01     0.773397     0.690004
## 1893     1.712820  0.639307156  1.517698e+00     0.769965     0.590211
## 1894     1.526057  0.444302484  2.488939e+00     0.795325     0.723856
## 1895     1.515812  0.448107787  1.939898e+00     0.930754     0.892310
## 1896     1.583065  0.467964569  2.546173e+00     0.885448     0.820375
## 1897     1.617221  0.308276211  9.070055e-01     0.906451     0.620806
## 1898     1.512221  0.453283167  2.613854e+00     0.906660     0.801364
## 1899     1.721644  1.022597437  1.654871e-01     0.912745     0.821803
## 1900     2.404120  1.534486823  8.345015e-01     0.919483     0.827904
## 1901     1.719941  1.086580482  3.942907e-02     0.797049     0.602094
## 1902     1.556252  0.706434417  3.790278e-01     0.936242     0.700448
## 1903     1.618108  0.555056945  2.008225e+00     0.857904     0.772151
## 1904     1.762956  0.419405514  1.628030e+00     0.785038     0.637557
## 1905     2.120784  1.280182135  2.428417e+00     0.668326     0.496006
## 1906     1.820152  0.807902197  5.593823e-01     0.920147     0.865035
## 1907     1.628590  0.259718082  2.305905e+00     0.779087     0.698076
## 1908     1.718810  0.817436450  1.030491e+00     0.887871     0.737256
## 1909     1.797554  0.842543716 -5.188019e-02     0.984846     0.702523
## 1910     1.611755  0.636282235  2.781654e+00     0.745198     0.705029
## 1911     1.538018  0.453472762  2.390371e+00     0.684479     0.496621
## 1912     1.595137  0.254637489  9.585370e-01     0.779556     0.720522
## 1913     1.828353  1.078529315  7.593166e-01     0.910041     0.735470
## 1914     1.558663  0.464926007  1.203949e+00     0.740768     0.558085
## 1915     1.551973  0.662754055  2.376977e+00     0.931045     0.786342
## 1916     1.526430  0.202027623  1.825803e+00     0.821960     0.618069
## 1917     1.719755  0.811052600  2.796123e+00     0.968336     0.829030
## 1918     1.610430  0.473075107  1.610718e+00     0.891958     0.849136
## 1919     1.765467  1.484024937  1.000460e+00     0.924386     0.880398
## 1920     1.652624  0.552823902  1.825407e+00     0.960539     0.933049
## 1921     1.585303  0.722406023  2.741635e+00     0.897670     0.754299
## 1922     1.773980  0.858239345  5.849714e-01     0.792199     0.664025
## 1923     1.770635  0.848909264  4.626653e-01     0.914894     0.887221
## 1924     1.509172  0.445303673  2.747021e+00     0.925172     0.700044
## 1925     1.740101  0.417385324  3.270678e+00     0.980745     0.901239
## 1926     1.653701  0.717641383  6.082341e-01     0.823568     0.643655
## 1927     1.634853  0.766036395  1.817204e+00     0.945177     0.850596
## 1928     1.671991  0.819563676  7.719281e-01     0.915245     0.731129
## 1929     1.668697  0.602691431  2.892809e-01     0.953604     0.840179
## 1930     1.622145  0.723894670  1.710331e+00     0.872156     0.730818
## 1931     1.693276  0.923368381  2.521250e+00     0.867928     0.705781
## 1932     1.675935  0.398478200  1.908335e-01     0.949395     0.815682
## 1933     1.630087  0.689060112  5.216656e-01     0.941666     0.881793
## 1934     1.840886  0.531781540  2.256036e-01     0.926747     0.870624
## 1935     1.633628  0.558463761  2.030797e+00     0.848414     0.829520
## 1936     1.540082  0.449902458  1.363583e-01     0.885769     0.850021
## 1937     1.562177  0.452870051  2.518370e+00     0.957457     0.825009
## 1938     1.846818  0.632614177  7.562147e-01     0.874936     0.722001
## 1939     1.708200  1.107698276  1.745513e+00     0.845305     0.662139
## 1940     1.656745  1.029440598  8.724788e-02     0.869319     0.834197
## 1941     1.632795  0.379758616  5.283576e-02     0.897410     0.879131
## 1942     1.728725  0.298970909  2.705637e+00     0.868493     0.835019
## 1943     1.669705  0.576052108  2.085959e-01     0.937524     0.784621
## 1944     1.685307  0.566369131  2.853954e+00     0.936593     0.758192
## 1945     1.893344  0.682305763  2.204724e+00     0.946198     0.832410
## 1946     2.215796  1.725105153  2.917127e+00     0.804671     0.745498
## 1947     1.780413  1.019656225  2.650377e+00     0.975249     0.770952
## 1948     1.804866  1.014205414  2.383402e+00     0.824337     0.736801
## 1949     1.641709  0.774608924  9.882822e-01     0.795981     0.688489
## 1950     1.729472  0.976740073  3.782511e-01     0.932458     0.780256
## 1951     1.841486  1.280316531  1.050817e+00     0.835418     0.544475
## 1952     1.671094  0.368744188  1.060167e+00     0.898349     0.647001
## 1953     1.671830  0.698963924  6.619433e-01     0.874629     0.735328
## 1954     2.049540  1.246742249  1.229305e+00     0.841155     0.603636
## 1955     1.605638  0.625472966  2.481734e+00     0.856985     0.677826
## 1956     1.468911  0.280992437  1.690429e+00     0.892927     0.750719
## 1957     1.702605  0.659200974  1.521047e+00     0.860557     0.734223
## 1958     1.623659  0.546989066  9.338666e-01     0.849072     0.638156
## 1959     1.943212  1.335148870  9.294189e-01     0.863307     0.798242
## 1960     1.869802  1.737121050  8.439535e-01     0.718611     0.547038
## 1961     1.705457  1.342335813  6.534317e-01     0.780037     0.731733
## 1962     1.621766  0.706975382  2.897109e+00     0.803254     0.743753
## 1963     1.670305  0.691926262 -2.294978e-02     0.904542     0.671217
## 1964     1.554070  0.646479207  2.380950e+00     0.847663     0.812439
## 1965     1.725108  0.899551310  2.719560e+00     0.834385     0.794390
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## 1966     1.689574  0.573433267  4.769780e-03     0.918540     0.855912
## 1967     1.736001  0.792167480  2.288462e-01     0.968673     0.788385
## 1968     1.670749  0.681165229  3.036440e+00     0.798821     0.702805
## 1969     1.772962  0.531100661  2.990211e+00     0.905274     0.840109
## 1970     1.560440  0.730293621  2.876829e+00     0.857415     0.755721
## 1971     1.825332  0.974180895  2.357089e+00     0.946728     0.818154
## 1972     1.963532  1.014041459  1.132353e+00     0.867169     0.613121
## 1973     1.701203  0.614903541  2.825285e+00     0.806325     0.642667
## 1974     1.731030  0.653899121  4.231655e-01     0.813888     0.763910
## 1975     1.622495  0.729220693 -1.130468e-01     0.901573     0.859609
## 1976     1.548092  0.654420102  1.979678e+00     0.813116     0.737225
## 1977     1.660521  0.597917760  2.764628e+00     0.884363     0.807927
## 1978     1.770092  0.430993652  1.930499e+00     0.883971     0.721709
## 1979     1.653794  0.533961338  8.145773e-01     0.953106     0.885000
## 1980     1.797024  1.263794610  6.819140e-01     0.949274     0.851221
## 1981     1.524603  0.416667130  1.981244e+00     0.848592     0.659776
## 1982     1.623004  0.870522705  4.547756e-01     0.926591     0.841003
## 1983     1.700007  0.525240520  1.801808e+00     0.957920     0.775594
## 1984     1.760890  1.042185535  1.845005e-02     0.714423     0.596238
## 1985     2.170866  0.972556427  1.345275e+00     0.927705     0.796251
## 1986     1.583365  0.647535533  2.387045e+00     0.817770     0.726298
## 1987     1.626869  0.514608842  2.753974e+00     0.909519     0.766608
## 1988     2.195008  1.589378726  9.567491e-01     0.901599     0.658234
## 1989     1.670160  0.640297543  2.213769e+00     0.859483     0.703511
## 1990     2.092085  1.316905065  1.898655e+00     0.776596     0.632701
## 1991     1.665994  0.513487951  3.040601e+00     0.902718     0.776825
## 1992     1.468319  0.129657673  8.623705e-01     0.864431     0.718643
## 1993     1.622075  0.536923147 -1.655188e-01     0.858497     0.690605
## 1994     1.554212  0.372945126  1.695990e+00     0.913654     0.494193
## 1995     1.761179  0.543163771  1.492715e+00     0.870785     0.723216
## 1996     1.782858  0.672384213  2.363363e+00     0.861252     0.721741
## 1997     1.556286  0.406592974  2.131303e+00     0.919627     0.724475
## 1998     1.497617  0.441583603  3.022584e+00     0.591543     0.533115
## 1999     1.635693  0.603866153  1.694947e+00     0.878206     0.806174
## 2000     1.765493  0.632834731  1.136032e+00     0.962893     0.733809
## 2001     1.936869  0.736136645  2.824341e+00     0.905517     0.817653
## 2002     1.669158  0.688576425  9.261400e-01     0.930229     0.738725
## 2003     1.615552  0.732008354  2.874608e-01     0.953619     0.690226
## 2004     1.726720  0.687091771  2.290640e+00     0.774618     0.680692
## 2005     1.605760  1.039552913  3.961227e-01     0.972972     0.867661
## 2006     1.691199  0.362490015  2.510714e+00     0.932228     0.884683
## 2007     1.618472  0.548168222  5.890034e-01     0.916295     0.691448
## 2008     1.744589  0.700533253  1.141447e+00     0.939211     0.800012
## 2009     1.831931  1.127412585  2.252755e+00     0.952802     0.872018
## 2010     1.653018  0.843518683  3.094325e-01     0.873841     0.832664
## 2011     1.683587  0.722242223  6.331074e-01     0.904788     0.656680
## 2012     1.646007  0.931656157  3.121609e-01     0.910750     0.705799
## 2013     1.750379  0.993651781  2.723069e-01     0.854319     0.678239
## 2014     1.533968  0.470529560  2.483724e+00     0.897133     0.811855
## 2015     1.633642  0.469637954  2.216149e+00     0.898878     0.780737
## 2016     1.609861  0.627728300  8.498996e-01     0.929848     0.753568
## 2017     1.680778  0.302289792  2.499014e+00     0.924417     0.845056
## 2018     1.526680  0.690554889  2.583230e+00     0.902763     0.835736
## 2019     1.674756  0.792309026  5.799380e-01     0.750442     0.712252
## 2020     1.545814  0.716195393  6.540619e-01     0.911896     0.781063
## 2021     1.526205  0.306678024  1.812871e+00     0.725129     0.494354
## 2022     1.553244  0.388030116  2.119198e+00     0.666341     0.545291
## 2023     1.715781  0.534659308  1.247920e-01     0.877077     0.787557
## 2024     1.681388  0.644394271  1.221322e-01     0.921219     0.835832
## 2025     1.596620  0.660437611  5.592124e-01     0.910618     0.804678
## 2026     1.512287  0.753671900 -2.218487e-01     0.981049     0.864281
## 2027     1.631806  0.543931530  1.530400e-01     0.915158     0.657678
## 2028     1.699539  0.609074439  1.287190e-01     0.877011     0.768064
## 2029     1.667471  0.481008117  2.590218e+00     0.906735     0.808932
## 2030     1.506150  0.324556119  3.169850e-01     0.856494     0.718013
## 2031     1.585268  0.427638637  1.954222e+00     0.860987     0.732221
## 2032     1.642117  1.049078406 -1.130468e-01     0.826521     0.717130
## 2033     1.488578  0.249053976  4.040052e-01     0.970218     0.838428
## 2034     1.415949  0.203552315  5.259901e-01     0.842880     0.592349
## 2035     1.539568  0.504080570  4.228438e-01     0.953928     0.810629
## 2036     1.684421  0.496219536  7.619120e-01     0.743337     0.672395
## 2037     1.657481  0.381627625  5.750995e-01     0.768235     0.756869
## 2038     1.831401  1.624144874  1.208045e+00     0.789618     0.647478
## 2039     1.566997  0.575534218  2.571350e+00     0.782168     0.700224
## 2040     1.538033  0.492900011  4.528266e-01     0.893909     0.807534
## 2041     1.683308  0.400284073  1.396343e+00     0.835975     0.660940
## 2042     1.605356  0.730787926  2.521376e+00     0.844943     0.807726
## 2043     1.685448  0.727174310  5.158738e-01     0.795037     0.578947
## 2044     1.724764  0.887787722  2.723069e-01     0.918006     0.632656
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## 2045     1.630511  0.635685767  1.363583e-01     0.871349     0.755736
## 2046     1.523187  0.466476134  2.546279e+00     0.498729     0.453369
## 2047     1.926620  1.161478808  8.727250e-01     0.876963     0.684054
## 2048     1.827588  1.413470765  9.947830e-01     0.742223     0.700908
## 2049     1.644393  0.354417716  2.196843e+00     0.872815     0.561284
## 2050     1.686446  0.394071507  2.077083e-01     0.918504     0.800454
## 2051     1.813659  0.546181012  3.164544e-01     0.916719     0.863189
## 2052     1.716109  0.984624962  9.170908e-01     0.909064     0.765184
## 2053     1.826088  0.559161824 -8.196390e-02     0.978840     0.804913
## 2054     1.581586  0.584126470  2.846545e+00     0.927550     0.890821
## 2055     1.873588  0.857437438  3.001787e+00     0.976229     0.873687
## 2056     1.795577  1.185295616  1.573766e+00     0.631302     0.551526
## 2057     1.603041  0.644848071  1.896107e+00     0.906556     0.853605
## 2058     1.651310  0.867092548  3.122732e+00     0.844951     0.628212
## 2059     1.683222  0.522423366  4.029474e-01     0.933708     0.836169
## 2060     1.873422  0.601903617  2.084881e+00     0.909870     0.803592
## 2061     1.683236  1.295481332  1.369805e+00     0.842274     0.637382
## 2062     1.654683  0.882585437  3.433606e-01     0.890832     0.782339
## 2063     1.472531  0.442838658  2.707182e+00     0.699562     0.627522
## 2064     1.627878  0.502193521  3.326665e+00     0.851099     0.802741
## 2065     1.565737  0.401559064  2.581983e+00     0.784524     0.753674
## 2066     1.570119  0.456775838  1.461280e-01     0.821247     0.694285
## 2067     1.646592  1.102190076  5.379600e-01     0.865127     0.621268
## 2068     1.770790  1.348859549  2.687982e+00     0.865047     0.684754
## 2069     1.624653  0.408619807  9.443124e-01     0.965582     0.766311
## 2070     1.748803  0.655318073  3.446715e-01     0.859153     0.749068
## 2071     1.538334  0.905272794  5.645848e-01     0.898262     0.770971
## 2072     1.526304  0.418042627  3.143029e+00     0.791782     0.687989
## 2073     1.807942  0.492638881  2.027602e+00     0.883898     0.710642
## 2074     1.812931  0.628594277  2.431416e+00     0.856789     0.771574
## 2075     1.612065  0.527289549  2.279098e+00     0.904048     0.720722
## 2076     1.615159  0.498810738  2.231794e+00     0.900580     0.775659
## 2077     1.720442  0.948195764  3.879368e-01     0.871524     0.677486
## 2078     1.606206  0.658484568  1.619909e+00     0.855770     0.807477
## 2079     1.673203  0.522789706  2.738623e+00     0.916832     0.749534
## 2080     1.652869  0.749553904  8.724788e-02     0.947734     0.698016
## 2081     1.465622  0.376138792  2.927114e+00     0.672963     0.577466
## 2082     1.560722  0.715906452  2.329109e+00     0.841015     0.818392
## 2083     1.775062  0.573534150  3.014946e+00     0.869052     0.812853
## 2084     1.660077  1.045983699  5.507154e-01     0.937162     0.798756
## 2085     1.549802  0.401557341  2.535283e+00     0.856894     0.679945
## 2086     1.659440  0.563552275  1.929915e+00     0.876081     0.782312
## 2087     2.048007  0.978561670  1.286569e+00     0.947491     0.756581
## 2088     1.641205  0.458323533  3.000337e+00     0.829934     0.730670
## 2089     1.812455  1.081617307  2.552725e-01     0.917858     0.735945
## 2090     1.625172  0.579992693  7.918125e-02     0.854638     0.682658
## 2091     1.652037  0.659529249  3.638628e-01     0.935139     0.804848
## 2092     2.060173  1.340313212  1.380002e+00     0.705569     0.653963
## 2093     1.584629  0.783193699  2.702402e+00     0.774247     0.730004
## 2094     1.606403  0.916447631  1.221322e-01     0.890794     0.734406
## 2095     1.764423  1.090571930  1.107384e+00     0.806357     0.740460
## 2096     1.581503  0.359040128  2.593972e+00     0.873305     0.729458
## 2097     1.595647  0.216888685  1.207896e-01     0.904185     0.631845
## 2098     1.902953  1.143782728  7.791915e-01     0.868754     0.766094
## 2099     2.036178  1.053124561  3.180422e-01     0.849975     0.737555
## 2100     1.772196  0.416314248  6.289852e-01     0.900396     0.761274
## 2101     1.470341  0.396297009  6.369273e-01     0.902550     0.835538
## 2102     1.609099  0.323278920  1.575728e+00     0.847423     0.689176
## 2103     1.630830  0.409929744  1.839069e+00     0.767535     0.694730
## 2104     1.797543  1.455344392  1.330195e+00     0.769420     0.741101
## 2105     1.566211  0.432295692  2.657310e+00     0.926599     0.834718
## 2106     1.645161  0.406231807  2.505870e+00     0.895211     0.766528
## 2107     1.762731  0.899185005  1.605281e+00     0.681188     0.609168
## 2108     1.700015  0.685859922  2.602129e+00     0.867073     0.816908
## 2109     1.784415  0.482012714  2.085959e-01     0.815931     0.751007
## 2110     1.675563  0.508304770  1.373040e+00     0.908188     0.850917
## 2111     2.049664  1.027651266  2.167923e+00     0.966516     0.739712
## 2112     1.580712  0.603579532  4.010740e-01     0.969501     0.929114
## 2113     1.634811  0.588875377  1.400757e-01     0.851295     0.815148
## 2114     1.511425  0.331921038  2.843459e+00     0.898526     0.744987
## 2115     1.731440  0.996044292  1.076257e+00     0.932897     0.746658
## 2116     1.853038  0.700572198  2.585799e+00     0.853679     0.769011
## 2117     1.742727  0.790925927  2.868506e-01     0.968498     0.704179
## 2118     1.698245  1.019087198  3.774396e-01     0.661995     0.539960
## 2119     1.921914  1.242824572  7.074850e-01     0.923184     0.844800
## 2120     1.587949  0.882003983  1.983363e+00     0.940983     0.794452
## 2121     1.590317  0.625615939  1.797833e+00     0.876145     0.825061
## 2122     1.672928  0.451694349  1.141082e+00     0.753562     0.662387
## 2123     1.590259  0.743601474  2.975733e-01     0.913514     0.730322
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## 2124     1.678938  0.561961961  8.081982e-02     0.955350     0.921735
## 2125     1.535154  0.650281290  1.072086e+00     0.815471     0.787719
## 2126     1.626246  0.668677523 -2.531654e-01     0.865980     0.751322
## 2127     1.922080  1.146087706  3.205947e+00     0.993889     0.919067
## 2128     1.660088  0.956347588  3.770406e-01     0.955651     0.739784
## 2129     1.797709  0.734122666  1.736259e+00     0.567991     0.518734
## 2130     1.758541  1.159651397  9.515144e-01     0.820102     0.508822
## 2131     1.802848  0.635952974  2.755693e+00     0.860338     0.791851
## 2132     1.820611  1.228328484  8.180078e-01     0.978714     0.806540
## 2133     1.786006  0.560372972  7.069083e-01     0.811688     0.677449
## 2134     2.281617  1.530518576  1.116415e+00     0.909269     0.721269
## 2135     1.515572  0.511447512  2.451261e+00     0.718895     0.612870
## 2136     1.616652  0.504756220  8.565941e-02     0.917442     0.852994
## 2137     1.753241  0.390201837  3.740637e-02     0.923100     0.921247
## 2138     1.780497  1.279906379  7.293372e-01     0.916585     0.647819
## 2139     2.002192  0.957727456  6.341887e-01     0.942566     0.843973
## 2140     1.711512  0.552960081  1.354744e+00     0.966253     0.678452
## 2141     1.683199  0.696440269  2.056581e+00     0.894741     0.832439
## 2142     1.642657  0.512909755  1.544546e+00     0.691246     0.512563
## 2143     1.889146  1.322326821  6.798894e-01     0.916959     0.727077
## 2144     1.772438  0.691487293 -1.386600e-01     0.916347     0.738356
## 2145     1.884577  1.370986540  1.804085e+00     0.877221     0.696893
## 2146     1.626702  0.743173331  2.281556e-02     0.928552     0.705059
## 2147     1.549708  0.488152901  2.552382e+00     0.939294     0.888935
## 2148     1.681663  0.429241805  7.830035e-01     0.818168     0.669617
## 2149     1.770234  0.389924108  2.085959e-01     0.906255     0.804885
## 2150     1.654616  1.116059550  2.473184e-01     0.931232     0.821640
## 2151     1.540109  0.669985941  1.986199e-01     0.862557     0.737551
## 2152     1.610389  0.276932609  9.984149e-01     0.831190     0.830066
## 2153     1.740138  0.857084516  2.707539e+00     0.858425     0.720023
## 2154     1.683482  0.527475228  1.753806e+00     0.736526     0.550690
## 2155     1.776887  0.687156039  2.324425e+00     0.827949     0.665703
## 2156     1.731121  0.309713186  1.797701e+00     0.594750     0.496426
## 2157     1.501096  0.471253562  2.744715e+00     0.730739     0.663515
## 2158     1.797933  0.535748435  1.170282e+00     0.837387     0.708225
## 2159     1.558705  0.712993803  2.679481e+00     0.784411     0.666027
## 2160     1.569059  0.487612022  3.085079e+00     0.933086     0.788110
## 2161     1.652004  0.387056858  1.646870e+00     0.777719     0.646178
## 2162     1.814469  1.032001931  5.060238e-01     0.633748     0.544927
## 2163     1.702966  0.875440382  1.296203e+00     0.791617     0.643703
## 2164     1.589717  0.849340779  7.299520e-01     0.791607     0.754654
## 2165     1.583280  0.469100046  1.477776e+00     0.816668     0.679964
## 2166     1.620958  1.017763509  4.157636e-01     0.910064     0.668040
## 2167     1.620231  0.395387557  1.153307e-01     0.823203     0.711594
## 2168     1.606341  0.358711311  1.978897e+00     0.923133     0.828621
## 2169     1.649541  0.612189208 -2.709244e-01     0.899127     0.863104
## 2170     1.666643  0.418644282  4.335181e-01     0.827720     0.753735
## 2171     1.640103  0.643300647  2.879842e-01     0.956286     0.857580
## 2172     1.535226  0.267357144  2.343789e+00     0.933165     0.725552
## 2173     1.659560  0.529520181  4.428054e-01     0.902013     0.661699
## 2174     1.640793  0.652385602  8.022670e-01     0.824119     0.671940
## 2175     1.652401  0.416778594  4.451379e-01     0.911946     0.760667
## 2176     1.713094  0.729428041  1.028636e+00     0.905809     0.765299
## 2177     1.454746  0.381517587  2.019729e+00     0.758555     0.531661
## 2178     1.621411  1.193995098  9.490848e-01     0.717189     0.643355
## 2179     1.606276  0.450669339  1.696828e+00     0.751234     0.596562
## 2180     1.504641  0.327781782  2.360592e+00     0.768127     0.683667
## 2181     1.818138  0.916926414  5.103479e-02     0.909363     0.880413
## 2182     1.735517  0.799659604  1.788178e+00     0.811810     0.794430
## 2183     1.554444  0.311679707  1.729590e+00     0.891466     0.695255
## 2184     1.599659  0.346282543  2.882427e+00     0.889342     0.823783
## 2185     1.638311  0.399114489  2.249673e+00     0.842902     0.742857
## 2186     1.709828  0.493555634  1.742078e+00     0.850386     0.762278
## 2187     1.567362  0.404938003  7.994495e-01     0.922791     0.769435
## 2188     1.645879  0.796409881  3.604365e-01     0.808865     0.678299
## 2189     1.529955  0.337946197  5.810156e-01     0.950291     0.891164
## 2190     1.794135  0.494852801  1.549101e+00     0.714605     0.617045
## 2191     1.637527  0.549561107 -1.130468e-01     0.939175     0.782238
## 2192     1.828437  0.873290950  2.430891e+00     0.944731     0.796717
## 2193     1.745219  0.511301685  2.629443e+00     0.867007     0.782411
## 2194     1.576625  0.582432697  2.471974e+00     0.896565     0.868625
## 2195     1.855006  0.966806985  9.409655e-01     0.666277     0.643732
## 2196     1.606677  0.904705269  6.335887e-01     0.964327     0.745783
## 2197     1.705705  0.826609239  1.190035e+00     0.676011     0.582078
## 2198     1.772573  0.913458857 -2.198080e-02     0.936051     0.735795
## 2199     1.605766  0.745050577  1.153307e-01     0.913619     0.726815
## 2200     1.738762  0.609030634  2.266448e+00     0.934481     0.842453
## 2201     1.646130  0.690179240  1.002421e+00     0.840592     0.626694
## 2202     1.690588  0.627825515  3.083313e-01     0.890380     0.807787
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## 2203     1.588169  0.408451971  2.509699e+00     0.858762     0.634691
## 2204     1.676992  0.672601163 -3.979400e-01     0.916872     0.763126
## 2205     1.735615  0.745774878  1.032501e+00     0.673026     0.662704
## 2206     1.571727  1.192110060  7.960918e-01     0.641045     0.573963
## 2207     1.659026  0.613005185  1.869674e+00     0.980237     0.786393
## 2208     1.683642  0.397547229  2.714534e+00     0.879809     0.844727
## 2209     1.777585  0.693023068  2.336392e+00     0.847039     0.603643
## 2210     1.484486  0.599533750  3.013691e+00     0.777840     0.595260
## 2211     1.911502  0.942774217  1.866429e+00     0.917270     0.672309
## 2212     1.485869  0.352664800  2.374473e+00     0.966394     0.759458
## 2213     1.422527  0.551281615  2.153103e+00     0.755764     0.516805
## 2214     1.631054  0.583019576  2.847017e+00     0.937196     0.803986
## 2215     1.598566  0.576875538  1.856874e+00     0.915075     0.893067
## 2216     1.493411  0.518749448  2.195982e+00     0.654282     0.537588
## 2217     1.650124  0.753661945  2.010742e+00     0.880269     0.814197
## 2218     1.627841  0.481289237  7.232491e-01     0.788179     0.753820
## 2219     1.557149  0.447983956  3.063616e+00     0.818663     0.749038
## 2220     1.643131  0.553792034  2.019233e+00     0.957426     0.850938
## 2221     1.739002  0.685795462  8.565941e-02     0.907245     0.787621
## 2222     1.809605  0.677586880  1.424879e+00     0.860106     0.754451
## 2223     1.665954  0.885079516 -7.143442e-02     0.881830     0.796606
## 2224     1.628461  0.757409695  4.676805e-01     0.933430     0.774714
## 2225     1.709558  0.831141929  1.990768e+00     0.893531     0.882964
## 2226     1.555839  0.577143535  3.133178e+00     0.933963     0.880509
## 2227     1.687590  1.163253832  8.635293e-01     0.805465     0.669145
## 2228     1.595508  0.576053261  3.742270e-01     0.836335     0.750130
## 2229     1.814379  0.573556179 -2.147400e-01     0.954879     0.878108
## 2230     1.540856  0.517029541  6.024777e-02     0.685315     0.644964
## 2231     1.788029  0.478129095  1.447646e+00     0.931880     0.832628
## 2232     1.787878  0.676987002  2.614653e+00     0.768778     0.654387
## 2233     1.916493  1.191470577  5.501840e-01     0.865598     0.689145
## 2234     1.659178  0.486681206  2.845453e+00     0.926447     0.723270
## 2235     1.696597  0.819359650  2.969916e-01     0.959621     0.877468
## 2236     1.751117  0.450338422  2.027923e+00     0.912196     0.792096
## 2237     1.656852  1.115424108  2.250392e+00     0.922266     0.738235
## 2238     1.634737  0.519989348  3.636460e-01     0.770966     0.699376
## 2239     1.635164  0.472512181  2.384443e+00     0.791414     0.730136
## 2240     1.543789  0.378261595  2.278787e+00     0.896485     0.749728
## 2241     1.615161  0.969355331  2.247851e-01     0.911921     0.641994
## 2242     1.668470  1.042827433  1.121113e+00     0.884357     0.813703
## 2243     1.558430  0.453805883  2.256626e+00     0.851664     0.752940
## 2244     1.554610  0.528686643  1.823935e+00     0.941954     0.805928
## 2245     1.666589  0.830062963  2.251731e+00     0.947182     0.856879
## 2246     1.927073  0.762509764  2.604168e+00     0.779392     0.751121
## 2247     1.660772  0.327459066  6.383424e-01     0.926945     0.731157
## 2248     1.679275  0.681624695  2.262120e+00     0.926869     0.874868
## 2249     1.581317  0.601251451  3.020045e+00     0.945304     0.842815
## 2250     1.748937  0.523582600  3.596405e-01     0.814456     0.668122
## 2251     1.681570  0.576074010  7.081654e-01     0.899927     0.846964
## 2252     1.954291  1.245218926  3.169850e-01     0.924278     0.745503
## 2253     1.584134  0.369699993  8.066641e-01     0.877774     0.807202
## 2254     1.749650  0.491363095  2.656105e+00     0.805553     0.626371
## 2255     1.627414  0.516548594  2.768407e+00     0.934165     0.822210
## 2256     1.710185  0.429913698  1.969056e+00     0.726069     0.673356
## 2257     1.646038  1.406282934  9.387633e-01     0.890953     0.750032
## 2258     1.742793  1.338617830  3.786319e-01     0.835175     0.660608
## 2259     1.697012  1.148695179  1.687843e+00     0.945107     0.688949
## 2260     1.604675  0.395363092  2.410464e+00     0.849394     0.691508
## 2261     2.066341  1.625649876  7.128492e-01     0.743257     0.665678
## 2262     1.773288  0.517959532  1.407076e+00     0.769371     0.524688
## 2263     2.008979  1.430747272  1.045020e+00     0.823770     0.620494
## 2264     1.602820  0.756293710  2.698925e+00     0.819605     0.546176
## 2265     1.537289  0.485477245 -1.088904e-01     0.933368     0.824901
## 2266     1.710403  0.502970331  4.854431e-01     0.850729     0.708794
## 2267     1.728046  0.585730247  2.097606e+00     0.810611     0.690313
## 2268     1.756414  0.755533381  1.837699e+00     0.763965     0.653191
## 2269     1.653878  0.520044431  5.422355e-01     0.894748     0.792741
## 2270     1.604955  0.637235483  1.488514e+00     0.918786     0.639277
## 2271     1.575280  0.371023507 -1.655188e-01     0.917567     0.616926
## 2272     1.661444  0.470620677  1.267898e+00     0.826484     0.640536
## 2273     1.606606  0.823277252  1.274460e+00     0.584954     0.462259
## 2274     1.576613  0.563471593  2.697747e+00     0.796297     0.754957
## 2275     1.832979  0.608330236 -2.310348e-01     0.943161     0.809318
## 2276     1.598644  0.504523872  2.942950e+00     0.877627     0.861099
## 2277     1.578705  0.345652060  3.023813e+00     0.845005     0.777299
## 2278     1.712424  0.617285581  3.867957e-01     0.867557     0.812108
## 2279     2.231452  1.579437166  2.812702e+00     0.788066     0.713954
## 2280     1.756548  0.866801098  1.801871e-01     0.891637     0.562132
## 2281     1.756513  0.756750181  8.187833e-01     0.957851     0.719405
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## 2282     1.684364  1.034407845  5.854231e-01     0.875727     0.697242
## 2283     1.668103  1.075733048  3.099810e-01     0.901378     0.658914
## 2284     1.719917  0.563257948  3.344649e+00     0.963795     0.845245
## 2285     1.694343  0.894628930  3.038681e-01     0.947241     0.864478
## 2286     1.901880  0.710373803  2.023887e+00     0.842542     0.768603
## 2287     1.611883  0.365501088  6.866588e-01     0.910939     0.806034
## 2288     1.596484  0.630323103  2.279229e+00     0.872724     0.618551
## 2289     1.552441  0.490007669  2.521727e+00     0.930099     0.747191
## 2290     1.705930  1.419023410  8.754166e-01     0.814310     0.608947
## 2291     1.825607  0.650001369 -5.188019e-02     0.953990     0.836387
## 2292     1.681934  0.984481406  1.002856e+00     0.785054     0.620737
## 2293     1.642963  0.921497633  3.957574e-01     0.890041     0.813115
## 2294     2.024855  1.689414533  7.027478e-01     0.607018     0.580313
## 2295     1.750896  0.603943994  8.397266e-01     0.992621     0.855191
## 2296     1.738389  0.643014213  2.032132e-01     0.871311     0.843128
## 2297     1.673945  0.580966009 -3.648557e-01     0.945242     0.755509
## 2298     1.605848  0.703733188  9.860242e-01     0.841313     0.623317
## 2299     1.639845  0.520749399  2.337826e+00     0.914539     0.724819
## 2300     1.775883  0.877196210  2.133054e+00     0.633414     0.504600
## 2301     1.742495  1.324383299  8.363354e-01     0.679212     0.587372
## 2302     1.751418  0.544706608  2.549489e+00     0.967856     0.826005
## 2303     1.557988  0.623235848  2.133919e+00     0.957762     0.773526
## 2304     1.769506  0.650058728  3.018006e+00     0.832667     0.718259
## 2305     1.662603  0.490207179  1.841230e+00     0.898520     0.872500
## 2306     1.774062  0.795079483  8.374562e-01     0.923277     0.839106
## 2307     2.205145  1.570901202  1.291670e+00     0.737177     0.492876
## 2308     1.650530  0.586432011  1.172028e-01     0.924712     0.842103
## 2309     1.987072  0.765565742  2.833229e+00     0.851199     0.773087
## 2310     1.555519  0.319705534  2.111013e+00     0.871968     0.582377
## 2311     1.661297  0.762868292  2.559809e-01     0.782403     0.723095
## 2312     1.821623  0.811807506  1.678986e+00     0.896951     0.848631
## 2313     1.672650  0.779001634  5.060238e-01     0.885070     0.738128
## 2314     1.539746  0.320984973  2.235537e+00     0.787324     0.591435
## 2315     1.713328  0.342244979  2.532024e+00     0.949464     0.739491
## 2316     1.495780  0.401402264  2.212420e+00     0.753271     0.733194
## 2317     1.613917  0.388628645  2.107654e+00     0.796496     0.715964
## 2318     1.743620  0.551579291  2.387038e+00     0.887014     0.790204
## 2319     1.585984  0.604277906  2.889555e+00     0.866617     0.833620
## 2320     1.932497  1.350833146  5.604060e-01     0.949435     0.867507
## 2321     1.604878  0.480923458  1.985177e+00     0.719386     0.610280
## 2322     1.634029  0.719945826  8.319840e-01     0.799873     0.712653
## 2323     2.367358  1.464291283  3.274150e+00     0.802988     0.559969
## 2324     1.737701  0.576889344  2.740568e+00     0.886579     0.855642
## 2325     1.697157  0.548995901  2.206441e-01     0.937003     0.697817
## 2326     1.539944  0.596530022  2.008947e+00     0.866696     0.721297
## 2327     1.746915  0.713787811  1.599429e+00     0.946703     0.880187
## 2328     1.757186  0.489059445  1.945035e+00     0.923226     0.895912
## 2329     1.503833  0.443092366  1.584962e+00     0.659050     0.472849
## 2330     1.537112  0.599585074  2.202362e+00     0.867011     0.847978
## 2331     1.700771  0.576531384  2.112982e+00     0.964100     0.725080
## 2332     1.637055  0.468926004  2.339991e+00     0.970719     0.770047
## 2333     1.591961  0.291941315  1.437804e+00     0.485213     0.442992
## 2334     1.620457  0.733134645  1.205014e+00     0.680954     0.513679
## 2335     1.888564  1.244046921  1.048868e+00     0.893022     0.743036
## 2336     1.635393  0.289738299  4.282478e-01     0.821666     0.619633
## 2337     1.744314  0.984706395  2.793297e+00     0.775355     0.658253
## 2338     1.608200  0.681825332  2.213654e+00     0.804772     0.620979
## 2339     1.638547  0.659418900  1.031593e+00     0.918311     0.685824
## 2340     1.576203  0.343438137  2.469546e+00     0.850143     0.687183
## 2341     1.432678  0.470835169  1.978074e+00     0.898875     0.789166
## 2342     1.733070  0.407992211  1.420799e+00     0.762994     0.712731
## 2343     1.535460  0.531753458  3.556332e-01     0.928701     0.885000
## 2344     1.648724  0.771099268  1.044065e+00     0.940946     0.805518
## 2345     1.708196  0.626029166  2.367762e+00     0.780775     0.738342
## 2346     1.578107  0.531536393  1.901909e+00     0.887008     0.754841
## 2347     1.765544  0.625056121  1.613222e+00     0.916960     0.695867
## 2348     1.668030  0.316486157  2.652704e+00     0.865854     0.782191
## 2349     1.869270  0.941674883  7.804090e-01     0.834266     0.817588
## 2350     1.798519  0.590998901  1.986757e-01     0.921427     0.876540
## 2351     1.752262  0.904832892 -1.352187e-01     0.923026     0.755845
## 2352     1.738388  0.768584089  2.282983e+00     0.827295     0.816140
## 2353     1.602288  0.636649348  1.952375e+00     0.886638     0.814247
## 2354     2.041728  1.696801815  1.390650e+00     0.697958     0.503034
## 2355     1.801738  1.294093499  3.776029e-01     0.946188     0.708959
## 2356     1.697473  0.685782032  4.344348e-01     0.884623     0.702181
## 2357     1.491516  0.415794390  1.565126e+00     0.511591     0.440142
## 2358     1.739238  0.413440594  2.037440e+00     0.921990     0.801081
## 2359     1.693429  0.826033316  2.643017e-01     0.812671     0.672080
## 2360     2.008779  1.276362985  4.346298e-01     0.986147     0.758346
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## 2361     1.568825  0.507822152  2.946011e+00     0.945587     0.843687
## 2362     1.787137  0.726335923  2.545652e+00     0.970528     0.831691
## 2363     1.615698  0.542868979  8.565941e-02     0.900670     0.697119
## 2364     1.493521  0.419907858  1.956243e+00     0.813094     0.676035
## 2365     1.692308  0.788628593  1.780497e+00     0.857997     0.682846
## 2366     1.849397  0.841143521  4.637484e-01     0.971555     0.770450
## 2367     1.860619  0.773738187  1.891495e+00     0.907514     0.787840
## 2368     1.566559  0.234013351  1.903603e+00     0.848498     0.808589
## 2369     1.710058  1.129838068  4.189449e-01     0.850679     0.804736
## 2370     1.906940  0.628173262  2.776936e+00     0.907537     0.819622
## 2371     1.564126  0.549000808  2.512013e+00     0.885742     0.755960
## 2372     1.509094  0.262987101  1.999970e+00     0.763400     0.575229
## 2373     1.722308  0.836011260  2.214788e-01     0.812021     0.778885
## 2374     1.529070  0.457029116  2.582722e+00     0.986142     0.786019
## 2375     1.917231  1.156012766  2.264189e-01     0.858043     0.706883
## 2376     1.613482  0.678308009  3.211827e-01     0.948573     0.823510
## 2377     2.106694  1.404900395  7.763031e-01     0.924159     0.801768
## 2378     1.667800  0.839973024  3.162282e+00     0.813084     0.671743
## 2379     1.825211  1.031864739  1.064197e+00     0.947999     0.781068
## 2380     1.735246  0.700791086  1.781492e-01     0.958426     0.800965
## 2381     1.653366  0.523167455  2.524147e-01     0.902219     0.824568
## 2382     1.589498  0.573874894  1.811590e+00     0.909137     0.740076
## 2383     1.617044  0.348209425  1.261092e-01     0.879899     0.726723
## 2384     1.593422  0.423539129  2.623131e+00     0.982661     0.785179
## 2385     1.472968  0.403226936  1.024990e-01     0.816504     0.766985
## 2386     1.555153  0.655810494  1.101510e+00     0.899711     0.739559
## 2387     1.953436  0.779468060  2.520696e+00     0.913441     0.736597
## 2388     1.469607  0.376173496  1.691502e+00     0.479567     0.399614
## 2389     1.480622  0.245988650  2.517681e+00     0.744946     0.659516
## 2390     1.810809  0.868138740 -1.260554e-01     0.895483     0.799596
## 2391     1.559424  0.375122008  2.395422e+00     0.883160     0.719489
## 2392     1.740334  0.495050098 -4.899824e-01     0.994673     0.624551
## 2393     1.530992  0.567695535  1.657534e+00     0.866399     0.733151
## 2394     1.509435  0.534182272  3.495120e+00     0.852852     0.712338
## 2395     2.060615  0.875872347  1.522867e+00     0.920493     0.753420
## 2396     1.642277  0.557035357  1.363583e-01     0.925595     0.705011
## 2397     1.872030  0.876229391  3.867957e-01     0.776827     0.646065
## 2398     1.598388  0.447818277  2.470501e+00     0.714658     0.660534
## 2399     1.486479  0.360064896  2.202344e+00     0.947918     0.643141
## 2400     1.674660  0.342716717  2.146529e+00     0.849026     0.683544
## 2401     1.898724  1.038178889  1.816121e-01     0.859789     0.817976
## 2402     1.816013  0.386857311  1.650186e+00     0.833788     0.716666
## 2403     1.651511  0.583968029  2.462638e+00     0.960413     0.884930
## 2404     1.973701  1.100439475  5.585313e-01     0.884639     0.579555
## 2405     1.614583  0.338291111  2.080773e+00     0.902794     0.775384
## 2406     1.661996  0.885453950  7.171271e-01     0.873567     0.708990
## 2407     1.592530  0.365285766  2.019795e+00     0.860368     0.733030
## 2408     1.854082  0.803726759  5.693651e-01     0.915353     0.798151
## 2409     1.705844  0.403365923  7.355757e-01     0.885839     0.682184
## 2410     1.545260  0.378757544  2.606026e+00     0.714924     0.506844
## 2411     1.674164  0.494932009  1.077961e+00     0.836994     0.688034
## 2412     1.752757  1.368098991  7.562147e-01     0.972906     0.713352
## 2413     1.777857  1.001192671  1.962437e+00     0.875865     0.750970
## 2414     1.685890  0.362891318  4.015287e-01     0.882972     0.825716
## 2415     1.646084  0.700422459  1.469616e-01     0.947744     0.797804
## 2416     1.652259  0.632494747  2.406671e+00     0.880178     0.823766
## 2417     1.727185  0.550471734  1.171834e+00     0.876490     0.629946
## 2418     1.618821  0.452560723  2.593413e+00     0.916727     0.844600
## 2419     1.643765  0.676288384  2.110264e-01     0.894891     0.728827
## 2420     1.512890  0.225130874  2.984644e+00     0.860699     0.708247
## 2421     1.566211  0.526314718  2.256511e+00     0.928189     0.834912
## 2422     1.546007  0.458787372  2.266837e+00     0.901846     0.808130
## 2423     1.651263  0.892434111  7.509884e-01     0.890053     0.830341
## 2424     1.856792  1.360280927  2.342903e+00     0.717725     0.544737
## 2425     1.628120  0.863558981  9.243727e-01     0.977097     0.746035
## 2426     1.569912  0.528277638  2.689046e+00     0.834058     0.678277
## 2427     1.597422  0.355932101  2.158531e+00     0.948019     0.884683
## 2428     1.883255  1.332707033  7.509898e-01     0.765252     0.689815
## 2429     1.596068  0.384636518  2.782138e+00     0.859747     0.705834
## 2430     1.641278  0.587467378  4.700156e-01     0.938397     0.718944
## 2431     1.662113  0.936547419  1.644075e-01     0.856243     0.767116
## 2432     1.653537  0.898670343  2.436013e-01     0.761699     0.719444
## 2433     1.753230  0.783100678  5.055873e-01     0.866099     0.763593
## 2434     1.644222  0.600401079  1.224714e+00     0.828507     0.620644
## 2435     1.611330  0.678502901  8.560971e-01     0.885265     0.724846
## 2436     1.704685  0.743701784  1.801871e-01     0.848122     0.676889
## 2437     1.773803  1.083423780  1.001373e+00     0.929797     0.655042
## 2438     1.714571  1.087511674 -2.531654e-01     0.841256     0.746268
## 2439     1.573803  0.409635606  1.966617e+00     0.826427     0.676621
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## 2440     1.702080  0.510787558  2.529678e+00     0.943916     0.767813
## 2441     1.677582  0.799594847  2.684867e+00     0.728293     0.642306
## 2442     1.563697  0.388321492  2.701306e+00     0.827331     0.762151
## 2443     1.578021  0.473213899  2.785883e+00     0.787765     0.642029
## 2444     1.646165  0.470670637  4.200699e-01     0.695641     0.592817
## 2445     1.915599  1.156282557  1.540895e+00     0.803905     0.633202
## 2446     1.724691  0.714879406  8.975918e-01     0.932122     0.733329
## 2447     1.699852  0.726987056  9.635802e-01     0.803034     0.762167
## 2448     1.673610  0.804164657  2.327141e+00     0.902915     0.817266
## 2449     1.844100  1.075441112  8.320681e-01     0.879635     0.741851
## 2450     2.366977  1.403965971  2.124493e+00     0.812190     0.530621
## 2451     1.543744  0.542677318  2.687111e+00     0.840365     0.768679
## 2452     1.583394  0.499552375  2.495177e-01     0.810082     0.680913
## 2453     1.634306  0.473985939  1.467896e+00     0.872715     0.801663
## 2454     1.534593  0.312961849  1.492715e+00     0.928635     0.723266
## 2455     1.712393  0.720463617  4.601289e-01     0.914160     0.760907
## 2456     1.560392  0.273741836  1.026784e+00     0.839393     0.772744
## 2457     1.728076  0.631560445 -1.948279e-01     0.979591     0.944956
## 2458     1.735919  1.052528502  1.902513e+00     0.784530     0.617374
## 2459     1.631203  0.849491893  7.752964e-02     0.973876     0.796832
## 2460     1.694224  0.852419603  8.730048e-01     0.735800     0.708492
## 2461     1.834407  1.118271341  7.293372e-01     0.914496     0.744008
## 2462     1.716378  0.580695799  6.091787e-01     0.768048     0.700033
## 2463     1.618084  1.069475692  2.897065e+00     0.844129     0.671497
## 2464     1.628437  0.700326357  3.308312e-01     0.871182     0.828350
## 2465     1.911437  0.927634658  2.440531e+00     0.935476     0.828474
## 2466     1.682779  0.657957942  2.352928e+00     0.872897     0.786826
## 2467     1.623037  0.512739080  4.477317e-01     0.916878     0.754973
## 2468     1.652236  0.529512483  2.776945e+00     0.909593     0.743058
## 2469     1.673209  0.641825965  5.105535e-01     0.791366     0.689692
## 2470     1.546154  0.534423393  2.764346e+00     0.921155     0.801935
## 2471     1.626923  0.519220081  2.749092e-01     0.826306     0.707410
## 2472     1.702013  0.373107024  7.625724e-01     0.888710     0.812691
## 2473     1.524932  0.329509744  2.846456e+00     0.937807     0.855975
## 2474     1.821053  0.564903855  1.400757e-01     0.847635     0.703568
## 2475     1.751958  0.795914760  8.140587e-01     0.673246     0.667503
## 2476     1.537072  0.280389407  1.555029e+00     0.768068     0.667885
## 2477     1.722659  0.804895551  2.645540e+00     0.865067     0.760840
## 2478     1.515608  0.318916470  1.340308e+00     0.886741     0.677610
## 2479     1.795529  0.979112952  1.178449e+00     0.938655     0.738860
## 2480     1.487534  0.396412082  2.297715e+00     0.856509     0.842987
## 2481     1.618655  0.434434763  1.773146e+00     0.777038     0.605874
## 2482     1.736714  0.640243852  2.898841e-01     0.764475     0.642271
## 2483     1.620164  0.214051332  3.258980e+00     0.893579     0.836537
## 2484     1.697653  1.107196398  6.603781e-01     0.848047     0.691485
## 2485     2.116900  1.356685407  6.176278e-01     0.910786     0.629005
## 2486     1.481605  0.498295388  1.954514e+00     0.958333     0.837028
## 2487     1.738625  0.434562517  2.443515e+00     0.856946     0.847537
## 2488     1.786936  0.685524089  3.164604e+00     0.920260     0.808670
## 2489     1.546941  0.389917030  2.637180e+00     0.846513     0.662525
## 2490     1.582487  0.299539984  2.491899e+00     0.935283     0.729174
## 2491     1.689387  0.779051478  1.520101e-01     0.919457     0.813930
## 2492     1.536446  0.541473153  2.723069e-01     0.845437     0.757903
## 2493     1.776431  0.702735470  4.329048e-01     0.908682     0.658670
## 2494     1.713839  1.181923582  2.121700e+00     0.884334     0.801389
## 2495     1.623995  0.488865043  3.698480e-01     0.935939     0.794653
## 2496     1.567253  0.709655735  2.599751e+00     0.902589     0.797954
## 2497     1.573194  0.447491379  2.405478e+00     0.864972     0.818117
## 2498     1.741284  0.826879770  2.980565e+00     0.977094     0.806718
## 2499     1.644852  0.557504796  4.727564e-01     0.803748     0.735647
## 2500     1.541469  0.517839602  1.307877e+00     0.797927     0.636725
## 2501     1.842112  0.976787263  2.401436e+00     0.838959     0.652559
## 2502     1.966908  0.734245210  2.653823e+00     0.955259     0.830379
## 2503     1.754741  0.389686925  2.234624e+00     0.871654     0.775284
## 2504     1.567396  0.281721781  1.554082e+00     0.717676     0.630007
## 2505     1.616738  0.492918159  2.324058e+00     0.773635     0.604092
## 2506     1.745116  0.669775112  1.410085e+00     0.953103     0.781898
## 2507     1.852689  1.884943124  1.693821e+00     0.485790     0.406492
## 2508     1.682147  0.558223618  3.461499e-01     0.883901     0.840724
## 2509     1.995753  1.233574784  3.972150e-01     0.937695     0.787940
## 2510     1.688720  0.629463628  1.694994e+00     0.751967     0.641645
## 2511     2.012082  1.247835841  6.737986e-01     0.962915     0.685301
## 2512     1.835692  0.428350267  2.057465e+00     0.856828     0.835090
## 2513     1.547909  0.484284176  1.817015e+00     0.953155     0.814202
## 2514     1.619236  0.600369471  1.033743e+00     0.881828     0.736677
## 2515     1.361395  0.654965451  3.181640e+00     0.804004     0.729564
## 2516     1.565170  0.483610116  2.270330e+00     0.814140     0.673344
## 2517     1.761174  0.672312180  2.797434e+00     0.920086     0.888241
## 2518     1.712783  0.695788901  2.909984e+00     0.877764     0.747181
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## 2519     2.057000  0.670805991  2.063000e+00     0.472142     0.448711
## 2520     1.862546  0.826302909  2.542324e+00     0.877922     0.855408
## 2521     2.544409  1.907631677  1.882108e+00     0.914670     0.821707
## 2522     1.568837  0.369243696  1.976891e-01     0.807258     0.621183
## 2523     1.617574  1.139179876  2.163600e+00     0.829807     0.815996
## 2524     1.927085  1.392784858  1.379222e+00     0.852434     0.635275
## 2525     1.777157  0.634312993  2.409640e+00     0.766803     0.661896
## 2526     1.603622  0.552135057  3.212340e+00     0.899489     0.785694
## 2527     1.742705  1.205864509  7.141944e-01     0.873269     0.734486
## 2528     1.978445  1.626154495  2.519169e+00     0.924078     0.891099
## 2529     1.691569  0.298634783  1.685421e+00     0.954058     0.713564
## 2530     1.539190  0.528477044  2.852356e+00     0.789043     0.693594
## 2531     1.683154  0.805441725  4.925260e-01     0.888560     0.632103
## 2532     1.924442  1.002096915  5.650817e-01     0.907125     0.832523
## 2533     1.851615  0.927926479  3.442945e-01     0.897045     0.698771
## 2534     1.454633  0.554472200  2.263776e+00     0.862198     0.827081
## 2535     1.745305  0.752542417  3.354183e-01     0.970201     0.694047
## 2536     1.665216  0.875770610  1.588571e-01     0.966017     0.875527
## 2537     1.566895  0.325593649  2.127867e+00     0.761655     0.618480
## 2538     1.820644  0.954360718  1.515682e+00     0.947771     0.842263
## 2539     1.787171  0.748955894  6.936761e-01     0.822590     0.719330
## 2540     1.725444  1.163209097 -1.762359e-02     0.853501     0.787867
## 2541     2.162337  1.508252221  2.484675e+00     0.942435     0.757858
## 2542     1.699632  1.071392230  6.133128e-01     0.905799     0.749072
## 2543     1.726789  0.988273049  8.764311e-02     0.938124     0.896814
## 2544     1.799548  1.318482811  9.901498e-01     0.805363     0.614855
## 2545     1.840924  0.453410083  2.099123e+00     0.876719     0.811724
## 2546     1.902101  1.025277184  2.258973e+00     0.786955     0.765320
## 2547     1.874987  0.673607868  3.030253e+00     0.936728     0.853061
## 2548     1.672003  0.788851812  2.892809e-01     0.932157     0.805689
## 2549     1.713802  1.346892573  1.407659e+00     0.628384     0.592856
## 2550     1.636416  0.913630563  1.731396e+00     0.708091     0.535800
## 2551     2.004670  1.114711041  4.547756e-01     0.892011     0.627896
## 2552     1.786024  0.577991296  1.951797e+00     0.970993     0.909992
## 2553     1.703192  0.760000802  2.632995e+00     0.813393     0.692251
## 2554     1.960438  0.580279324  1.884482e+00     0.846473     0.798694
## 2555     1.591831  0.558120315  2.990309e+00     0.748375     0.734819
## 2556     1.903156  1.202202144 -2.147400e-01     0.873677     0.660308
## 2557     1.702041  0.381871052  2.863996e+00     0.767621     0.688574
## 2558     1.817395  0.573145563  9.501316e-02     0.870302     0.799904
## 2559     1.754874  0.586838133  1.998824e+00     0.922312     0.811654
## 2560     1.617283  0.409209260  2.226288e+00     0.810727     0.719216
## 2561     1.605431  0.650185087  2.147062e-01     0.887018     0.714729
## 2562     1.722017  1.049376976  3.565146e-01     0.808087     0.670533
## 2563     1.622765  0.667922484  3.033035e-01     0.936588     0.864578
## 2564     1.659179  0.451737325  2.562286e+00     0.920804     0.738583
## 2565     1.739132  0.600507876  2.020726e+00     0.808021     0.723339
## 2566     1.709811  0.990780030  2.588735e+00     0.876958     0.712232
## 2567     1.528411  0.295113878  6.492276e-01     0.900902     0.809233
## 2568     1.633327  0.362919565  2.460843e+00     0.781236     0.681835
## 2569     1.570315  0.416587257  2.888114e+00     0.887315     0.721964
## 2570     1.598023  0.475257031  1.227236e+00     0.848561     0.513854
## 2571     1.588872  0.448499169  1.317801e+00     0.945276     0.860287
## 2572     1.563055  0.318897715  1.567036e+00     0.836120     0.708755
## 2573     1.771031  0.751971575  1.996802e+00     0.946218     0.870955
## 2574     1.583795  0.306763752  1.059085e+00     0.560061     0.523171
## 2575     1.491128  0.449856218  1.734222e+00     0.833898     0.564782
## 2576     1.703044  0.446084930  2.086154e+00     0.885006     0.742877
## 2577     1.641504  0.492994928  1.998374e+00     0.787039     0.594677
## 2578     1.742795  0.967226348  4.733441e-01     0.882740     0.730839
## 2579     1.650200  1.008664034  1.070256e+00     0.642957     0.528963
## 2580     1.883339  1.049311076  2.101082e+00     0.896017     0.563206
## 2581     1.715833  0.549259592  1.729721e+00     0.772318     0.726841
## 2582     1.847181  0.853305101  3.073314e+00     0.764460     0.733200
## 2583     1.582196  0.756507550  6.839196e-01     0.835730     0.732424
## 2584     2.018763  0.858233326  2.586922e+00     0.969616     0.805602
## 2585     1.663608  0.769631329  5.103479e-02     0.852183     0.631309
## 2586     1.904871  0.952899430  9.143689e-01     0.982928     0.706880
## 2587     1.870431  1.745783457  1.088366e+00     0.643342     0.585020
## 2588     1.767838  0.495696938  2.247851e-01     0.738712     0.672747
## 2589     1.507282  0.479290197  2.175023e+00     0.787589     0.682607
## 2590     1.588872  0.357212327  2.168371e+00     0.809710     0.691077
## 2591     1.568905  0.470047202  2.445248e+00     0.881879     0.863066
## 2592     1.493632  0.103023342  1.903223e+00     0.689219     0.523213
## 2593     1.621509  0.722920890  1.982451e+00     0.904202     0.829774
## 2594     1.670960  0.640810263  2.273816e+00     0.811562     0.726086
## 2595     1.738700  1.273383283  3.156079e-01     0.752993     0.559352
## 2596     1.854608  1.056847704  2.596686e+00     0.907220     0.719606
## 2597     1.604119  0.410461728  2.802144e+00     0.960371     0.725754
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## 2598     2.023561  1.243643158  2.655152e+00     0.941158     0.876550
## 2599     1.789016  0.828135721  6.695477e-01     0.891805     0.853370
## 2600     1.946949  1.301693958  1.426239e+00     0.660633     0.620366
## 2601     1.850579  0.989689148  5.597218e-01     0.875270     0.779130
## 2602     1.735343  0.650764895  1.376048e-01     0.841410     0.802964
## 2603     1.750966  0.864092010  7.521696e-01     0.888935     0.818181
## 2604     1.592913  0.476063184  1.186190e+00     0.802969     0.687263
## 2605     1.483368  0.354711421  2.791532e+00     0.974778     0.675752
## 2606     1.887533  0.937461721  2.459295e+00     0.970023     0.861598
## 2607     1.508911  0.628748479  2.180822e+00     0.797578     0.790228
## 2608     1.514602  0.536396815  2.606953e+00     0.844324     0.708073
## 2609     1.650991  0.674506582  3.303342e-01     0.880268     0.798823
## 2610     1.599979  0.704597456  3.431781e-01     0.930681     0.773325
## 2611     1.551382  0.618373434  1.505857e+00     0.849834     0.694566
## 2612     1.664020  0.397846191  2.094665e+00     0.880698     0.747750
## 2613     1.530769  0.444678591  2.097609e+00     0.893501     0.713738
## 2614     1.851154  0.905098291  1.610905e-01     0.815360     0.557648
## 2615     1.904121  1.079152292  5.590423e-01     0.912914     0.592591
## 2616     1.841990  1.050081874  1.180905e+00     0.933152     0.657773
## 2617     1.532803  0.409987196  1.563014e+00     0.523313     0.449254
## 2618     1.783181  0.990215387  1.654871e-01     0.824346     0.574634
## 2619     1.605987  0.386859093  6.448255e-01     0.963862     0.903236
## 2620     1.716735  0.885960788  1.560022e+00     0.874708     0.522041
## 2621     1.703666  0.933816174  9.241235e-01     0.898605     0.726043
## 2622     1.621514  0.405387346  1.840277e+00     0.996432     0.877465
## 2623     1.636255  0.563672085  3.689671e-01     0.983107     0.865625
## 2624     1.728701  0.832667274  2.220359e+00     0.950908     0.890689
## 2625     2.117540  1.343883006  8.641513e-01     0.971398     0.697654
## 2626     1.622376  0.397774945  1.868654e+00     0.750079     0.623441
## 2627     1.629547  0.535791438  2.481032e+00     0.864301     0.825474
## 2628     1.933680  1.418690656  1.194057e+00     0.816011     0.554327
## 2629     1.827394  0.565717983  2.106431e+00     0.863962     0.816088
## 2630     1.527760  0.571296464  2.518171e+00     0.888532     0.633516
## 2631     1.705635  0.677008016  2.256036e-01     0.838627     0.831820
## 2632     1.710083  0.671547711  3.027235e+00     0.952298     0.767648
## 2633     1.761174  0.440146825  1.843756e+00     0.804892     0.705103
## 2634     1.964643  0.999634170  2.625413e+00     0.947081     0.737620
## 2635     1.643664  0.531351165 -7.143442e-02     0.783159     0.711514
## 2636     1.636910  0.776172156  3.948633e-01     0.811791     0.742645
## 2637     1.521766  0.448296561  1.348849e+00     0.757114     0.702831
## 2638     1.692761  0.869835790  2.367407e-01     0.854141     0.630180
## 2639     1.654115  0.582738155  1.560082e+00     0.880243     0.796510
## 2640     1.745532  0.946469460  2.598771e-01     0.954313     0.633516
## 2641     1.556281  0.402467731  2.571759e+00     0.884908     0.800786
## 2642     1.977792  1.325300105  7.160033e-01     0.942818     0.712809
## 2643     1.752255  0.402809709  2.056798e+00     0.914017     0.719088
## 2644     1.626909  0.579439453  2.245549e+00     0.853334     0.740719
## 2645     1.643204  0.493844074 -1.216254e-01     0.941817     0.576801
## 2646     1.606162  0.721763640  3.063401e-01     0.927938     0.914540
## 2647     1.631431  0.565435752  2.026733e+00     0.903567     0.663747
## 2648     1.686399  0.840385911  2.663317e-01     0.868880     0.638712
## 2649     1.553805  0.562229798  2.537481e+00     0.937181     0.880188
## 2650     1.883086  0.768882185  2.208387e+00     0.914381     0.825222
## 2651     1.873931  1.014293672  1.897287e+00     0.599240     0.493055
## 2652     1.574713  0.444776855  1.993650e+00     0.924332     0.780552
## 2653     1.708007  1.010944135  5.283597e-01     0.759602     0.553011
## 2654     1.795084  0.800970572  1.982844e+00     0.983096     0.896155
## 2655     1.672054  0.718989684  3.083313e-01     0.862873     0.754722
## 2656     1.641455  0.813899754  7.418649e-02     0.919184     0.778523
## 2657     1.625765  0.706155993  1.795880e-01     0.930889     0.746406
## 2658     1.828817  1.023922937  1.418050e+00     0.895686     0.764552
## 2659     1.583459  0.514385692  2.730392e+00     0.730687     0.658622
## 2660     1.706193  0.636577153  1.097250e-01     0.889066     0.793538
## 2661     1.680141  0.676678066  2.883667e-01     0.895636     0.775464
## 2662     1.688035  0.441212667  2.425999e+00     0.980644     0.762600
## 2663     1.626750  0.508676479 -2.632286e-02     0.934998     0.854467
## 2664     1.727180  0.515236499  7.249451e-02     0.805863     0.746769
## 2665     1.507886  0.493050753  6.176278e-01     0.881650     0.786355
## 2666     2.505870  0.800133275  1.853956e+00     0.642805     0.501342
## 2667     1.493132  0.371917140  2.840452e+00     0.831767     0.807304
## 2668     1.722583  0.593941446  2.121092e-01     0.924810     0.819823
## 2669     1.589020  0.624548162  7.940623e-01     0.785503     0.645355
## 2670     1.600996  0.809953431  9.447661e-01     0.827599     0.560083
## 2671     1.631582  0.674506582  3.738220e-01     0.968710     0.934356
## 2672     1.716049  0.867605945 -1.655188e-01     0.880676     0.629114
## 2673     1.599087  0.452865459  3.288411e-01     0.863133     0.748418
## 2674     1.810826  0.699150633  2.147062e-01     0.881220     0.850483
## 2675     1.844396  0.743333346  5.612429e-01     0.974456     0.622864
## 2676     1.699154  0.476486721  2.187427e+00     0.924982     0.705988
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## 2677     1.606856  0.544629782  9.268182e-01     0.887412     0.755753
## 2678     1.672925  0.372711371  2.235397e+00     0.806261     0.727290
## 2679     1.880238  1.069560805  3.169903e-01     0.829898     0.804176
## 2680     1.810497  0.707937893 -9.691001e-02     0.879177     0.702524
## 2681     1.446840  0.418780077  3.001450e+00     0.809728     0.715335
## 2682     1.644722  0.664642916  3.771843e-01     0.921374     0.806778
## 2683     1.650308  0.871063041  6.560452e-01     0.917658     0.850228
## 2684     1.665949  0.539081120  2.323898e+00     0.928324     0.797951
## 2685     1.680072  0.307784758  2.486052e+00     0.868819     0.818744
## 2686     1.845880  1.147972965  3.004578e-01     0.897870     0.822230
## 2687     1.548518  0.319405900  2.365485e+00     0.891795     0.748820
## 2688     1.666246  0.482795003  5.005678e-01     0.911679     0.744386
## 2689     1.827235  0.524254580  2.467723e+00     0.882262     0.815842
## 2690     1.689879  0.904179783  2.608745e-01     0.805575     0.634950
## 2691     1.582205  0.524005146  2.524234e+00     0.713606     0.515705
## 2692     2.071613  1.489782758  1.881516e+00     0.868139     0.750678
## 2693     1.702138  0.625811294  2.587637e+00     0.883427     0.833082
## 2694     1.574770  0.631415356  2.484685e+00     0.940258     0.722765
## 2695     1.785066  0.567179343  3.055528e-01     0.961741     0.792433
## 2696     1.857695  1.158597671  2.415070e+00     0.849670     0.815718
## 2697     1.662767  0.820719544  5.347440e-01     0.894891     0.716832
## 2698     1.625373  1.175888541  2.852016e+00     0.797376     0.760673
## 2699     1.721773  0.521233566  6.851518e-01     0.901993     0.809727
## 2700     1.586628  0.413732166  2.131264e+00     0.829617     0.805498
## 2701     1.491310  0.261360425  2.598175e+00     0.826693     0.652331
## 2702     1.689835  0.562159581  2.122222e+00     0.850417     0.746571
## 2703     1.858259  0.281462902  2.403434e+00     0.899323     0.804731
## 2704     1.718017  0.657359944  1.557944e+00     0.913237     0.836515
## 2705     1.562679  0.667411856  2.908964e+00     0.928157     0.762107
## 2706     2.147092  1.274291813  1.571463e+00     0.751838     0.571219
## 2707     1.581751  0.556830571  2.275497e+00     0.791012     0.774654
## 2708     1.755137  0.834998319  1.311468e+00     0.935700     0.633322
## 2709     1.780535  0.795243744  1.921744e+00     0.894556     0.699344
## 2710     2.233707  1.798095858  1.060963e+00     0.865739     0.785584
## 2711     1.671148  0.780357643  3.268271e-01     0.830735     0.789166
## 2712     1.609974  0.561751146  2.640298e+00     0.853043     0.790188
## 2713     1.626603  0.430829414  2.352476e+00     0.815026     0.740210
## 2714     1.949065  1.256994202  2.398709e-03     0.913633     0.704452
## 2715     1.735664  0.586761663  3.750347e-01     0.730104     0.624779
## 2716     1.696018  0.342286449  1.838157e+00     0.832178     0.732247
## 2717     1.520759  0.304815696  2.149666e+00     0.810595     0.609971
## 2718     1.527428  0.352871053  2.254411e+00     0.824207     0.777867
## 2719     1.640385  0.475762686  1.401248e-01     0.971649     0.831537
## 2720     1.496012  0.343833817  2.385729e+00     0.873270     0.776837
## 2721     1.684233  1.001088713  1.528038e+00     0.893147     0.822249
## 2722     1.637576  0.835623996  2.384030e+00     0.905016     0.876670
## 2723     1.572650  0.577681331  1.845005e-02     0.888286     0.792257
## 2724     1.606648  0.408363789  3.608678e-01     0.888907     0.715968
## 2725     1.621806  0.531331998  1.771228e-01     0.874235     0.816883
## 2726     1.634824  1.073659707  1.074881e+00     0.870903     0.760758
## 2727     1.605374  0.522343799  2.467576e-01     0.969761     0.850058
## 2728     1.758331  0.623216200  1.853685e+00     0.897805     0.737221
## 2729     1.499149  0.416763623  3.164947e+00     0.758693     0.657019
## 2730     1.651593  1.119364779  9.969962e-01     0.813143     0.562131
## 2731     1.703848  0.471714062  9.074437e-01     0.925047     0.817075
## 2732     1.565098  0.328214418  2.572221e-01     0.882485     0.762446
## 2733     1.889971  0.675850718  2.499367e+00     0.906396     0.872624
## 2734     1.708805  0.917208176  8.353028e-01     0.914702     0.813717
## 2735     1.739803  0.797383199  2.887269e+00     0.947200     0.856937
## 2736     1.762154  0.748304340  4.927581e-01     0.907061     0.698279
## 2737     1.616096  0.633996358  2.460640e+00     0.988038     0.838295
## 2738     1.682882  0.556677521  1.520101e-01     0.899703     0.794161
## 2739     1.736137  0.729308180  2.229655e-02     0.961645     0.709226
## 2740     1.558539  0.422581633  2.690837e+00     0.945072     0.719900
## 2741     1.513979  0.582381577  2.393176e+00     0.704533     0.621513
## 2742     1.814955  0.662811643  2.964084e-01     0.852453     0.730457
## 2743     2.017855  1.464550648  2.178529e+00     0.855984     0.647888
## 2744     1.948477  1.164780990  3.689008e-01     0.862021     0.610544
## 2745     1.489340  0.662883381  2.884232e+00     0.876440     0.703731
## 2746     1.711698  0.609832299  2.813728e+00     0.796297     0.772840
## 2747     1.696404  0.658298604  2.579635e+00     0.816533     0.742697
## 2748     1.757483  0.815513330  9.953690e-02     0.864913     0.728940
## 2749     2.240799  1.572547502  6.614953e-01     0.877410     0.610326
## 2750     1.657527  0.455208905  2.110491e+00     0.619255     0.556744
## 2751     1.676128  0.374797820  1.448156e+00     0.902665     0.773656
## 2752     1.638547  0.646605631  5.364526e-01     0.958926     0.828069
## 2753     1.705794  0.704370183  2.300718e+00     0.838298     0.815315
## 2754     1.653812  0.774427178  1.642408e+00     0.764903     0.590608
## 2755     1.704593  0.682415862  6.645338e-01     0.914646     0.788389
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## 2756     1.848850  1.194625329  1.319761e+00     0.693208     0.612730
## 2757     1.771627  0.444887571  2.786394e+00     0.953839     0.869465
## 2758     1.596092  0.528489906  2.237261e+00     0.923168     0.650002
## 2759     1.658658  0.819337926  4.701077e-01     0.940422     0.872955
## 2760     1.662337  0.318530785  5.291438e-01     0.912325     0.855172
## 2761     1.591940  0.645005461  3.222193e-01     0.934480     0.692643
## 2762     1.543126  0.372847590 -1.762359e-02     0.913826     0.846673
## 2763     1.671814  0.447223171  2.507948e+00     0.772141     0.561530
## 2764     1.746184  1.244136045  5.952722e-01     0.787176     0.644498
## 2765     1.892500  0.914315649  1.807015e+00     0.981737     0.781628
## 2766     1.657127  0.930431439  9.840074e-01     0.856072     0.778474
## 2767     1.660534  0.889148692  2.436013e-01     0.880125     0.680792
## 2768     1.558727  0.308350949  2.818423e+00     0.866428     0.691646
## 2769     1.662160  0.811076756  1.629132e+00     0.750420     0.610933
## 2770     1.568009  0.744175590  2.830906e+00     0.958123     0.879497
## 2771     1.611591  0.603478900 -2.218487e-01     0.915823     0.773009
## 2772     1.935236  1.118820056  2.292753e+00     0.915559     0.672716
## 2773     1.707522  0.647559978  5.860240e-01     0.952369     0.872932
## 2774     1.802417  0.702101244  6.830623e-01     0.929323     0.741951
## 2775     1.932378  1.165083996  5.382338e-02     0.963463     0.872504
## 2776     1.559972  0.320742253  1.523653e+00     0.944829     0.801582
## 2777     1.541919  0.623877529  5.107583e-01     0.903541     0.783395
## 2778     1.501367  0.636993109  2.631419e+00     0.834114     0.628306
## 2779     1.772900  0.655262364  3.242773e-01     0.980430     0.886578
## 2780     2.109794  1.468996809  7.339812e-01     0.896027     0.725337
## 2781     1.924250  1.584594662  1.406104e+00     0.822239     0.578675
## 2782     1.546113  0.365684496  2.761090e+00     0.869986     0.766572
## 2783     1.722474  0.523226042  5.087187e-01     0.894002     0.678113
## 2784     1.490948  0.524376647  1.183070e+00     0.810354     0.535317
## 2785     1.958493  1.136825166  8.976976e-01     0.741560     0.642555
## 2786     1.712492  0.839890149  2.248179e-01     0.849723     0.710810
## 2787     1.754400  1.121392397  3.778377e-01     0.852215     0.655021
## 2788     1.812110  0.938681805  1.428079e+00     0.879173     0.583887
## 2789     1.761975  0.959583683  1.071866e+00     0.939437     0.724799
## 2790     1.672977  0.885721851  7.551935e-01     0.858378     0.770011
## 2791     1.588301  0.689760681  1.657049e+00     0.961392     0.881721
## 2792     1.688773  0.496443907  3.011472e+00     0.941612     0.872874
## 2793     1.907347  0.700755622  3.062412e+00     0.882030     0.786896
## 2794     1.510094  0.456094134  2.620688e+00     0.968435     0.732399
## 2795     1.865384  0.906379762  1.820829e+00     0.692373     0.514521
## 2796     1.696487  0.639236399  2.813033e-01     0.910918     0.754333
## 2797     1.664886  0.868776646  4.071476e-01     0.776118     0.655893
## 2798     1.675485  0.559227734  4.122838e-01     0.956585     0.859862
## 2799     1.567593  0.412154670  2.643616e+00     0.937028     0.850335
## 2800     1.555363  0.388326820  3.898251e-01     0.857430     0.752305
## 2801     1.541241  0.405293415  2.320732e+00     0.805783     0.730911
## 2802     1.615202  1.067502331  7.906044e-01     0.835592     0.665203
## 2803     1.689595  0.503193969  2.686926e+00     0.944013     0.828106
## 2804     1.620857  0.930878764  1.771228e-01     0.911629     0.676742
## 2805     2.291910  1.398710632  2.616432e+00     0.780378     0.706182
## 2806     1.676383  0.933956760 -1.130468e-01     0.757661     0.573821
## 2807     1.970744  1.106323512  1.005308e+00     0.779992     0.629814
## 2808     1.821699  1.202962132  2.522359e+00     0.735567     0.637416
## 2809     1.596988  0.834039655  1.300122e+00     0.939513     0.861881
## 2810     1.752717  0.565045758  1.938256e+00     0.928181     0.717369
## 2811     1.570609  0.286236347  5.766722e-01     0.790308     0.587323
## 2812     1.547944  0.587401125  1.806271e+00     0.980817     0.929406
## 2813     1.548182  0.982498726  3.018866e+00     0.864466     0.717164
## 2814     2.116913  1.185621471  4.658465e-01     0.772669     0.670167
## 2815     1.549337  0.554973458  2.540819e+00     0.933562     0.688402
## 2816     1.414556  0.504916482 -1.216254e-01     0.928931     0.571039
## 2817     1.524330  0.458820592  2.665196e+00     0.918945     0.662895
## 2818     1.752357  0.794003988  5.487178e-01     0.966050     0.778980
## 2819     1.650524  0.635943935  4.294997e-01     0.926712     0.780518
## 2820     1.520591  0.575215565  3.180422e-01     0.937709     0.783695
## 2821     1.671042  0.517148374  3.318920e+00     0.829791     0.700812
## 2822     1.674300  0.754294810  4.416296e-01     0.962621     0.894375
## 2823     1.523074  0.327930805  2.270589e+00     0.735982     0.664851
## 2824     1.720715  0.504204359  2.715071e+00     0.942049     0.763426
## 2825     1.546413  0.375963402  1.787748e+00     0.958624     0.869585
## 2826     1.618905  0.715322973  2.312465e-01     0.944022     0.898176
## 2827     1.619944  0.855758951 -8.196390e-02     0.765924     0.671923
## 2828     1.794169  0.674223463  1.670592e+00     0.793362     0.739853
## 2829     1.703485  0.929981611  1.005051e+00     0.979695     0.868575
## 2830     1.621980  0.485419018  2.351389e+00     0.935019     0.751837
## 2831     1.567060  0.420769082  2.459791e+00     0.917241     0.773346
## 2832     1.625205  0.538832524  4.209033e-01     0.901875     0.832072
## 2833     1.826201  0.660662507  2.547137e+00     0.966994     0.843985
## 2834     1.701978  0.608217853  7.313391e-01     0.998159     0.860329
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## 2835     1.574061  0.709225002  1.990234e+00     0.717011     0.704891
## 2836     1.692412  0.433595441  2.223985e+00     0.841481     0.623612
## 2837     1.584913  0.598702983  1.870502e+00     0.937992     0.866752
## 2838     1.569533  0.714245072  2.552446e+00     0.929168     0.829340
## 2839     1.777394  1.003998758  5.181023e-01     0.887085     0.734422
## 2840     1.532582  0.379617300  2.307867e+00     0.806740     0.745364
## 2841     1.593727  0.898325798  3.169850e-01     0.938367     0.779339
## 2842     1.882721  0.976939339  2.045509e+00     0.821889     0.678952
## 2843     1.722630  0.489478945  1.850127e+00     0.805343     0.724470
## 2844     1.770070  0.598914104  1.036650e+00     0.857393     0.761266
## 2845     1.991040  1.321496938  1.178449e+00     0.887593     0.725127
## 2846     1.733663  0.428296814  6.753870e-01     0.812731     0.719016
## 2847     1.493755  0.295828697  3.181298e+00     0.811304     0.707088
## 2848     1.453985  0.341980265  1.791584e+00     0.876508     0.662084
## 2849     1.828598  1.236811758  7.015251e-01     0.890739     0.820001
## 2850     1.734383  0.886618175  8.597822e-01     0.884946     0.681956
## 2851     1.729782  1.078677897  3.713756e-01     0.875038     0.829594
## 2852     1.618963  0.901489925  6.003831e-01     0.849247     0.723318
## 2853     1.744140  1.202665377  1.052167e+00     0.749317     0.665617
## 2854     1.784353  1.263936539  7.338305e-01     0.929364     0.668088
## 2855     1.625046  0.434988626  2.298816e+00     0.991267     0.847548
## 2856     1.681333  0.356291709  2.050228e-01     0.957731     0.881796
## 2857     1.843190  0.416285938  2.235559e+00     0.868312     0.804204
## 2858     1.867555  1.095130978  1.309405e+00     0.818850     0.714897
## 2859     1.655215  0.300373715  2.039699e+00     0.929566     0.797099
## 2860     1.838234  0.702119353  2.542965e+00     0.958354     0.942519
## 2861     1.622104  0.403539165  4.563880e-01     0.888870     0.682990
## 2862     1.647746  0.367512462  2.164411e+00     0.958734     0.823842
## 2863     2.182189  1.262643276  1.514497e+00     0.857746     0.582633
## 2864     1.728780  0.907535504  4.228438e-01     0.940349     0.737992
## 2865     1.712376  0.691200885  3.077785e-01     0.886904     0.680222
## 2866     1.553819  0.459674386  1.829775e+00     0.905517     0.765870
## 2867     1.597894  0.472373165  1.279574e+00     0.898340     0.611392
## 2868     1.744485  0.399723896  1.425177e-01     0.804369     0.792897
## 2869     1.624380  0.977802228  2.495177e-01     0.934932     0.811550
## 2870     1.857437  0.728046826  1.365735e+00     0.902269     0.776163
## 2871     2.012171  0.690026761  2.133980e+00     0.888394     0.757387
## 2872     1.616390  0.574775300 -1.601400e-01     0.911178     0.859502
## 2873     1.671540  0.335421792  4.735980e-01     0.888597     0.763572
## 2874     1.705844  0.833713048  8.568222e-01     0.949477     0.805921
## 2875     1.685268  0.334431634  1.883255e+00     0.987117     0.857267
## 2876     1.622687  0.562672260  1.074166e+00     0.635471     0.521199
## 2877     1.584326  0.412987765  8.081982e-02     0.879267     0.698546
## 2878     1.646376  0.386766416  2.555517e+00     0.823224     0.773865
## 2879     1.672666  0.814425407  4.674195e-01     0.895736     0.562800
## 2880     1.577949  0.436211960  1.693852e+00     0.962277     0.850256
## 2881     1.824301  0.639220452  4.153072e-01     0.928035     0.729725
## 2882     1.590989  0.600063081  2.997220e+00     0.925082     0.753662
## 2883     1.457827  0.627579878  2.370043e+00     0.818181     0.611260
## 2884     1.621000  0.824651617  1.005615e+00     0.878782     0.705819
## 2885     1.716729  0.780361244  2.791913e-01     0.932920     0.744941
## 2886     1.695222  0.377257062  2.556252e+00     0.868791     0.791737
## 2887     1.596292  0.776161976  2.290789e+00     0.867097     0.709992
## 2888     1.685265  0.362210956  6.558286e-01     0.952658     0.815438
## 2889     1.550446  0.386324142  3.347753e+00     0.969640     0.775402
## 2890     1.701700  0.578118661  8.031427e-01     0.754326     0.607241
## 2891     1.638704  0.416457433  1.581672e+00     0.688212     0.584977
## 2892     1.622536  0.458793412  1.728885e+00     0.815085     0.692764
## 2893     1.898299  1.130748563  2.137060e+00     0.803427     0.735353
## 2894     2.041681  1.241730718  1.223779e+00     0.742541     0.568424
## 2895     1.592431  0.532958106  2.516349e+00     0.797964     0.790921
## 2896     1.518444  0.546329165  2.185484e+00     0.923125     0.746217
## 2897     1.500297  0.435167243  2.670264e+00     0.789512     0.723309
## 2898     1.620940  0.495817593  2.004693e-01     0.855172     0.765208
## 2899     1.656139  0.641588123  1.853106e+00     0.840764     0.645762
## 2900     1.647468  0.550397145  9.431537e-03     0.873973     0.838527
## 2901     1.544747  0.356125332  1.681250e+00     0.911646     0.748636
## 2902     1.802703  0.902037721  1.155343e+00     0.840678     0.677684
## 2903     2.250764  1.430373410  1.964727e+00     0.920202     0.620109
## 2904     1.701380  0.487757546  2.403930e+00     0.911779     0.790995
## 2905     1.726798  0.997119784  1.289096e+00     0.932575     0.598211
## 2906     1.640556  0.658653296  2.264189e-01     0.817066     0.631245
## 2907     1.600488  0.881902534  4.918491e-01     0.887657     0.760658
## 2908     1.733555  1.179566153  6.973589e-01     0.741117     0.706476
## 2909     1.753755  0.501392048  2.267425e+00     0.938175     0.839597
## 2910     1.835545  0.654147652  1.976891e-01     0.819610     0.599739
## 2911     1.706222  0.520919573  2.719606e+00     0.936248     0.833661
## 2912     1.610741  0.446060051  2.734919e+00     0.752969     0.728011
## 2913     1.666557  0.368877941  5.585313e-01     0.870804     0.696721
```

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## 2914     1.569006  0.530129232  1.461280e-01     0.842637     0.714069
## 2915     1.882359  0.840441727 -1.501145e-02     0.975573     0.867936
## 2916     1.773792  0.728361900  2.655847e+00     0.777013     0.752051
## 2917     1.584763  0.510012539  2.596130e+00     0.837003     0.652911
## 2918     1.808295  0.782639573  2.551710e+00     0.888055     0.855381
## 2919     1.714665  0.958782648  1.287190e-01     0.928075     0.703624
## 2920     1.785455  1.203345706  1.338640e+00     0.719823     0.624560
## 2921     1.703528  0.867763202  2.890665e+00     0.878308     0.749656
## 2922     1.846678  0.778272112  1.418439e+00     0.927517     0.853244
## 2923     1.728854  0.609443927  7.872789e-01     0.939510     0.700643
## 2924     1.581405  0.462516290  1.723423e+00     0.868809     0.826452
## 2925     1.572399  0.703509760  2.975733e-01     0.968794     0.781933
## 2926     1.446809  0.387509063  3.024787e+00     0.892845     0.721057
## 2927     1.584631  0.601855825  1.898526e+00     0.942641     0.883287
## 2928     2.001006  1.287364977  3.814038e-01     0.942004     0.878153
## 2929     1.534687  0.443863542  2.505151e+00     0.952352     0.894919
## 2930     1.653978  0.317091349  1.176177e+00     0.961819     0.850420
## 2931     1.651322  0.768212477  1.395032e+00     0.664219     0.563104
## 2932     1.640334  0.643739808  4.132964e-01     0.906855     0.802076
## 2933     1.598726  0.523633327  2.350185e+00     0.915137     0.749026
## 2934     1.660354  0.592954680  2.595143e+00     0.843875     0.745495
## 2935     1.581424  0.399927995  2.161076e+00     0.675151     0.574385
## 2936     1.711021  0.477965859  6.828713e-01     0.812719     0.637014
## 2937     1.917791  0.786630768  2.152161e+00     0.905970     0.855232
## 2938     1.762814  0.870819856  3.252989e-01     0.861953     0.788573
## 2939     1.482619  0.814416751  2.460565e+00     0.794673     0.746526
## 2940     1.500891  0.420323835  2.526377e+00     0.842322     0.758846
## 2941     1.486751  0.330851906  2.586529e+00     0.830312     0.611234
## 2942     2.033926  1.184864546  4.982540e-01     0.795961     0.692845
## 2943     1.542270  0.377834224  2.193292e+00     0.757378     0.657513
## 2944     1.778478  0.303472535  3.108897e+00     0.946221     0.864408
## 2945     1.815093  0.860004820 -3.648557e-01     0.945455     0.935050
## 2946     1.631643  0.391101025  4.474451e-01     0.956301     0.871342
## 2947     1.644372  0.329241220  2.794446e+00     0.835685     0.755936
## 2948     1.623038  0.596690541  1.325736e-01     0.914058     0.800516
## 2949     1.853203  0.997266653  2.934070e+00     0.939612     0.725325
## 2950     1.848589  1.164367729  6.558516e-02     0.968262     0.855223
## 2951     2.023763  0.712808745  3.208190e+00     0.919550     0.891165
## 2952     1.672943  0.918544053  5.123580e-01     0.908358     0.801721
## 2953     1.582457  0.474338665  2.124318e+00     0.703644     0.659419
## 2954     2.014340  1.415682673  3.424227e-01     0.863245     0.823174
## 2955     1.576245  0.595065020  7.766271e-01     0.804112     0.567865
## 2956     1.652733  0.460339965  2.874608e-01     0.803153     0.708446
## 2957     1.637474  0.590432750  2.768737e+00     0.934936     0.863154
## 2958     1.620525  0.431267244  2.179783e+00     0.941526     0.891472
## 2959     1.617254  0.495608159  1.937035e+00     0.910580     0.684205
## 2960     1.673804  0.562301193  3.238658e+00     0.860172     0.734264
## 2961     2.021131  1.373358949  1.139431e+00     0.823518     0.523538
## 2962     1.649509  0.413665155  1.074648e+00     0.854050     0.762261
## 2963     1.575169  0.394775530  2.019114e+00     0.826560     0.753114
## 2964     1.683916  0.592419939 -1.549020e-01     0.949664     0.840687
## 2965     1.655948  1.130706780  8.943962e-01     0.893673     0.687881
## 2966     1.700740  0.771795393  1.845005e-02     0.976113     0.826544
## 2967     1.707683  1.386700460  8.527457e-01     0.972551     0.703437
## 2968     1.875887  0.828573545  3.334408e+00     0.777359     0.578644
## 2969     1.591200  0.738249253  5.382338e-02     0.902149     0.815800
## 2970     2.112796  1.083617270  2.231031e+00     0.755998     0.709203
## 2971     1.595678  0.391295105  3.273010e+00     0.877128     0.780279
## 2972     1.734480  0.853057855  4.553292e-01     0.914182     0.749394
## 2973     1.735643  0.955932964  2.909951e+00     0.923981     0.737299
## 2974     1.615644  0.515381011  1.801871e-01     0.987343     0.869934
## 2975     1.500028  0.511270908  2.539949e+00     0.946260     0.607111
## 2976     1.613140  0.698804941  4.854431e-01     0.732789     0.692933
## 2977     1.589766  0.411237426  2.266559e+00     0.577758     0.567604
## 2978     1.552924  0.778893982  2.544654e+00     0.886211     0.812535
## 2979     1.762421  0.527520347  1.781085e+00     0.795596     0.728059
## 2980     1.741038  0.559827655  1.993782e+00     0.771081     0.609337
## 2981     1.621585  0.508249525  2.264453e+00     0.771403     0.711625
## 2982     1.628206  0.834547858  6.793075e-01     0.900243     0.666754
## 2983     1.662487  0.723916814  1.674878e+00     0.699488     0.622321
## 2984     1.592288  0.517201178  4.728354e-01     0.952165     0.688631
## 2985     1.710583  1.121369409  3.739882e-01     0.877773     0.799819
## 2986     1.721072  1.078699636  1.052202e+00     0.856894     0.796194
## 2987     1.713706  0.701479908  2.815843e+00     0.892527     0.751751
## 2988     1.668813  0.770264949  2.403646e+00     0.941348     0.767326
## 2989     1.807991  1.049663721  7.046552e-01     0.974026     0.661850
## 2990     1.614420  0.512514967  2.294512e+00     0.793482     0.722984
## 2991     1.638724  0.430283119  2.875216e+00     0.891682     0.799205
## 2992     1.764020  1.039751112  1.038889e+00     0.878802     0.828166
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## 2993     1.623036  0.759373936  4.542206e-01     0.975157     0.715498
## 2994     1.936274  1.402309539  7.506416e-01     0.878648     0.740608
## 2995     1.597258  0.530047220  2.281556e-02     0.850013     0.784856
## 2996     1.804698  0.511502351  2.423479e+00     0.848679     0.738838
## 2997     1.779416  0.681993363  2.245876e+00     0.887865     0.657650
## 2998     1.604580  0.643291760  4.001005e-01     0.923295     0.752065
## 2999     1.735140  1.022275743  2.615644e-01     0.959131     0.857082
## 3000     1.646345  0.530357245  1.929720e-01     0.884669     0.678771
## 3001     1.583395  0.287557651  2.573364e+00     0.848885     0.742128
## 3002     1.775474  0.584040466  2.596827e+00     0.866540     0.833363
## 3003     1.697398  0.571008506  2.143273e-01     0.895957     0.746866
## 3004     1.697003  0.873818563  3.909501e-01     0.873248     0.732594
## 3005     1.637388  0.491847552  7.078862e-02     0.955629     0.832548
## 3006     1.571092  0.387934133  3.197953e+00     0.947298     0.826547
## 3007     1.872209  0.929631423  2.085959e-01     0.943316     0.882302
## 3008     2.029181  1.184441569  1.257452e+00     0.876406     0.737959
## 3009     1.976275  1.240965871  1.520101e-01     0.971698     0.642276
## 3010     1.492111  0.751445398  8.244557e-02     0.917078     0.755659
## 3011     1.397462 -0.140397622  2.724577e+00     0.832075     0.615306
## 3012     1.735684  0.899421578  1.959235e+00     0.847398     0.767116
## 3013     1.679150  0.675064009  2.033375e+00     0.915186     0.701966
## 3014     1.680034  0.523767271  2.929381e+00     0.764509     0.734780
## 3015     1.758786  0.749529938  2.468214e+00     0.816281     0.587174
## 3016     1.843546  0.652735493  2.191416e-01     0.799423     0.665922
## 3017     1.640624  0.933659858  5.209674e-01     0.791291     0.716585
## 3018     1.889561  1.060939467  4.192726e-01     0.813251     0.734761
## 3019     1.650019  0.933425531  4.250856e-01     0.869509     0.705720
## 3020     1.506928  0.453306106  2.770041e+00     0.825693     0.727229
## 3021     1.693125  0.709086704 -9.306900e-02     0.940422     0.837310
## 3022     1.581216  0.443668140  1.596163e+00     0.813908     0.673301
## 3023     1.609574  0.938959801  8.962838e-01     0.805261     0.730350
## 3024     1.942421  0.820885542  2.090628e+00     0.925936     0.831566
## 3025     1.504796  0.277996354  2.606711e+00     0.545770     0.431501
## 3026     1.618777  0.646916146  3.009151e+00     0.835876     0.777655
## 3027     1.808265  1.126595662  8.939665e-01     0.860467     0.799366
## 3028     1.690254  0.736884709  9.501316e-02     0.934346     0.784310
## 3029     1.536964  0.405742390  1.870887e+00     0.956173     0.816067
## 3030     1.639918  0.420308985  1.558400e+00     0.943240     0.802572
## 3031     1.489762  0.501608291  2.871235e+00     0.889864     0.616010
## 3032     1.697453  0.634224278  2.332226e+00     0.939391     0.897937
## 3033     1.706223  1.026729327  2.425027e+00     0.965385     0.776576
## 3034     1.565029  0.376832349  1.381359e+00     0.813520     0.710986
## 3035     1.629210  1.153204900  1.195314e+00     0.875792     0.772655
## 3036     1.638334  1.137512353  3.766570e-01     0.872745     0.784958
## 3037     1.852557  1.383355704  8.101289e-01     0.901982     0.825582
## 3038     1.787945  1.182074960  6.656752e-01     0.922057     0.720621
## 3039     1.809553  1.121375977  3.782352e-01     0.925020     0.719609
## 3040     1.794762  1.143302152  7.008233e-01     0.970500     0.929390
## 3041     1.469013  0.289147299  2.667221e+00     0.967006     0.736569
## 3042     1.662881  0.813071678  6.053804e-01     0.861007     0.742618
## 3043     1.670673  0.667830112  4.460060e-01     0.956817     0.842624
## 3044     1.654409  0.546121737  2.346634e+00     0.868619     0.803453
## 3045     1.495267  0.269681026  2.295950e+00     0.713255     0.570521
## 3046     1.831620  0.663844096 -1.305850e-01     0.953218     0.823248
## 3047     1.708835  0.428717783  2.387359e+00     0.739794     0.683548
## 3048     1.588408  0.494064107  1.468148e+00     0.695012     0.669739
## 3049     1.656141  0.437506402  2.357940e+00     0.913879     0.796851
## 3050     2.107515  0.746431792  3.002236e+00     0.934103     0.860786
## 3051     1.731428  0.495197318  9.246838e-01     0.710222     0.627622
## 3052     1.684451  0.490492235  2.542002e+00     0.928407     0.878670
## 3053     1.603956  0.406541884  2.425671e+00     0.803825     0.743047
## 3054     1.600974  0.506876932  4.567069e-01     0.936599     0.763299
## 3055     1.647811  0.420053165  5.683647e-01     0.872914     0.727443
## 3056     1.632446  0.707103272  7.612899e-01     0.874972     0.717480
## 3057     1.564618  0.405037138  1.574784e+00     0.766873     0.727987
## 3058     1.733115  0.633561364  1.473178e-01     0.843698     0.763870
## 3059     1.715732  0.529547126  2.659650e+00     0.904500     0.876607
## 3060     1.783973  1.069575605  2.726034e+00     0.792563     0.644003
## 3061     1.655760  0.871805781  6.928570e-01     0.832641     0.707409
## 3062     1.545024  0.502223582  2.961421e+00     0.917783     0.797679
## 3063     1.717166  0.490194537  2.226241e+00     0.862161     0.705312
## 3064     1.560485  0.600867302  2.226048e+00     0.843112     0.727205
## 3065     1.758662  1.196734244  2.246432e+00     0.946428     0.602055
## 3066     1.580777  0.546567339  4.634650e-01     0.898548     0.764652
## 3067     1.513238  0.219759990  2.838646e+00     0.788120     0.691746
## 3068     1.576553  0.468251302  2.719446e+00     0.950281     0.746322
## 3069     1.923241  0.500122533  1.903820e+00     0.896679     0.775807
## 3070     1.719659  0.742215145  1.794659e-01     0.884593     0.647743
## 3071     1.573517  0.542119280  2.123870e+00     0.863936     0.721253
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## 3072     1.657935  0.852372017  2.946489e-01     0.955117     0.914657
## 3073     1.721582  1.036908223  2.681365e+00     0.864906     0.640854
## 3074     1.775815  0.975095732  8.205665e-01     0.868489     0.713752
## 3075     1.638281  0.551589048  3.841091e-01     0.827778     0.794876
## 3076     1.726630  0.496943479  5.055873e-01     0.970346     0.835168
## 3077     1.632540  0.694250600  4.667000e-01     0.938394     0.749515
## 3078     1.573076  0.450041152  2.056702e+00     0.824640     0.684726
## 3079     1.506521  0.711504382  3.833352e-01     0.898597     0.870951
## 3080     1.679792  0.573400794  2.580251e+00     0.903871     0.832365
## 3081     1.626559  0.809456010  1.188714e+00     0.888154     0.656902
## 3082     1.559897  0.574143591  2.423630e+00     0.967821     0.862137
## 3083     1.538458  0.438278053  2.594936e+00     0.838323     0.703537
## 3084     1.600706  0.358146228  3.461499e-01     0.898068     0.775559
## 3085     1.671157  1.241367148  3.543041e-01     0.899902     0.663136
## 3086     1.837889  0.530209947  3.385233e+00     0.859613     0.811876
## 3087     1.892571  0.951623554  4.597069e-01     0.975279     0.882387
## 3088     1.530657  0.448455872  2.071108e+00     0.948523     0.680064
## 3089     1.522674  0.615655515  1.979238e+00     0.810828     0.695318
## 3090     1.659844  0.631344316  3.852647e-01     0.943245     0.628937
## 3091     1.573688  0.714141916  8.762708e-01     0.764025     0.630101
## 3092     1.665694  0.471131756  1.301335e+00     0.812052     0.740457
## 3093     1.565968  0.700314235  1.094388e+00     0.989741     0.977903
## 3094     1.640501  0.693799911  2.681360e+00     0.852820     0.716282
## 3095     1.864410  0.570047655  2.834123e+00     0.891135     0.752478
## 3096     1.692944  0.740552948  4.915951e-01     0.926297     0.699327
## 3097     1.712230  0.653901048  9.823143e-01     0.879006     0.775513
## 3098     1.774803  1.019822224  1.735897e+00     0.916465     0.734925
## 3099     1.681733  0.557885992  8.047209e-01     0.935310     0.835818
## 3100     1.744253  0.505421328  5.625859e-01     0.919192     0.801794
## 3101     1.598080  0.532294369  2.261091e+00     0.882408     0.826659
## 3102     1.723300  0.540122917  4.502944e-01     0.915529     0.811383
## 3103     1.493901  0.386311652  2.468223e+00     0.845760     0.789124
## 3104     1.755012  0.700766867  3.806043e-01     0.934520     0.760024
## 3105     1.808750  1.309046458  5.033496e-01     0.975001     0.869670
## 3106     1.943343  1.286867216  4.999703e+00     0.949609     0.831413
## 3107     1.546093  0.423062284  3.049281e+00     0.822035     0.802209
## 3108     1.615820  0.659374182  3.247887e-01     0.996328     0.868404
## 3109     1.356007  0.589290403  2.942334e+00     0.460174     0.314033
## 3110     1.573681  0.566538835  2.829412e+00     0.914432     0.814307
## 3111     1.667232  0.712224457 -9.306900e-02     0.987969     0.812630
## 3112     1.787562  0.826415623  5.627549e-01     0.979014     0.770297
## 3113     1.519512  0.562657994  4.783656e-01     0.890428     0.761037
## 3114     1.449130  0.430982383  2.233778e+00     0.820358     0.697672
## 3115     1.701957  0.734250015  8.762731e-02     0.838764     0.688721
## 3116     2.000208  1.165220577  2.016236e+00     0.960053     0.835368
## 3117     1.795128  0.846790348  2.422976e+00     0.973560     0.914360
## 3118     2.098384  1.266422217  2.527545e+00     0.829919     0.713214
## 3119     1.533759  0.372808938  1.910682e+00     0.851628     0.718315
## 3120     2.165707  1.367614929  5.124659e-01     0.851129     0.807666
## 3121     1.930797  1.049400233  3.829472e-01     0.770938     0.608477
## 3122     1.581286  0.489370589  2.525874e+00     0.773401     0.619878
## 3123     1.505543  0.445501455  3.139879e+00     0.994797     0.935910
## 3124     1.798951  0.565043393  2.176252e+00     0.976103     0.825130
## 3125     1.864990  0.846697019  2.362495e+00     0.933113     0.834082
## 3126     1.465051  0.551653678  2.005898e+00     0.787288     0.719064
## 3127     1.774006  0.616637228  4.234867e-01     0.889001     0.642225
## 3128     1.686016  1.020369571  3.475308e-01     0.813848     0.652393
## 3129     1.758748  0.425671139  2.687619e+00     0.804132     0.696491
## 3130     1.746834  1.234018419  1.610643e+00     0.926498     0.722394
## 3131     1.657064  0.430015360  9.518710e-01     0.953285     0.901246
## 3132     1.779832  0.617176541  2.418183e+00     0.947866     0.809809
## 3133     1.630975  0.634826782  9.194175e-02     0.912586     0.775613
## 3134     2.035606  1.333745435  7.752964e-02     0.913535     0.688959
## 3135     1.624451  0.835507939  2.075378e+00     0.921594     0.890177
## 3136     1.862406  0.862838917  2.774901e+00     0.794108     0.706919
## 3137     1.596365  0.640394967  1.399829e+00     0.959021     0.841290
## 3138     1.867218  0.883183164  8.724788e-02     0.880645     0.823345
## 3139     1.699876  0.999286302  3.867957e-01     0.911021     0.780890
## 3140     1.829010  0.449194434  2.897196e+00     0.970352     0.885072
## 3141     1.710277  0.521521193  2.667915e+00     0.793261     0.760313
## 3142     1.846666  0.524159760 -2.147400e-01     0.988475     0.779863
## 3143     1.847123  0.513249571  3.171058e+00     0.890976     0.785513
## 3144     1.744067  0.403806611  3.909501e-01     0.656657     0.594386
## 3145     1.629373  0.371693904  2.100412e+00     0.782007     0.599429
## 3146     1.682057  0.577705448  2.083391e+00     0.820829     0.786382
## 3147     2.091195  1.805423371  1.270576e+00     0.847581     0.759189
## 3148     1.622800  0.394167896  1.986779e+00     0.826159     0.768813
## 3149     1.932500  1.190821754  8.718686e-01     0.993908     0.790619
## 3150     1.776703  0.746894853  1.493659e+00     0.805282     0.718935
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## 3151     1.761596  0.803411362  1.439001e+00     0.699313     0.523921
## 3152     2.125468  1.279105465  2.244102e+00     0.929399     0.744271
## 3153     1.739945  1.319624404  5.670575e-01     0.847766     0.750688
## 3154     2.063333  1.196778417  5.111929e-01     0.923414     0.625625
## 3155     1.886083  0.464265934  2.145624e+00     0.938763     0.790883
## 3156     1.782660  0.962766034  4.761205e-01     0.971976     0.745710
## 3157     1.779450  0.461774563  2.541300e+00     0.925031     0.834778
## 3158     1.787779  1.541309598  1.005565e+00     0.767059     0.575581
## 3159     1.580006  0.442794793  5.798824e-01     0.955814     0.862580
## 3160     1.650978  0.610769787  3.227357e-01     0.890792     0.746979
## 3161     2.085811  1.438997763  1.150180e+00     0.971662     0.713029
## 3162     1.661188  0.585744902  3.169903e-01     0.885899     0.770773
## 3163     1.770029  0.726618011 -1.655188e-01     0.842526     0.564432
## 3164     1.638819  0.614706380 -9.884816e-03     0.883625     0.639184
## 3165     2.386385  1.671586568  2.713671e+00     0.969293     0.679473
## 3166     1.523821  0.403051853  2.839470e+00     0.801080     0.620088
## 3167     2.207112  1.434310166  2.465802e-01     0.726536     0.700231
## 3168     1.711810  0.529384150  1.801878e+00     0.894434     0.776238
## 3169     1.782620  0.567071088  2.699235e+00     0.909870     0.773219
## 3170     1.681234  0.782317082  3.647108e-01     0.966573     0.637845
## 3171     1.693841  0.861562487  2.799913e+00     0.916296     0.857808
## 3172     1.612396  0.657012804  4.594359e-01     0.919015     0.753642
## 3173     1.584074  0.684506947  2.468778e+00     0.902948     0.831348
## 3174     1.790012  0.593759987  1.669789e+00     0.960225     0.724427
## 3175     1.712186  0.900542450  2.781177e-01     0.931834     0.835555
## 3176     1.605904  0.503432481  2.522962e+00     0.950962     0.751943
## 3177     1.767596  0.883171797  9.720571e-01     0.753009     0.640826
## 3178     1.858232  0.811551548  2.676131e+00     0.809161     0.764730
## 3179     1.529607  0.395228513  2.536872e+00     0.934846     0.780525
## 3180     1.899819  1.060251988  1.438270e+00     0.886876     0.699289
## 3181     1.748575  0.412903856  2.157128e+00     0.893716     0.826504
## 3182     1.983981  1.262261193  1.032325e+00     0.786799     0.598951
## 3183     1.561360  0.669395921 -3.685315e-01     0.988508     0.815176
## 3184     1.584886  0.895555135  1.605007e+00     0.708743     0.551103
## 3185     1.835568  0.766630683  2.076240e+00     0.844200     0.763552
## 3186     1.800384  0.558976023  2.264939e+00     0.953906     0.693791
## 3187     1.728076  0.804136023  5.704720e-01     0.881731     0.743191
## 3188     2.147132  1.052382246  1.393742e+00     0.820095     0.672740
## 3189     1.681054  0.394392136  8.724788e-02     0.941633     0.721158
## 3190     1.581942  0.727559149  2.443125e+00     0.765098     0.624055
## 3191     1.572901  0.535409326  1.574214e+00     0.946432     0.844104
## 3192     1.605176  0.534423393  3.238930e-01     0.818790     0.580747
## 3193     1.717983  0.840037681 -1.710462e-01     0.833806     0.664614
## 3194     1.655657  1.265284910  7.327728e-01     0.778881     0.610147
## 3195     1.673001  1.154980560  6.793075e-01     0.830723     0.607944
## 3196     2.186843  1.102899996  1.189146e+00     0.889859     0.684904
## 3197     1.614093  0.500671375  3.334167e-02     0.894421     0.680591
## 3198     1.516352  0.437277971  2.526864e+00     0.769818     0.687708
## 3199     1.747820  0.459576421  2.296040e+00     0.946861     0.888177
## 3200     1.647277  0.988534878  1.592445e+00     0.702238     0.643396
## 3201     1.831807  0.435681953  2.869503e+00     0.929499     0.896712
## 3202     1.599724  0.796311318  2.677057e+00     0.721098     0.696434
## 3203     1.690913  0.879978487  1.568972e+00     0.957963     0.843265
## 3204     1.696134  0.561167000  2.261239e+00     0.929606     0.726046
## 3205     1.779098  0.655214334  7.979445e-01     0.872587     0.796346
## 3206     1.859449  1.136057524  8.763486e-01     0.887987     0.708224
## 3207     1.740877  0.907689156  3.942897e-01     0.802771     0.712325
## 3208     1.572782  0.621553269  2.549988e+00     0.957830     0.759171
## 3209     1.648321  0.776588601  1.418863e+00     0.652965     0.464519
## 3210     1.572670  0.505559650  2.496083e+00     0.932709     0.830922
## 3211     1.727337  0.395266968  2.172229e+00     0.877131     0.736842
## 3212     1.769063  1.047368338  1.489958e+00     0.875368     0.806780
## 3213     1.553185  0.513953678  7.861589e-01     0.972141     0.864470
## 3214     1.511581  0.382195409  1.730778e+00     0.745859     0.581577
## 3215     1.768785  0.654590417  1.860345e+00     0.892133     0.582897
## 3216     1.590161  0.587947686 -2.839967e-01     0.775288     0.671146
## 3217     1.836857  0.669409867  2.239918e+00     0.815864     0.758525
## 3218     1.631141  0.438382524  2.508424e+00     0.869363     0.683146
## 3219     1.553129  0.476486721  2.069057e+00     0.792744     0.721819
## 3220     1.759360  0.891747585  1.938102e+00     0.669637     0.500978
## 3221     1.536341  0.582342949  2.543408e-01     0.957039     0.905636
## 3222     2.387125  0.617510914  7.551252e-01     0.842825     0.737897
## 3223     1.513276  0.326104312  1.014689e+00     0.958821     0.848811
## 3224     1.857739  1.105660033  4.594359e-01     0.965820     0.873860
## 3225     1.886676  0.841086543  2.083638e+00     0.951693     0.731839
## 3226     2.103253  0.956598189  2.925794e+00     0.882651     0.829176
## 3227     1.920132  1.282000925  1.679546e+00     0.680717     0.530856
## 3228     1.877313  0.552770391  2.548529e+00     0.957678     0.823726
## 3229     1.880419  0.989977681  7.913494e-01     0.937736     0.842439
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## 3230     1.639970  0.677128600  7.918125e-02     0.822269     0.779300
## 3231     1.573935  0.777716739  5.395034e-01     0.923840     0.827699
## 3232     1.788250  0.783414723  6.517820e-01     0.892885     0.717888
## 3233     1.570538  0.656444158  8.631162e-01     0.853681     0.701656
## 3234     1.594082  0.798123511  1.089746e+00     0.979255     0.846899
## 3235     1.688160  0.369701847  1.034623e+00     0.966833     0.779891
## 3236     1.481990  0.368329661  2.526326e+00     0.807977     0.651909
## 3237     1.875074  0.902734806  4.282478e-01     0.962119     0.909191
## 3238     1.883570  1.346947277  3.935521e-01     0.915021     0.879920
## 3239     1.446422  0.316006011  3.000589e+00     0.919941     0.823396
## 3240     1.913171  1.044974621  1.510699e+00     0.749128     0.649485
## 3241     1.729349  0.467571111  1.809545e+00     0.854432     0.705809
## 3242     1.810463  1.104148967  2.059218e-01     0.924138     0.748633
## 3243     2.149154  0.781330923  1.269109e+00     0.915517     0.850220
## 3244     1.833275  0.612923656  6.880621e-01     0.840723     0.701092
## 3245     1.530954  0.593597274  1.791544e+00     0.827900     0.709536
## 3246     1.659164  0.877106887  3.565146e-01     0.822016     0.771185
## 3247     1.810796  0.738937447  1.546499e-01     0.932762     0.763169
## 3248     1.539273  0.288895043  2.059228e+00     0.706613     0.605967
## 3249     1.815363  1.291879224  5.383352e-01     0.734761     0.565157
## 3250     1.861604  1.341648157  7.633255e-01     0.882774     0.774818
## 3251     1.576778  0.344183920  2.946619e+00     0.811319     0.727214
## 3252     1.581729  0.419993727  1.416645e+00     0.866555     0.839273
## 3253     1.759938  0.652897778  1.665720e-01     0.962809     0.882737
## 3254     1.835975  0.505208333  3.347122e-01     0.887494     0.786018
## 3255     1.628083  0.663541686  4.126219e-01     0.904639     0.702413
## 3256     1.546696  0.313628926  1.691974e+00     0.912137     0.744488
## 3257     1.567143  0.691529707  8.883013e-01     0.799814     0.682915
## 3258     1.566482  0.725219639  1.758992e+00     0.927250     0.855527
## 3259     1.817255  1.214229045  2.287395e+00     0.850708     0.794581
## 3260     1.551799  0.687574439  1.473178e-01     0.894806     0.702178
## 3261     1.555677  0.399554317  2.405360e+00     0.866683     0.743380
## 3262     2.273774  0.829153835  2.987878e+00     0.863331     0.797911
## 3263     1.738447  0.403324746  1.387437e+00     0.549600     0.544229
## 3264     1.681700  0.818197512  2.536362e+00     0.869069     0.793220
## 3265     1.717319  1.198797248  4.316729e-01     0.940771     0.760233
## 3266     1.651838  0.580383195  2.092183e+00     0.817792     0.772653
## 3267     1.622194  0.603330614  2.598898e+00     0.909544     0.802368
## 3268     1.588889  0.337471242  2.432696e+00     0.899850     0.876560
## 3269     1.575405  0.499685708  1.570922e+00     0.875431     0.794549
## 3270     1.483704  0.441090000  2.088653e+00     0.909627     0.573541
## 3271     1.536005  0.468949607  2.578089e+00     0.858425     0.782384
## 3272     1.641809  0.561522350  3.169850e-01     0.956463     0.733295
## 3273     1.668445  0.700773787  6.733419e-02     0.857326     0.793216
## 3274     1.792110  1.058869962  4.696127e-01     0.928282     0.751900
## 3275     1.739048  0.971621384  1.094218e+00     0.803719     0.729101
## 3276     1.562683  0.688860123  2.964084e-01     0.817952     0.645846
## 3277     1.759018  0.464066075  1.854198e+00     0.937102     0.856695
## 3278     1.798162  1.069035060 -5.188019e-02     0.950508     0.871078
## 3279     1.789634  0.993879558  9.287735e-01     0.880433     0.794710
## 3280     1.619881  0.420061419  3.026192e+00     0.866052     0.831525
## 3281     2.005584  1.490934194  1.310702e+00     0.859857     0.691539
## 3282     1.710557  0.458841731  1.526672e+00     0.863374     0.694810
## 3283     1.636539  0.371474246  4.880675e-01     0.916011     0.803151
## 3284     1.942622  1.372987446  5.265850e-01     0.930266     0.698614
## 3285     1.572205  0.431143344  2.129917e+00     0.931684     0.895431
## 3286     1.703179  0.760157000  8.973803e-01     0.833693     0.667396
## 3287     1.611644  0.438306548  8.700342e-01     0.905839     0.784920
## 3288     1.564522  0.494848632  2.671831e+00     0.932778     0.639679
## 3289     1.639918  0.448686228  2.427768e+00     0.821692     0.721674
## 3290     1.874277  0.853468230  1.649661e+00     0.829470     0.747105
## 3291     1.558766  0.585942135  1.917539e+00     0.697438     0.571139
## 3292     1.659995  0.577106739  2.344032e-01     0.930325     0.782220
## 3293     1.741353  1.048468995  3.689008e-01     0.971307     0.703630
## 3294     1.623296  0.408073680  2.385269e+00     0.937644     0.873580
## 3295     1.566862  0.643215724  1.730377e+00     0.782170     0.681817
## 3296     1.473445  0.343888908  2.486553e+00     0.873203     0.682985
## 3297     1.924711  1.291766106  1.898060e+00     0.836179     0.652212
## 3298     1.896473  0.979843722 -5.188019e-02     0.825502     0.722478
## 3299     1.331184  0.873164763  2.063608e+00     0.930422     0.664378
## 3300     1.670315  0.957716445  7.867491e-01     0.756144     0.695358
## 3301     2.107335  1.483408979  7.888022e-01     0.677411     0.575042
## 3302     1.550959  0.403708909  1.936544e+00     0.801530     0.621139
## 3303     1.637203  0.484516221  2.885831e+00     0.841673     0.766280
## 3304     1.684403  0.365450544  1.737504e+00     0.884558     0.750278
## 3305     1.592396  0.328666999  4.344348e-01     0.973615     0.861735
## 3306     1.613900  0.414726064  9.984591e-01     0.850439     0.698128
## 3307     1.620149  0.794099587  5.007355e-01     0.921640     0.761259
## 3308     1.577383  1.063464716  2.685770e+00     0.932797     0.876879
```

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## 3309     1.865850  0.917154571  2.519757e+00     0.956038     0.859781
## 3310     1.574016  0.399997159  2.455449e+00     0.677556     0.640595
## 3311     1.565996  0.335261270  2.529649e+00     0.708422     0.627971
## 3312     1.612874  0.708298499  7.113851e-03     0.894423     0.814730
## 3313     1.772151  0.438259055  2.774799e-01     0.918446     0.719943
## 3314     1.557181  0.559182197  2.829943e+00     0.760428     0.695509
## 3315     1.578384  0.671114501  1.599768e-01     0.857221     0.765980
## 3316     1.520051  0.648848683  1.544801e+00     0.728041     0.659174
## 3317     1.538096  0.603760179  5.530028e-01     0.843494     0.810163
## 3318     1.454737  0.403072454  1.937410e+00     0.751317     0.637123
## 3319     1.536239  0.675173206  2.427877e+00     0.840947     0.694470
## 3320     1.544026  0.318933140  2.029111e+00     0.953926     0.764723
## 3321     1.834369  0.587085445  6.316573e-01     0.974134     0.558246
## 3322     1.825044  0.915761157  2.406765e+00     0.880478     0.783429
## 3323     1.714802  0.305033057  6.072323e-01     0.972264     0.862469
## 3324     1.694958  0.601748273  2.284416e+00     0.971923     0.855088
## 3325     1.758882  0.790731899  1.359561e+00     0.595788     0.491593
## 3326     1.754816  0.892387374  4.689810e-01     0.770293     0.586316
## 3327     1.763790  0.971043792  1.931498e+00     0.834549     0.641761
## 3328     1.960145  0.783226610  2.503949e+00     0.844208     0.806133
## 3329     1.718844  0.597556979  2.012045e+00     0.870447     0.725537
## 3330     1.791065  0.574686269  7.218991e-01     0.877872     0.818279
## 3331     1.648739  0.678895150  1.068646e-01     0.920196     0.767273
## 3332     1.667949  0.912133275 -7.025126e-14     0.853341     0.762205
## 3333     1.682758  0.850947503  4.948357e-01     0.829345     0.664482
## 3334     1.678165  0.648360011  6.694705e-01     0.842310     0.803388
## 3335     1.713637  0.533026842  4.169055e-01     0.734544     0.544971
## 3336     1.958987  0.884273557  2.204058e+00     0.763271     0.730876
## 3337     1.442015  0.366880360  2.701222e+00     0.754486     0.697312
## 3338     1.591971  0.529943402  9.975515e-01     0.906789     0.798225
## 3339     1.798682  1.194270069  1.094444e+00     0.958634     0.848066
## 3340     1.708848  0.843450805  1.577313e-01     0.909884     0.704652
## 3341     1.726682  0.793501224  9.989697e-02     0.927621     0.772294
## 3342     1.676742  0.567728437  1.825662e+00     0.905673     0.756899
## 3343     1.851849  0.802749103 -6.172243e-01     0.977567     0.902549
## 3344     1.704748  0.427565625  1.369136e+00     0.797245     0.713341
## 3345     1.792526  0.845955855  8.067259e-03     0.964396     0.805296
## 3346     1.655172  1.236086107  4.561569e-01     0.880408     0.860928
## 3347     1.601656  0.463473416  2.444556e+00     0.982014     0.771959
## 3348     1.691140  0.575267535  2.201604e+00     0.979027     0.813477
## 3349     1.719709  0.222745076  3.196354e+00     0.925273     0.763920
## 3350     1.775599  0.798433099 -2.531654e-01     0.970909     0.921974
## 3351     1.628482  0.611973831  4.404472e-01     0.811118     0.687733
## 3352     1.666671  0.708005104  4.460060e-01     0.956659     0.837623
## 3353     1.980928  1.132717443  1.897244e+00     0.757620     0.500408
## 3354     1.583654  0.627185546  1.140155e+00     0.905786     0.813618
## 3355     1.558842  0.429146428  2.744377e+00     0.887124     0.629249
## 3356     1.679052  1.014331491  1.081059e+00     0.862417     0.748358
## 3357     1.638386  0.851113356  1.846800e+00     0.928776     0.810162
## 3358     1.518024  0.820635537  2.630277e+00     0.818866     0.801441
## 3359     1.574736  0.380169620  1.814639e+00     0.700207     0.558365
## 3360     1.596212  0.295116079  2.087202e+00     0.892498     0.825010
## 3361     1.629488  0.685799939  1.333765e+00     0.855981     0.723119
## 3362     1.630481  0.489611186  2.646321e+00     0.956277     0.868010
## 3363     1.733187  0.866677733  6.733419e-02     0.847025     0.780186
## 3364     1.643384  0.563528547  3.162211e+00     0.932612     0.780233
## 3365     1.673981  0.765438310  3.153891e-01     0.949263     0.848752
## 3366     2.055344  1.695453657  1.108661e+00     0.805065     0.668867
## 3367     1.620433  0.767055633  2.886230e+00     0.743309     0.712599
## 3368     1.706550  0.833661456  5.007265e-01     0.910792     0.838111
## 3369     1.822113  0.766258883  2.198060e-01     0.968417     0.701595
## 3370     1.662454  0.375828158  1.167095e+00     0.936967     0.822426
## 3371     1.567026  0.365173382  1.696912e+00     0.825922     0.640263
## 3372     1.766494  0.701132609  2.396795e+00     0.870868     0.773692
## 3373     1.505630  0.348733104  2.629538e+00     0.608286     0.555342
## 3374     1.593669  0.307095789  2.693277e+00     0.946267     0.730817
## 3375     1.615231  0.474292040  3.953914e-01     0.958350     0.881541
## 3376     1.619933  0.928364611  3.674447e-01     0.856930     0.836967
## 3377     1.642298  0.537285025  1.841412e+00     0.904016     0.782269
## 3378     1.668037  1.036644862  1.634560e+00     0.831358     0.732391
## 3379     1.482305  0.375100037  2.698979e+00     0.826304     0.673048
## 3380     1.590611  0.452955767  2.851013e+00     0.966711     0.755234
## 3381     1.559255  0.370727686  1.917640e+00     0.901693     0.689749
## 3382     1.564679  0.451760346  8.265163e-01     0.863046     0.757403
## 3383     1.743072  0.528789477  9.906678e-03     0.917843     0.788742
## 3384     1.725782  0.529944684  1.221837e+00     0.881073     0.649580
## 3385     1.460110  0.447915834  2.144979e+00     0.850694     0.775318
## 3386     1.598991  0.498009890  6.855296e-01     0.902141     0.774562
## 3387     1.668817  0.842044789  5.285560e-01     0.907834     0.824037
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## 3388     1.745532  0.603033890  4.333374e-01     0.971372     0.773754
## 3389     1.632589  0.346397967  2.056320e+00     0.837460     0.683196
## 3390     1.619666  0.627139432  2.292400e-01     0.834317     0.742790
## 3391     1.662132  0.337447281  7.918125e-02     0.779440     0.768070
## 3392     1.779531  0.566773248  1.722972e+00     0.929589     0.712111
## 3393     1.601360  0.399613158  1.206091e+00     0.745328     0.535543
## 3394     1.718438  0.993394342  2.013880e-01     0.932685     0.900163
## 3395     1.625904  0.443439799 -2.147400e-01     0.869932     0.670351
## 3396     1.780879  0.955955074  2.691677e-01     0.716083     0.667262
## 3397     1.649905  0.739198010  2.326598e+00     0.870223     0.719231
## 3398     1.631897  0.512103793  6.858676e-01     0.968327     0.805518
## 3399     1.524887  0.357950085  2.181578e+00     0.777369     0.733714
## 3400     1.721677  0.758375881  1.330049e+00     0.872033     0.622652
## 3401     1.707000  1.176172320  2.781591e+00     0.758650     0.654327
## 3402     1.604036  0.815606966  2.601823e-01     0.910161     0.709901
## 3403     1.867626  1.176771121  5.090543e-01     0.915587     0.854785
## 3404     1.671435  0.962695053  6.075568e-01     0.863371     0.802233
## 3405     1.644453  0.504328113  1.333079e+00     0.688638     0.500471
## 3406     1.909232  0.909250525  5.605682e-01     0.955179     0.902182
## 3407     1.668894  0.336709831  1.606750e+00     0.939686     0.721147
## 3408     1.666922  0.835796438  4.474451e-01     0.877506     0.762295
## 3409     1.793222  0.779395890  5.620833e-01     0.880252     0.635900
## 3410     1.531685  0.489103103  2.414756e+00     0.927493     0.831878
## 3411     1.593738  0.643286823  3.693153e-01     0.907554     0.656869
## 3412     1.589013  0.857492312  8.202010e-01     0.953010     0.836503
## 3413     1.530539  0.441247259  2.923748e+00     0.885393     0.761912
## 3414     1.733127  0.890850071  1.894850e+00     0.903515     0.711154
## 3415     1.833013  0.678215998  2.103599e-01     0.872811     0.790538
## 3416     1.737813  0.737238774  5.998212e-01     0.850567     0.737367
## 3417     1.927560  0.891059415  9.775533e-01     0.934073     0.883632
## 3418     1.659073  0.338727345  2.419239e+00     0.895620     0.756686
## 3419     1.686116  0.419041613  3.159850e+00     0.924149     0.853978
## 3420     1.498727  0.424651367  2.001690e+00     0.809903     0.696540
## 3421     1.660169  0.878324135  3.083313e-01     0.896073     0.870705
## 3422     1.632550  0.356429353  2.338219e+00     0.756792     0.663912
## 3423     1.599959  0.482304628  1.952005e+00     0.988955     0.878476
## 3424     1.594525  0.460094632  2.767021e+00     0.907262     0.816321
## 3425     1.664632  0.730329178  4.578710e-01     0.838101     0.806689
## 3426     1.722143  0.541573004  7.333778e-01     0.982185     0.762599
## 3427     1.698406  0.739573927  1.219059e+00     0.957889     0.778851
## 3428     1.633320  0.691046995  2.314975e+00     0.936693     0.770086
## 3429     1.657508  0.590101410  4.433909e-01     0.893583     0.731554
## 3430     1.671860  0.447189051  2.871131e+00     0.916007     0.866553
## 3431     1.554369  0.399580278  7.918125e-02     0.856994     0.733056
## 3432     2.078634  1.114447509  1.484254e+00     0.693898     0.600322
## 3433     1.734901  0.609197280  2.510965e+00     0.892365     0.827752
## 3434     1.670690  0.687488829  2.486892e+00     0.861684     0.817470
## 3435     1.693035  0.664169823  7.278700e-01     0.872319     0.751364
## 3436     1.604831  0.458208630  3.157359e-01     0.928940     0.828492
## 3437     2.390359  1.846803326  8.229766e-01     0.925890     0.689832
## 3438     1.647255  0.754170912  4.631988e-01     0.795683     0.700127
## 3439     1.810440  1.145317631  2.253953e+00     0.872892     0.751692
## 3440     1.669100  1.055217735  5.487606e-01     0.828167     0.741532
## 3441     1.524832  0.440068003  3.081980e+00     0.861490     0.737041
## 3442     1.455818  0.359668560  2.363367e+00     0.750709     0.655619
## 3443     1.845839  1.272015754  7.947330e-01     0.892892     0.815315
## 3444     1.541237  0.803098470  2.446895e+00     0.908291     0.730806
## 3445     1.638070  0.746881630  2.654529e+00     0.832463     0.681438
## 3446     1.697169  0.959362461  1.606802e+00     0.894014     0.781935
## 3447     1.796673  0.508823189 -2.904667e-01     0.966983     0.716429
## 3448     1.695511  0.923379261  1.771228e-01     0.915892     0.637042
## 3449     2.013069  0.835443873  2.258391e+00     0.802622     0.693994
## 3450     1.542540  0.379278317  2.410610e+00     0.869849     0.819470
## 3451     1.728417  1.073681699 -1.601400e-01     0.951972     0.915654
## 3452     1.781327  0.515599675  2.667445e+00     0.959658     0.804983
## 3453     1.742561  0.926939448  1.707543e+00     0.525645     0.361796
## 3454     1.437294  0.677379710  2.237575e+00     0.749610     0.656462
## 3455     1.605817  1.271393146  7.949600e-01     0.899388     0.661733
## 3456     1.494120  0.384197449  1.891205e-01     0.940982     0.801418
## 3457     1.600583  0.282100737  3.060801e+00     0.815272     0.770563
## 3458     1.570384  0.755597428  2.639326e+00     0.747014     0.719600
## 3459     1.495684  0.535042080  1.912562e+00     0.910704     0.831602
## 3460     1.880250  1.204375056  2.222459e+00     0.862032     0.624013
## 3461     1.761492  1.084032623  5.277698e-01     0.832839     0.698678
## 3462     1.943211  1.216683052  1.955074e+00     0.788874     0.595638
## 3463     1.705250  0.580814393  2.414835e+00     0.960357     0.830685
## 3464     1.811623  1.408679127  1.274417e+00     0.940031     0.869998
## 3465     1.609466  0.351369144  5.079769e-01     0.786112     0.696302
## 3466     1.681722  0.557465094  1.977238e+00     0.864201     0.725605
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## 3467     2.051527  0.889804073  2.145384e+00     0.735545     0.537703
## 3468     1.465536  0.470300213  1.672974e+00     0.706107     0.359299
## 3469     1.616493  0.468629382  2.045904e+00     0.909188     0.781270
## 3470     1.674364  0.846793438  4.001005e-01     0.779948     0.751106
## 3471     1.623124  0.471624640  2.357452e+00     0.919834     0.831796
## 3472     1.809284  0.484987047  2.817812e+00     0.926778     0.886639
## 3473     2.006770  0.609665897  2.349425e+00     0.935714     0.793753
## 3474     1.507620  0.467821131  2.514506e+00     0.928234     0.769229
## 3475     1.637499  0.552080243  3.986626e-01     0.836873     0.749421
## 3476     1.712321  0.494055753  1.974142e+00     0.833331     0.778659
## 3477     1.708220  0.708415801  1.930453e+00     0.955197     0.782367
## 3478     1.580227  0.584256574  2.939765e+00     0.881096     0.730911
## 3479     1.683629  1.067524637  5.487606e-01     0.877663     0.700216
## 3480     1.691732  0.669823417  3.573924e-01     0.928179     0.705431
## 3481     1.909871  1.008297763  7.278700e-01     0.814945     0.692160
## 3482     1.570486  0.279427377  1.335833e+00     0.939508     0.741221
## 3483     1.795573  0.589015255  4.024555e-01     0.931463     0.681006
## 3484     1.656958  0.578740037  4.279337e-01     0.966431     0.808406
## 3485     2.023952  1.520285664  7.377884e-01     0.891876     0.681490
## 3486     1.697384  0.629823307  5.508922e-01     0.940534     0.783728
## 3487     1.708444  0.450832396  2.003212e+00     0.902097     0.787331
## 3488     1.605697  0.200434602  2.477626e+00     0.727776     0.649421
## 3489     1.626139  0.359979591  1.117233e+00     0.634442     0.487667
## 3490     1.923043  0.915953037  3.852647e-01     0.917576     0.626610
## 3491     1.627740  0.539363441  1.945568e+00     0.918997     0.771655
## 3492     1.940058  0.847938941  1.275298e+00     0.849871     0.739363
## 3493     1.876977  0.919919181  2.256036e-01     0.983768     0.675682
## 3494     1.578821  0.421391663  5.514218e-01     0.914181     0.686704
## 3495     1.774044  0.524042830  2.370477e+00     0.922545     0.753965
## 3496     1.808658  0.802109123  7.474111e-01     0.910368     0.788280
## 3497     1.550230  0.278312225  2.690285e+00     0.811747     0.747075
## 3498     1.583618  0.535879959  3.058177e+00     0.883589     0.840763
## 3499     1.646582  0.509636600  2.280402e-01     0.882039     0.714923
## 3500     1.793259  0.878687210  2.363877e+00     0.995259     0.810642
## 3501     1.615325  0.510102448 -6.804230e-02     0.910152     0.757574
## 3502     1.955787  1.478872270  9.415413e-01     0.750775     0.708729
## 3503     1.646779  0.735917319  2.457858e+00     0.897322     0.785476
## 3504     1.728195  0.641355109  1.680735e+00     0.900808     0.775442
## 3505     1.501904  0.526817255  1.459382e+00     0.798339     0.754629
## 3506     2.154564  1.658048620  9.184710e-01     0.858526     0.794258
## 3507     1.788799  1.019735083  2.534618e+00     0.889290     0.746925
## 3508     1.454944  0.341072297  2.291900e+00     0.654524     0.587849
## 3509     1.722563  0.362163800  2.783002e+00     0.944921     0.843370
## 3510     1.627118  0.646679117  2.471107e+00     0.790742     0.749124
## 3511     1.541513  0.541274632  4.880675e-01     0.942920     0.817468
## 3512     1.614578  0.611809309  1.861848e-01     0.928641     0.706995
## 3513     1.711538  1.178588497  8.571229e-01     0.713257     0.630289
## 3514     1.708266  1.907829329  1.496173e+00     0.614209     0.574285
## 3515     1.788853  1.508004208  1.467893e+00     0.635109     0.611178
## 3516     1.621458  0.474229380  6.282350e-01     0.812845     0.709039
## 3517     1.748889  0.599609096  2.272407e+00     0.918740     0.769127
## 3518     1.628822  0.399230550 -7.150284e-02     0.857935     0.773699
## 3519     1.691924  0.596944392  7.418649e-02     0.750283     0.598679
## 3520     1.622889  0.527592527  2.405797e-01     0.760243     0.697893
## 3521     1.637510  0.556382114  2.705386e+00     0.874218     0.836390
## 3522     1.593274  0.603953723  1.167089e-01     0.881745     0.841494
## 3523     1.624072  0.771653612 -1.352187e-01     0.948249     0.909954
## 3524     1.663813  0.298743943  2.497950e+00     0.881896     0.744363
## 3525     1.890308  0.972320887  3.105281e-01     0.855185     0.601118
## 3526     1.685164  0.762130662  5.303145e-01     0.858549     0.628103
## 3527     1.752371  0.928612945  5.410204e-02     0.796061     0.688103
## 3528     1.505488  0.610511115  2.527914e+00     0.826254     0.603618
## 3529     1.698601  1.131650738  1.161617e+00     0.800216     0.683010
## 3530     1.558833  0.429676393  1.817350e+00     0.857777     0.752684
## 3531     1.554161  0.494913945  1.839719e+00     0.771089     0.649839
## 3532     1.632268  0.537670528  5.058057e-01     0.888823     0.747797
## 3533     1.840296  0.630690203  2.391071e+00     0.724660     0.717256
## 3534     1.454203  0.233952536  2.698804e+00     0.917787     0.595200
## 3535     2.091266  1.121943744  2.127247e+00     0.930862     0.715395
## 3536     1.636637  0.419932630  2.152066e+00     0.828266     0.717133
## 3537     1.796858  0.846340205  1.971508e+00     0.847086     0.693829
## 3538     1.807792  1.183540304  8.578675e-01     0.867885     0.804615
## 3539     1.671653  0.658190804  3.829472e-01     0.829376     0.657964
## 3540     1.701181  0.784463943  2.477719e+00     0.950134     0.863639
## 3541     1.808878  0.458213166 -2.147400e-01     0.935947     0.848521
## 3542     1.471185  0.332202059  3.153680e+00     0.837587     0.660231
## 3543     1.703853  0.355807699  1.890880e+00     0.905493     0.789899
## 3544     1.763482  1.010948369  1.295996e+00     0.831127     0.669770
## 3545     1.537138  0.355397877  2.140437e+00     0.866653     0.710310
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## 3546     1.676569  0.755433480  9.041539e-01     0.762123     0.692408
## 3547     1.667704  1.315880120  6.796229e-01     0.927655     0.772424
## 3548     1.624314  0.472525349  1.654871e-01     0.980203     0.690845
## 3549     2.024124  1.262256444  1.811094e+00     0.645660     0.566810
## 3550     1.597063  0.855039168  1.068646e-01     0.923475     0.736585
## 3551     1.715330  0.581847299  1.172028e-01     0.898959     0.718054
## 3552     1.726752  0.516401826  5.603992e-01     0.951915     0.738790
## 3553     1.559058  0.649369912  1.005650e+00     0.924628     0.695300
## 3554     1.610252  0.691141635  1.791544e+00     0.972403     0.696560
## 3555     1.754965  0.842903661  1.315552e+00     0.842960     0.780544
## 3556     1.611055  0.867849758  3.211827e-01     0.909331     0.801852
## 3557     1.654851  1.288217916  8.923172e-01     0.857918     0.749486
## 3558     1.622115  0.474090913  1.208434e-01     0.865586     0.744739
## 3559     1.768288  1.088660471  1.891205e-01     0.940914     0.815855
## 3560     1.774342  0.822198165  2.286242e+00     0.908467     0.783305
## 3561     1.681027  0.503448831  1.953748e+00     0.890441     0.767825
## 3562     1.724322  1.320393493  6.018386e-01     0.977962     0.661693
## 3563     1.764287  1.154357013  1.193672e+00     0.771596     0.749684
## 3564     1.787884  0.909249455  5.027284e-01     0.842378     0.636083
## 3565     1.606586  0.691845037  2.784052e+00     0.899437     0.654426
## 3566     1.768608  0.632180835  8.092281e-01     0.922608     0.804468
## 3567     1.835364  1.162510639  7.586899e-01     0.901026     0.691246
## 3568     1.965004  1.842278401  1.606736e+00     0.667020     0.393971
## 3569     1.532714  0.353600825  2.740214e+00     0.889568     0.686857
## 3570     1.674303  0.464830709  2.540170e+00     0.920605     0.753683
## 3571     1.765866  0.818852462  1.247920e-01     0.948039     0.775686
## 3572     1.634467  1.111494389  8.397266e-01     0.699380     0.581743
## 3573     1.596497  0.336433715  2.454227e+00     0.940430     0.720400
## 3574     1.825099  1.194264516  4.618625e-01     0.910602     0.830277
## 3575     1.676120  0.412870288  2.528568e+00     0.898472     0.846349
## 3576     1.543935  0.603195272 -2.218487e-01     0.824619     0.731557
## 3577     1.564578  1.003981545  1.047315e+00     0.817348     0.690691
## 3578     1.822101  0.652500653  7.567574e-01     0.966249     0.618516
## 3579     1.874307  1.105979990  8.100760e-01     0.887340     0.816041
## 3580     1.517990  0.365214593  2.410165e+00     0.966165     0.812716
## 3581     1.785713  1.033459945  1.921222e+00     0.855421     0.722395
## 3582     1.543509  0.479730747  2.735467e+00     0.880398     0.805136
## 3583     1.923883  1.127739571  6.224913e-01     0.909662     0.758614
## 3584     1.919217  1.539616747  1.487635e+00     0.652325     0.460952
## 3585     1.483895  0.411584355  2.935081e+00     0.758724     0.652968
## 3586     1.554496  0.413185726  1.884607e+00     0.850305     0.696849
## 3587     1.653110  0.464025794  2.781418e+00     0.841385     0.707706
## 3588     1.786432  0.945745224  2.940591e-01     0.871366     0.828356
## 3589     1.852848  0.952113115  4.389599e-01     0.832283     0.738464
## 3590     1.646240  1.056245290  2.408914e-01     0.897163     0.817179
## 3591     1.658249  0.763258735  4.374622e-01     0.880432     0.789015
## 3592     1.631906  0.514028148  1.679752e+00     0.823067     0.800510
## 3593     1.839905  0.974379957  5.009499e-01     0.954459     0.744432
## 3594     1.651249  0.491361694  2.592565e+00     0.902543     0.798550
## 3595     1.912646  0.906742742  3.414286e-01     0.970922     0.878541
## 3596     1.791367  0.966331372  7.025735e-01     0.840778     0.767160
## 3597     1.497919  0.511642762 -2.448560e-01     0.850074     0.784775
## 3598     1.985449  1.132477423  5.523141e-02     0.905116     0.775378
## 3599     1.781754  1.178608648  7.939364e-01     0.860119     0.767315
## 3600     2.445053  1.215158862  1.245682e+00     0.914206     0.746098
## 3601     1.511599  0.554074656  8.955734e-01     0.808844     0.705099
## 3602     1.666586  0.610005034  2.066618e-02     0.973874     0.835800
## 3603     1.597126  1.124579209  1.363583e-01     0.829640     0.755722
## 3604     1.621060  0.407123957  1.467207e+00     0.933827     0.834167
## 3605     1.727750  0.829714710  9.006366e-01     0.969276     0.852759
## 3606     1.953645  0.841234296  1.734766e+00     0.789792     0.631747
## 3607     1.563047  0.310162065 -1.886110e-01     0.931827     0.857105
## 3608     1.527763  0.370381690  2.189622e+00     0.803938     0.572361
## 3609     1.685811  0.847525773  4.291874e-01     0.923928     0.627581
## 3610     1.726444  1.211801097  9.194175e-02     0.881557     0.752368
## 3611     1.612776  0.396063282  1.566504e+00     0.771926     0.648929
## 3612     1.632726  1.020647127  4.319815e-01     0.959538     0.662474
## 3613     1.884229  0.538779774  2.148649e+00     0.674222     0.621482
## 3614     1.777945  0.458276668  2.742863e+00     0.832727     0.688743
## 3615     1.864225  1.158956225  2.346182e+00     0.846448     0.581360
## 3616     1.619320  0.414707679  1.900900e-01     0.852296     0.763501
## 3617     1.754052  0.436436182  2.941211e+00     0.837095     0.761764
## 3618     1.548231  0.547949372  2.682084e+00     0.976846     0.787737
## 3619     1.581674  0.841512135  1.360790e+00     0.934868     0.754771
## 3620     1.546630  0.402612116  2.210170e+00     0.856401     0.776847
## 3621     1.935552  0.931545331  7.135328e-01     0.895000     0.833970
## 3622     1.881627  0.886142022  1.784122e+00     0.826838     0.695239
## 3623     1.564132  0.358161459  2.253914e+00     0.849870     0.770270
## 3624     1.561012  0.429891103  1.866636e+00     0.897428     0.855942
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## 3625     1.719842  0.650041230  3.672347e-01     0.686617     0.558959
## 3626     1.698215  0.426088147  2.621653e+00     0.924231     0.811644
## 3627     2.003025  1.370150255  2.505257e+00     0.918180     0.811777
## 3628     1.571013  0.999298482  1.498427e+00     0.900221     0.794212
## 3629     1.876781  0.861667009  2.402308e+00     0.971618     0.717551
## 3630     1.677560  0.938931309  2.969916e-01     0.916463     0.771161
## 3631     1.506165  0.373798090  1.670654e+00     0.753638     0.684732
## 3632     1.575288  0.771088969  1.961519e+00     0.916248     0.843018
## 3633     1.518241  0.747548523  9.091815e-02     0.889647     0.736603
## 3634     1.639058  0.695892136  1.204870e+00     0.809987     0.752122
## 3635     1.635062  0.836196848  1.827797e+00     0.729655     0.667782
## 3636     1.466890  0.480311705  2.288735e+00     0.979324     0.715729
## 3637     1.555587  0.412898821  2.174260e+00     0.898871     0.734942
## 3638     1.789488  0.395607676  2.574580e+00     0.979525     0.944781
## 3639     1.491328  0.372950646  2.306749e+00     0.555363     0.470111
## 3640     1.605342  0.514220913  3.037209e+00     0.909696     0.768148
## 3641     1.827840  0.719875472  4.159732e-01     0.894532     0.672005
## 3642     1.793287  0.991025279  1.268856e+00     0.879396     0.810171
## 3643     1.698108  0.633695643  3.968515e-01     0.904466     0.700852
## 3644     1.689310  0.444550657  4.999938e+00     0.959945     0.791681
## 3645     1.779462  1.368827789  1.436986e+00     0.956012     0.654969
## 3646     1.576014  0.395415515  2.705825e+00     0.979422     0.546391
## 3647     1.622314  0.517923952  2.170172e+00     0.823837     0.709206
## 3648     1.752455  1.109993409  3.642915e-01     0.890552     0.850898
## 3649     1.588840  0.360992690  5.732111e-01     0.766964     0.656563
## 3650     1.611258  0.648331708  2.267882e+00     0.729742     0.617809
## 3651     1.631472  0.480353377  6.966074e-01     0.921051     0.795743
## 3652     1.599548  0.631014336  2.369121e+00     0.962696     0.906048
## 3653     1.458284  0.244714906  1.889917e+00     0.724331     0.650731
## 3654     1.786504  1.322248247  8.876011e-01     0.784488     0.709594
## 3655     1.799813  0.456586162  2.707196e+00     0.973195     0.883317
## 3656     2.071646  0.997581205  2.124752e+00     0.666779     0.647450
## 3657     1.515753  0.517544250  2.046670e+00     0.903553     0.740498
## 3658     1.709244  0.681053907  5.895943e-01     0.766743     0.748577
## 3659     1.701309  0.945630061  1.381953e+00     0.932737     0.791402
## 3660     1.717913  0.518370467  2.584915e+00     0.841520     0.776350
## 3661     1.849041  0.893364448  2.742291e+00     0.889962     0.703436
## 3662     1.479174  0.316414903  2.364371e+00     0.777213     0.549907
## 3663     1.943023  1.117851073  7.205405e-01     0.796937     0.748105
## 3664     1.664442  0.351616602 -1.948279e-01     0.890207     0.770653
## 3665     1.574488  0.551955973  2.408151e+00     0.827056     0.697257
## 3666     1.926492  1.246456725  1.168450e+00     0.929826     0.694240
## 3667     1.771112  0.649589907  7.025735e-01     0.815276     0.762236
## 3668     1.730297  0.858262218  2.602458e-01     0.893266     0.600870
## 3669     1.580359  0.422547163  7.774754e-01     0.827972     0.720205
## 3670     1.525614  0.480032827  1.827850e+00     0.867828     0.765550
## 3671     1.956996  0.534013407  2.328855e+00     0.940027     0.843297
## 3672     2.026786  1.243561368  5.630874e-01     0.864897     0.727103
## 3673     1.884487  0.840304369  2.704425e+00     0.928529     0.859395
## 3674     1.825329  1.161933714  1.792566e+00     0.721755     0.673800
## 3675     1.633028  0.741043603  2.601823e-01     0.840592     0.613913
## 3676     1.571927  0.371287726  3.097815e+00     0.827517     0.792840
## 3677     1.722441  0.911141622  3.315300e-01     0.953383     0.819732
## 3678     1.527256  0.517844874  2.674902e+00     0.925820     0.771258
## 3679     1.683644  0.408323084  2.509122e+00     0.894345     0.688355
## 3680     1.668152  0.712457762  2.712298e+00     0.796337     0.724911
## 3681     1.592338  0.760714177  2.247851e-01     0.969137     0.840068
## 3682     1.621066  0.485900217  4.911865e-01     0.866178     0.744004
## 3683     1.584674  0.328563069  2.129108e+00     0.879998     0.795801
## 3684     2.071764  1.175821913  1.969672e+00     0.808683     0.744683
## 3685     1.978048  0.800765178  3.124954e+00     0.921968     0.833445
## 3686     1.815289  0.973391123  2.437982e+00     0.907425     0.726129
## 3687     1.634645  0.924610568  5.833811e-01     0.852999     0.830369
## 3688     1.627011  0.560811359  1.750547e-01     0.828562     0.724502
## 3689     1.776763  1.027524921  7.076553e-01     0.919494     0.876399
## 3690     1.827801  0.869163049  1.607459e-01     0.870836     0.777607
## 3691     1.639699  0.683216398  5.774543e-01     0.887458     0.654915
## 3692     1.686431  0.731948782  8.559813e-01     0.876993     0.712833
## 3693     1.657670  0.968528244  1.781492e-01     0.989329     0.777184
## 3694     1.774080  0.926861848  2.167043e+00     0.869520     0.844363
## 3695     1.587105  0.463158096  8.285162e-01     0.841016     0.777452
## 3696     2.752561  2.095775893  1.473311e+00     0.770996     0.630393
## 3697     1.546213  0.760811365  2.855269e+00     0.945256     0.844313
## 3698     1.962243  0.559373899  6.434940e-01     0.951089     0.799870
## 3699     1.774451  1.214430542  5.912111e-01     0.864309     0.758956
## 3700     1.768491  0.353186989  2.970762e+00     0.852355     0.811178
## 3701     1.606727  0.880506049  4.335739e-02     0.950598     0.891066
## 3702     1.834468  0.440665116 -2.531654e-01     0.953852     0.727558
## 3703     1.694475  0.946592749  6.896414e-01     0.805538     0.713338
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## 3704     1.675759  0.463246289  2.148889e+00     0.951182     0.765058
## 3705     1.818769  1.124905077  3.273274e-01     0.978869     0.847532
## 3706     1.788185  1.191883975  5.805544e-01     0.825724     0.780265
## 3707     1.632000  0.437810789  2.923302e+00     0.902444     0.767000
## 3708     1.775284  0.672574396  1.477470e+00     0.962976     0.883211
## 3709     1.520316  0.634893228  1.195806e+00     0.788802     0.676883
## 3710     1.581719  0.259722858  2.203379e+00     0.876916     0.636343
## 3711     1.634383  0.875782173  6.146296e-01     0.788439     0.687801
## 3712     1.715448  0.776995214  9.431537e-03     0.963424     0.846332
## 3713     1.690113  0.725312023  5.130995e-01     0.858980     0.624313
## 3714     1.692569  0.903774547  1.850977e+00     0.740353     0.615320
## 3715     1.583406  0.550367794  1.068646e-01     0.850839     0.594915
## 3716     2.073315  1.485407656  6.991472e-01     0.844234     0.696395
## 3717     1.831261  1.327432503  9.561588e-01     0.914959     0.644805
## 3718     1.664534  0.638912363  2.779516e+00     0.942332     0.842943
## 3719     1.738718  0.540464623  2.869451e+00     0.869980     0.789135
## 3720     1.623327  0.743263542 -5.501178e-02     0.891526     0.765712
## 3721     1.432286  0.425146051  1.729737e+00     0.924980     0.763453
## 3722     1.676738  0.936462469  6.026216e-01     0.826060     0.594184
## 3723     1.627600  0.593208508  7.359305e-01     0.779166     0.710081
## 3724     1.501339  0.357198971  2.912401e+00     0.924503     0.817897
## 3725     1.438208  0.508117449  2.637616e+00     0.878170     0.769942
## 3726     1.747717  0.752204458 -1.501145e-02     0.958660     0.605177
## 3727     1.690159  0.781424323  3.758394e-01     0.911474     0.839533
## 3728     1.635138  0.744701263  4.018842e-01     0.942276     0.783304
## 3729     1.589295  0.426213497  2.128582e+00     0.869854     0.808327
## 3730     1.578166  0.322622381  3.434315e+00     0.741259     0.635734
## 3731     1.565605  0.933218428  1.943272e+00     0.876390     0.791306
## 3732     2.061799  1.250244297  8.194001e-01     0.972245     0.779891
## 3733     1.455459  0.343566132  2.722302e+00     0.730504     0.468668
## 3734     1.697516  0.589661465  2.628414e+00     0.931334     0.722510
## 3735     1.573758  0.291730612  1.717036e+00     0.914197     0.644917
## 3736     1.578462  0.605922103  2.019979e+00     0.851033     0.717906
## 3737     1.706521  0.719010420  1.221322e-01     0.878863     0.804657
## 3738     1.513178  0.419944189  2.132650e+00     0.841568     0.651608
## 3739     1.642822  0.537567257  1.149966e+00     0.846561     0.599741
## 3740     1.745525  0.667663978  3.165541e+00     0.920517     0.850438
## 3741     1.611346  0.508497398  5.420513e-01     0.849132     0.816522
## 3742     1.889511  0.871217299  4.966656e-01     0.877214     0.730360
## 3743     1.634928  0.955645425  2.233648e+00     0.845653     0.758291
## 3744     1.604472  0.228166721  2.315211e+00     0.931870     0.751604
## 3745     1.910540  0.836537412  9.194175e-02     0.737915     0.693236
## 3746     1.522121  0.572699708  3.538402e-02     0.867418     0.724847
## 3747     1.806112  0.991030156  5.550927e-01     0.927812     0.733404
## 3748     1.618729  1.316119281  1.271948e+00     0.923562     0.729181
## 3749     1.763137  0.793756170  1.206328e+00     0.817993     0.686079
## 3750     1.790994  1.242772427  7.133671e-01     0.956746     0.723186
## 3751     1.621523  0.244259798  2.197138e+00     0.925131     0.781486
## 3752     1.682348  0.483177769  2.045334e+00     0.796391     0.715512
## 3753     1.691418  0.713763466  3.935373e-01     0.962672     0.845918
## 3754     1.560189  0.383190394  2.535455e+00     0.905596     0.674621
## 3755     1.714869  1.018529909  2.430048e-02     0.965886     0.883746
## 3756     1.600470  0.526013434  2.648398e+00     0.911686     0.793343
## 3757     1.856606  1.198428885  9.439147e-01     0.926856     0.616667
## 3758     1.795340  0.540548444  2.761472e+00     0.853945     0.729390
## 3759     1.692654  0.403160001  1.747438e+00     0.935602     0.726072
## 3760     1.896478  0.793280383  2.417832e+00     0.944650     0.617527
## 3761     1.810276  1.206610024  2.604664e-01     0.917069     0.758025
## 3762     1.748107  0.924737122  3.693525e-01     0.962761     0.715515
## 3763     1.479683  0.555829345  7.041813e-01     0.947609     0.846214
## 3764     1.717456  0.964228035  6.943110e-01     0.844542     0.572687
## 3765     1.618224  0.491297245  1.689361e+00     0.957697     0.707129
## 3766     1.835643  0.963400566  5.471479e-01     0.891478     0.715211
## 3767     1.614208  0.490868279  2.178270e+00     0.861386     0.782844
## 3768     1.599547  0.789779483  1.687251e-01     0.904298     0.877695
## 3769     1.731495  0.532185986  2.636607e+00     0.918976     0.860439
## 3770     1.667505  0.303329998  2.311967e+00     0.884751     0.730266
## 3771     1.786914  1.176597641  7.351829e-01     0.758692     0.641245
## 3772     2.206459  1.556505124  2.491323e+00     0.865980     0.760853
## 3773     2.243566  0.926527137  3.167953e+00     0.861251     0.745281
## 3774     1.572287  0.377497488  1.968213e+00     0.793541     0.702294
## 3775     1.634173  0.345187424  2.443485e+00     0.799554     0.681295
## 3776     1.976291  1.459223563  4.561569e-01     0.828117     0.604181
## 3777     1.572922  0.344006937  2.120327e+00     0.848455     0.631003
## 3778     1.645885  0.641131894  1.153672e+00     0.887120     0.693710
## 3779     1.553491  0.445034110  2.297029e+00     0.852885     0.818290
## 3780     1.790075  1.003650064  7.439618e-01     0.883278     0.802519
## 3781     1.835184  0.374788658  2.043813e+00     0.873746     0.732363
## 3782     1.560449  0.472637989  2.266115e+00     0.895309     0.776288
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## 3783     1.831828  0.828469126  1.438206e+00     0.944336     0.779635
## 3784     1.902262  0.661660325  2.523012e+00     0.984684     0.798221
## 3785     1.631177  1.047489041  2.608227e+00     0.916531     0.831928
## 3786     1.607825  0.474296412  2.394232e+00     0.855594     0.817479
## 3787     1.708920  0.476048672  1.571407e+00     0.985765     0.837646
## 3788     1.656029  1.203111793  4.231655e-01     0.951531     0.670350
## 3789     1.884429  0.644373588  1.904865e+00     0.859563     0.850222
## 3790     1.556874  0.614605129  4.335739e-02     0.901689     0.860762
## 3791     1.711162  0.611239900  2.130507e+00     0.877432     0.703890
## 3792     1.808569  1.283059133  1.537095e+00     0.814238     0.669648
## 3793     1.640069  0.995986436  2.919711e+00     0.716258     0.666739
## 3794     1.625623  0.569125670  2.155648e-01     0.929340     0.878507
## 3795     1.582992  0.437025606  9.859774e-01     0.600348     0.410829
## 3796     1.821011  0.919909258  2.145347e+00     0.782912     0.675154
## 3797     1.927781  0.992416095  6.181450e-01     0.860357     0.782702
## 3798     1.692820  0.559502052  1.715590e+00     0.721576     0.576214
## 3799     1.584684  0.653924173  4.422183e-01     0.811081     0.768030
## 3800     1.689129  1.137676863  1.387346e+00     0.761712     0.628682
## 3801     1.620462  0.770600932  3.013783e-01     0.914011     0.662064
## 3802     1.755429  0.512924419  1.095231e+00     0.934158     0.704004
## 3803     1.486456  0.375162286  2.573068e+00     0.668354     0.611298
## 3804     1.538148  0.424866942  2.028220e+00     0.826725     0.756927
## 3805     1.614292  1.061735131  1.400757e-01     0.909005     0.675558
## 3806     1.642790  0.405744096  4.728354e-01     0.939817     0.842711
## 3807     1.900024  0.865522071  2.445368e-01     0.902354     0.745698
## 3808     1.775806  1.373381009  5.725587e-01     0.932254     0.747492
## 3809     1.565975  0.239146761  2.149566e+00     0.721251     0.471640
## 3810     1.517819  0.799256440  2.639999e+00     0.725257     0.671416
## 3811     1.667845  0.913788959  6.369273e-01     0.907366     0.871159
## 3812     1.735703  1.052743946  1.134003e+00     0.567550     0.468179
## 3813     1.705894  0.713398130  1.656194e+00     0.815702     0.645589
## 3814     1.710172  0.489643537  1.902699e+00     0.885280     0.688758
## 3815     1.709850  0.876296376  7.711691e-01     0.898108     0.730783
## 3816     2.048857  1.196474643  6.722986e-01     0.898389     0.717022
## 3817     1.791255  1.068297205  2.496871e+00     0.866928     0.724505
## 3818     2.098291  1.596126263  1.200210e+00     0.837249     0.809761
## 3819     1.693058  0.576860580  2.022990e+00     0.950833     0.778095
## 3820     1.626975  0.841855434 -1.146913e-01     0.896058     0.642233
## 3821     1.629633  0.566859207  3.778377e-01     0.896119     0.823481
## 3822     1.790914  0.626096971  2.567515e+00     0.872379     0.771810
## 3823     1.485622  0.251148907  3.166277e+00     0.961385     0.818869
## 3824     1.669913  0.840370858  2.346906e+00     0.902384     0.727451
## 3825     1.696535  0.599024547  1.594065e-01     0.914387     0.652393
## 3826     1.680235  0.532151552  1.698643e+00     0.901823     0.820760
## 3827     1.665304  0.268879720  2.426781e+00     0.850548     0.710534
## 3828     1.969807  1.180395433  1.097250e-01     0.846312     0.727656
## 3829     1.496418  0.429915312  3.029561e+00     0.928042     0.734596
## 3830     1.593830  0.800630486  3.986626e-01     0.912043     0.723580
## 3831     1.533278  0.518984828  3.587024e-01     0.890446     0.713051
## 3832     1.635223  0.344136731  1.942776e+00     0.785320     0.652566
## 3833     1.694167  0.740650018  4.542094e-01     0.971642     0.796312
## 3834     1.691860  0.671839977  1.181692e+00     0.873859     0.589010
## 3835     1.909978  1.156206790  4.335739e-02     0.849459     0.681175
## 3836     1.830298  0.701871799  2.988266e+00     0.944164     0.822285
## 3837     1.891434  1.281076567  5.766722e-01     0.836971     0.791548
## 3838     1.472171  0.714847586 -3.979400e-01     0.843647     0.772155
## 3839     1.729106  0.680339140  2.771730e+00     0.888914     0.632308
## 3840     1.580065  0.564690914  1.445736e+00     0.964199     0.793127
## 3841     1.656009  1.088511724  2.919540e-02     0.920683     0.710561
## 3842     1.613766  0.496711063  2.214705e+00     0.765543     0.678786
## 3843     1.587334  0.550541422  2.462498e+00     0.802851     0.670490
## 3844     1.895856  0.661204816  2.054960e+00     0.814838     0.715508
## 3845     1.643244  0.687807106  8.640652e-01     0.881375     0.697301
## 3846     1.656295  0.611302614  2.886379e+00     0.959610     0.869264
## 3847     1.929454  1.453668387  1.055230e+00     0.964488     0.914730
## 3848     1.734369  0.394364113  7.439877e-01     0.955243     0.773218
## 3849     1.670386  0.817686981  4.362564e-01     0.770335     0.557301
## 3850     2.262999  1.560685980  9.516791e-01     0.894904     0.758916
## 3851     1.560941  0.477832914  2.288099e+00     0.776923     0.747899
## 3852     1.659274  0.891575366  3.087146e-01     0.837521     0.783467
## 3853     1.683498  0.400966029  2.553989e+00     0.976474     0.831813
## 3854     1.604237  0.684308443  1.065908e-01     0.957959     0.708182
## 3855     1.635622  0.529794680  3.201411e-01     0.956106     0.828704
## 3856     1.643939  1.267821510  6.282350e-01     0.905304     0.751260
## 3857     1.896488  0.873975329  5.285560e-01     0.979517     0.736816
## 3858     1.626194  0.377566677  2.137609e+00     0.862850     0.683341
## 3859     1.812291  0.773189428  2.566870e-01     0.898300     0.689527
## 3860     1.751294  0.572245256  7.837817e-01     0.973333     0.710635
## 3861     1.573084  0.300164889  1.748165e+00     0.817051     0.735404
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## 3862     1.829823  0.650975454  2.639069e+00     0.955833     0.709460
## 3863     1.632667  0.534307925  2.299992e+00     0.775154     0.595839
## 3864     1.991289  0.902691339  8.778214e-01     0.885000     0.812243
## 3865     1.720826  0.706623917  2.549762e+00     0.819532     0.687798
## 3866     1.673823  0.389275974  2.916903e+00     0.828042     0.747559
## 3867     1.982074  1.423886191  5.646909e-01     0.773430     0.601133
## 3868     1.768723  0.316737550  2.132929e+00     0.694165     0.508770
## 3869     1.654430  0.497728347  1.025578e-01     0.887838     0.791984
## 3870     1.783752  0.532658849  2.711845e-01     0.851131     0.787893
## 3871     1.770319  1.003869645 -1.352187e-01     0.913682     0.671134
## 3872     1.928144  1.044022061  1.097690e+00     0.917982     0.824452
## 3873     1.778410  0.788636365  1.891205e-01     0.859940     0.736548
## 3874     1.598186  0.522497702  1.868914e+00     0.933727     0.796598
## 3875     1.542830  0.247528930  2.294864e+00     0.757715     0.743801
## 3876     1.686808  0.577507885  4.028424e-02     0.941232     0.807477
## 3877     1.664066  0.942886177  6.015025e-01     0.837348     0.672013
## 3878     1.533747  0.509828638  3.004615e+00     0.978362     0.820610
## 3879     1.512179  0.518929611  2.683422e-01     0.624327     0.539033
## 3880     1.730910  0.603948318  1.302422e+00     0.677165     0.551950
## 3881     1.529370  0.577815677  2.494465e+00     0.917659     0.747613
## 3882     1.425396  0.340733548  1.223037e+00     0.855962     0.774929
## 3883     1.940175  0.992051337  2.344605e+00     0.751535     0.606824
## 3884     1.673652  0.915091023  1.002182e+00     0.834771     0.691279
## 3885     1.700573  0.899641059  4.542206e-01     0.939654     0.879689
## 3886     1.751398  1.333846118  1.432798e+00     0.902871     0.623463
## 3887     1.814091  0.856085731  1.733038e+00     0.801906     0.597568
## 3888     1.592572  0.453694362  3.061123e+00     0.901775     0.713165
## 3889     1.712821  0.596703732  2.941514e+00     0.874487     0.729569
## 3890     1.779539  0.502097860  3.023519e+00     0.881474     0.777276
## 3891     1.846970  0.722207644  1.174727e+00     0.885367     0.688771
## 3892     1.463067  0.544609954  2.353607e+00     0.888968     0.846483
## 3893     1.586610  0.412179887  1.365583e-01     0.868095     0.751725
## 3894     1.829544  0.667295084  3.185689e-01     0.948504     0.673334
## 3895     1.602997  0.404611383  4.479293e-01     0.864035     0.794462
## 3896     1.661693  0.509581524  2.345968e+00     0.942392     0.842315
## 3897     1.558165  0.338747254  2.057840e-01     0.962524     0.887991
## 3898     1.648771  0.654165949  3.940914e-02     0.924483     0.829099
## 3899     1.668190  0.457665452  1.674131e+00     0.902414     0.705857
## 3900     1.517879  0.765253430  2.415345e+00     0.933069     0.835716
## 3901     1.650159  0.695477298 -3.558230e-01     0.985522     0.686508
## 3902     1.591820  0.443198817  2.252133e+00     0.966496     0.844236
## 3903     1.642471  0.360161555  2.833445e+00     0.823923     0.684537
## 3904     1.880540  0.714574505  2.880421e+00     0.942191     0.867643
## 3905     2.024732  1.429319384  6.988814e-01     0.861985     0.663556
## 3906     1.829207  0.775940139  3.419521e-01     0.980548     0.773633
## 3907     1.787365  1.408206035  1.009652e+00     0.741305     0.658360
## 3908     1.649865  0.581044647  4.477317e-01     0.888086     0.811031
## 3909     1.701015  0.639407791  2.144709e+00     0.965000     0.751104
## 3910     1.931413  0.842835064  1.044343e+00     0.948096     0.731573
## 3911     1.610036  0.655228743 -2.841801e-02     0.929586     0.817981
## 3912     1.436465  0.436580832  2.132972e+00     0.598570     0.441105
## 3913     1.564298  0.549092811  5.375841e-01     0.919898     0.697491
## 3914     2.093947  1.522931726  1.432021e+00     0.638247     0.559126
## 3915     1.702754  0.778338680 -1.886110e-01     0.827357     0.808042
## 3916     1.635710  0.500672746  2.328304e-01     0.898010     0.754492
## 3917     1.752902  0.957132512  3.391068e-01     0.886112     0.824237
## 3918     1.514305  0.363440860  2.901530e+00     0.906338     0.835825
## 3919     1.606784  0.320283410  2.652242e+00     0.698759     0.590471
## 3920     1.913925  0.859230192  1.688127e+00     0.972358     0.748749
## 3921     1.628261  0.629577779  2.686220e+00     0.907288     0.862490
## 3922     1.811172  0.852068073  5.133482e-01     0.913129     0.729409
## 3923     1.508927  0.380144283  2.996023e+00     0.856712     0.835426
## 3924     1.606300  0.620233942  1.167089e-01     0.853837     0.766778
## 3925     1.604946  0.628649429  1.039644e-01     0.967351     0.821344
## 3926     1.549051  0.518816525  3.106406e+00     0.968308     0.803759
## 3927     1.906381  0.503121709  2.934106e+00     0.869828     0.847227
## 3928     1.617087  0.594414651  1.811987e-01     0.993055     0.937071
## 3929     1.631374  0.966740412 -3.981290e-02     0.889423     0.633311
## 3930     1.542696  0.486338367  2.433120e+00     0.758350     0.640060
## 3931     1.657801  0.455561996  2.521349e+00     0.958975     0.824460
## 3932     1.499136  0.753022787  2.980315e+00     0.936829     0.817532
## 3933     1.745559  0.574147064  2.659516e+00     0.880146     0.686816
## 3934     1.521394  0.408000698  2.387207e+00     0.812606     0.593147
## 3935     1.561633  0.287477007  1.981928e+00     0.678095     0.534895
## 3936     1.796979  1.032787934  2.471914e+00     0.898868     0.690963
## 3937     1.541852  0.321619140  2.420163e+00     0.891520     0.746149
## 3938     1.629904  0.845057711  4.522665e-01     0.886749     0.824192
## 3939     1.596553  0.578607124  2.600922e+00     0.891260     0.728915
## 3940     1.515336  0.430832635  2.995894e+00     0.847091     0.721543
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## 3941     1.775661  1.381981000  1.701174e+00     0.871554     0.637069
## 3942     2.038942  1.541736460  1.276168e+00     0.764986     0.622562
## 3943     1.729838  0.572592821  2.149407e+00     0.764064     0.655071
## 3944     1.764593  0.600066354  4.392582e-01     0.955786     0.656850
## 3945     1.469037  0.475355884  4.813227e-01     0.815822     0.583278
## 3946     1.572931  0.426592582  3.374377e+00     0.780471     0.728158
## 3947     1.991059  0.742079099  2.519686e+00     0.921288     0.836141
## 3948     1.596322  0.737345335  4.914198e-02     0.932146     0.763732
## 3949     1.812026  0.543749031  2.453177e+00     0.946096     0.922615
## 3950     1.645489  0.806896647  1.876523e+00     0.893913     0.676897
## 3951     1.626189  0.674520366  2.222019e+00     0.783423     0.671764
## 3952     1.781420  0.560289306  2.611230e+00     0.969156     0.641396
## 3953     1.496325  0.330255450  1.460872e+00     0.550065     0.454387
## 3954     1.941620  1.512699068  1.250764e+00     0.827250     0.718478
## 3955     1.547441  0.740327155  2.999640e+00     0.939525     0.836555
## 3956     1.628328  0.553516512  2.748206e+00     0.948983     0.886550
## 3957     1.671034  0.656808024  4.940739e-01     0.967928     0.710511
## 3958     1.622338  0.735618059 -2.584512e-01     0.935879     0.742037
## 3959     1.689833  0.630533639  2.312457e-01     0.862516     0.672145
## 3960     1.733554  0.459971161  2.336143e+00     0.901690     0.853936
## 3961     1.585287  0.503312560  3.837225e-01     0.788525     0.747585
## 3962     1.715564  1.048333022  1.210172e+00     0.905574     0.614155
## 3963     1.595536  0.549253461  1.903005e+00     0.698883     0.652263
## 3964     2.038406  1.399270384  1.374762e+00     0.572122     0.466989
## 3965     1.749916  0.786088831  8.829727e-01     0.922300     0.816759
## 3966     1.571019  0.658331034  8.185801e-01     0.912181     0.836506
## 3967     1.601999  0.552770391  1.428209e-01     0.872618     0.781284
## 3968     1.810487  0.894129897  3.419521e-01     0.856326     0.718662
## 3969     1.486937  0.384306810  2.158449e+00     0.875454     0.747254
## 3970     1.659529  0.677400705  4.011725e-01     0.915847     0.813937
## 3971     1.435263  0.388447575  2.831126e+00     0.873036     0.781523
## 3972     1.675025  0.624331609  2.098138e+00     0.838648     0.732419
## 3973     1.674652  0.741212285  1.467175e+00     0.802016     0.573806
## 3974     1.975845  0.860504504  3.203439e+00     0.898664     0.775860
## 3975     1.645209  0.742102694  1.955324e-01     0.894054     0.723937
## 3976     1.647834  0.687465641  1.221322e-01     0.839199     0.691034
## 3977     1.474543  0.555359300  2.960784e+00     0.631062     0.471223
## 3978     1.911401  1.079832200  1.316574e+00     0.809612     0.657179
## 3979     1.746266  0.659639570  9.281072e-01     0.990204     0.863570
## 3980     1.620804  0.519226651  2.011806e+00     0.882073     0.858338
## 3981     1.849033  0.687847208  1.688257e+00     0.779581     0.729423
## 3982     1.731137  0.607387461  2.165224e+00     0.954886     0.818398
## 3983     1.526339  0.536425862  2.398642e+00     0.798947     0.709531
## 3984     1.609414  0.386689764  2.620539e+00     0.816273     0.690588
## 3985     1.769978  0.893987448  2.009961e+00     0.965472     0.796050
## 3986     1.469874  0.490995892  2.206219e+00     0.477717     0.449434
## 3987     1.857827  1.042213121  1.346795e+00     0.880494     0.689311
## 3988     1.622230  0.640632470  3.982293e-01     0.907347     0.805771
## 3989     1.651596  0.533109566  2.261899e+00     0.851808     0.765367
## 3990     1.963211  1.283344204  8.523913e-01     0.840321     0.674927
## 3991     1.637411  0.377162313  3.077785e-01     0.939994     0.849380
## 3992     1.876733  0.566974577  1.054196e-01     0.945817     0.876424
## 3993     1.675580  1.233468244  2.112037e+00     0.936253     0.816005
## 3994     1.757387  1.386937497  4.677059e-02     0.952116     0.671337
## 3995     1.509377  0.329481272  2.178141e+00     0.915801     0.755804
## 3996     1.722539  0.725913265  2.435522e+00     0.722458     0.570198
## 3997     1.608530  0.415567591  3.183406e+00     0.949349     0.892982
## 3998     1.788078  0.556999226  2.944707e+00     0.879926     0.737844
## 3999     2.134945  1.415630973  4.015287e-01     0.913505     0.727176
## 4000     1.497489  0.548283749  2.342221e+00     0.886357     0.778379
## 4001     1.772487  0.639883747  6.536507e-01     0.901993     0.718957
## 4002     2.169757  1.357391639  8.753740e-01     0.815019     0.759725
## 4003     1.868160  0.776121253  8.912614e-01     0.947635     0.759554
## 4004     1.768955  0.463775072  2.597934e+00     0.901919     0.820955
## 4005     1.736438  0.687777695  2.880692e-01     0.883304     0.754890
## 4006     1.618114  0.737895218  2.493014e+00     0.852549     0.812181
## 4007     1.750349  0.608940875  2.192968e+00     0.775310     0.650198
## 4008     1.570266  0.217136370  2.505041e+00     0.744188     0.622364
## 4009     1.808393  0.867327218  1.900900e-01     0.844135     0.740768
## 4010     1.868889  0.926853111  1.891640e+00     0.789126     0.720015
## 4011     1.861135  1.170895089  2.209879e+00     0.754126     0.656769
## 4012     1.604003  0.471908968  3.055528e-01     0.773826     0.771800
## 4013     1.448181  0.592204525  2.429775e+00     0.905533     0.846024
## 4014     1.690250  0.708741191  5.301199e-01     0.948192     0.796620
## 4015     1.637858  0.563086956  1.258251e+00     0.753471     0.533263
## 4016     1.657131  0.838579619  2.443500e-01     0.947442     0.878977
## 4017     1.812391  0.989115959  2.643162e+00     0.981298     0.663071
## 4018     1.885077  0.816759492  2.829531e+00     0.750302     0.665701
## 4019     1.903469  1.266335200  1.565094e+00     0.807330     0.662390
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## 4020     1.714606  0.853938406  8.951416e-02     0.928335     0.765448
## 4021     1.739169  0.872656735  2.398709e-03     0.747464     0.685451
## 4022     2.012698  1.659249517  1.059918e+00     0.934696     0.606699
## 4023     1.646072  0.746838067 -2.731684e-01     0.911965     0.823497
## 4024     1.692721  0.531297497  2.916835e-01     0.922630     0.785377
## 4025     1.647840  0.674574577 -1.996216e-01     0.921085     0.840821
## 4026     1.854427  0.617136692  9.779666e-01     0.920606     0.746087
## 4027     1.623572  0.485231505  2.443500e-01     0.934711     0.798681
## 4028     1.631298  0.557382069 -2.531654e-01     0.929249     0.706406
## 4029     1.717393  0.378307035  2.602357e+00     0.925684     0.731098
## 4030     1.509153  0.476299661  2.178684e+00     0.828983     0.565268
## 4031     2.183978  1.501546714  1.293982e+00     0.919653     0.629412
## 4032     1.608429  1.191199420  5.538761e-01     0.917209     0.801729
## 4033     1.590865  0.565259707  3.083313e-01     0.961642     0.828825
## 4034     1.555692  0.434270224  2.968435e+00     0.907955     0.726743
## 4035     1.606235  0.693026590  9.194175e-02     0.895374     0.827311
## 4036     1.772138  1.111410391  6.670163e-01     0.870654     0.718304
## 4037     2.222121  1.366973648  1.995293e+00     0.654503     0.551253
## 4038     1.813012  0.718214279  2.190425e+00     0.986628     0.624124
## 4039     1.578443  0.737691874  2.622430e+00     0.816129     0.713645
## 4040     1.594511  0.503253950  6.409127e-01     0.948460     0.793444
## 4041     1.667161  0.492784128  1.496771e-01     0.963570     0.777100
## 4042     1.866077  0.609609348 -3.240698e-01     0.925685     0.816461
## 4043     1.880560  0.935928760  2.672264e+00     0.876523     0.729520
## 4044     1.762831  0.873408963  1.528627e+00     0.967433     0.814808
## 4045     1.864001  0.979572502  1.962212e+00     0.835735     0.784831
## 4046     2.072206  1.298230651  6.756959e-01     0.868009     0.746299
## 4047     1.601612  0.429821697  2.208479e+00     0.873000     0.746163
## 4048     2.104624  1.278110827  1.225379e+00     0.847311     0.544987
## 4049     1.572173  0.607345632  2.076361e+00     0.904653     0.787972
## 4050     1.737518  0.545983396  1.891205e-01     0.933721     0.831206
## 4051     1.683307  0.798725208  2.456093e-01     0.931882     0.895814
## 4052     1.753603  1.396509696  8.648461e-01     0.924959     0.753741
## 4053     1.700689  0.720663619  2.486521e+00     0.973567     0.719956
## 4054     1.600835  0.616011038  2.093072e+00     0.933082     0.894461
## 4055     1.668905  0.661085414  7.339812e-01     0.782906     0.656737
## 4056     1.611162  0.702971344  3.402231e+00     0.790086     0.679987
## 4057     1.572179  0.295250334  2.756608e+00     0.822179     0.702045
## 4058     1.528644  0.366314604  2.389819e+00     0.799879     0.698691
## 4059     1.613908  1.096663264  1.219180e-01     0.945416     0.774584
## 4060     1.700769  0.752126076  6.494510e-01     0.895340     0.697463
## 4061     1.613820  0.770162482  6.514506e-01     0.905659     0.883470
## 4062     1.774682  0.547748868  7.363779e-01     0.969901     0.900668
## 4063     1.579988  0.685999552  3.625844e-01     0.912550     0.828663
## 4064     1.881229  1.107366016  1.705231e+00     0.772054     0.530536
## 4065     2.001794  1.149077405  1.589138e+00     0.890612     0.764661
## 4066     1.631256  1.013721778  4.025936e-01     0.949879     0.748898
## 4067     1.610797  0.380741120  1.637315e+00     0.765924     0.681535
## 4068     1.606164  0.511930129  5.122542e-01     0.837897     0.691002
## 4069     1.704145  0.786983410 -2.294978e-02     0.803619     0.649923
## 4070     1.626694  0.842259667  9.803988e-02     0.962585     0.839925
## 4071     1.494508  0.321507296  2.230655e+00     0.746473     0.577355
## 4072     1.727823  0.538309759  2.597603e+00     0.861267     0.808266
## 4073     1.704565  1.202041260  2.234871e+00     0.901205     0.797302
## 4074     1.964900  0.960594912  2.013880e-01     0.952954     0.852745
## 4075     1.651353  0.432578089  1.410809e+00     0.860038     0.657359
## 4076     1.576880  0.483668586  2.565502e+00     0.769166     0.682527
## 4077     1.737360  0.912170491  2.068910e+00     0.815592     0.629705
## 4078     1.799582  1.016410683  1.486365e+00     0.863956     0.802905
## 4079     1.698202  0.647971412  1.636345e+00     0.793596     0.785727
## 4080     1.495951  0.418281400  3.048514e+00     0.906020     0.695173
## 4081     1.826143  0.918244809  7.559429e-01     0.860802     0.772972
## 4082     1.661800  0.481776463  2.460008e+00     0.946603     0.826070
## 4083     1.635926  0.792047620  3.273274e-01     0.958867     0.667007
## 4084     1.536754  0.625430785 -6.172243e-01     0.880645     0.849980
## 4085     1.749211  1.263463263  8.083768e-01     0.802709     0.762219
## 4086     1.426630  0.322384709  1.712309e+00     0.682497     0.519643
## 4087     1.665269  0.552991688  1.811156e-01     0.923310     0.805051
## 4088     1.911776  1.130963842  7.073146e-01     0.943351     0.756003
## 4089     1.729063  0.661137538  9.653202e-02     0.942493     0.839075
## 4090     1.727379  0.966534533  4.305133e-01     0.780206     0.698036
## 4091     1.598534  0.269632009  2.458394e-01     0.851287     0.769587
## 4092     2.423082  1.784007140  9.691054e-01     0.682507     0.620457
## 4093     1.633415  0.538547344  1.256677e+00     0.853240     0.724322
## 4094     1.770180  0.847194337  3.180981e+00     0.772285     0.714714
## 4095     1.805259  0.726544653  1.045643e+00     0.885402     0.673685
## 4096     1.870505  1.078696013 -3.434971e-02     0.828735     0.792767
## 4097     1.959925  1.146031860  6.860008e-01     0.912452     0.612846
## 4098     1.577112  0.283807610  2.689324e+00     0.934378     0.867170
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## 4099     1.545392  0.550447280  3.942897e-01     0.837178     0.682951
## 4100     1.647447  0.815115982  2.545617e-01     0.931623     0.752680
## 4101     1.721317  0.736347093  1.907875e+00     0.901805     0.732602
## 4102     1.636592  0.548018236  2.969916e-01     0.966268     0.844063
## 4103     1.615096  0.666527340  2.969916e-01     0.828417     0.762580
## 4104     1.523363  0.584387769 -5.501178e-02     0.900755     0.831799
## 4105     1.477399  0.590878600  2.171032e+00     0.961580     0.696169
## 4106     1.719734  0.679324308  1.613215e+00     0.906879     0.832088
## 4107     1.662197  1.110707526  8.287593e-01     0.965536     0.701584
## 4108     1.485870  0.516851230  7.426174e-01     0.830081     0.713273
## 4109     1.679293  0.734821424  3.275342e-01     0.839935     0.719992
## 4110     1.728448  1.008451124  6.153909e-01     0.881701     0.844372
## 4111     1.616872  0.436191281  1.483429e+00     0.620586     0.556642
## 4112     1.824726  1.058027232  6.502308e-01     0.927099     0.848211
## 4113     1.727928  0.772174227  7.734716e-02     0.940534     0.697903
## 4114     1.931765  1.650581421  1.233399e+00     0.871261     0.632380
## 4115     1.647184  0.644515397 -1.238725e-01     0.845707     0.781277
## 4116     1.898672  0.941206226  2.054897e+00     0.898244     0.777011
## 4117     1.643873  0.793761757  2.656572e-01     0.952997     0.743051
## 4118     1.756171  1.016356315  3.022586e+00     0.895133     0.854187
## 4119     1.499204  0.479255626  2.601017e+00     0.967107     0.824859
## 4120     1.661379  0.515457887  8.625779e-01     0.854534     0.785672
## 4121     1.686761  0.574829635  6.378729e-01     0.924022     0.650665
## 4122     1.658456  1.037035856  3.288361e-01     0.862770     0.692889
## 4123     1.600133  0.679428805  6.412609e-01     0.983609     0.854649
## 4124     2.127238  0.722729325  7.615810e-01     0.955827     0.757090
## 4125     1.805888  0.710734082  7.119533e-01     0.858116     0.604490
## 4126     1.772118  0.764925223  2.843921e-01     0.864146     0.740908
## 4127     1.573860  0.340961390  2.142122e+00     0.851597     0.723816
## 4128     1.636690  0.898594106  1.363583e-01     0.957520     0.769987
## 4129     1.667961  0.583667967  2.142400e+00     0.922877     0.710758
## 4130     1.693582  0.784561665  1.376048e-01     0.954000     0.862552
## 4131     1.665056  1.184467129  1.872862e+00     0.898430     0.771341
## 4132     1.725332  0.373180594  2.094757e+00     0.844274     0.777528
## 4133     1.466145  0.441899277  2.832408e+00     0.866840     0.733525
## 4134     1.515179  0.402386923  2.353735e+00     0.820315     0.741527
## 4135     1.596026  0.708624826  4.549667e-01     0.845558     0.759015
## 4136     1.582742  0.380965174  1.256060e+00     0.881446     0.718983
## 4137     1.619057  0.712303643  1.290149e+00     0.987833     0.762576
## 4138     1.598047  0.438021516  8.081982e-02     0.924870     0.878489
## 4139     1.663890  1.682450149  1.335461e+00     0.909620     0.686371
## 4140     2.028669  1.329003072  6.770620e-01     0.877989     0.618442
## 4141     1.577445  0.488087975  2.444183e+00     0.878262     0.785718
## 4142     1.536172  0.506094897  2.429875e+00     0.871102     0.606807
## 4143     1.896315  0.847732406  6.416084e-01     0.889323     0.670641
## 4144     1.582074  0.491773378  2.779315e+00     0.883578     0.777401
## 4145     1.935015  1.103160352  2.888939e-01     0.845570     0.653863
## 4146     1.640450  0.381596961  3.023075e+00     0.773854     0.628866
## 4147     1.632333  0.367879368  2.128213e+00     0.862029     0.705231
## 4148     1.704058  0.760242244  2.566452e+00     0.886631     0.658266
## 4149     1.592130  0.284466830  1.036484e+00     0.734835     0.478176
## 4150     1.457944  0.479653036  1.737585e+00     0.885705     0.646033
## 4151     1.784481  0.723833155  2.292400e-01     0.958027     0.772768
## 4152     1.779795  0.473606658  2.800045e+00     0.889151     0.843100
## 4153     1.750752  0.934548948  3.778377e-01     0.814252     0.624595
## 4154     1.659681  0.646994475  1.736483e+00     0.871411     0.710993
## 4155     1.643604  0.784809794  1.721668e-01     0.777932     0.738700
## 4156     1.596397  0.574353105  2.449721e+00     0.877821     0.811475
## 4157     1.668823  0.860600900  3.323153e-01     0.873129     0.553597
## 4158     2.068501  0.837260700  2.561095e+00     0.955273     0.852787
## 4159     1.590307  0.514651333  2.887084e+00     0.852863     0.743460
## 4160     1.573091  0.483601559  2.139930e+00     0.852260     0.794673
## 4161     1.481041  0.268650504  2.586833e+00     0.858796     0.637388
## 4162     1.628471  0.443633740  3.693153e-01     0.898588     0.835772
## 4163     1.964597  1.303986143  1.140853e+00     0.957152     0.714603
## 4164     1.628083  0.817109022 -3.979400e-01     0.902798     0.697309
## 4165     1.616265  0.557676796  2.719894e+00     0.910538     0.755488
## 4166     1.498727  0.523397851  2.354553e+00     0.774567     0.597441
## 4167     1.525651  0.514859748  3.040592e+00     0.942622     0.767580
## 4168     1.675967  0.681562316  7.607180e-01     0.786010     0.640385
## 4169     2.080219  1.551634168  6.946730e-01     0.806733     0.616630
## 4170     1.582769  0.811483178  5.814467e-01     0.881427     0.829485
## 4171     1.856483  0.682604409  2.005768e+00     0.895077     0.782702
## 4172     1.671521  0.507863964 -5.501178e-02     0.804305     0.750417
## 4173     1.469025  0.601118724  3.348445e+00     0.883963     0.660565
## 4174     1.550352  0.743418820  2.638869e+00     0.891327     0.811865
## 4175     1.604504  0.334280803  2.877788e+00     0.851591     0.834377
## 4176     1.610565  0.715601435  2.617273e+00     0.925755     0.801473
## 4177     1.595814  0.388947996  2.440778e+00     0.895781     0.860283
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## 4178     1.580782  0.559451754  2.535821e+00     0.893770     0.790009
## 4179     1.744302  1.071348012  1.723774e-01     0.937342     0.679169
## 4180     1.976700  1.253451896  7.796793e-01     0.942671     0.822777
## 4181     1.666477  1.039521192  4.528266e-01     0.820317     0.754981
## 4182     1.990861  1.347821612  4.294248e-01     0.912984     0.715647
## 4183     1.615777  0.574442205  7.274046e-01     0.931966     0.773100
## 4184     1.749204  0.780713974  3.214573e+00     0.884641     0.757851
## 4185     1.775885  0.825851764  2.177225e+00     0.889245     0.799059
## 4186     1.558049  0.661215238  8.119193e-01     0.799692     0.652801
## 4187     1.640441  0.995603608  1.153307e-01     0.932557     0.717854
## 4188     1.662838  0.773297772  4.153072e-01     0.906304     0.839460
## 4189     1.514011  0.374456886  1.646714e+00     0.775364     0.663208
## 4190     1.703119  0.542610093  1.822209e+00     0.763914     0.719582
## 4191     1.664874  0.726651425  6.540881e-01     0.832107     0.693002
## 4192     1.841322  1.223327175  1.995286e+00     0.969714     0.855084
## 4193     1.880591  1.604542476  1.653346e+00     0.839948     0.808079
## 4194     1.512375  0.419448500  2.843166e+00     0.744017     0.544027
## 4195     1.846226  0.596707030  9.389671e-01     0.959530     0.948044
## 4196     1.713913  0.881846099  1.425177e-01     0.833569     0.632160
## 4197     1.684234  0.644808715  1.082998e-01     0.929644     0.868046
## 4198     1.576219  0.426974587 -2.804499e-01     0.922802     0.875691
## 4199     1.649647  0.678513827  2.383578e+00     0.726935     0.583871
## 4200     1.616558  0.549416504  3.153678e-01     0.858452     0.742732
## 4201     1.729934  0.836730997  9.982985e-01     0.942545     0.819120
## 4202     1.611119  0.380073693  2.280978e+00     0.882427     0.776450
## 4203     1.535877  0.349667926  2.496457e+00     0.767274     0.688744
## 4204     1.823899  0.787576649  2.472585e+00     0.925522     0.833646
## 4205     1.571373  0.955458760  2.694794e+00     0.914686     0.828036
## 4206     1.708025  0.399900326  2.663432e+00     0.920710     0.757992
## 4207     1.770608  0.502256373  3.015103e+00     0.937781     0.850151
## 4208     1.643468  0.471090657  6.282350e-01     0.866659     0.715219
## 4209     1.644595  0.828744943  1.376048e-01     0.836192     0.711754
## 4210     1.628614  0.848719802  2.385294e+00     0.934809     0.763714
## 4211     1.626747  0.525005913  2.680145e+00     0.880733     0.779609
## 4212     1.532282  0.297432205  2.535669e+00     0.825101     0.608068
## 4213     1.641802  0.545959923  4.637309e-01     0.838392     0.697236
## 4214     1.518627  0.434067260  2.262629e+00     0.833785     0.616311
## 4215     1.829079  1.018084395  2.527964e+00     0.919777     0.786761
## 4216     1.629286  0.479881814  3.642872e-01     0.949142     0.773140
## 4217     1.565381  0.772916254  8.253862e-01     0.846774     0.701620
## 4218     1.594700  0.516118727  2.165389e+00     0.885995     0.783771
## 4219     1.814471  1.404720854  7.901407e-01     0.960762     0.862976
## 4220     1.858972  1.145140445  2.152429e+00     0.959381     0.819743
## 4221     1.612297  0.766858068  1.169257e+00     0.681456     0.637649
## 4222     1.603872  0.522977319  1.845181e+00     0.828248     0.746657
## 4223     1.610939  0.546545131  5.164477e-01     0.926234     0.751512
## 4224     1.547355  0.337369398  2.892985e+00     0.892137     0.800773
## 4225     1.727854  0.392561545  2.230632e+00     0.862129     0.773579
## 4226     1.796925  0.603608744  2.395963e+00     0.876404     0.744760
## 4227     2.300389  1.938587266  7.395569e-01     0.911624     0.859314
## 4228     1.794623  0.771613200  1.171823e+00     0.866297     0.724731
## 4229     2.144390  1.311062677  2.821274e+00     0.803921     0.623210
## 4230     1.627941  0.482440502 -3.981290e-02     0.909974     0.887348
## 4231     1.592836  0.510373403  2.213121e+00     0.926640     0.864223
## 4232     1.530465  0.359674251  2.432070e+00     0.775735     0.567250
## 4233     1.772584  0.721697700  2.090802e+00     0.943936     0.786634
## 4234     1.881606  1.242427125  7.245908e-01     0.873871     0.600554
## 4235     1.757524  0.540395803  2.604108e+00     0.870537     0.823591
## 4236     1.814819  0.552820253  2.893978e+00     0.830828     0.782601
## 4237     1.613696  0.489511305  2.141062e+00     0.790114     0.672824
## 4238     1.591036  0.360854593  2.446497e+00     0.755226     0.713212
## 4239     1.675469  0.816007182  5.858739e-01     0.826999     0.591425
## 4240     1.670330  1.053715965  2.919858e+00     0.961776     0.760928
## 4241     1.684662  1.201369809  5.346086e-01     0.902043     0.754110
## 4242     1.377029  0.628986313  1.690639e+00     0.361763     0.331551
## 4243     1.641010  0.649724186  1.626819e+00     0.909940     0.732260
## 4244     1.555403  0.506090835  2.421247e+00     0.810685     0.617110
## 4245     1.637671  0.540345745  2.562323e+00     0.972926     0.878453
## 4246     1.777943  0.733941590  2.013866e+00     0.768227     0.637584
## 4247     1.733214  1.289167384  4.979735e-01     0.901852     0.748267
## 4248     1.787847  0.960380389  1.609909e+00     0.816567     0.751856
## 4249     1.657504  0.687798194  1.796699e+00     0.978863     0.770845
## 4250     1.637581  0.650756159  1.647726e+00     0.738078     0.600404
## 4251     1.661793  0.758228135  1.350665e+00     0.928068     0.833547
## 4252     1.626142  0.447768716  2.847429e+00     0.913777     0.805520
## 4253     1.524728  0.447652535  2.647861e+00     0.872788     0.751692
## 4254     1.543658  0.614818150  1.602878e+00     0.708604     0.690630
## 4255     1.811982  0.593319303  2.223103e-01     0.945773     0.837102
## 4256     1.975765  1.128202111  1.886925e-01     0.663350     0.538374
```

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## 4257     1.834045  0.929244151  2.968140e+00     0.851912     0.723343
## 4258     1.696273  0.574889743  7.202195e-01     0.984096     0.774289
## 4259     1.627599  0.535929270  2.416345e+00     0.789642     0.691684
## 4260     2.026243  1.232365799  1.069239e+00     0.954445     0.769840
## 4261     1.712708  1.118360637  7.471251e-01     0.808720     0.790201
## 4262     1.659171  0.370773921  1.615369e+00     0.868789     0.720725
## 4263     1.715100  0.899282497 -1.655188e-01     0.937541     0.799359
## 4264     1.978438  0.948106700  1.433917e+00     0.821856     0.649773
## 4265     1.986780  0.634116384  2.071752e+00     0.936907     0.832228
## 4266     1.774372  0.679948193  2.575414e+00     0.821822     0.753654
## 4267     1.624700  0.613120569  1.693739e+00     0.649587     0.626509
## 4268     1.980899  1.694367369  9.222767e-01     0.848362     0.809271
## 4269     1.494743  0.473571631  1.619380e+00     0.658071     0.583539
## 4270     1.526436  0.474688194  2.198060e-01     0.972297     0.813077
## 4271     1.547058  0.798620264  2.377949e+00     0.882440     0.764519
## 4272     1.713886  0.758537966  1.850564e+00     0.747263     0.589755
## 4273     1.753943  0.604763727  1.565995e-01     0.791186     0.605497
## 4274     1.623702  0.558224819  2.129785e-01     0.847874     0.645968
## 4275     1.809604  0.879299497  2.956995e+00     0.928111     0.847370
## 4276     1.765704  0.494669318  1.474334e+00     0.707853     0.531330
## 4277     1.697011  1.030988106  2.155648e-01     0.970837     0.828620
## 4278     1.703737  0.331111331  1.096503e+00     0.940515     0.618582
## 4279     1.600473  0.679545086  2.531624e+00     0.935532     0.816166
## 4280     1.619302  0.689700347  1.610905e-01     0.953053     0.743845
## 4281     1.524478  0.645018247  2.402543e+00     0.973281     0.741223
## 4282     1.745314  0.709322548  4.996871e-01     0.844327     0.629211
## 4283     1.722064  0.864509301  8.357258e-01     0.874201     0.685829
## 4284     1.841082  1.262538889  1.274182e-01     0.919909     0.750300
## 4285     1.519652  0.403271554  2.404926e+00     0.881598     0.807692
## 4286     1.716965  0.784089258  7.194957e-01     0.894347     0.659486
## 4287     1.701986  1.150504691  3.909501e-01     0.878747     0.720362
## 4288     1.686523  0.787408753  1.811987e-01     0.846733     0.672457
## 4289     1.725222  0.814591165  3.000205e+00     0.913969     0.724769
## 4290     1.684032  0.512510964  1.976891e-01     0.904884     0.712030
## 4291     1.860011  0.486941696  2.607787e+00     0.878854     0.802543
## 4292     1.505272  0.577490651  2.192214e+00     0.980892     0.746596
## 4293     1.575102  0.529729278  1.782413e-01     0.957796     0.771559
## 4294     1.649857  0.695033141  2.865926e+00     0.925051     0.801696
## 4295     1.540782  0.414998403  2.761601e+00     0.775257     0.709129
## 4296     1.927367  0.999421134  5.285560e-01     0.907260     0.883057
## 4297     1.652791  0.713450220  2.643017e-01     0.882021     0.762221
## 4298     1.506367  0.487716578  2.047576e+00     0.828781     0.667167
## 4299     1.730374  0.599886346  2.333350e-01     0.965378     0.870118
## 4300     1.683211  0.462541741  3.125156e+00     0.913005     0.902086
## 4301     1.732877  0.869077929  2.054363e+00     0.941903     0.790378
## 4302     1.460572  0.539926282  1.903912e+00     0.517575     0.464374
## 4303     1.824225  0.590011001  2.660634e+00     0.846523     0.783418
## 4304     1.792246  1.116843421  6.027548e-01     0.956570     0.910790
## 4305     1.610667  0.530008772  1.601920e+00     0.962345     0.665431
## 4306     1.700218  0.388545220  2.356731e+00     0.958389     0.814279
## 4307     1.629028  0.802900917  2.643017e-01     0.875189     0.753373
## 4308     1.850888  1.004407364  8.739630e-01     0.892233     0.773139
## 4309     1.820347  0.579741308  2.690082e-01     0.961321     0.912996
## 4310     1.507438  0.418035992  2.470861e+00     0.837606     0.699604
## 4311     1.819938  0.487432521  3.128012e+00     0.989666     0.953137
## 4312     1.838743  1.031400384  8.173052e-01     0.879966     0.830771
## 4313     1.532767  0.584579968  1.638504e+00     0.899648     0.871471
## 4314     1.867787  1.099273083  7.418649e-02     0.879596     0.673480
## 4315     1.585991  0.230032310  2.770266e+00     0.672064     0.523161
## 4316     2.063694  0.815663403  2.308621e+00     0.983220     0.863947
## 4317     1.593590  0.497547456  2.882190e+00     0.887165     0.859931
## 4318     1.647623  0.814924487  1.284818e+00     0.794008     0.606478
## 4319     1.747798  0.418297976  3.235636e+00     0.876002     0.798337
## 4320     1.540157  0.478523208  6.172391e-01     0.854020     0.757891
## 4321     1.540647  0.376615275  1.880998e+00     0.802421     0.712340
## 4322     1.543806  0.417338810  1.760350e+00     0.846943     0.631611
## 4323     1.660779  0.477294938  2.739631e+00     0.765565     0.687423
## 4324     1.702311  0.688961462 -2.841801e-02     0.764136     0.661552
## 4325     1.804685  1.272746411  4.952946e-01     0.893374     0.606069
## 4326     1.570950  0.384615023  2.405797e-01     0.871189     0.793156
## 4327     1.515788  0.397394192  3.028130e+00     0.925310     0.717591
## 4328     1.612960  0.429104391  4.810779e-01     0.965918     0.920884
## 4329     1.665498  0.623310294  2.008360e+00     0.862475     0.755490
## 4330     1.680799  0.294600682  1.456313e+00     0.743204     0.527167
## 4331     2.125611  2.007021926  1.502780e+00     0.624582     0.477973
## 4332     1.637501  0.529004064  9.501316e-02     0.869892     0.741900
## 4333     1.524242  0.509855490  2.288462e-01     0.936198     0.888594
## 4334     1.559230  0.561944099  2.158120e+00     0.919697     0.801752
## 4335     1.545084  0.535647236  5.522770e-01     0.834985     0.751000
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## 4336     1.849438  0.874288691  1.780977e+00     0.624423     0.589163
## 4337     1.661093  0.444083849  2.094772e+00     0.948113     0.902781
## 4338     1.547801  0.454059372  2.906080e+00     0.929038     0.744593
## 4339     1.923217  1.403786044  1.288987e+00     0.802441     0.584709
## 4340     2.077462  1.008161398  2.223103e-01     0.901118     0.775752
## 4341     1.970085  0.579444028  2.674770e+00     0.935879     0.826720
## 4342     1.638377  1.169877136  1.299135e+00     0.877418     0.829416
## 4343     1.935822  1.194453287  2.240884e+00     0.937638     0.714228
## 4344     1.805639  0.808560699  2.181439e+00     0.834606     0.789171
## 4345     1.658349  0.791572763  8.906814e-01     0.709669     0.546226
## 4346     1.730402  0.542618808  1.974225e+00     0.899797     0.780109
## 4347     1.980690  1.191154676  8.582929e-01     0.860511     0.675209
## 4348     1.663825  0.636912956  9.501316e-02     0.806397     0.726961
## 4349     1.675609  1.557324303  1.081961e+00     0.758209     0.501135
## 4350     1.620902  0.895060483  2.690082e-01     0.947926     0.853564
## 4351     1.681548  0.648481987  3.185689e-01     0.935382     0.747087
## 4352     1.740510  0.909301903  2.434452e+00     0.850810     0.765971
## 4353     1.647093  1.303474694  6.230982e-01     0.894927     0.729166
## 4354     1.769053  0.378971735  2.982716e+00     0.924086     0.785579
## 4355     2.249927  1.629254612  7.260023e-01     0.589231     0.487090
## 4356     1.761319  0.540732293  3.990230e-01     0.941278     0.624132
## 4357     1.697182  0.821410019  4.682667e-01     0.864481     0.613822
## 4358     1.633494  1.102917129  1.976891e-01     0.967315     0.859734
## 4359     1.736449  0.570076874  7.329999e-01     0.864011     0.842320
## 4360     2.270294  1.756736494  6.520027e-01     0.923500     0.779785
## 4361     1.659240  0.572569581  7.711057e-01     0.918784     0.697005
## 4362     1.464923  0.399436612  2.792598e+00     0.880161     0.670894
## 4363     1.583979  0.581123270  2.768402e-01     0.836328     0.733109
## 4364     1.475199  0.464491038  2.248116e+00     0.693712     0.480298
## 4365     1.793582  0.574864314  1.862431e+00     0.921429     0.817653
## 4366     2.331219  1.524593425  5.685536e-01     0.957195     0.693291
## 4367     1.665618  0.662992854  5.938668e-01     0.882188     0.858024
## 4368     1.792311  1.048348564  4.714148e-01     0.854658     0.696522
## 4369     1.925202  0.859133492  6.135768e-01     0.918079     0.684551
## 4370     1.676180  0.597247500  1.763205e+00     0.417859     0.377628
## 4371     1.866208  0.581929188  2.898255e+00     0.869244     0.715943
## 4372     1.665401  0.654749125  5.607371e-01     0.941335     0.738828
## 4373     1.731503  0.627091263  1.308202e+00     0.923708     0.822491
## 4374     2.064518  0.899751579  1.195145e+00     0.766666     0.670485
## 4375     1.709487  0.920141074  1.935817e-01     0.817462     0.649432
## 4376     1.745247  1.056516098  8.382002e-01     0.767805     0.656622
## 4377     1.533870  0.499010376  2.123764e+00     0.823483     0.756350
## 4378     1.671666  0.440610008  1.891276e+00     0.662892     0.588231
## 4379     1.658700  0.846836696  8.724788e-02     0.892062     0.837651
## 4380     1.758179  0.545091772  2.469457e+00     0.890598     0.855868
## 4381     1.426913  0.387836350  6.652608e-01     0.748825     0.634769
## 4382     1.962661  1.353181211  1.291391e+00     0.811655     0.733849
## 4383     1.808146  0.540398306  2.855850e+00     0.958751     0.899066
## 4384     1.518551  0.586296928  2.775343e+00     0.831914     0.781002
## 4385     1.489295  0.535228274  2.932690e+00     0.869870     0.727649
## 4386     1.673759  0.517556121  2.108695e+00     0.961859     0.852765
## 4387     1.769218  0.823725864  1.697112e+00     0.923633     0.645699
## 4388     1.976627  1.370955116  7.059461e-01     0.826028     0.656004
## 4389     1.628974  0.898189111  4.126219e-01     0.821499     0.748716
## 4390     1.631967  0.578354935  2.176304e+00     0.936625     0.868225
## 4391     1.657677  0.448765046  2.275697e+00     0.947950     0.863142
## 4392     1.734573  0.688221318  5.543983e-01     0.968152     0.819984
## 4393     1.639425  0.797813702  2.128843e+00     0.947992     0.787605
## 4394     1.895858  0.999851446  2.558808e+00     0.929372     0.858312
## 4395     1.650680  0.719948309  5.383352e-01     0.586761     0.425903
## 4396     1.697615  0.694838515  2.347248e+00     0.841442     0.735862
## 4397     1.542640  0.358918514  2.281657e+00     0.899459     0.777961
## 4398     1.556947  0.663359762  1.900900e-01     0.928939     0.800224
## 4399     1.633247  0.654426839  1.977222e+00     0.901143     0.692567
## 4400     1.468572  0.532287994  3.468772e+00     0.497177     0.405420
## 4401     1.742214  0.739754251  3.055528e-01     0.861624     0.611430
## 4402     1.578151  0.361935492  1.520101e-01     0.814235     0.688073
## 4403     1.661409  0.563246076  2.059590e+00     0.856255     0.798959
## 4404     1.616101  0.658231829  1.903009e+00     0.843675     0.788306
## 4405     1.758139  0.524995541  2.469194e+00     0.817324     0.689343
## 4406     1.593645  0.607781961  2.697075e+00     0.933289     0.821953
## 4407     1.747057  1.091420729  2.622521e-01     0.877570     0.802067
## 4408     1.508701  0.409315885  2.041200e-01     0.965150     0.682077
## 4409     1.950271  1.564092938  8.446858e-01     0.938650     0.662376
## 4410     1.866920  0.874267807  1.649907e+00     0.916162     0.793998
## 4411     1.458496  0.402603523  6.994127e-01     0.904599     0.753300
## 4412     1.745906  0.848868057  1.660335e+00     0.873729     0.709518
## 4413     1.751968  1.298412011  7.791305e-01     0.849030     0.749743
## 4414     1.734953  0.341046553  3.159203e+00     0.839463     0.781159
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## 4415     1.579381  0.538840060  2.729605e-01     0.892798     0.816838
## 4416     1.600147  0.594852018  1.784459e-01     0.940955     0.769380
## 4417     1.765259  0.745195846  3.164544e-01     0.847114     0.744235
## 4418     1.668495  0.455228698  2.509284e+00     0.956583     0.867737
## 4419     1.780657  0.608417981  2.382070e+00     0.969001     0.834450
## 4420     1.725014  0.605676678  3.625844e-01     0.836381     0.823115
## 4421     1.628567  0.551445118  1.640434e+00     0.710118     0.636617
## 4422     1.654127  1.104862518  7.731301e-01     0.950131     0.712283
## 4423     1.601085  0.627286980  2.537140e+00     0.841034     0.807305
## 4424     1.721998  0.597556979  2.568321e+00     0.885286     0.686130
## 4425     1.704660  0.437401719  3.002732e+00     0.897363     0.739914
## 4426     1.541424  0.521394399  3.286204e+00     0.880313     0.707677
## 4427     1.658888  0.796629137  1.296498e+00     0.811670     0.632049
## 4428     1.775500  0.751113517  2.050878e+00     0.933525     0.876427
## 4429     1.505735  0.442974927  2.117138e+00     0.678823     0.619437
## 4430     1.666229  0.757641199  1.485008e-01     0.960113     0.829237
## 4431     1.592764  0.486657131  5.485820e-01     0.653637     0.579474
## 4432     1.617870  0.665988830  1.542211e+00     0.995531     0.760369
## 4433     1.619051  0.646156608  2.622521e-01     0.973567     0.577685
## 4434     1.984531  1.210179352  6.892236e-01     0.757304     0.630403
## 4435     1.667892  0.400062855  2.618379e+00     0.857722     0.782184
## 4436     1.713774  0.703013513  6.558516e-02     0.919226     0.737375
## 4437     1.626769  0.436350324  2.377277e+00     0.727729     0.688338
## 4438     1.569067  0.337489212  2.912500e+00     0.900034     0.823166
## 4439     1.751221  0.933947659  2.711805e+00     0.853270     0.683361
## 4440     1.657170  0.974791154  2.221172e+00     0.766019     0.736407
## 4441     1.645262  0.307784758  1.208924e+00     0.880303     0.679436
## 4442     1.732556  1.451725047  2.049776e+00     0.728699     0.601592
## 4443     1.856818  1.133443098  4.139050e-01     0.968772     0.689974
## 4444     1.604019  0.380741120  1.091577e+00     0.881287     0.861640
## 4445     1.636420  0.566680205  4.139688e-01     0.957306     0.833265
## 4446     1.625227  0.782650319  1.877097e+00     0.764198     0.658948
## 4447     1.922223  0.781080078  9.647454e-01     0.775794     0.682769
## 4448     1.826313  1.149280710  8.356788e-01     0.890616     0.732753
## 4449     1.918191  1.129677005 -3.403619e-02     0.862068     0.764862
## 4450     1.982391  1.054666668  2.321857e+00     0.865280     0.754587
## 4451     1.654475  0.346274716  2.041200e-01     0.817941     0.745357
## 4452     1.518101  0.404257124  2.208004e+00     0.723609     0.618424
## 4453     1.858582  0.940330675  2.898841e-01     0.718867     0.691914
## 4454     1.660309  0.868526887  4.166372e-01     0.946784     0.933291
## 4455     1.564955  0.639005112  2.190582e+00     0.904010     0.810736
## 4456     1.598313  0.641576227  2.973408e-01     0.889596     0.714360
## 4457     1.717313  0.988449701  1.742968e+00     0.941298     0.759868
## 4458     1.666054  0.880401960  8.002282e-01     0.722642     0.483384
## 4459     1.581710  0.527904309  3.077785e-01     0.911573     0.803217
## 4460     1.752093  1.089237268  9.580049e-01     0.927031     0.687558
## 4461     1.713923  0.909286919  1.932485e-01     0.940130     0.750241
## 4462     1.749461  0.684208708  2.453686e+00     0.986671     0.918394
## 4463     1.571003  0.548930874  2.299981e+00     0.818525     0.768439
## 4464     1.611133  0.595867528  1.160741e+00     0.811465     0.718780
## 4465     1.654321  0.749739407  4.694989e-01     0.869099     0.706786
## 4466     1.676572  0.687162287  4.906601e-01     0.923181     0.875292
## 4467     1.834012  1.477509051  1.094954e+00     0.696309     0.588662
## 4468     1.613041  0.389573598  2.454930e+00     0.903607     0.839696
## 4469     1.602995  0.390703775  2.524209e+00     0.896220     0.745233
## 4470     1.712425  0.337762662  3.110731e+00     0.883942     0.734538
## 4471     1.656156  0.485367886  6.766690e-01     0.761367     0.739083
## 4472     1.542555  0.367208646  5.698258e-01     0.860305     0.785280
## 4473     2.465622  1.660608429  9.415413e-01     0.861332     0.578979
## 4474     1.594586  0.729461240  7.918125e-02     0.907186     0.697293
## 4475     1.709795  0.841286873  1.515402e+00     0.911840     0.695902
## 4476     1.679842  0.974125123  2.064435e-02     0.875181     0.714845
## 4477     1.745342  0.536545818  1.166364e+00     0.928159     0.693808
## 4478     1.645814  0.619332336  1.968187e+00     0.910065     0.821879
## 4479     1.507236  0.160990451  2.366912e+00     0.901575     0.703037
## 4480     1.588645  0.474595014  2.142850e+00     0.860106     0.771337
## 4481     1.907339  1.468493548  5.033916e-01     0.888361     0.725983
## 4482     1.747041  0.541892372  3.894488e-01     0.907288     0.791696
## 4483     1.594594  0.693445533  2.615644e-01     0.915488     0.869040
## 4484     1.436185  0.353677775  1.546212e+00     0.711623     0.580511
## 4485     1.539694  0.334007163  2.432207e+00     0.798488     0.613995
## 4486     1.669720  0.572735719  2.797923e-01     0.917907     0.845860
## 4487     1.700458  0.906836400  2.461583e+00     0.844834     0.711450
## 4488     1.742001  0.915330701  2.531328e-01     0.837251     0.699886
## 4489     1.648249  0.930914918  2.025213e+00     0.627682     0.582270
## 4490     1.570616  0.530147170  1.276883e+00     0.723699     0.589425
## 4491     1.603775  0.620987146  4.176293e-01     0.882131     0.796422
## 4492     1.658727  0.790648215  2.394892e+00     0.843132     0.724015
## 4493     2.084254  0.903818448  2.670178e+00     0.970155     0.893162
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## 4494     1.619034  0.509390721  6.877821e-01     0.881799     0.750396
## 4495     2.388586  2.022539714  1.363571e+00     0.765404     0.616994
## 4496     1.683134  0.712397974  6.944016e-01     0.680835     0.626655
## 4497     1.672731  0.651604581  2.843350e+00     0.698899     0.612741
## 4498     1.905018  0.800098180  2.776535e+00     0.952696     0.931752
## 4499     1.688391  0.400320356  2.719219e+00     0.807262     0.749885
## 4500     1.663851  0.553618487  5.703106e-01     0.887333     0.697463
## 4501     1.719034  0.655696318  5.137313e-01     0.904845     0.739534
## 4502     1.604411  0.851704647  2.892809e-01     0.936911     0.840105
## 4503     1.958464  1.090896149  3.278315e-01     0.827691     0.752702
## 4504     1.893940  1.186939393  9.394612e-01     0.893519     0.796562
## 4505     1.649090  0.521876541  1.041899e+00     0.794754     0.639917
## 4506     1.700767  0.634093188  2.344754e+00     0.931683     0.853433
## 4507     1.573940  0.380296283  2.184560e+00     0.940595     0.856388
## 4508     1.835686  1.370122475  1.808606e+00     0.615395     0.510892
## 4509     1.632244  0.673536038  5.808866e-01     0.844004     0.763981
## 4510     1.664002  0.392052947  1.100136e+00     0.925411     0.586412
## 4511     1.570090  0.448715593  2.187959e+00     0.943660     0.803830
## 4512     1.698883  0.588259378  2.107430e+00     0.683750     0.529273
## 4513     1.682652  0.809564428  3.391068e-01     0.706180     0.602280
## 4514     1.584284  0.479222492  1.097250e-01     0.912952     0.810384
## 4515     2.059859  1.261003404  7.096886e-01     0.942623     0.702769
## 4516     1.878370  0.799386045  1.854172e+00     0.940210     0.780561
## 4517     1.625541  0.283296705  2.030793e+00     0.825201     0.687779
## 4518     1.957828  1.458429338  1.356318e+00     0.898179     0.859502
## 4519     1.530796  0.180226262  2.723557e+00     0.833059     0.753685
## 4520     2.011058  0.736280144 -2.618431e-01     0.962575     0.838196
## 4521     1.514642  0.531861949  2.530282e+00     0.952307     0.675476
## 4522     1.663010  0.441665292  2.842013e+00     0.856674     0.826063
## 4523     1.754186  0.687131940  4.221376e-01     0.837568     0.712315
## 4524     1.563301  0.786566169 -1.216254e-01     0.853368     0.697283
## 4525     1.603186  0.484363911  2.309353e-01     0.865470     0.771020
## 4526     1.513107  0.388708505  1.877882e+00     0.850946     0.685185
## 4527     1.445842  0.422963901  2.795163e+00     0.818935     0.713802
## 4528     1.483109  0.207860476  3.475531e+00     0.859194     0.700396
## 4529     1.949858  1.190569794  1.740624e+00     0.846893     0.731912
## 4530     1.554523  0.701642232  1.485008e-01     0.870386     0.789200
## 4531     1.531875  0.356853480  2.015578e+00     0.747602     0.693117
## 4532     1.638048  0.552962512  2.375448e+00     0.901325     0.831267
## 4533     1.820104  1.292331402  3.989690e-01     0.747629     0.672847
## 4534     1.729728  0.911168266  4.011725e-01     0.914673     0.784943
## 4535     1.663691  0.762826304  3.512333e-01     0.951274     0.831245
## 4536     1.595611  0.477905172  2.646400e+00     0.830358     0.696163
## 4537     1.615199  0.389623182  3.913237e-01     0.856640     0.689893
## 4538     1.830039  0.838129076  2.705368e+00     0.904094     0.786736
## 4539     1.595003  1.037027880  1.577313e-01     0.759040     0.732915
## 4540     1.616167  0.597017992  4.808327e-01     0.862552     0.751772
## 4541     1.654872  0.880484890  2.075863e+00     0.956201     0.730492
## 4542     1.954596  1.335443859  9.859072e-01     0.743357     0.558344
## 4543     1.942954  1.160507547  1.805666e+00     0.759819     0.535403
## 4544     1.681326  0.653097652  2.293488e+00     0.852958     0.746810
## 4545     1.585226  0.375098206  2.947672e+00     0.832923     0.787822
## 4546     1.706663  0.696164103  9.897591e-01     0.895958     0.830564
## 4547     1.604500  0.294739503  2.090351e+00     0.904215     0.712543
## 4548     1.798342  1.005124720  4.689810e-01     0.838463     0.722958
## 4549     1.840929  1.172264236  2.008878e+00     0.818833     0.701772
## 4550     1.812730  0.763250496  1.409176e+00     0.891389     0.817353
## 4551     1.558526  0.385413211  1.815760e+00     0.910508     0.745761
## 4552     1.698941  0.579518367  2.015884e+00     0.803148     0.695368
## 4553     1.857024  0.911631078  8.031760e-01     0.785993     0.664927
## 4554     1.851798  1.005708040  5.316724e-01     0.821822     0.732446
## 4555     1.784905  0.597764273  8.570349e-01     0.966757     0.664373
## 4556     1.504922  0.590281057  2.621736e+00     0.852752     0.696476
## 4557     1.596280  0.392322279  1.778998e+00     0.897064     0.697010
## 4558     1.656380  0.827686477  3.033035e-01     0.817995     0.715539
## 4559     1.664118  0.340987139  3.068580e+00     0.975860     0.856324
## 4560     1.993243  1.021441530  5.816289e-01     0.809771     0.738159
## 4561     1.843288  1.383091537  2.540617e+00     0.795803     0.777246
## 4562     1.685259  0.815775593  3.357431e-01     0.949699     0.630478
## 4563     1.708506  1.078242881  1.363583e+00     0.862728     0.748273
## 4564     1.813386  1.209622235  4.421507e-01     0.915561     0.867040
## 4565     1.533977  0.333241666  2.748664e+00     0.679134     0.629058
## 4566     1.585612  0.625002571  1.527129e+00     0.832921     0.604173
## 4567     1.550771  0.406691731  2.614159e+00     0.895719     0.772508
## 4568     1.541439  0.454385942  2.370933e+00     0.742586     0.697371
## 4569     1.631524  0.646861308  1.054196e-01     0.932792     0.811176
## 4570     1.744507  0.212528512  2.048647e+00     0.897052     0.818989
## 4571     1.582155  0.517970073 -5.501178e-02     0.815413     0.763070
## 4572     1.540477  0.486382300  2.627717e+00     0.894019     0.817146
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## 4573     1.595093  0.729674948  5.022852e-01     0.926662     0.832121
## 4574     1.774878  1.059135349  2.342082e+00     0.934893     0.653150
## 4575     1.835161  1.252277634  1.074155e+00     0.861687     0.724779
## 4576     1.679622  0.625075686  4.980278e-01     0.820844     0.634988
## 4577     1.806804  1.084665630  2.262094e+00     0.869574     0.626224
## 4578     1.752757  0.951362293  1.596578e+00     0.811186     0.693833
## 4579     1.608979  0.647814116  1.708442e+00     0.957388     0.724609
## 4580     1.723576  0.708853280  2.843658e+00     0.909639     0.881377
## 4581     1.675768  1.062950320  2.903895e-01     0.912317     0.872807
## 4582     1.512606  0.646916146  2.518168e+00     0.760325     0.669133
## 4583     1.615966  0.573781042  2.361063e+00     0.815909     0.768298
## 4584     1.595290  0.810360905  9.582179e-01     0.912217     0.829721
## 4585     1.721035  0.840886746  4.153072e-01     0.888045     0.820564
## 4586     1.662011  0.508029824  4.502944e-01     0.857560     0.707153
## 4587     1.410055  0.664400320  2.946489e-01     0.855182     0.809869
## 4588     1.785026  0.634127477  6.668105e-01     0.836468     0.686731
## 4589     1.728433  0.749352854  2.894868e+00     0.863903     0.726510
## 4590     1.794890  0.845652962  1.512826e+00     0.812432     0.636510
## 4591     2.199640  1.354116126  5.189248e-01     0.937554     0.778011
## 4592     1.893470  0.653758416  2.873818e+00     0.953356     0.880311
## 4593     1.682294  0.370829397  1.750547e-01     0.847443     0.797191
## 4594     1.774463  0.873529850  2.347829e+00     0.937321     0.841260
## 4595     1.560539  0.352460378  2.513317e+00     0.761569     0.676380
## 4596     1.742167  0.476970673  2.391632e+00     0.807761     0.724895
## 4597     1.899636  1.297068590  6.616894e-01     0.942674     0.679466
## 4598     1.680995  0.382947705  2.811639e+00     0.940195     0.829884
## 4599     1.764940  1.170725107  5.888554e-01     0.882225     0.704620
## 4600     1.470041  0.401557341  1.627900e+00     0.925927     0.790250
## 4601     1.906396  1.113083936  5.375841e-01     0.938507     0.715739
## 4602     2.340835  1.620414039  1.014689e+00     0.861707     0.759381
## 4603     1.643656  0.958514192  4.300886e-01     0.905342     0.746398
## 4604     1.782890  0.409804675  1.485008e-01     0.874926     0.865460
## 4605     1.684296  0.685292885  2.475092e+00     0.895313     0.787957
## 4606     1.684467  0.646667360  3.318217e-01     0.943282     0.761843
## 4607     1.571628  0.397080994  6.880621e-01     0.858534     0.715274
## 4608     1.623360  0.424139764  9.803988e-02     0.912382     0.682829
## 4609     1.542036  0.404376954  2.123061e+00     0.873072     0.765279
## 4610     1.544767  0.395653083  2.392960e+00     0.834153     0.795486
## 4611     1.719664  0.851224705  5.611772e-01     0.942617     0.642564
## 4612     1.756364  0.672447924  4.439748e-01     0.750760     0.731139
## 4613     1.488710  0.369440370  2.758717e+00     0.770170     0.560125
## 4614     1.519053  0.443589955  2.634114e+00     0.882380     0.619304
## 4615     1.640276  0.481935409  1.881601e+00     0.742662     0.680087
## 4616     1.635397  0.607542946  6.979928e-01     0.798243     0.726154
## 4617     1.785691  1.780529726  7.537480e-01     0.681038     0.640921
## 4618     1.726695  0.441864737  7.418649e-02     0.920393     0.871913
## 4619     1.575868  0.415162058  2.902609e+00     0.634184     0.609092
## 4620     2.042434  1.095950031  6.397482e-01     0.948561     0.786642
## 4621     1.778625  1.075619946  2.495177e-01     0.886180     0.627263
## 4622     1.905474  1.175369731  2.223935e+00     0.949788     0.750351
## 4623     1.699833  0.750296210  8.684263e-01     0.830782     0.666988
## 4624     1.661236  0.481647544 -1.448193e-01     0.830001     0.762304
## 4625     1.434414  0.413430536  2.547210e+00     0.640456     0.599875
## 4626     1.757263  0.931267126  1.547701e+00     0.818461     0.723088
## 4627     1.679827  0.847152967  6.906860e-02     0.913847     0.710689
## 4628     1.755665  0.678562990  2.254326e+00     0.904432     0.882611
## 4629     1.854308  0.779386507  2.038530e+00     0.818362     0.622250
## 4630     2.254599  1.696849823  7.231700e-01     0.576121     0.551109
## 4631     1.868918  1.063164413  2.639136e+00     0.897907     0.873853
## 4632     1.657823  0.943164960 -6.142295e-02     0.902664     0.808581
## 4633     1.609407  0.784761320  6.850573e-01     0.950769     0.917658
## 4634     1.368233  0.030344656  2.395075e+00     0.708608     0.512089
## 4635     1.604588  0.497566791  1.068646e-01     0.922936     0.795458
## 4636     1.631571  0.906346896  4.753669e-01     0.965523     0.810049
## 4637     1.781712  0.757881681  8.472008e-01     0.949047     0.789459
## 4638     2.173775  1.364410272  7.082240e-01     0.965181     0.716672
## 4639     1.859776  1.148821598  8.765041e-01     0.851100     0.760814
## 4640     1.577620  0.406669598  1.741392e+00     0.901140     0.860267
## 4641     1.602747  0.600516592  1.476079e+00     0.824405     0.812433
## 4642     1.660593  0.719168811  1.967749e+00     0.942760     0.831174
## 4643     1.570173  0.518786276  2.889271e+00     0.755800     0.668738
## 4644     1.660435  0.596938899  5.604009e-01     0.937863     0.727476
## 4645     1.520499  0.429042945  3.179415e+00     0.835963     0.541163
## 4646     1.742846  0.826459663  7.637562e-01     0.783135     0.536817
## 4647     1.643699  0.432383961  2.302320e+00     0.836199     0.647080
## 4648     1.764806  0.764869254  3.342829e-01     0.812927     0.535517
## 4649     1.666186  1.088362926  5.126773e-01     0.894458     0.646518
## 4650     1.761253  0.557309860  1.846016e+00     0.729087     0.570076
## 4651     1.863328  0.898938986  4.676805e-01     0.949540     0.834852
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## 4652     1.686820  0.665003737 -3.120784e-02     0.970013     0.917201
## 4653     1.705771  0.557765777  1.015242e+00     0.982432     0.630620
## 4654     1.628285  0.714591264  2.865236e+00     0.937001     0.833242
## 4655     1.669262  0.991290329 -2.841801e-02     0.858091     0.681740
## 4656     1.828641  0.660466085  2.449765e+00     0.942645     0.890129
## 4657     1.703002  0.434972674  1.482857e+00     0.849120     0.806279
## 4658     1.515128  0.350883484  1.674865e+00     0.895554     0.644643
## 4659     1.721613  0.617903657  3.211827e-01     0.836844     0.673842
## 4660     1.714412  0.875723781  4.122838e-01     0.955733     0.811622
## 4661     1.690759  0.392081120  2.495334e+00     0.927252     0.855524
## 4662     1.895984  1.036009744  1.781492e-01     0.906812     0.790871
## 4663     1.486127  0.366587304  1.653199e+00     0.929761     0.692080
## 4664     2.193127  1.374480724  2.671755e+00     0.749773     0.687290
## 4665     1.594865  0.412692333  1.907940e+00     0.792488     0.685068
## 4666     1.629060  0.839359873  1.239928e+00     0.858099     0.734618
## 4667     1.681536  0.812440721  6.822016e-01     0.874660     0.787242
## 4668     2.034596  1.127797820  1.946815e+00     0.930069     0.700279
## 4669     1.523404  0.251241457  2.497375e+00     0.813557     0.749439
## 4670     1.562553  0.500752271  2.309725e+00     0.863438     0.698245
## 4671     1.674117  0.736553457  3.490954e-01     0.859767     0.670555
## 4672     1.740356  0.807875836  2.323103e+00     0.912071     0.867651
## 4673     1.922536  0.743807554  2.417447e+00     0.973257     0.832647
## 4674     1.893900  0.883988878  6.317785e-01     0.969653     0.764536
## 4675     1.840293  1.030891043  1.022450e+00     0.858895     0.756170
## 4676     1.614474  0.710454172  9.501316e-02     0.955386     0.725953
## 4677     2.261451  0.865581258  2.128594e+00     0.960942     0.826905
## 4678     1.562364  0.462236231  2.802378e+00     0.921605     0.802487
## 4679     1.646365  0.733804532  8.770863e-01     0.829137     0.671254
## 4680     1.540473  0.302581993  1.792964e+00     0.867949     0.857598
## 4681     1.554118  0.501152413  2.998174e+00     0.963239     0.790527
## 4682     1.596856  0.553002628  1.713265e+00     0.752422     0.637768
## 4683     1.778189  0.426446194  2.764594e+00     0.830038     0.755564
## 4684     1.592213  0.937423601  1.877443e+00     0.964406     0.789339
## 4685     1.793556  1.254915272  6.899189e-01     0.961517     0.829714
## 4686     1.650751  0.374137706  5.590423e-01     0.848581     0.757333
## 4687     2.068587  1.347294880  1.060164e+00     0.824691     0.661269
## 4688     1.659606  0.568349594  3.326599e+00     0.951654     0.697766
## 4689     1.900274  1.094582920  1.200375e+00     0.940189     0.764311
## 4690     1.913094  1.119744031  1.151865e+00     0.981396     0.847223
## 4691     1.588355  0.307091506  2.910264e+00     0.830471     0.717660
## 4692     1.698358  0.725025814  5.332137e-01     0.940060     0.758574
## 4693     1.515433  0.573400794  2.632071e+00     0.875214     0.717339
## 4694     1.984317  0.605121806  2.936606e+00     0.910050     0.871841
## 4695     1.598985  0.496459138  1.413353e+00     0.882665     0.769043
## 4696     1.853167  1.155943018  6.406803e-01     0.937542     0.668638
## 4697     1.654053  0.600615735  2.570192e+00     0.991723     0.711766
## 4698     1.725180  0.415535896  1.864712e+00     0.887922     0.769717
## 4699     1.693195  0.546848536  4.085294e-01     0.958899     0.772800
## 4700     1.561817  0.475697332  2.559019e+00     0.784039     0.691500
## 4701     1.933034  0.595513858  2.898425e+00     0.917057     0.823727
## 4702     1.497956  0.367331689  3.551911e-01     0.827462     0.728538
## 4703     1.608783  0.171439754  2.298155e+00     0.931997     0.786879
## 4704     1.691665  0.497504638  2.091263e+00     0.798515     0.602294
## 4705     1.607135  0.600355301  4.244475e-01     0.832303     0.742846
## 4706     1.888053  0.425754246  2.740336e+00     0.890224     0.841248
## 4707     1.616562  0.720132831  2.735623e+00     0.847784     0.725415
## 4708     1.600722  0.746419333  1.995567e+00     0.898197     0.689576
## 4709     1.558101  0.857346973  2.402488e+00     0.929830     0.714622
## 4710     1.509788  0.520708810  2.492974e+00     0.822930     0.545540
## 4711     1.849744  0.542918747  2.222649e+00     0.907119     0.795330
## 4712     1.628554  0.678455552  1.247289e+00     0.946143     0.853311
## 4713     1.748590  0.761754988  3.624305e-01     0.699872     0.533026
## 4714     1.531614  0.378207060  2.947911e+00     0.812328     0.722965
## 4715     1.671387  1.106806024  6.757823e-01     0.960821     0.863569
## 4716     1.609936  0.578194375  2.575984e+00     0.789151     0.728152
## 4717     2.487845  2.411665153  1.223943e+00     0.823750     0.612639
## 4718     1.590592  0.805956662  2.304489e-01     0.878476     0.770601
## 4719     1.652826  0.758976200  1.780926e+00     0.836202     0.674775
## 4720     1.644823  0.515701681  2.257591e+00     0.957510     0.718766
## 4721     1.595925  0.411991559  1.892448e+00     0.962355     0.816852
## 4722     1.766853  1.118598670  2.842746e-01     0.976048     0.665650
## 4723     1.717489  0.907444147  9.331277e-01     0.929697     0.902703
## 4724     1.815329  0.657113245  1.388722e+00     0.907526     0.705577
## 4725     1.536484  0.766148769  1.909699e+00     0.809925     0.677832
## 4726     1.684426  0.638087723  2.244716e+00     0.628866     0.504704
## 4727     2.092650  1.417189268  1.500907e+00     0.637858     0.608335
## 4728     1.570870  0.535644706  2.559809e-01     0.874603     0.810710
## 4729     1.699427  0.992218942  4.575292e-01     0.859829     0.665913
## 4730     1.787584  0.612753137  3.119142e+00     0.850386     0.809480
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## 4731     1.689734  0.518779699  1.817747e+00     0.832093     0.665649
## 4732     1.666485  0.418465364  1.307919e+00     0.906118     0.776181
## 4733     1.858725  1.016761820  6.024777e-02     0.966663     0.825981
## 4734     1.621378  0.613137504  1.654871e-01     0.886779     0.780816
## 4735     1.568279  0.397161055  1.477122e+00     0.942017     0.851879
## 4736     1.586147  0.391688290  2.056296e+00     0.925130     0.788427
## 4737     1.734517  0.970343621  8.674557e-01     0.865819     0.817917
## 4738     1.505237  0.489948641  2.399950e+00     0.936150     0.788897
## 4739     1.618604  0.761821882  3.246593e+00     0.896614     0.782149
## 4740     1.603676  0.662159793  2.357731e+00     0.889554     0.719467
## 4741     1.803521  0.932244380  3.758394e-01     0.936105     0.818527
## 4742     1.718651  0.832599594  1.348011e+00     0.731366     0.656257
## 4743     1.521993  0.229528264  2.644471e+00     0.666231     0.651568
## 4744     1.683448  0.736354266  5.211706e-01     0.931155     0.672469
## 4745     1.713379  0.500195295  1.611078e+00     0.996311     0.950180
## 4746     1.610546  0.745334041  2.759339e+00     0.873898     0.751079
## 4747     1.899917  0.546515519  2.168619e+00     0.869984     0.680773
## 4748     1.604971  0.585867760  2.819840e+00     0.970648     0.853068
## 4749     2.023133  1.029736752  2.000521e+00     0.946249     0.872898
## 4750     1.763609  1.130108520 -1.581766e-02     0.938651     0.884037
## 4751     1.494288  0.384815603  2.225249e+00     0.827784     0.749059
## 4752     1.664085  0.927101798  8.359135e-01     0.862488     0.632056
## 4753     1.674542  0.661983910  6.609862e-01     0.863406     0.645740
## 4754     1.665809  0.874578639  4.018842e-01     0.846722     0.641025
## 4755     1.925820  1.162624140  1.109548e+00     0.848931     0.802540
## 4756     1.764671  0.313396831  2.866589e+00     0.954140     0.885645
## 4757     1.842443  1.116415124  6.263789e-01     0.814360     0.696885
## 4758     1.641795  0.631914338  3.206625e-01     0.885939     0.681871
## 4759     2.258278  1.765146790  1.096742e+00     0.956690     0.696672
## 4760     1.753164  1.356194185  6.561534e-01     0.681077     0.633316
## 4761     1.741419  0.472858796  1.738886e+00     0.870311     0.562185
## 4762     1.555301  0.169439299  2.282976e+00     0.894012     0.710949
## 4763     1.706340  1.102293035  9.206675e-01     0.971556     0.671935
## 4764     1.606059  0.423896009  1.919682e+00     0.933644     0.746494
## 4765     1.532196  0.532075024  2.001627e+00     0.841774     0.749835
## 4766     1.888791  1.136470062  4.607874e-01     0.938907     0.813014
## 4767     1.888763  0.674513934  2.082054e+00     0.939387     0.894890
## 4768     2.048088  1.248608295  1.815185e+00     0.962190     0.832985
## 4769     1.676297  0.432385566  2.405797e-01     0.936335     0.905336
## 4770     1.832218  0.720829667  4.182881e-01     0.768369     0.719540
## 4771     1.684636  0.812645348  1.720087e-01     0.852019     0.631620
## 4772     1.771203  0.438274887  1.941464e+00     0.887215     0.851184
## 4773     1.570203  0.725612748  4.167200e-01     0.762638     0.722097
## 4774     1.737747  0.755437293  5.690153e-01     0.856490     0.707184
## 4775     1.774545  0.905894058  3.569540e-01     0.708994     0.589103
## 4776     2.594811  1.946411978  3.282348e+00     0.708149     0.587709
## 4777     1.896856  0.781935516  1.884262e+00     0.801897     0.655908
## 4778     1.449892  0.183941413  2.558489e+00     0.788911     0.715721
## 4779     1.550203  0.669137360  2.902565e+00     0.847964     0.743199
## 4780     1.587382  0.629849787  2.113820e+00     0.747109     0.648578
## 4781     1.944731  1.143327130  5.828504e-01     0.925573     0.698314
## 4782     1.620940  0.550353118  2.605497e+00     0.945924     0.825101
## 4783     2.047224  1.289970019  3.367061e-01     0.891974     0.717834
## 4784     1.811155  0.456942685  2.762782e+00     0.647073     0.569541
## 4785     1.639776  0.927562314  2.738434e+00     0.881028     0.794505
## 4786     1.645513  0.547842366  5.027284e-01     0.962249     0.785261
## 4787     1.795506  1.151406627  1.671753e+00     0.920702     0.702080
## 4788     1.746887  0.600926089  2.936394e-01     0.911125     0.819708
## 4789     1.865458  0.991360775  7.430510e-01     0.980136     0.638954
## 4790     1.715345  0.995874649  6.454925e-01     0.894475     0.814087
## 4791     1.758754  0.427187388  2.387487e+00     0.884952     0.777064
## 4792     1.700316  0.435103460  2.334506e+00     0.888790     0.775931
## 4793     1.760522  0.855140421  8.645177e-01     0.835468     0.630278
## 4794     1.767510  0.748946604  2.811420e+00     0.843499     0.683177
## 4795     1.615963  0.595459845  1.054196e-01     0.879434     0.800206
## 4796     1.743371  1.369065499  1.559823e+00     0.768628     0.613322
## 4797     1.731728  0.473869273  3.242773e-01     0.840124     0.650351
## 4798     1.730826  0.619122561  1.388380e+00     0.626115     0.587113
## 4799     1.650856  0.544353344  1.716554e+00     0.939070     0.660443
## 4800     1.686086  0.642429894  5.800923e-01     0.908380     0.793340
## 4801     1.633568  0.393199530  6.198172e-01     0.728577     0.688336
## 4802     1.638785  0.452061044  1.250625e-01     0.846036     0.840421
## 4803     2.101843  1.442432731  4.436510e-01     0.895353     0.804876
## 4804     1.610644  0.631342286 -1.352187e-01     0.966613     0.872227
## 4805     1.694251  0.712704406  5.872207e-01     0.949844     0.683319
## 4806     1.558622  0.559628971  2.652988e+00     0.699412     0.655352
## 4807     1.554918  0.560042994  1.330875e+00     0.801737     0.719117
## 4808     1.898796  0.775036349  1.564695e+00     0.855596     0.788813
## 4809     1.908827  1.385597337  6.865649e-01     0.918592     0.686128
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## 4810     2.039989  1.660505946  8.391266e-01     0.778204     0.694791
## 4811     2.007680  0.915307478  1.987777e+00     0.918998     0.701580
## 4812     1.669665  0.456780389  1.440416e+00     0.889006     0.650520
## 4813     1.680517  0.713124136  1.043340e+00     0.718134     0.579224
## 4814     1.658171  0.524181843  3.278315e-01     0.925676     0.800832
## 4815     1.607140  0.501776557  5.929610e-01     0.931123     0.815414
## 4816     1.666363  0.525235336  2.414419e+00     0.945660     0.915613
## 4817     1.930079  0.891208964  2.403977e+00     0.837474     0.712923
## 4818     1.610242  0.478039540  2.987026e+00     0.830012     0.770296
## 4819     1.732293  0.912715076  4.880675e-01     0.816625     0.681664
## 4820     1.642352  0.278392301  2.077936e+00     0.979690     0.814908
## 4821     1.542102  0.259197147  2.882240e+00     0.912281     0.651199
## 4822     1.916922  1.073787978  8.919861e-01     0.832438     0.745313
## 4823     1.589565  0.489049587  1.816840e+00     0.875428     0.843860
## 4824     1.772092  0.613272957  6.371638e-01     0.818322     0.678420
## 4825     1.679917  0.446950141  5.897418e-01     0.884121     0.721080
## 4826     1.894201  1.378541431  2.479693e+00     0.952927     0.939770
## 4827     1.740240  0.666584430  1.809949e+00     0.848906     0.796552
## 4828     1.704561  1.571751910  1.303833e+00     0.558964     0.538790
## 4829     1.613557  0.622455461  1.059160e+00     0.879080     0.706823
## 4830     1.650062  0.638325492  8.370366e-01     0.892504     0.781572
## 4831     1.647432  0.573001639  7.945563e-01     0.711317     0.650177
## 4832     2.028079  1.104981898  5.150081e-01     0.965946     0.746498
## 4833     1.547038  0.753874023  2.610125e+00     0.952748     0.777146
## 4834     1.651586  1.075619946  1.177063e+00     0.836566     0.744564
## 4835     1.589743  0.472497550  2.469187e+00     0.833948     0.773173
## 4836     1.605504  0.500362737  1.964459e+00     0.905042     0.716470
## 4837     1.656037  0.506331821  2.147062e-01     0.943048     0.821563
## 4838     1.791903  0.504353947  1.715149e+00     0.952255     0.854129
## 4839     1.644749  0.481528619  2.429066e+00     0.807808     0.669743
## 4840     1.649904  0.489390292  1.898014e+00     0.925744     0.779244
## 4841     1.597955  0.540582218  2.762071e+00     0.858778     0.749667
## 4842     1.505466  0.418004477  2.715725e+00     0.792666     0.638534
## 4843     1.763964  0.967679929  8.265653e-01     0.673086     0.654115
## 4844     1.490936  0.569514360  2.964920e+00     0.834198     0.690041
## 4845     1.700605  0.458868908  2.035111e+00     0.972424     0.849122
## 4846     1.589734  0.569454674  2.551214e+00     0.748342     0.592482
## 4847     1.817015  0.605542065  1.721096e-02     0.975688     0.692629
## 4848     1.680613  0.404625068  1.207896e-01     0.982333     0.776405
## 4849     1.603236  0.408090651  1.473178e-01     0.841251     0.663281
## 4850     1.744082  0.607048419  3.680694e-01     0.935154     0.814900
## 4851     1.798435  0.526624836  1.314504e+00     0.984505     0.753071
## 4852     1.741568  1.222349636  3.867957e-01     0.786046     0.589638
## 4853     1.884759  1.221335980  2.922799e-01     0.891105     0.669001
## 4854     1.892062  1.038063527  5.243956e-01     0.925331     0.747335
## 4855     1.828981  1.282220936  9.418287e-01     0.803826     0.711361
## 4856     1.607712  0.565023293  1.842617e+00     0.858030     0.816059
## 4857     2.262188  1.975682202  1.475337e+00     0.833622     0.738535
## 4858     1.605067  0.679268868  2.330990e+00     0.888267     0.781438
## 4859     1.686742  0.490393961  1.599768e-01     0.972561     0.769628
## 4860     1.884807  0.810343430  2.403030e+00     0.856182     0.687879
## 4861     1.571150  0.460597189  2.079490e+00     0.835172     0.768172
## 4862     1.922584  0.933043656  1.893931e+00     0.957003     0.833282
## 4863     1.776133  0.401970609  2.138431e+00     0.886066     0.846428
## 4864     1.889668  1.127474116  5.422355e-01     0.940489     0.576934
## 4865     1.535349  0.517989838  2.395356e+00     0.931522     0.912727
## 4866     1.699943  0.643848296  4.868786e-01     0.907121     0.778550
## 4867     1.686516  0.838982506  3.787309e-01     0.815297     0.782408
## 4868     1.623325  0.649555845  2.812751e+00     0.828770     0.713610
## 4869     1.611467  0.455205860  1.626641e+00     0.987203     0.789861
## 4870     1.590277  0.604868377  2.157772e+00     0.878363     0.823625
## 4871     1.533569  0.550239363  2.659421e+00     0.810355     0.795107
## 4872     2.024486  0.825942550  2.143924e+00     0.918600     0.723756
## 4873     1.631978  0.673921756  6.064687e-01     0.873096     0.673739
## 4874     2.551828  1.696616713  1.343164e+00     0.754146     0.490842
## 4875     1.660224  0.447223171  2.734463e+00     0.846180     0.767399
## 4876     1.834683  0.628529925  1.429516e+00     0.815538     0.723881
## 4877     1.722348  0.641562349  1.425877e+00     0.804130     0.671064
## 4878     1.639554  0.854098867  4.544983e-01     0.855057     0.761197
## 4879     1.722267  0.641606957  2.046131e+00     0.843426     0.768416
## 4880     1.713075  0.770713604  2.054147e+00     0.935232     0.881134
## 4881     1.735870  0.526440084  1.911149e+00     0.967153     0.625970
## 4882     1.793655  1.486198037  1.085962e+00     0.940836     0.727042
## 4883     1.796064  0.575631153  2.155544e+00     0.727250     0.686187
## 4884     1.822866  0.646037902  1.138554e+00     0.926268     0.828944
## 4885     1.696525  1.047457895  4.269886e-01     0.904204     0.703049
## 4886     1.610590  1.068579147  5.455229e-01     0.798038     0.639827
## 4887     1.694185  0.892503093  4.270675e-01     0.970369     0.897762
## 4888     1.716776  0.837055343  2.559809e-01     0.796144     0.698492
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## 4889     1.982054  0.922725977  5.658676e-01     0.890965     0.611732
## 4890     1.937712  0.889135798  5.125187e-01     0.970803     0.759820
## 4891     1.683981  0.978621438  2.910854e-01     0.872721     0.784788
## 4892     1.764558  0.522086739  3.795178e-01     0.959604     0.834667
## 4893     1.680247  1.148624246  7.987839e-01     0.856211     0.683587
## 4894     1.697160  0.404847395  2.382847e-01     0.877096     0.849069
## 4895     1.826935  1.127898119  7.361543e-01     0.941458     0.849903
## 4896     1.520910  0.506643011  2.542098e+00     0.776219     0.678146
## 4897     2.006128  1.291726175  7.122035e-01     0.962692     0.773157
## 4898     1.565963  0.464674314  2.352980e+00     0.855872     0.723301
## 4899     1.549614  0.555419745  3.305194e+00     0.989634     0.935913
## 4900     1.489530  0.626214065  2.721911e+00     0.963256     0.847181
## 4901     1.749410  0.587984697  5.103479e-02     0.920599     0.809117
## 4902     1.586366  0.322508728  1.796904e+00     0.938126     0.792942
## 4903     1.982424  1.181211687  1.730935e+00     0.858549     0.727023
## 4904     1.801219  1.056355922  5.639206e-01     0.939014     0.669080
## 4905     1.648724  0.564156920  2.618709e+00     0.814982     0.661622
## 4906     1.485791  0.423850188  2.038710e+00     0.840498     0.771716
## 4907     1.856847  0.469418450  1.678466e+00     0.876469     0.689304
## 4908     1.661691  0.396213300  2.318317e+00     0.863696     0.685680
## 4909     1.770098  0.912600902  1.269462e+00     0.873881     0.838679
## 4910     1.801686  0.723938956  4.436831e-01     0.810488     0.752410
## 4911     2.035590  1.467192108  4.500253e-01     0.874151     0.773604
## 4912     1.525016  0.305415864  2.369883e+00     0.908827     0.739964
## 4913     1.545579  0.537103493  6.906860e-02     0.923776     0.846650
## 4914     1.765061  0.523164851  9.650550e-01     0.739912     0.632831
## 4915     1.756705  0.870100027  7.058603e-01     0.917853     0.685130
## 4916     1.951036  1.166347214  1.150907e+00     0.909095     0.574443
## 4917     1.644746  1.111171746  1.191755e+00     0.877863     0.831958
## 4918     1.577711  0.689924783  2.310303e+00     0.896997     0.817934
## 4919     1.728549  0.643445767  3.898852e-01     0.895220     0.822278
## 4920     1.610507  0.735299421  2.837061e+00     0.840656     0.806733
## 4921     1.711041  0.729810889  9.330978e-01     0.850525     0.755556
## 4922     1.749382  0.550239363  2.545321e+00     0.789344     0.721426
## 4923     2.010304  1.096287658  4.528266e-01     0.955401     0.785771
## 4924     1.729856  0.676752121  1.712425e+00     0.987077     0.709988
## 4925     1.832649  0.754245867  1.259623e+00     0.863464     0.693480
## 4926     1.593814  0.545778274 -1.948279e-01     0.965945     0.940252
## 4927     1.631603  0.233501224  2.923344e+00     0.749231     0.627786
## 4928     1.723918  0.565230162  2.838698e+00     0.910645     0.834821
## 4929     1.726404  1.001456783  5.785445e-01     0.892462     0.700559
## 4930     1.749354  1.107315138  6.623378e-01     0.850538     0.652209
## 4931     1.678318  0.679454244  7.858040e-01     0.992998     0.925456
## 4932     1.563208  0.924417308  2.973498e+00     0.895837     0.622700
## 4933     1.627412  0.749813585  3.948376e-01     0.863663     0.708845
## 4934     1.780542  0.584469181  2.612972e+00     0.734829     0.529425
## 4935     1.567118  0.542238920  7.214586e-01     0.897894     0.841811
## 4936     1.685258  0.587419093  7.146892e-01     0.813265     0.682314
## 4937     1.623909  0.539710759  2.869092e+00     0.793456     0.745164
## 4938     1.549838  0.504568721  2.600744e+00     0.856956     0.752246
## 4939     1.740882  0.467196552  2.612097e+00     0.941166     0.800633
## 4940     1.774856  0.764699064  3.054175e+00     0.951011     0.801469
## 4941     1.530104  0.420119197  2.155275e+00     0.858683     0.719629
## 4942     1.767907  0.707477346  1.999404e+00     0.763101     0.743550
## 4943     1.719081  0.963125023  2.064435e-02     0.876808     0.839296
## 4944     1.745587  0.585285848  2.570435e+00     0.765301     0.741438
## 4945     1.794519  0.773378280  2.352410e+00     0.963718     0.884213
## 4946     2.076568  1.493215392  7.901407e-01     0.910780     0.841420
## 4947     1.687664  0.462832075  7.951869e-01     0.865149     0.835714
## 4948     1.567515  0.495874442  1.548755e+00     0.725220     0.701624
## 4949     1.457948  0.628521753  2.809321e+00     0.725985     0.587480
## 4950     1.839871  1.286786444  7.906044e-01     0.881028     0.680079
## 4951     1.928352  1.197897783  1.241751e+00     0.875882     0.809435
## 4952     1.577646  0.437463580  2.922799e+00     0.965395     0.679424
## 4953     1.763301  0.994669461  3.604365e-01     0.923052     0.815509
## 4954     1.681984  0.861465109  3.463576e-01     0.954270     0.698453
## 4955     1.681296  0.443460136  2.841835e+00     0.978124     0.834532
## 4956     1.690026  1.280710369  7.496635e-01     0.954516     0.785292
## 4957     1.772784  1.155071736  2.928746e-01     0.904523     0.692059
## 4958     1.682679  0.697909902 -1.549020e-01     0.921966     0.825208
## 4959     1.787140  0.748996922  5.882624e-01     0.896117     0.717341
## 4960     1.574431  0.381950362  2.771023e+00     0.785475     0.673909
## 4961     1.768623  0.670534359  3.660143e-01     0.939812     0.612342
## 4962     1.676412  1.130356287  7.472419e-01     0.943552     0.817956
## 4963     1.664291  0.568674495  4.645267e-01     0.875614     0.599618
## 4964     1.659780  0.659251421  2.861562e+00     0.959829     0.888826
## 4965     1.536936  0.627922707  2.296765e+00     0.795498     0.741643
## 4966     1.594858  0.577541201  6.733419e-02     0.961716     0.904133
## 4967     1.604593  0.371551785  2.631614e+00     0.882503     0.690944
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## 4968     1.585929  0.356849661  1.989744e+00     0.894345     0.783706
## 4969     1.626472  0.913048396  2.800197e-01     0.880423     0.743967
## 4970     1.568081  0.295650652  1.246743e+00     0.710705     0.406908
## 4971     1.975101  0.751815481  2.148607e+00     0.915830     0.817161
## 4972     1.727753  0.615236508  7.992849e-01     0.709406     0.675121
## 4973     1.538449  0.520161131 -5.501178e-02     0.892979     0.715602
## 4974     1.696493  0.974865708  1.173354e+00     0.849380     0.816095
## 4975     1.807115  0.881077517  4.514236e-01     0.962747     0.805174
## 4976     1.650823  0.936053569  2.940591e-01     0.880738     0.581889
## 4977     1.527041  0.441159201  2.333995e+00     0.899747     0.757399
## 4978     1.601284  0.545116529  2.951793e+00     0.952094     0.872258
## 4979     1.642859  0.538235566  1.807484e+00     0.920884     0.880899
## 4980     1.708846  1.051804440  2.109681e+00     0.804976     0.742261
## 4981     2.171960  0.947043368  8.901264e-01     0.975386     0.833791
## 4982     1.703105  1.049438991  4.868786e-01     0.903275     0.851465
## 4983     1.866844  0.901388567  6.406803e-01     0.848140     0.644944
## 4984     1.542402  0.359298446  2.483441e+00     0.686897     0.550519
## 4985     1.540902  0.335399723  2.569207e+00     0.928006     0.745909
## 4986     1.765619  1.302737754  8.527388e-01     0.786956     0.606633
## 4987     1.934926  0.890513793  2.377272e+00     0.872340     0.744794
## 4988     1.620952  0.523994750  2.028832e+00     0.910585     0.869318
## 4989     1.687167  0.737767345  4.141242e-02     0.821018     0.668727
## 4990     1.873190  0.669593922  1.808452e-01     0.953949     0.825029
## 4991     1.804267  0.808982966  1.351168e+00     0.761358     0.628175
## 4992     1.824178  0.904517012  1.619907e+00     0.759123     0.717815
## 4993     1.544262  0.553139966  2.966583e+00     0.875950     0.740779
## 4994     1.501392  0.356264940  2.801356e+00     0.921652     0.670566
## 4995     1.736782  1.435140136  3.034764e+00     0.918258     0.777326
## 4996     1.730450  0.779967863  9.648228e-01     0.869680     0.641100
## 4997     1.662375  0.759175869  9.081161e-01     0.857253     0.710037
## 4998     1.759214  0.424337612  1.877766e+00     0.883081     0.758275
## 4999     1.704686  1.118201876  1.057880e+00     0.821179     0.560778
## 5000     1.684850  0.666721976  2.996666e+00     0.882647     0.777901
## 5001     1.659151  0.575610383  2.853351e+00     0.915481     0.865054
## 5002     1.946414  1.025137851  2.246016e+00     0.968286     0.932630
## 5003     1.666157  0.571310449  1.312966e-01     0.852741     0.719497
## 5004     1.762243  1.200426389  1.528657e+00     0.808962     0.577092
## 5005     1.753596  0.981079361  4.980278e-01     0.856831     0.661735
## 5006     1.610958  0.712360075  2.288462e-01     0.849328     0.604806
## 5007     1.574413  0.283086290  2.939350e+00     0.871212     0.722155
## 5008     1.861190  0.756664249  2.423250e+00     0.856244     0.786309
## 5009     1.561553  0.518617895  3.322715e+00     0.746254     0.654910
## 5010     1.767471  0.719958241  1.464738e-01     0.909248     0.758290
## 5011     1.943299  1.456490533  1.012651e+00     0.771748     0.737766
## 5012     1.715023  0.542573986  2.038827e+00     0.791183     0.652444
## 5013     1.908231  0.834420704  1.857418e+00     0.847844     0.740681
## 5014     1.643183  0.455498096  7.427620e-01     0.933097     0.641188
## 5015     1.462609  0.436501360  2.515818e+00     0.976011     0.772539
## 5016     1.638453  0.469018933  1.517224e+00     0.854097     0.761656
## 5017     1.833477  0.903912738  1.961317e+00     0.956256     0.685213
## 5018     1.523757  0.205815844  1.775418e+00     0.846840     0.522515
## 5019     1.696663  0.548544189  7.284890e-01     0.603668     0.493529
## 5020     1.648370  0.523086723  2.264155e+00     0.776861     0.621118
## 5021     1.734469  1.105183063  5.799210e-01     0.961677     0.774226
## 5022     1.524484  0.635627483  1.988021e+00     0.851991     0.770758
## 5023     1.645366  0.920507340  1.815836e+00     0.887978     0.755857
## 5024     1.691693  0.985793246  4.694989e-01     0.916943     0.559277
## 5025     1.583497  0.406541884  1.132293e+00     0.687302     0.573088
## 5026     1.892873  0.986349323  3.064873e+00     0.746282     0.657565
## 5027     1.595568  0.886598439  1.172343e-02     0.960194     0.862873
## 5028     1.549562  0.680261160  1.496700e+00     0.757021     0.613463
## 5029     1.638282  0.347778717  1.694824e+00     0.902593     0.767245
## 5030     1.754538  0.412438706  1.750547e-01     0.894334     0.752947
## 5031     1.718228  1.076775116  5.563094e-01     0.898953     0.765091
## 5032     1.523653  0.493550059  2.360593e+00     0.859937     0.659333
## 5033     1.739055  0.767593652  7.124667e-01     0.949271     0.805401
## 5034     1.870723  0.835406444  2.937635e+00     0.941575     0.759346
## 5035     1.580736  0.517879143  8.981199e-01     0.947729     0.699918
## 5036     1.688414  1.420035004  1.576648e+00     0.859496     0.641714
## 5037     1.638978  0.470259035  1.729341e+00     0.880361     0.788209
## 5038     2.162588  1.222856879  6.009435e-01     0.940438     0.753376
## 5039     1.502786  0.530487851  2.762323e+00     0.884462     0.611551
## 5040     1.701172  0.914621841  3.466112e-01     0.889971     0.610102
## 5041     1.488518  0.427539662  2.037796e+00     0.676536     0.504107
## 5042     1.643726  0.384885426  2.813412e+00     0.943922     0.850889
## 5043     1.740075  0.902427726  4.519859e-01     0.919595     0.695226
## 5044     1.600967  0.428291954  3.723453e-01     0.919712     0.649193
## 5045     1.724061  0.428351887  3.323153e-01     0.927118     0.859365
## 5046     1.631910  0.343103200  2.423356e+00     0.897550     0.773698
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## 5047     2.031089  1.219236008  6.657786e-01     0.828088     0.750995
## 5048     1.628454  0.626113407  2.015637e+00     0.868925     0.820206
## 5049     1.660228  0.546566105  1.468622e+00     0.815150     0.710189
## 5050     1.624623  0.365555370  2.688261e+00     0.927904     0.832598
## 5051     1.630146  0.855260440  4.661094e-01     0.928755     0.755012
## 5052     1.803976  0.818479268 -1.655188e-01     0.968660     0.878850
## 5053     1.736379  0.749635844  5.743087e-01     0.883699     0.833538
## 5054     1.528100  0.351382680 -7.368693e-03     0.982155     0.890835
## 5055     1.625085  0.577765158  1.425177e-01     0.894666     0.850385
## 5056     1.754261  1.380538649  9.589618e-01     0.714640     0.562347
## 5057     2.133315  1.401097118  2.121250e+00     0.890054     0.620811
## 5058     1.697454  0.799981178  8.790540e-01     0.820899     0.678750
## 5059     1.572656  0.382917135  2.093141e+00     0.785234     0.630656
## 5060     1.625496  0.667262382  1.833326e+00     0.829223     0.607040
## 5061     1.798065  0.995709764  4.859227e-01     0.915505     0.682179
## 5062     1.955350  1.304063779  3.961227e-01     0.915998     0.622911
## 5063     1.900713  1.403731194  8.353498e-01     0.565590     0.487592
## 5064     1.603959  0.666046928  2.577907e+00     0.902391     0.842100
## 5065     1.749002  1.078202983  8.826345e-01     0.670138     0.631083
## 5066     1.758907  0.761029016  2.752698e+00     0.934149     0.779884
## 5067     1.721094  1.219828061  1.492720e+00     0.800611     0.632605
## 5068     1.818011  1.180524417  3.726024e-01     0.850604     0.700665
## 5069     1.694921  0.590989991  5.556120e-01     0.948820     0.802232
## 5070     1.659985  0.435551341  1.247920e-01     0.937786     0.680698
## 5071     1.755424  0.606143728  2.371637e+00     0.830261     0.793394
## 5072     1.698396  0.997482495  8.765818e-01     0.856075     0.772798
## 5073     1.583811  0.310342762  2.763454e+00     0.704886     0.625952
## 5074     1.981748  0.695151452  2.552539e+00     0.949996     0.922745
## 5075     1.499677  0.330853933  8.338867e-01     0.850674     0.793496
## 5076     1.983053  0.903667757  1.052615e+00     0.904284     0.721237
## 5077     1.586523  0.590994446  2.274046e+00     0.858999     0.782071
## 5078     1.893172  1.314347630  6.928570e-01     0.817286     0.580545
## 5079     1.512843  0.352745770  4.769780e-03     0.817149     0.637003
## 5080     1.445098  0.569937775  2.256178e+00     0.607812     0.568285
## 5081     1.804992  1.650213270  1.139039e+00     0.581581     0.534237
## 5082     1.621904  0.648501500  6.119879e-01     0.748069     0.742160
## 5083     1.773931  0.490872487  2.404180e+00     0.865284     0.651275
## 5084     1.533886  0.409862143  2.607088e+00     0.874756     0.759322
## 5085     1.738562  0.892529793  5.285560e-01     0.947304     0.817639
## 5086     1.779901  1.032042273  3.419521e-01     0.935969     0.834557
## 5087     2.068449  1.229174827  1.766984e+00     0.576337     0.507738
## 5088     1.664976  1.248350963  7.377884e-01     0.916508     0.837635
## 5089     1.619202  0.296498459  1.114357e+00     0.795954     0.619125
## 5090     1.693079  0.831915184  1.121238e+00     0.879764     0.662609
## 5091     1.686454  0.662353561  1.290333e+00     0.919207     0.739127
## 5092     1.638423  0.574489641  4.335739e-02     0.976914     0.840131
## 5093     1.814348  0.564411567  1.837641e+00     0.861157     0.699795
## 5094     1.652810  1.173063833  2.690082e-01     0.858727     0.739700
## 5095     1.655485  0.550151274  1.106754e+00     0.888483     0.736027
## 5096     1.574502  0.499369492  8.565941e-02     0.971665     0.867189
## 5097     1.753724  0.783862148  2.395571e+00     0.894734     0.837948
## 5098     1.632318  1.052963129  8.056947e-01     0.798446     0.724372
## 5099     1.576156  0.522338581  2.406149e+00     0.898145     0.734113
## 5100     1.666748  0.664151002  6.573401e-01     0.912993     0.601090
## 5101     2.086520  1.859004925  1.100591e+00     0.814025     0.563457
## 5102     1.571327  0.350015298  2.603290e+00     0.906076     0.678979
## 5103     1.666307  0.416292600  9.988123e-01     0.866647     0.861972
## 5104     2.072691  1.484622948  1.010990e+00     0.713680     0.535372
## 5105     1.619405  0.876367970  1.771228e-01     0.957585     0.847486
## 5106     2.149447  1.682729761  1.157274e+00     0.874765     0.666205
## 5107     1.665333  0.540484642  2.770269e+00     0.810351     0.701411
## 5108     1.599136  0.531726650  2.053303e+00     0.939994     0.812731
## 5109     1.895218  1.062017599  1.060979e+00     0.886746     0.757417
## 5110     1.716331  0.472433167  1.811598e+00     0.964963     0.740433
## 5111     1.763449  0.925111919  1.016221e+00     0.771557     0.594749
## 5112     1.805851  0.550636765  2.069744e+00     0.949191     0.917358
## 5113     1.786483  1.079467063  5.122542e-01     0.777655     0.662844
## 5114     1.554261  0.235450166  1.538092e+00     0.673925     0.522867
## 5115     2.022461  1.911313714  1.623294e+00     0.786269     0.666808
## 5116     1.879228  0.612653549  3.355562e+00     0.876526     0.741923
## 5117     1.676016  0.514793385  1.536882e+00     0.963632     0.844218
## 5118     1.582362  0.557044992  2.337344e+00     0.865701     0.722641
## 5119     1.587941  0.494477411  1.697862e+00     0.822489     0.797312
## 5120     1.541872  0.421375204  2.150363e+00     0.710773     0.648384
## 5121     1.701701  0.781980719  1.537956e+00     0.848590     0.593999
## 5122     1.636080  0.661223765  2.793876e-01     0.741461     0.727033
## 5123     1.526914  0.328057331  2.734092e+00     0.779739     0.766807
## 5124     1.655010  0.506618665  2.656004e+00     0.907824     0.773376
## 5125     1.861881  0.481150134  1.666820e+00     0.909488     0.795037
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## 5126     1.769651  0.913671359  1.028540e+00     0.962549     0.780839
## 5127     1.507186  0.433568236  2.964084e-01     0.936759     0.894491
## 5128     2.171290  0.769377326  1.717889e+00     0.660466     0.579548
## 5129     1.621711  0.709933619 -6.142295e-02     0.967618     0.868149
## 5130     1.849147  0.589772051  2.496464e+00     0.873774     0.820583
## 5131     1.576142  0.516322471  4.812469e-01     0.770918     0.689586
## 5132     1.691554  0.555391941  5.070329e-01     0.939211     0.829507
## 5133     1.833391  1.071078925  4.720701e-01     0.868498     0.787051
## 5134     1.588925  0.540091612  5.543983e-01     0.890986     0.727342
## 5135     1.629258  0.711921058  3.826985e-01     0.981970     0.807914
## 5136     1.705028  0.963129751  2.588776e+00     0.954077     0.798342
## 5137     1.749172  0.808777955  2.767896e+00     0.833360     0.734526
## 5138     1.755475  1.023367707  3.507186e-01     0.893229     0.745793
## 5139     1.655482  0.822588435  4.335181e-01     0.957552     0.783644
## 5140     1.497134  0.405385638  2.300853e+00     0.700727     0.600296
## 5141     1.854016  0.583780090  2.253056e+00     0.935590     0.902299
## 5142     1.656684  0.853920776  8.338867e-01     0.864662     0.664943
## 5143     1.769695  1.171697207  3.247325e-01     0.965234     0.707502
## 5144     1.848818  0.933564219  1.862172e+00     0.834394     0.772697
## 5145     1.540087  0.316815034  3.029089e+00     0.901909     0.769350
## 5146     1.597060  0.525799952  2.312556e+00     0.952729     0.671929
## 5147     1.610133  1.044382947  4.618625e-01     0.907670     0.600352
## 5148     1.842314  1.856686002  1.536737e+00     0.773489     0.651871
## 5149     1.886189  0.779714067  2.057703e+00     0.894617     0.785402
## 5150     1.661917  0.505771118  3.872190e-01     0.888613     0.711498
## 5151     1.665333  0.669059203  2.531328e-01     0.917010     0.757245
## 5152     1.457576  0.349491222  2.807085e+00     0.909870     0.698377
## 5153     2.110647  1.300003849  4.105855e-01     0.888512     0.789716
## 5154     1.890733  0.708442147  1.737456e+00     0.904751     0.637405
## 5155     1.603346  0.513606426  2.170892e+00     0.661809     0.578198
## 5156     1.712379  0.756626221  1.139434e-01     0.848717     0.688908
## 5157     1.651326  0.410238881 -6.142295e-02     0.955526     0.855417
## 5158     1.588148  1.030279853  2.448720e+00     0.701188     0.637111
## 5159     1.612394  0.522283789  4.854431e-01     0.874899     0.665590
## 5160     1.568307  0.452580637  1.926600e+00     0.692535     0.657072
## 5161     1.511652  0.223186919  1.310530e+00     0.956347     0.811185
## 5162     1.658055  1.188295555  1.569984e+00     0.887591     0.776954
## 5163     1.819528  0.930054574  4.519859e-01     0.902109     0.759938
## 5164     1.715278  0.438505958  4.037800e-01     0.835581     0.789639
## 5165     1.777633  0.482570615  2.352440e+00     0.926308     0.868059
## 5166     1.848866  0.862101550  7.655196e-01     0.767365     0.685177
## 5167     1.652251  0.373922952  2.538399e+00     0.788474     0.721300
## 5168     1.891392  0.578348055  2.240077e+00     0.934142     0.912220
## 5169     1.650729  0.622906890  2.473184e-01     0.932053     0.637784
## 5170     1.707097  0.958528049  3.829472e-01     0.823545     0.632673
## 5171     1.782446  0.524972202  2.522501e+00     0.900806     0.820794
## 5172     2.142593  0.465126959  1.541084e+00     0.696299     0.647387
## 5173     1.596360  0.466412336  2.592906e+00     0.841453     0.783342
## 5174     1.601672  0.632708280  2.509771e+00     0.880881     0.717891
## 5175     1.638900  0.533638624  4.365585e-01     0.883635     0.725525
## 5176     1.876531  0.909378959  2.735815e+00     0.911348     0.752968
## 5177     1.899402  0.867160368  3.222245e-01     0.921752     0.778656
## 5178     1.811455  0.443283332  2.097317e+00     0.862667     0.718042
## 5179     1.512193  0.648181377  3.055193e+00     0.691233     0.629428
## 5180     1.793526  0.801582742  8.787465e-01     0.933796     0.656413
## 5181     1.778110  0.747767488  5.235939e-01     0.904174     0.748786
## 5182     1.625701  0.413671857  3.287868e+00     0.917769     0.775129
## 5183     1.609118  0.503309834  4.192726e-01     0.906711     0.730948
## 5184     1.780021  0.410443162  1.726895e+00     0.869993     0.816142
## 5185     1.635606  0.969225750  1.610905e-01     0.978422     0.866947
## 5186     2.613782  2.253580290  1.448278e+00     0.847700     0.653769
## 5187     1.694439  0.779809979  1.544842e+00     0.847097     0.738866
## 5188     1.599201  0.823722606  1.769098e+00     0.939914     0.774266
## 5189     1.526383  0.357696682  2.066015e+00     0.769620     0.659245
## 5190     1.896932  1.106571631  8.625779e-01     0.702484     0.531239
## 5191     1.587864  0.369334623  2.728645e+00     0.746940     0.682852
## 5192     1.580866  0.521278030  2.278647e+00     0.792207     0.698380
## 5193     1.550134  0.348378862  2.220374e+00     0.767435     0.639050
## 5194     1.673251  0.518840196  1.720448e+00     0.821087     0.570958
## 5195     1.865691  0.592674078 -1.601400e-01     0.960902     0.913127
## 5196     1.763962  0.965264276  3.175988e-01     0.840278     0.786587
## 5197     1.517183  0.540349499  1.575243e+00     0.607508     0.521760
## 5198     1.692760  0.918074918  2.383154e-01     0.934963     0.674446
## 5199     1.616241  0.506334528  4.474451e-01     0.927542     0.569753
## 5200     1.766581  1.099818710  2.013880e-01     0.947578     0.833305
## 5201     2.012247  0.898071603  2.931612e+00     0.873893     0.746835
## 5202     2.080810  1.719316368  1.103709e+00     0.845360     0.554623
## 5203     1.824124  0.911151214  2.138259e+00     0.770357     0.693193
## 5204     1.610555  0.604771280  2.595626e+00     0.862152     0.785271
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## 5205     1.675651  0.530112574 -6.064289e-02     0.791984     0.775242
## 5206     1.618371  0.639528323  2.211306e+00     0.847916     0.786656
## 5207     1.949403  1.176453020  2.696721e-01     0.921187     0.690151
## 5208     1.648110  0.785854231 -1.305850e-01     0.854916     0.825647
## 5209     1.677893  0.382290868 -8.196390e-02     0.964322     0.769192
## 5210     1.554431  0.286499134  2.521570e+00     0.833643     0.784255
## 5211     1.736130  1.126361974  1.731212e+00     0.956126     0.844044
## 5212     1.692532  0.586672805  1.552079e+00     0.846450     0.822622
## 5213     1.632836  0.521518579  3.659597e-01     0.917282     0.671170
## 5214     1.723374  0.349823210  2.164474e+00     0.679681     0.586306
## 5215     1.572876  0.404568614  2.359029e+00     0.767715     0.509551
## 5216     1.716768  1.040681439  1.763342e+00     0.964250     0.631103
## 5217     1.650357  0.564113081  9.486401e-01     0.821386     0.753339
## 5218     1.516399  0.262204207  2.269455e+00     0.855998     0.737829
## 5219     1.733969  0.947766913  1.020512e+00     0.885948     0.791373
## 5220     1.804661  1.104804522  5.593504e-01     0.955364     0.812140
## 5221     1.980465  0.682179385  2.749229e+00     0.938844     0.880613
## 5222     2.024211  1.861169259  5.955594e-01     0.746211     0.652803
## 5223     1.755087  1.368350118  9.966679e-01     0.851922     0.750712
## 5224     1.612077  0.895960384  3.841091e-01     0.874711     0.841758
## 5225     1.802600  0.801137426  1.261092e-01     0.870208     0.663400
## 5226     1.583153  0.600871657  2.559809e-01     0.933111     0.834797
## 5227     1.649967  0.524667390  4.659096e-01     0.878417     0.800973
## 5228     1.745038  0.630180653  5.291046e-02     0.923696     0.733271
## 5229     1.869898  0.823180035  2.568781e+00     0.907114     0.687865
## 5230     1.697879  0.659715637  2.583310e+00     0.885767     0.781272
## 5231     1.764664  1.134677438  4.461907e-01     0.957332     0.866570
## 5232     1.987749  1.109055189  2.961882e+00     0.906718     0.790413
## 5233     2.222550  0.805877220  2.185963e+00     0.907846     0.772326
## 5234     2.124507  1.190373725  3.659765e-01     0.958420     0.753428
## 5235     1.455656  0.452439688  2.267435e+00     0.803735     0.583861
## 5236     1.790055  0.361442619  2.450578e+00     0.933904     0.799963
## 5237     1.702187  0.661973506  1.359511e+00     0.920682     0.841041
## 5238     1.943421  1.257570588  9.871222e-01     0.931045     0.797781
## 5239     1.917030  1.371060470  5.103479e-02     0.900169     0.637622
## 5240     1.564723  0.745878586  2.595706e+00     0.927730     0.793093
## 5241     1.433237  0.437836145  2.333854e+00     0.794092     0.684730
## 5242     1.642650  0.886819424  1.925518e-01     0.769021     0.607417
## 5243     1.766656  0.910024836  7.926786e-01     0.934656     0.854523
## 5244     1.487872  0.414035262  1.844811e+00     0.754527     0.550991
## 5245     1.686495  0.588877615  3.114661e+00     0.940328     0.843408
## 5246     1.611648  0.458852300  2.775074e+00     0.822037     0.767206
## 5247     1.697747  0.821099999  6.537602e-01     0.806117     0.681309
## 5248     1.634250  0.838553796  2.384344e+00     0.844129     0.644106
## 5249     1.559185  0.385566953  1.879379e+00     0.937071     0.682308
## 5250     1.563760  0.448607395  3.362882e-02     0.991168     0.869652
## 5251     1.454859  0.226628256  3.118358e+00     0.888744     0.679666
## 5252     1.712271  1.015259135  1.309808e+00     0.798262     0.574643
## 5253     1.607519  0.382611313  3.212684e+00     0.823901     0.761397
## 5254     1.524103  0.473866356  2.063416e+00     0.780994     0.692431
## 5255     2.166244  1.359484491  1.835743e+00     0.784998     0.651864
## 5256     1.815500  0.923747467  2.231655e+00     0.986515     0.684783
## 5257     2.040602  1.195473447  5.255926e-01     0.903930     0.799349
## 5258     1.626625  0.543941460  2.696721e-01     0.881825     0.725171
## 5259     1.633249  0.572069624  5.079769e-01     0.937871     0.854864
## 5260     1.593339  0.535142154  6.024777e-02     0.880574     0.781812
## 5261     1.842856  1.237357716  1.891205e-01     0.835549     0.651388
## 5262     1.545810  0.462740805  2.904178e+00     0.870932     0.795571
## 5263     1.595595  0.651278983  4.602478e-01     0.820211     0.592896
## 5264     1.841052  1.154609581  1.143309e+00     0.872855     0.740585
## 5265     1.500057  0.389555888  2.410652e+00     0.920976     0.669304
## 5266     1.758268  0.842599880 -6.142295e-02     0.908905     0.722233
## 5267     1.624385  0.465115053  3.137295e+00     0.860484     0.778093
## 5268     1.814375  0.750421219  2.219448e-01     0.949232     0.696486
## 5269     2.118466  1.534921708  1.002638e+00     0.901167     0.705203
## 5270     1.518521  0.215132399  2.074773e+00     0.967558     0.841515
## 5271     1.453083  0.297193480  2.599571e+00     0.686053     0.471006
## 5272     1.743883  0.730749985  2.440983e+00     0.811466     0.744185
## 5273     1.816016  0.421455847  1.624711e+00     0.780929     0.743652
## 5274     1.628343  0.398837202  2.078764e+00     0.785909     0.649183
## 5275     1.631987  0.598756593  4.029474e-01     0.940191     0.799539
## 5276     1.544984  0.268409463  3.059855e+00     0.675501     0.646397
## 5277     1.624996  0.694342788  2.601823e-01     0.735379     0.687259
## 5278     2.151161  0.842242805  2.160224e+00     0.866640     0.772544
## 5279     1.777508  0.566596567  3.147970e+00     0.869650     0.866428
## 5280     1.693870  0.618817633  3.879368e-01     0.841976     0.807330
## 5281     1.786300  1.231314093  3.995588e-01     0.810143     0.699771
## 5282     1.957386  0.655791307  3.125093e+00     0.879668     0.778220
## 5283     1.587078  0.487243046  2.475860e+00     0.922437     0.849909
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## 5284     1.758756  0.771215489  1.845532e+00     0.927065     0.833039
## 5285     1.555168  0.218270226  1.942039e+00     0.874609     0.686987
## 5286     1.684244  0.616186588  3.806043e-01     0.964364     0.854292
## 5287     1.756512  0.804984699  1.998518e+00     0.735528     0.707363
## 5288     1.856008  0.801442815  2.122314e+00     0.866541     0.571179
## 5289     2.122927  1.201915783  2.359208e+00     0.948248     0.749899
## 5290     1.633564  0.550948318  2.498241e+00     0.914999     0.757619
## 5291     1.545564  0.540427086  3.011356e+00     0.922940     0.834510
## 5292     1.699770  0.662300638  6.906860e-02     0.956709     0.711658
## 5293     1.732070  0.582830091  4.049738e-01     0.944658     0.677743
## 5294     1.643255  0.514713736  2.175148e+00     0.706608     0.626456
## 5295     1.656709  0.765519543  2.748080e+00     0.749162     0.674507
## 5296     1.522315  0.344341177  1.692864e+00     0.707350     0.541546
## 5297     1.645453  0.801383127  2.573221e-02     0.963786     0.902868
## 5298     1.808480  0.617608347  1.668986e+00     0.898200     0.858957
## 5299     2.048721  1.263034503  2.246654e+00     0.952437     0.844119
## 5300     1.638862  0.423835459  8.542953e-01     0.865867     0.712186
## 5301     1.608572  0.487202030  1.616059e+00     0.911834     0.777344
## 5302     1.615195  0.733527075  5.289892e-01     0.834814     0.738250
## 5303     1.593094  0.452215914  1.603956e+00     0.898905     0.865584
## 5304     1.579491  0.421070602  3.227825e+00     0.800442     0.749161
## 5305     1.647226  0.975869100  4.973478e-01     0.915020     0.682306
## 5306     1.724121  0.830776587  1.172343e-02     0.896472     0.778995
## 5307     1.974007  0.993661035  2.217023e+00     0.831266     0.771391
## 5308     1.852191  0.352722637  2.584014e+00     0.897450     0.853003
## 5309     2.031917  0.970376169  1.883397e+00     0.923326     0.831754
## 5310     1.765648  0.609541053  9.256144e-01     0.893179     0.840709
## 5311     1.558605  0.487524401  2.330970e+00     0.863452     0.692927
## 5312     1.719050  0.657634208  5.132598e-01     0.800121     0.605144
## 5313     1.742621  0.680460616  2.879426e+00     0.968679     0.900150
## 5314     1.484186  0.452845558  2.148546e+00     0.825717     0.768164
## 5315     1.601917  0.710345881  1.352781e+00     0.820333     0.653374
## 5316     1.604116  0.714726145  1.485008e-01     0.838823     0.781639
## 5317     1.657815  0.565702636  1.654871e-01     0.987198     0.865186
## 5318     1.883827  0.639478520  2.589142e+00     0.871848     0.634412
## 5319     1.790091  0.708716562  1.811987e-01     0.969812     0.824636
## 5320     1.752284  1.026373899  2.041200e-01     0.907917     0.819918
## 5321     1.660746  0.909401431  3.942897e-01     0.952078     0.703852
## 5322     1.759909  1.100570412  5.825457e-01     0.872566     0.708790
## 5323     1.590460  0.408509619  2.468838e+00     0.936276     0.689220
## 5324     1.662956  1.176964760  3.767050e-01     0.991015     0.871893
## 5325     1.495168  0.487360417  2.495095e+00     0.950450     0.825701
## 5326     1.687051  0.622185000  1.075933e+00     0.762187     0.635486
## 5327     1.934190  1.192676153  4.413346e-01     0.960030     0.571185
## 5328     1.547776  0.607815177  2.710568e+00     0.867072     0.773779
## 5329     1.795263  0.698622430  2.618899e+00     0.886668     0.727854
## 5330     1.550044  0.268088647  3.758394e-01     0.933733     0.698180
## 5331     1.564361  0.611473703  4.502944e-01     0.896667     0.787692
## 5332     1.790581  0.453026163  2.873600e+00     0.796669     0.718925
## 5333     1.572253  0.431236674  1.957482e+00     0.868645     0.636252
## 5334     1.845495  0.888854850  7.963174e-01     0.846541     0.717168
## 5335     1.958376  1.166723097  7.195609e-01     0.925175     0.773806
## 5336     1.604523  0.806087677  4.610567e-01     0.765572     0.712519
## 5337     1.564123  0.782593722  2.600029e+00     0.882702     0.762923
## 5338     1.672721  0.508714171  1.846525e+00     0.852515     0.738327
## 5339     1.649884  0.842037916  3.913237e-01     0.748219     0.666597
## 5340     1.631244  0.559013190  2.302997e+00     0.865358     0.803204
## 5341     1.609237  0.632546369  3.461683e-01     0.976431     0.843488
## 5342     1.992811  1.521121078  9.517339e-01     0.824821     0.744211
## 5343     1.441441  0.658570370  2.192175e+00     0.556538     0.434549
## 5344     1.763941  1.341476072  7.733754e-01     0.904436     0.729693
## 5345     1.671809  0.628060786  2.105188e+00     0.898037     0.673654
## 5346     1.646662  1.023293623  5.339802e-01     0.848548     0.636968
## 5347     1.728842  0.513408062  2.521539e+00     0.866206     0.815405
## 5348     1.591973  0.661451096  2.924773e+00     0.921498     0.871186
## 5349     1.635901  0.761494831  2.442311e+00     0.834998     0.692982
## 5350     1.453272  0.568381274  2.903277e+00     0.903841     0.769552
## 5351     1.728816  0.453694362  5.291046e-02     0.828662     0.805822
## 5352     1.620150  0.300114842  1.451648e+00     0.901557     0.733858
## 5353     1.618161  0.666895017  3.609066e-01     0.949025     0.883439
## 5354     1.588887  0.566596567  3.556332e-01     0.916831     0.800802
## 5355     1.747652  0.565654231  2.992056e+00     0.947645     0.842821
## 5356     1.536869  0.398254324  2.114918e+00     0.793029     0.656502
## 5357     1.621284  0.697031336  7.858631e-01     0.961874     0.913023
## 5358     1.783726  0.807654747  8.628679e-01     0.785730     0.651313
## 5359     1.990581  1.098965434  1.339715e+00     0.927391     0.920435
## 5360     1.536087  0.547673809  2.122272e+00     0.820937     0.715968
## 5361     1.727327  0.903348315  2.297842e+00     0.993283     0.902264
## 5362     1.692441  1.087032111  1.213499e+00     0.883160     0.608714
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## 5363     1.982668  0.877654639  4.637309e-01     0.914731     0.801259
## 5364     1.528985  0.366344497  2.959646e+00     0.915692     0.751984
## 5365     1.585664  0.762434720  2.521009e+00     0.700331     0.637165
## 5366     1.660664  1.574657358  1.134537e+00     0.756721     0.639822
## 5367     1.663143  0.374900414  1.395089e+00     0.971643     0.879456
## 5368     1.827293  0.783726397  2.729605e-01     0.913767     0.707479
## 5369     1.591123  0.563210457  1.938187e+00     0.834188     0.781747
## 5370     1.688352  0.671801143  2.000368e+00     0.888696     0.675728
## 5371     1.667055  0.900173702  6.312932e-01     0.816000     0.683461
## 5372     1.787082  1.027055901  1.527802e+00     0.835178     0.667502
## 5373     1.622844  0.453972347  1.077180e+00     0.768381     0.633423
## 5374     1.606912  0.439501641  3.185890e+00     0.859863     0.738875
## 5375     1.714532  0.615678664  1.299475e+00     0.867768     0.678115
## 5376     1.737504  0.805763802  2.351853e-01     0.907925     0.814246
## 5377     2.006676  1.174745759  7.011745e-01     0.835824     0.705892
## 5378     1.643677  0.597528455  2.068964e+00     0.598450     0.564898
## 5379     1.710758  0.335457901  2.463139e+00     0.991011     0.841041
## 5380     1.512838  0.450005712  2.418077e+00     0.838159     0.735505
## 5381     1.637737  0.807240663  2.372676e+00     0.842373     0.693569
## 5382     1.637977  0.538409083  5.114056e-01     0.860416     0.804419
## 5383     1.710508  1.130092427  8.728661e-01     0.848871     0.590622
## 5384     1.633956  0.722823063  1.097250e-01     0.892102     0.746369
## 5385     1.802283  0.555135578  2.304302e+00     0.862678     0.732142
## 5386     1.690206  1.301019138  1.125078e+00     0.691295     0.553030
## 5387     1.747799  0.754463775  6.205451e-01     0.928622     0.851375
## 5388     1.599827  0.349598029  1.523187e+00     0.934376     0.862038
## 5389     1.610211  0.616089887  1.811987e-01     0.974048     0.780827
## 5390     1.506138  0.434120008  2.970221e+00     0.868229     0.755178
## 5391     1.681373  0.865038203  3.084899e+00     0.947640     0.856060
## 5392     1.596413  0.990246036  4.575292e-01     0.852254     0.815608
## 5393     1.580963  0.559845604  3.135176e+00     0.772662     0.663829
## 5394     1.744318  0.445420484  8.031427e-01     0.889114     0.736042
## 5395     1.535422  0.501609659  1.736186e+00     0.830865     0.627806
## 5396     1.829276  0.569217020  2.716503e+00     0.917463     0.804376
## 5397     1.613835  0.634255532  1.499766e+00     0.824610     0.728588
## 5398     1.664237  0.987655541  4.436364e-01     0.816178     0.765800
## 5399     1.792533  1.095071668  8.666945e-01     0.946747     0.775901
## 5400     1.665194  0.638560136 -1.948279e-01     0.926552     0.747864
## 5401     1.541956  0.442390392  1.296119e-01     0.889488     0.724416
## 5402     2.117977  1.568525564  1.348125e+00     0.628066     0.512115
## 5403     1.525152  0.271314095  3.188719e+00     0.790807     0.678103
## 5404     1.631486  0.374062462  5.554391e-01     0.819304     0.668966
## 5405     1.987819  0.890664647  2.177974e+00     0.724297     0.611641
## 5406     1.656633  0.399573355 -4.276359e-02     0.888704     0.763948
## 5407     1.644795  0.468973209  6.438013e-01     0.903862     0.797724
## 5408     2.124168  1.283708189  5.831000e-01     0.862506     0.601537
## 5409     1.632073  0.513542533  2.037775e+00     0.885235     0.774919
## 5410     1.719941  1.254883879  1.015977e+00     0.846542     0.637195
## 5411     1.587431  0.636187899  2.614739e+00     0.961790     0.728280
## 5412     1.574778  0.333060167  2.456868e+00     0.857687     0.772154
## 5413     1.712831  0.463507774  2.701506e+00     0.894521     0.844066
## 5414     1.598146  0.562711489  2.024523e+00     0.866029     0.720684
## 5415     1.617390  0.570977017  1.409728e+00     0.644092     0.534144
## 5416     1.595693  0.535953291  3.247887e-01     0.863203     0.854427
## 5417     1.522101  0.294516928  7.080805e-01     0.796344     0.759965
## 5418     1.648439  1.217191684  3.935521e-01     0.970015     0.805188
## 5419     1.845012  0.504703240  3.039295e+00     0.941771     0.727309
## 5420     1.502555  0.426133733  2.281394e+00     0.810350     0.768131
## 5421     1.638155  0.604715169  8.788619e-01     0.878565     0.741756
## 5422     1.546345  0.817109683  2.764855e+00     0.768512     0.679210
## 5423     1.620904  0.400862510  1.826576e+00     0.866391     0.691685
## 5424     1.705490  0.596437642  2.807325e+00     0.879439     0.806821
## 5425     1.538598  0.369297512  1.785008e+00     0.836421     0.709219
## 5426     1.894559  0.692575511  3.055646e+00     0.830105     0.797265
## 5427     1.695659  0.499405250  3.112481e+00     0.953791     0.809780
## 5428     1.809333  0.865272801  8.154560e-01     0.848232     0.728066
## 5429     1.697638  0.771789517  6.761808e-01     0.905920     0.790703
## 5430     1.561652  0.651565833  6.045510e-01     0.921407     0.720994
## 5431     1.581326  0.424358863  2.860791e+00     0.828987     0.731574
## 5432     1.828136  0.498933285  1.906870e+00     0.852910     0.584171
## 5433     1.833349  1.198073971  5.103479e-02     0.929723     0.785502
## 5434     1.626337  0.406141468 -8.120882e-02     0.778186     0.719281
## 5435     1.628404  0.629925145  1.585771e+00     0.948102     0.875828
## 5436     1.597921  0.661468141  4.842395e-01     0.879253     0.644597
## 5437     1.536119  0.612898241  2.066874e+00     0.835193     0.773106
## 5438     1.595364  0.499530378  1.703112e+00     0.945262     0.869347
## 5439     1.541895  0.482324654  2.547977e+00     0.976038     0.717340
## 5440     1.784478  0.657974170  2.968862e+00     0.936123     0.862014
## 5441     1.667051  0.752570824  7.841996e-01     0.936848     0.815529
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## 5442     1.592997  0.537073231  2.972944e+00     0.821947     0.777483
## 5443     1.711065  0.567915230  1.865696e+00     0.862434     0.695023
## 5444     1.802307  0.413656778  2.985918e+00     0.830183     0.799065
## 5445     2.145774  1.037346804  3.050552e+00     0.958677     0.728600
## 5446     1.566883  0.325585440  1.287268e+00     0.821889     0.787720
## 5447     1.903567  1.001474097  1.412509e+00     0.915844     0.653069
## 5448     1.770097  1.445327038  6.836342e-01     0.865280     0.713048
## 5449     1.457313  0.391690052 -1.710462e-01     0.882221     0.758407
## 5450     1.650068  0.689318628  2.336891e-01     0.780767     0.713377
## 5451     1.946295  1.218805870  1.137848e+00     0.928507     0.748998
## 5452     1.873738  1.178067140  2.214788e-01     0.917195     0.669268
## 5453     1.635804  0.733989671  1.419419e+00     0.797929     0.694319
## 5454     1.741000  1.103779783  8.972744e-01     0.838006     0.703228
## 5455     1.686867  1.043409439  3.453401e-01     0.892485     0.794737
## 5456     1.555380  0.563184335  3.454377e+00     0.901137     0.812253
## 5457     1.692537  0.930850756  2.940470e+00     0.894629     0.687257
## 5458     1.620497  0.559531989  2.105004e+00     0.959683     0.802583
## 5459     1.584452  0.384801279  3.331148e+00     0.850374     0.709385
## 5460     1.616824  0.567062850  2.141549e-01     0.916984     0.853777
## 5461     1.619765  0.768339838  1.844364e+00     0.860229     0.682239
## 5462     1.778633  1.116059550  4.751151e-01     0.921001     0.753489
## 5463     1.680474  0.744030762  4.342060e-01     0.828080     0.776646
## 5464     1.686518  0.786039789  2.533571e+00     0.866660     0.741151
## 5465     1.607576  0.872339862  7.433397e-01     0.973958     0.860686
## 5466     1.641911  0.628618790  1.060847e+00     0.868911     0.699900
## 5467     1.570851  0.373959670  2.673758e+00     0.883322     0.748421
## 5468     1.622567  0.502162092  2.842615e+00     0.896810     0.804338
## 5469     1.497614  0.437682402  2.361887e+00     0.899540     0.658980
## 5470     1.742307  0.594684192  2.578273e+00     0.925243     0.716405
## 5471     2.209705  1.437528604  2.329520e+00     0.755286     0.717954
## 5472     1.584271  0.590350218 -1.948279e-01     0.845069     0.790299
## 5473     1.880380  1.296368979  6.984376e-01     0.886782     0.699541
## 5474     1.634031  0.434180740  1.750547e-01     0.858370     0.798066
## 5475     1.670976  1.192706807  6.982633e-01     0.863167     0.709303
## 5476     1.615417  0.423972913  1.759943e+00     0.787527     0.685886
## 5477     1.530143  0.591095786  9.276171e-01     0.955570     0.744069
## 5478     1.565574  0.453830322  2.611841e+00     0.894693     0.634260
## 5479     1.737798  0.561413868  3.234771e-01     0.943449     0.840157
## 5480     1.940155  0.758752218  7.418649e-02     0.903071     0.870752
## 5481     1.773518  0.646961187  2.798808e+00     0.937603     0.852612
## 5482     1.605727  0.277226316  2.684314e+00     0.827174     0.744648
## 5483     1.674168  0.623006224  3.480998e+00     0.807427     0.688009
## 5484     1.686243  0.977202597  1.861848e-01     0.837457     0.701207
## 5485     1.802308  0.365001003  2.388362e+00     0.925265     0.765592
## 5486     1.792560  0.982524498  2.940591e-01     0.753917     0.648938
## 5487     1.602704  0.493241896  3.659765e-01     0.898995     0.721977
## 5488     1.544901  0.401357454  2.592043e+00     0.740060     0.661381
## 5489     1.665121  0.724365178  1.622613e+00     0.853301     0.663761
## 5490     1.567902  0.742701570  4.730899e-01     0.831722     0.792912
## 5491     1.650951  0.696414058  1.971414e+00     0.806281     0.732915
## 5492     1.795446  1.124383571  4.936839e-01     0.824167     0.601483
## 5493     1.505162  0.567688484  2.763672e+00     0.916832     0.845859
## 5494     1.728044  1.251540889  1.047094e+00     0.894692     0.786815
## 5495     1.812709  0.883549015  1.740129e-01     0.801199     0.630283
## 5496     1.504363  0.392396184  2.851449e+00     0.904082     0.745284
## 5497     1.783882  0.758243291  2.167542e+00     0.810833     0.708875
## 5498     1.932198  1.099076075  3.199333e+00     0.742248     0.632693
## 5499     1.610531  0.297966123  2.186290e+00     0.640795     0.624806
## 5500     1.612381  0.367070647  1.348695e+00     0.858040     0.680670
## 5501     1.559392  0.580515566  1.690265e+00     0.896115     0.770931
## 5502     1.519321  0.561436520  3.030027e+00     0.932701     0.757825
## 5503     1.668494  0.580187988  2.727624e+00     0.852727     0.642861
## 5504     1.638663  0.664358934  5.653822e-02     0.953790     0.922074
## 5505     1.702981  0.752107631  2.904877e+00     0.890812     0.797078
## 5506     1.697705  0.701839011  1.650743e+00     0.985629     0.848266
## 5507     1.611428  0.556379702  1.565995e-01     0.921950     0.845998
## 5508     1.625107  0.590634554  2.264189e-01     0.967185     0.888119
## 5509     1.752984  1.171779092  2.156288e+00     0.651845     0.545517
## 5510     1.561483  0.887470448  2.622521e-01     0.902071     0.824457
## 5511     1.928297  1.036373353  3.473289e-01     0.714432     0.611313
## 5512     1.809060  0.450803173  3.426180e+00     0.862715     0.729262
## 5513     1.426397  0.409540898  2.432194e+00     0.788451     0.547426
## 5514     1.707574  0.633614879  6.042757e-01     0.767848     0.612091
## 5515     1.677894  0.727187334  9.498608e-01     0.804697     0.738437
## 5516     1.730947  0.571344244 -2.448560e-01     0.959682     0.889916
## 5517     1.839154  1.050360419  1.967541e-01     0.950065     0.749084
## 5518     1.628483  0.691477572  2.548658e+00     0.831710     0.718185
## 5519     1.653337  1.058319716  1.041012e+00     0.781320     0.698391
## 5520     1.645947  0.536468797  3.740637e-02     0.857412     0.651101
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## 5521     1.794199  1.166572191  3.569540e-01     0.938492     0.810080
## 5522     1.767532  0.428609342  2.598360e+00     0.836405     0.702343
## 5523     1.564806  0.368242244  1.731473e+00     0.853817     0.754107
## 5524     1.737559  0.706604288  4.011725e-01     0.901423     0.826356
## 5525     1.935462  1.184543802  8.064491e-01     0.810065     0.768304
## 5526     1.667560  0.783925008  7.235371e-01     0.943524     0.821077
## 5527     1.506035  0.540475884  2.424498e+00     0.910573     0.809763
## 5528     1.564610  0.575889541  2.463447e+00     0.725709     0.641873
## 5529     1.689281  1.016841205  2.312457e-01     0.810113     0.685160
## 5530     1.658669  0.447571965  1.898998e+00     0.799163     0.664241
## 5531     1.533246  0.528488619  2.579035e+00     0.827407     0.624496
## 5532     1.603007  0.503497878  1.386616e+00     0.903654     0.789313
## 5533     1.733694  0.622556970  9.155280e-01     0.845283     0.705603
## 5534     1.626610  0.660486016  1.811539e-01     0.932052     0.748577
## 5535     1.400113  0.545091772  7.918125e-02     0.884449     0.598048
## 5536     1.731132  0.563014502  2.957989e+00     0.860087     0.799911
## 5537     1.489940  0.518003014  2.294627e+00     0.878869     0.746354
## 5538     1.651343  0.404303348  2.267494e+00     0.840918     0.730817
## 5539     1.607903  0.661876075  2.457646e+00     0.978539     0.788815
## 5540     1.821841  1.128156849  2.306893e+00     0.954845     0.778307
## 5541     1.770714  1.291837085  2.122195e+00     0.821385     0.624687
## 5542     1.663817  0.418679063  7.716754e-01     0.711773     0.560364
## 5543     1.594533  0.374522894  1.889200e+00     0.841703     0.757860
## 5544     1.586483  0.303288956  6.333482e-01     0.932818     0.809126
## 5545     1.436361  0.359440835  2.165224e+00     0.602026     0.510963
## 5546     1.720561  0.823888111  2.781768e+00     0.911238     0.735605
## 5547     1.516404  0.451582284 -3.094633e-01     0.866818     0.799958
## 5548     1.623991  0.427411448  1.818551e+00     0.850055     0.650881
## 5549     1.649569  0.761754988  1.400109e+00     0.754093     0.676055
## 5550     1.676353  0.594772530  1.167089e-01     0.839900     0.801398
## 5551     1.781866  1.360697526  1.298748e+00     0.951119     0.687961
## 5552     1.891991  0.686483435  2.206547e+00     0.957476     0.841113
## 5553     1.636502  0.454437804  2.440783e+00     0.708622     0.529257
## 5554     1.579827  0.490298473  1.325736e-01     0.912126     0.816830
## 5555     1.491118  0.483881006  2.067734e+00     0.886428     0.733723
## 5556     1.619963  0.711408169  2.370404e+00     0.827114     0.715663
## 5557     1.593643  0.509974960  1.942237e+00     0.948130     0.863980
## 5558     1.658448  0.425358119  1.801871e-01     0.980355     0.841943
## 5559     1.594060  0.780277698  2.498393e+00     0.878258     0.624787
## 5560     1.889676  1.324173353  1.986199e-01     0.875522     0.731677
## 5561     1.843100  0.878518349  1.598666e+00     0.955478     0.697025
## 5562     1.504461  0.470747034  2.848724e+00     0.893914     0.770600
## 5563     1.616329  0.583194238  1.728505e-01     0.926188     0.718326
## 5564     1.605591  0.446170440  2.979387e+00     0.854096     0.811202
## 5565     1.737368  0.552535596  6.729999e-01     0.847752     0.677328
## 5566     1.600883  0.643580972  4.384369e-01     0.923794     0.817232
## 5567     1.521867  0.355882344  1.698312e+00     0.619621     0.485168
## 5568     1.622265  0.463080352  1.508469e-01     0.962387     0.749247
## 5569     1.595612  0.559044359  2.541838e+00     0.773454     0.720515
## 5570     1.779853  0.983138503  7.385342e-02     0.903731     0.787148
## 5571     1.723317  1.190628598  8.574276e-01     0.863606     0.732081
## 5572     1.837947  0.773434626  8.750091e-02     0.709520     0.521765
## 5573     1.865275  1.061738898  5.741502e-01     0.894189     0.746941
## 5574     1.576545  0.358901409  2.868949e+00     0.878087     0.744551
## 5575     1.844864  0.649096223  3.159452e+00     0.761434     0.712579
## 5576     1.726042  0.345422745  2.163286e+00     0.922275     0.793668
## 5577     1.990177  1.053401162  2.359029e+00     0.869314     0.684574
## 5578     1.718730  0.579123654  6.986152e-01     0.952066     0.742204
## 5579     1.681945  0.976890332  7.666796e-01     0.825688     0.602890
## 5580     1.713565  0.596966364  3.066686e-01     0.832748     0.758913
## 5581     2.150873  1.238710843  6.284812e-01     0.989586     0.666270
## 5582     1.608263  0.500344898  2.585715e+00     0.849598     0.697286
## 5583     1.688366  0.533975308  3.164544e-01     0.913406     0.723542
## 5584     1.602996  0.714495732  2.413208e+00     0.875410     0.744585
## 5585     1.548574  0.414789569  8.690709e-01     0.850412     0.760642
## 5586     1.910744  1.206350860  9.542425e-01     0.852034     0.710832
## 5587     1.619843  0.723456493  7.844976e-01     0.820440     0.697705
## 5588     1.586301  0.444794010  2.542967e+00     0.854812     0.808270
## 5589     1.746711  0.877890001  4.868786e-01     0.948896     0.731699
## 5590     1.953835  1.328597715  9.742180e-01     0.817839     0.740847
## 5591     1.476884  0.425605945  1.993629e+00     0.957092     0.757950
## 5592     1.660778  0.826144155  1.643966e-01     0.907234     0.620299
## 5593     1.783455  0.604391313  7.618458e-01     0.895878     0.836200
## 5594     1.599077  0.702115904  1.917564e+00     0.746991     0.716176
## 5595     1.506840  0.468906826  4.775925e-01     0.851496     0.773281
## 5596     1.618315  0.901298633  9.255079e-01     0.950625     0.657855
## 5597     1.540154  0.427870572  2.332211e+00     0.859152     0.695777
## 5598     1.614191  0.626605175  2.061695e+00     0.835064     0.741077
## 5599     1.611350  0.248894857  1.775990e+00     0.810943     0.777882
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## 5600     1.624875  1.024584173  1.897415e-01     0.822084     0.754661
## 5601     1.694449  0.473450473  6.785291e-01     0.871000     0.835214
## 5602     1.617302  0.645067418  2.524033e-01     0.877359     0.789995
## 5603     1.758128  1.139129439  2.747083e+00     0.807951     0.693804
## 5604     1.579324  0.730718499  2.078011e+00     0.929252     0.752144
## 5605     1.658050  0.425338548  2.639028e+00     0.871035     0.846229
## 5606     1.680887  0.584196617  3.659765e-01     0.883088     0.807000
## 5607     1.538973  0.561720170  3.068793e+00     0.918363     0.800963
## 5608     1.633583  0.509999118  2.580180e+00     0.779366     0.648112
## 5609     1.771892  0.877162788  1.076304e+00     0.716428     0.520421
## 5610     1.773145  0.826054708  6.440258e-01     0.837127     0.500575
## 5611     1.660141  0.409513835  1.866255e+00     0.874105     0.855946
## 5612     1.638164  0.624102564  8.395883e-01     0.930982     0.847457
## 5613     1.655308  0.776330641  2.940591e-01     0.825884     0.633383
## 5614     1.694788  0.819803776  2.487864e-02     0.968640     0.817521
## 5615     1.533466  0.348717539  1.618902e+00     0.954690     0.666054
## 5616     1.587007  0.651746954  2.336311e+00     0.887393     0.800687
## 5617     1.905732  1.069853021  2.614389e+00     0.907065     0.889972
## 5618     1.750004  0.558437352  1.615175e+00     0.715684     0.659608
## 5619     1.884906  1.360184295  7.173168e-01     0.798954     0.612603
## 5620     1.742100  0.612357827  7.566219e-01     0.889653     0.832095
## 5621     1.511353  0.333695084  2.038798e+00     0.909960     0.822521
## 5622     1.626468  0.691636610  2.906277e+00     0.755074     0.645278
## 5623     1.574324  0.724762335  2.646485e+00     0.689003     0.615814
## 5624     1.651179  0.700287391  2.304261e+00     0.961054     0.864823
## 5625     1.908392  0.665529398  2.316718e+00     0.956685     0.869143
## 5626     1.729640  1.033194484  8.118668e-01     0.781997     0.723602
## 5627     1.502662  0.477115464  2.541213e+00     0.763029     0.668458
## 5628     1.829830  1.053393481  1.135094e+00     0.804711     0.677037
## 5629     1.663366  0.861083155  1.363583e-01     0.954030     0.845753
## 5630     1.883268  0.930611851  6.449395e-01     0.937913     0.696782
## 5631     1.761995  0.961726654  1.671115e+00     0.874340     0.788398
## 5632     2.124530  1.073919875  1.247037e+00     0.927576     0.717712
## 5633     1.786301  0.542846581  6.106548e-01     0.941581     0.863614
## 5634     1.664942  0.640197115  2.011997e+00     0.816996     0.656499
## 5635     1.527971  0.450358438  4.999184e+00     0.853975     0.775861
## 5636     1.664696  0.896438578  4.451379e-01     0.935314     0.665977
## 5637     1.473917  0.252920960  2.562653e+00     0.814755     0.669047
## 5638     1.576794  0.520203083 -3.805040e-01     0.972912     0.885538
## 5639     1.449253  0.389080990  2.217818e+00     0.932662     0.771335
## 5640     1.692229  0.786631478  8.253862e-01     0.753694     0.656570
## 5641     1.654715  0.701383176  2.125926e+00     0.984594     0.827541
## 5642     1.856051  0.318735136  1.070225e+00     0.894909     0.760624
## 5643     1.532656  0.204879334  2.415718e+00     0.769377     0.670055
## 5644     1.618602  0.429251503  2.446106e+00     0.723956     0.506965
## 5645     2.019876  1.489584460  8.918052e-01     0.959431     0.791828
## 5646     1.657757  0.603218012  1.254009e+00     0.911957     0.675563
## 5647     2.077488  1.549782820  4.194984e-01     0.981549     0.605573
## 5648     1.863646  0.751895457  2.244707e+00     0.678736     0.563824
## 5649     1.688787  0.638246583  3.147322e+00     0.883438     0.776151
## 5650     1.649521  0.404056763  3.538592e-01     0.997582     0.924772
## 5651     1.734014  0.379537563  2.650318e+00     0.875767     0.797111
## 5652     1.650584  0.444561580 -8.196390e-02     0.970047     0.880825
## 5653     1.538819  0.518097871  2.803481e+00     0.781283     0.634719
## 5654     1.657013  0.477844476  2.120232e+00     0.973064     0.854089
## 5655     1.701558  1.075291419  1.400754e+00     0.872016     0.755215
## 5656     1.621635  0.662025523  1.571054e+00     0.871644     0.616377
## 5657     1.563232  0.234474257  3.118277e+00     0.737822     0.577157
## 5658     1.614204  0.629764230  6.605435e-01     0.837717     0.583417
## 5659     2.070090  1.138536365  7.209409e-01     0.813899     0.702017
## 5660     1.677942  0.904706892  3.247440e+00     0.843050     0.718682
## 5661     1.606202  0.915932482 -1.696743e-02     0.934926     0.821879
## 5662     1.897029  0.745134933  1.554274e+00     0.618007     0.566090
## 5663     1.959932  1.351879371  7.744390e-01     0.987948     0.744999
## 5664     1.674773  0.718508332  9.194175e-02     0.871737     0.677828
## 5665     1.628005  1.215996904  1.144695e+00     0.916727     0.640784
## 5666     1.878862  0.780153070  2.013880e-01     0.953771     0.809432
## 5667     1.772685  0.845905077  2.291531e+00     0.853580     0.722004
## 5668     1.679378  0.335836865  1.947786e+00     0.799814     0.724242
## 5669     1.646858  0.327252647  3.106542e+00     0.878000     0.854273
## 5670     1.752716  1.748536099  4.179721e-01     0.787509     0.454558
## 5671     1.952268  0.632671856  2.886573e+00     0.930827     0.877867
## 5672     1.511906  0.293663031  1.996179e+00     0.702203     0.540764
## 5673     1.565513  0.423914009  1.620947e+00     0.954298     0.947645
## 5674     1.731444  0.217628685  8.418822e-01     0.936239     0.552406
## 5675     1.616659  0.376624398  3.139124e+00     0.947868     0.833395
## 5676     1.701259  0.931649549  4.397822e-01     0.892939     0.825903
## 5677     1.732653  1.401352283  2.919540e-02     0.763945     0.679025
## 5678     1.657217  0.557308656  3.424227e-01     0.805002     0.675717
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## 5679     1.604104  0.581665267  3.206209e-01     0.962675     0.724697
## 5680     1.572912  0.399673721  2.584841e+00     0.916138     0.652962
## 5681     1.720608  1.164165414  2.531328e-01     0.893234     0.741627
## 5682     2.219134  1.530384138  6.730999e-01     0.914448     0.812742
## 5683     1.734503  0.372062827  1.531968e+00     0.736122     0.608195
## 5684     1.546601  0.765494206  3.520703e-01     0.912239     0.800593
## 5685     1.724810  0.619979806  3.928119e-01     0.884306     0.788222
## 5686     2.103034  1.005365006  2.789215e+00     0.932386     0.784412
## 5687     1.636439  0.359372494  2.049585e+00     0.941352     0.848629
## 5688     1.658964  0.583010501  1.121539e+00     0.740788     0.627546
## 5689     1.525993  0.396563722  2.402505e+00     0.928094     0.843620
## 5690     1.722566  0.639389858  1.976891e-01     0.931173     0.794249
## 5691     1.641076  0.718400369 -2.841801e-02     0.973931     0.886187
## 5692     1.657676  0.455154089  2.419023e+00     0.963306     0.922497
## 5693     1.654975  0.480317453  3.146383e+00     0.922610     0.724835
## 5694     1.835019  0.404149249  1.839616e+00     0.818565     0.739776
## 5695     1.619537  0.260805727  5.854231e-01     0.874587     0.782198
## 5696     1.840457  1.252872440  4.871169e-01     0.926801     0.914348
## 5697     1.612674  0.399059045  6.031707e-01     0.923235     0.842544
## 5698     1.657778  0.508937562  2.050938e+00     0.626047     0.578133
## 5699     1.606905  0.509053250  1.851415e+00     0.922903     0.767033
## 5700     1.830017  0.360106595  2.146061e+00     0.720040     0.622780
## 5701     1.693327  1.439899276  1.282984e+00     0.902380     0.783668
## 5702     1.515647  0.279052932  2.799581e+00     0.839644     0.772919
## 5703     2.003758  1.383271260  2.139050e+00     0.840417     0.764918
## 5704     1.566850  0.713687065  1.845005e-02     0.885647     0.747410
## 5705     1.659454  0.514336531  1.125559e+00     0.885927     0.813938
## 5706     2.143926  1.210805256  2.671441e+00     0.944163     0.745906
## 5707     1.620430  0.438717930  3.942897e-01     0.962479     0.775417
## 5708     1.634096  0.312073638  1.592106e+00     0.796339     0.693941
## 5709     1.545446  0.264595898  1.813415e+00     0.870826     0.829048
## 5710     1.587264  0.467525234  7.196125e-01     0.799353     0.723157
## 5711     1.674952  0.997170494  3.809966e-01     0.899714     0.797957
## 5712     1.627311  0.571892757  2.581564e+00     0.920924     0.861873
## 5713     1.473135  0.349825151  2.343226e+00     0.892863     0.782419
## 5714     1.625657  0.205399265  2.307831e+00     0.743886     0.649119
## 5715     1.515426  0.331807770  2.541844e+00     0.887496     0.545864
## 5716     1.810020  0.935788811  8.436998e-01     0.791624     0.709602
## 5717     1.551489  0.617628250  2.901929e+00     0.930186     0.752610
## 5718     1.689556  0.558848914  2.948104e+00     0.917160     0.836252
## 5719     1.724826  0.491126270  1.853522e+00     0.935040     0.811772
## 5720     2.115158  1.182648572  3.491919e+00     0.948963     0.766166
## 5721     2.013697  1.178386942  7.906044e-01     0.852839     0.677083
## 5722     1.793101  1.065273397  8.063953e-01     0.884184     0.789693
## 5723     1.610713  0.590305599  1.925809e+00     0.871150     0.834353
## 5724     1.637091  0.570443695  7.584445e-01     0.871456     0.704772
## 5725     2.156846  0.575238664  1.848988e+00     0.903966     0.711629
## 5726     1.692507  0.631266159  1.861848e-01     0.941958     0.845580
## 5727     1.633042  0.531379273  1.458395e+00     0.942768     0.804768
## 5728     1.556019  0.465140352  2.775597e+00     0.729259     0.681912
## 5729     1.542605  0.446130019  2.696807e+00     0.722185     0.675044
## 5730     1.785755  0.543711777  2.077083e-01     0.942680     0.668091
## 5731     1.822759  1.087728192  4.530835e-01     0.856968     0.706844
## 5732     1.640338  0.385019669  3.041899e+00     0.834591     0.714746
## 5733     1.651568  0.399696214  2.258292e+00     0.862076     0.737539
## 5734     1.505946  0.419352602  2.396591e+00     0.835274     0.600252
## 5735     1.611127  0.531331998 -4.276359e-02     0.960243     0.845468
## 5736     2.010809  1.088922424  3.957574e-01     0.881205     0.654963
## 5737     1.747787  0.802009790  1.221322e-01     0.959388     0.835942
## 5738     1.554333  0.606053370  1.326025e+00     0.909759     0.858104
## 5739     1.552656  0.419780674  2.722168e+00     0.911044     0.896580
## 5740     1.576149  0.569743663  1.919559e+00     0.888485     0.646109
## 5741     1.689709  0.746476174  4.689810e-01     0.838696     0.752940
## 5742     1.607191  0.472443411  2.097175e+00     0.858628     0.640419
## 5743     1.879425  0.729998547  1.881405e+00     0.775021     0.607848
## 5744     1.517963  0.478687677  1.948311e+00     0.904209     0.800762
## 5745     1.886797  0.823350314  1.935546e+00     0.748853     0.561266
## 5746     1.683616  0.654223724  6.169796e-01     0.973843     0.938180
## 5747     1.700310  1.038838645  1.430729e+00     0.782331     0.661719
## 5748     2.055034  1.066556991  1.445397e+00     0.776083     0.602877
## 5749     1.831357  0.471011383  2.155648e-01     0.836352     0.730576
## 5750     1.660107  1.200951676  6.237531e-01     0.848682     0.845822
## 5751     1.681023  0.483749860  8.610256e-01     0.886679     0.807703
## 5752     1.795949  1.207588593  5.923793e-01     0.930738     0.907043
## 5753     1.837327  0.705212638  1.846435e+00     0.827402     0.535213
## 5754     1.639315  0.775102686  1.912907e+00     0.763950     0.729240
## 5755     1.935174  0.968701442  6.891781e-01     0.845240     0.687079
## 5756     1.669060  0.780151629  4.497276e-01     0.921749     0.743097
## 5757     1.810665  0.675050243  3.108338e-01     0.903701     0.777494
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## 5758     1.701515  1.128622175  3.813881e-01     0.874607     0.795851
## 5759     1.658595  0.400422277  9.481892e-01     0.777211     0.619337
## 5760     1.554655  0.488317996  2.289628e+00     0.824248     0.714953
## 5761     1.604945  0.401245408  3.268221e-01     0.950049     0.817255
## 5762     1.578575  0.300099610  2.599174e+00     0.938505     0.876737
## 5763     1.654825  0.453894468  1.607014e-01     0.921792     0.893514
## 5764     1.731078  0.723750301  1.651633e-01     0.955512     0.663456
## 5765     1.642193  0.889251826 -3.367184e-01     0.903177     0.667490
## 5766     2.089778  1.575322963  5.704720e-01     0.940727     0.713386
## 5767     1.641542  0.548955413  3.634579e-01     0.914106     0.821557
## 5768     1.599611  0.395343869  1.576706e+00     0.621637     0.536490
## 5769     1.783677  0.580793870  6.967427e-01     0.971046     0.885231
## 5770     1.551335  0.542311187  5.476930e-02     0.935587     0.821607
## 5771     1.643147  0.671184881  2.301351e+00     0.966479     0.837458
## 5772     1.545669  0.450164397  1.666085e+00     0.870167     0.657131
## 5773     1.509533  0.457968142  1.532233e+00     0.719324     0.642759
## 5774     1.631761  0.472308764  2.154393e+00     0.937979     0.769184
## 5775     1.726148  0.350391467  2.211388e+00     0.978812     0.785385
## 5776     1.604322  0.547791929 -6.142295e-02     0.713434     0.661758
## 5777     1.646976  0.906241276  2.375141e-01     0.850156     0.668458
## 5778     1.721396  0.772806349  3.152165e+00     0.814667     0.705543
## 5779     1.904773  1.373550094  6.372359e-01     0.844451     0.799618
## 5780     1.720018  0.800220654  5.842163e-01     0.955619     0.748467
## 5781     1.569146  0.491938502  1.133503e+00     0.910408     0.881507
## 5782     1.497651  0.333856185 -1.655188e-01     0.799075     0.754077
## 5783     1.686569  0.592041227  3.899191e-01     0.900129     0.798702
## 5784     1.677609  0.647238181  1.214714e+00     0.923703     0.722895
## 5785     1.540186  0.772891344  5.942641e-01     0.861261     0.786049
## 5786     1.609586  0.886761934  3.578300e-01     0.753739     0.693244
## 5787     1.631193  0.498839657  1.823966e+00     0.727874     0.631436
## 5788     1.610211  0.361852442  5.972230e-01     0.917775     0.636521
## 5789     2.089025  1.526640336  7.585789e-01     0.792565     0.733945
## 5790     1.695588  0.708141196  6.142354e-01     0.804778     0.720665
## 5791     2.183606  1.843932568  1.440448e+00     0.815382     0.677252
## 5792     1.515593  0.832360077  2.810266e+00     0.907750     0.817140
## 5793     1.605296  0.812856561  1.473178e-01     0.958604     0.828855
## 5794     1.672513  0.399618350  2.326796e+00     0.936262     0.792114
## 5795     1.617896  0.311573750  2.174648e+00     0.885125     0.683107
## 5796     1.494299  0.319759613  3.340839e+00     0.783024     0.669475
## 5797     1.633584  0.747600557  9.501316e-02     0.933932     0.750544
## 5798     1.627786  0.643337178  2.637821e+00     0.867204     0.721286
## 5799     1.525941  0.478820361  1.162922e+00     0.902367     0.722483
## 5800     1.640006  0.528244180  1.594984e-01     0.883135     0.822522
## 5801     2.054701  0.921577238  1.321664e+00     0.735871     0.568204
## 5802     1.595483  0.458825122  4.618625e-01     0.869266     0.745136
## 5803     1.761596  0.854544686  1.610905e-01     0.964283     0.870082
## 5804     1.554153  0.500682345  2.478083e+00     0.972580     0.815912
## 5805     1.498297  0.457785040  1.814348e+00     0.772418     0.649656
## 5806     1.691251  1.216632947  1.290161e+00     0.911162     0.826542
## 5807     1.689699  0.383323366  2.252510e+00     0.727543     0.709581
## 5808     1.788356  0.753809721  2.590980e-01     0.883273     0.709159
## 5809     1.520715  0.434281408  2.637940e+00     0.798713     0.617320
## 5810     1.595421  0.623355783  3.198209e+00     0.779088     0.595016
## 5811     1.748792  0.534635215  4.637309e-01     0.921397     0.894391
## 5812     1.626342  0.801788436  1.681597e+00     0.981209     0.839825
## 5813     1.601920  0.826922470  1.497955e+00     0.882421     0.849131
## 5814     2.579610  2.049109435  1.487173e+00     0.866314     0.638925
## 5815     1.674229  1.209305859  5.496514e-01     0.943781     0.834426
## 5816     1.640740  0.647333082  9.749828e-01     0.717800     0.549335
## 5817     1.590654  0.497873282  2.304250e-03     0.859217     0.775355
## 5818     1.703632  0.883073462  8.655015e-01     0.890860     0.643005
## 5819     1.578619  0.755907617  5.746254e-01     0.953183     0.735635
## 5820     1.570808  0.523888175  2.807958e+00     0.815906     0.724484
## 5821     1.672108  0.325817266  2.815962e+00     0.805628     0.679721
## 5822     1.537398  0.479463015  5.103479e-02     0.875371     0.806849
## 5823     1.540550  0.243132342  1.099209e+00     0.930421     0.817676
## 5824     1.614657  0.455318516  1.508469e-01     0.837099     0.809791
## 5825     1.564269  0.795740326  7.769209e-01     0.873757     0.789146
## 5826     1.587886  0.259457693  3.097123e+00     0.890613     0.786062
## 5827     1.644587  0.513968307 -1.305850e-01     0.858957     0.712866
## 5828     1.506563  0.412169800  2.518478e+00     0.948554     0.834134
## 5829     1.720081  0.553957020  2.182060e+00     0.824410     0.805853
## 5830     1.663174  0.687957693  3.128268e+00     0.937926     0.881562
## 5831     1.704531  0.731155060  2.566338e+00     0.747962     0.681126
## 5832     1.584122  0.511784464  2.609415e+00     0.785382     0.734064
## 5833     1.705045  0.945446427  5.537017e-01     0.924853     0.893528
## 5834     1.955742  1.501294841  1.405902e+00     0.713253     0.537157
## 5835     1.648477  0.707531854 -1.260554e-01     0.920205     0.664012
## 5836     1.718898  0.743861605  8.859338e-01     0.919477     0.725111
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## 5837     1.666400  0.647410357  3.770406e-01     0.994222     0.915174
## 5838     1.766338  0.949566129  5.494735e-01     0.887714     0.772518
## 5839     1.600939  0.467846273  9.431169e-01     0.589613     0.478100
## 5840     2.023561  1.077959887  3.101658e+00     0.831034     0.705422
## 5841     2.046038  0.911551759  2.154170e+00     0.672370     0.595955
## 5842     1.739018  0.337375389  1.305506e+00     0.731526     0.662975
## 5843     1.728929  0.828695335  4.077982e-02     0.937745     0.742860
## 5844     1.694579  0.947797769  2.110926e+00     0.893259     0.722718
## 5845     1.502329  0.403031250  2.859101e+00     0.748036     0.670393
## 5846     1.788913  0.931476178  5.617475e-01     0.958343     0.773502
## 5847     1.643523  0.404221169  8.734074e-01     0.911500     0.765281
## 5848     1.645016  0.357290547  2.240526e+00     0.896869     0.833654
## 5849     1.667431  0.582944700  1.927906e-01     0.880591     0.759502
## 5850     1.732902  1.164474798 -6.142295e-02     0.850020     0.746134
## 5851     1.615838  0.744936514  2.756234e+00     0.845039     0.812279
## 5852     1.737096  1.040068043  8.724788e-02     0.968458     0.736629
## 5853     1.578889  0.651332297  8.189864e-01     0.976252     0.812235
## 5854     1.716029  0.614701107  2.113026e+00     0.981280     0.787236
## 5855     1.426872  0.610706996  2.041658e+00     0.783150     0.684918
## 5856     1.900540  1.262510416  6.994127e-01     0.821289     0.613250
## 5857     1.633082  0.479759526  2.969916e-01     0.665560     0.539503
## 5858     1.522119  0.684163774  4.934528e-01     0.902645     0.829214
## 5859     1.895321  1.066806552  1.197076e+00     0.741200     0.648828
## 5860     1.771168  1.357046302  8.433828e-01     0.829832     0.737644
## 5861     1.487625  0.385686691  1.838315e+00     0.859122     0.461628
## 5862     1.562443  0.455144953 -9.884816e-03     0.845280     0.627348
## 5863     1.771950  0.667677981  3.211827e-01     0.919084     0.781593
## 5864     1.853837  0.866625189  1.920157e-01     0.888989     0.794360
## 5865     1.661858  0.801861776  8.724788e-02     0.941544     0.786398
## 5866     1.789011  0.525482770  1.930044e+00     0.755875     0.624537
## 5867     1.535571  0.431154609  2.450579e+00     0.688245     0.597720
## 5868     1.506915  0.534073089  2.930479e+00     0.832366     0.537989
## 5869     1.672203  0.454004411  1.086288e+00     0.916799     0.692066
## 5870     1.626488  0.826120174  9.194175e-02     0.926800     0.913915
## 5871     1.640305  0.513392082  8.684279e-01     0.897222     0.781310
## 5872     1.690446  0.866624599  1.274182e-01     0.974337     0.898637
## 5873     1.686022  0.457347401  1.939239e-01     0.895916     0.739652
## 5874     1.807975  1.271323396  9.412032e-01     0.895706     0.823743
## 5875     1.596841  0.562801821  2.452597e+00     0.863863     0.813558
## 5876     1.553161  0.141393327  3.093986e+00     0.825144     0.758013
## 5877     1.534002  0.367193729  2.013847e+00     0.777631     0.756706
## 5878     1.622887  0.788447673  2.524147e-01     0.922042     0.783098
## 5879     1.699749  0.936177336  1.254307e+00     0.933037     0.792256
## 5880     1.699333  0.934093763  2.477036e+00     0.885175     0.718833
## 5881     1.967839  1.055684065  4.468706e-01     0.904708     0.858142
## 5882     1.720773  0.468119783  7.249451e-02     0.926485     0.739553
## 5883     1.773878  0.368885371  2.307268e+00     0.946947     0.829487
## 5884     1.626119  0.690631043  7.144420e-01     0.886046     0.676233
## 5885     1.704076  0.628817903  2.902542e+00     0.976025     0.907680
## 5886     1.670648  0.699935669  3.447598e-01     0.941197     0.779762
## 5887     1.604812  0.562086972  4.783656e-01     0.902626     0.755253
## 5888     1.534979  0.457041246  1.869630e+00     0.711823     0.633428
## 5889     1.865590  0.616468162  4.994118e+00     0.909912     0.754952
## 5890     1.637216  0.409491845  1.624638e+00     0.839139     0.687694
## 5891     1.451828  0.574040533  2.634190e+00     0.941452     0.760700
## 5892     1.553289  0.830778511  5.464272e-01     0.861579     0.696916
## 5893     2.058582  0.871197435  1.950349e+00     0.965012     0.911181
## 5894     1.650745  0.474858487  3.721942e-01     0.886477     0.793842
## 5895     1.660695  1.239867320  5.174833e-01     0.876331     0.772788
## 5896     1.758510  0.863128276  1.307183e+00     0.678905     0.625687
## 5897     1.679475  0.799802173  2.401327e+00     0.956546     0.908037
## 5898     1.661821  0.994356312  1.153307e-01     0.943229     0.785648
## 5899     2.572652  1.279096330  2.717820e+00     0.953225     0.618564
## 5900     2.044053  1.478507335  2.776161e+00     0.840842     0.562306
## 5901     1.610387  0.843397243  5.963188e-01     0.710998     0.603718
## 5902     1.640813  0.473672327  3.634375e-01     0.671393     0.575587
## 5903     1.751555  0.752462560  2.574640e+00     0.890707     0.836489
## 5904     1.633187  0.735447988  2.098459e+00     0.903090     0.670643
## 5905     1.617296  0.429175529  3.099810e-01     0.886217     0.792351
## 5906     1.575894  0.216348030  2.395096e+00     0.756949     0.725461
## 5907     1.942351  0.903151870  2.574596e+00     0.848591     0.796405
## 5908     1.635602  0.446718862  1.247920e-01     0.851469     0.735837
## 5909     1.916160  0.986113974  1.099984e+00     0.868767     0.759414
## 5910     1.633128  0.931624640  8.068253e-01     0.964747     0.633540
## 5911     1.852309  1.087142279  5.289480e-01     0.966521     0.888540
## 5912     1.579800  0.320189921  3.095692e+00     0.807682     0.785582
## 5913     1.616377  0.583705344 -4.928627e-02     0.976736     0.900558
## 5914     1.646385  0.764854328  8.004461e-01     0.738008     0.662327
## 5915     1.597702  0.519003232  2.389872e+00     0.871430     0.719371
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## 5916     1.548407  0.970069192  7.491735e-01     0.934622     0.855099
## 5917     1.613379  0.760411174  1.234195e+00     0.756091     0.700557
## 5918     1.654468  0.949496859  2.566870e-01     0.583840     0.536118
## 5919     1.664003  0.564059759 -2.078779e-01     0.916345     0.814582
## 5920     1.691819  1.025731757  2.057421e+00     0.973489     0.895391
## 5921     1.755943  1.139160963  3.083313e-01     0.996270     0.672681
## 5922     1.574902  0.437298598  1.380952e+00     0.808980     0.770685
## 5923     1.721939  0.507465911  2.985237e-01     0.964177     0.755073
## 5924     1.599742  1.123809189  3.848802e-01     0.928089     0.792386
## 5925     1.684671  0.962720607  4.820557e-01     0.931153     0.654625
## 5926     1.754489  0.676756692  4.316729e-01     0.903464     0.757582
## 5927     1.543514  0.313377836  2.318659e+00     0.707366     0.619506
## 5928     1.655346  0.248392636  1.893324e+00     0.738303     0.667062
## 5929     1.680970  0.519712516  3.928119e-01     0.827559     0.663072
## 5930     1.636031  0.701085936  4.637309e-01     0.781051     0.673263
## 5931     1.630363  0.617051740  3.222193e-01     0.851362     0.682650
## 5932     1.775629  0.918443978  4.132964e-01     0.803748     0.743362
## 5933     1.751743  0.371754798  1.662156e+00     0.988779     0.835008
## 5934     1.700812  0.591982337  1.760913e-01     0.923711     0.869507
## 5935     1.756719  0.614313900  1.663399e+00     0.853649     0.838070
## 5936     1.512193  0.204171552  1.972355e+00     0.824334     0.660088
## 5937     1.706839  1.260986736  1.179054e+00     0.628332     0.452729
## 5938     1.600570  0.532317317  9.501316e-02     0.968520     0.879583
## 5939     1.476562  0.373195306  2.788315e+00     0.868494     0.787690
## 5940     1.634500  0.750537707  2.723069e-01     0.937532     0.877718
## 5941     1.812506  0.656835780  1.029862e+00     0.956621     0.768913
## 5942     1.736924  1.534351070  5.424194e-01     0.737250     0.704609
## 5943     1.713328  0.571254506  3.214133e+00     0.864589     0.822173
## 5944     1.666063  0.563104771  8.630748e-01     0.959374     0.900719
## 5945     1.420980  0.405602455  1.072212e+00     0.904595     0.798048
## 5946     1.625313  0.545210596  3.122651e+00     0.855017     0.757111
## 5947     1.688469  0.490000642  5.843766e-02     0.903716     0.743398
## 5948     1.648050  0.692570222  5.858739e-01     0.802782     0.591538
## 5949     1.718269  0.757365657  6.393146e-01     0.866757     0.679343
## 5950     1.611203  0.151213513  6.461942e-01     0.852994     0.723046
## 5951     2.531276  1.947699315  1.964948e+00     0.878888     0.744925
## 5952     1.583942  0.468985009  2.231638e+00     0.890919     0.686937
## 5953     1.645238  0.535715548  1.801871e-01     0.849194     0.675195
## 5954     1.605540  0.854648483  6.880621e-01     0.872119     0.792105
## 5955     1.540079  0.297445342  2.332689e+00     0.783088     0.708874
## 5956     1.788460  0.743054850  2.469398e+00     0.898035     0.675851
## 5957     1.650670  0.636100570  7.918125e-02     0.937538     0.928690
## 5958     1.581861  1.345501157  1.418837e+00     0.814765     0.606798
## 5959     1.790287  0.788015563  4.454971e-01     0.861854     0.800412
## 5960     1.954077  0.800518439  2.528021e+00     0.924840     0.854992
## 5961     1.778535  0.591104694  2.136010e+00     0.909996     0.778920
## 5962     1.793607  0.509064010  2.709649e+00     0.886026     0.796297
## 5963     1.561572  0.512266707  2.342365e+00     0.861253     0.625650
## 5964     1.680817  0.803779985  3.078210e+00     0.949231     0.873184
## 5965     1.934751  1.285789021  1.226169e+00     0.937651     0.745429
## 5966     1.498029  0.414826331  2.867127e+00     0.910418     0.834685
## 5967     1.765695  0.447395277  2.400886e+00     0.975132     0.930973
## 5968     1.661451  0.546949624  3.016007e-01     0.931844     0.704128
## 5969     1.611306  0.436067187  2.346626e+00     0.796745     0.624337
## 5970     1.621957  0.556370052  2.472305e+00     0.622603     0.554865
## 5971     2.032518  1.004501934  3.062811e+00     0.998676     0.905025
## 5972     1.978436  1.321588075  1.080061e+00     0.851672     0.651266
## 5973     1.957014  1.281837545  1.225758e+00     0.761111     0.636521
## 5974     1.653498  0.642491230 -1.172905e-01     0.863733     0.708994
## 5975     1.619467  0.764998345  7.271715e-01     0.869597     0.772855
## 5976     1.729219  1.089813300  1.551811e+00     0.842494     0.743917
## 5977     1.646912  0.770454340  1.891205e-01     0.914081     0.653316
## 5978     1.638135  0.265984601  1.674815e+00     0.936736     0.786038
## 5979     1.621123  0.828885362  3.143185e-01     0.790189     0.675808
## 5980     1.584614  0.445313019  1.207896e-01     0.914584     0.803454
## 5981     2.014058  0.904689584  4.720701e-01     0.862841     0.559297
## 5982     1.629179  0.520322362  2.863324e+00     0.947620     0.855798
## 5983     1.651775  0.591795611  7.746885e-01     0.968409     0.905982
## 5984     2.154692  1.234547653  1.754645e+00     0.896510     0.835001
## 5985     1.701458  0.873411288  5.477388e-01     0.984595     0.717201
## 5986     1.569109  0.396685694  2.130647e+00     0.908965     0.828598
## 5987     1.768240  0.660160363  2.006304e+00     0.858994     0.727514
## 5988     1.577704  0.424574583  3.145208e+00     0.867125     0.844719
## 5989     1.612315  0.365538525  4.028424e-02     0.712628     0.551601
## 5990     1.744064  0.925626609  4.152338e-01     0.814611     0.736218
## 5991     1.643530  0.618214457  1.054196e-01     0.904451     0.772356
## 5992     2.056482  1.683730379  2.513493e+00     0.792562     0.730430
## 5993     1.849912  0.697777533  1.543174e-01     0.933501     0.822343
## 5994     1.816550  0.538973161  2.380074e+00     0.956874     0.885392
```

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## 5995     1.636064  0.564526405  9.803988e-02     0.866109     0.655178
## 5996     1.733439  0.899537079  6.629675e-01     0.956282     0.739842
## 5997     1.996945  0.964687584  2.934504e+00     0.967893     0.881771
## 5998     1.933414  1.253148930  3.021698e-01     0.947426     0.844936
## 5999     1.668724  0.501211307  4.880581e-01     0.866087     0.847948
## 6000     1.894267  0.362893201  2.584356e+00     0.921182     0.851408
## 6001     1.673574  0.800340343  5.249949e-01     0.958043     0.719790
## 6002     1.553345  0.570637494  2.362815e+00     0.879407     0.662496
## 6003     1.721491  0.782167221  7.274823e-01     0.935966     0.684193
## 6004     1.531581  0.645961364  3.008524e+00     0.809210     0.749973
## 6005     2.176117  1.138362706  2.533695e+00     0.960728     0.873624
## 6006     1.679487  0.596672953 -4.169796e-01     0.810240     0.702878
## 6007     1.581271  0.684293170  2.402551e+00     0.829793     0.804601
## 6008     1.682240  1.310514886  5.051500e-01     0.862324     0.631230
## 6009     1.759689  0.840179517  4.528266e-01     0.822894     0.725238
## 6010     1.636233  0.342708826  1.760913e-01     0.977744     0.860683
## 6011     1.574654  0.542454438  3.226304e+00     0.851364     0.789686
## 6012     1.702990  0.716700161  2.499480e+00     0.884174     0.756662
## 6013     1.647073  0.888246347  8.942889e-01     0.892076     0.717349
## 6014     1.783554  0.839059893  2.483888e+00     0.846070     0.733371
## 6015     1.716586  0.644697513  2.723069e-01     0.876276     0.845645
## 6016     1.532935  0.450504682  2.418231e+00     0.861671     0.684777
## 6017     1.848217  0.407377306  2.105288e+00     0.853076     0.800385
## 6018     1.677385  0.362912033 -1.655188e-01     0.938050     0.793012
## 6019     2.007539  1.536315978  1.083293e+00     0.722331     0.577469
## 6020     1.601859  0.462134346 -5.501178e-02     0.824635     0.799959
## 6021     2.424789  1.219746898  3.003278e+00     0.983752     0.749896
## 6022     1.771012  1.096249383  1.908173e+00     0.899796     0.648256
## 6023     1.736562  0.968084896  7.418200e-01     0.952850     0.814611
## 6024     1.504800  0.352080206  3.357983e+00     0.971547     0.792523
## 6025     1.601209  0.593002353  3.248556e+00     0.969855     0.745936
## 6026     1.842535  0.781798443  2.595615e+00     0.931019     0.839731
## 6027     1.676066  0.816452097  1.741628e+00     0.823741     0.752061
## 6028     1.815809  0.773040046  1.013498e+00     0.906024     0.693650
## 6029     1.588385  0.619154921  2.634595e+00     0.905781     0.784807
## 6030     1.794722  1.107301569  1.183249e+00     0.817457     0.647020
## 6031     1.737731  0.562837473  2.265294e+00     0.840626     0.699938
## 6032     2.006624  0.775193791  2.302054e+00     0.954356     0.765974
## 6033     1.877001  0.367555315  2.910977e+00     0.922204     0.854694
## 6034     1.771443  0.877907259  6.487803e-01     0.893661     0.792790
## 6035     1.955317  0.556857078  2.566921e+00     0.890580     0.751452
## 6036     1.448020  0.436019449  1.965101e+00     0.643133     0.622810
## 6037     1.622024  0.796200929  2.927251e+00     0.935424     0.779400
## 6038     2.163540  1.995819840  2.343943e+00     0.568256     0.479648
## 6039     1.842365  1.044096617  1.496771e-01     0.930468     0.881576
## 6040     1.803881  1.286575469  7.874552e-01     0.728270     0.717425
## 6041     1.627452  0.697084554  2.491290e+00     0.935408     0.840577
## 6042     1.688869  0.618356702  2.304425e+00     0.931900     0.866673
## 6043     1.728176  0.477284808  2.556025e+00     0.893420     0.809176
## 6044     1.590107  0.942866363  1.256509e+00     0.811797     0.722836
## 6045     1.592939  0.583863880  1.493231e+00     0.703662     0.526301
## 6046     1.510804  0.667067988  1.514705e+00     0.912007     0.699637
## 6047     1.704079  0.643956758  1.623214e-02     0.917650     0.731001
## 6048     1.750363  0.448062902  4.261185e-01     0.924665     0.724041
## 6049     1.686514  0.477523515  2.596135e+00     0.856147     0.809684
## 6050     1.687166  0.324300979  3.228359e+00     0.899120     0.799621
## 6051     1.675065  0.564980725  2.702261e+00     0.973463     0.838937
## 6052     1.631067  0.747076829  1.842045e-01     0.881545     0.775066
## 6053     1.850481  1.218656272  9.861929e-01     0.765811     0.606194
## 6054     1.667289  1.028042295  5.843766e-02     0.953841     0.867453
## 6055     1.775505  1.183061902  7.049140e-01     0.910128     0.759861
## 6056     1.904677  0.767716746 -4.169796e-01     0.913509     0.797494
## 6057     1.727219  0.463978049  3.116630e+00     0.838553     0.826894
## 6058     1.708441  0.728374076  1.643966e-01     0.868026     0.626784
## 6059     1.650763  0.321509367  7.721174e-01     0.957573     0.774364
## 6060     1.644568  0.754230571  2.137491e-01     0.854065     0.806736
## 6061     1.653285  0.523955762  4.822994e-01     0.891232     0.796123
## 6062     1.597110  0.574510464  2.045771e+00     0.810012     0.697222
## 6063     1.736204  0.568138336  1.303962e+00     0.903400     0.735107
## 6064     1.371072  0.469097096  2.659777e+00     0.897057     0.824391
## 6065     1.682167  0.400915998  7.320901e-01     0.889833     0.869583
## 6066     1.481259  0.209989262  1.715020e-01     0.758780     0.678864
## 6067     1.587853  0.538684304  1.910551e-01     0.848211     0.684046
## 6068     1.660767  0.316435861  1.238666e+00     0.621973     0.473927
## 6069     1.790376  0.632460329  3.852647e-01     0.900442     0.752744
## 6070     1.585813  0.451775693  2.593259e+00     0.868653     0.705269
## 6071     1.861586  0.911523541  8.164340e-01     0.938097     0.784276
## 6072     1.607313  0.346568112  2.474513e+00     0.804667     0.681151
## 6073     1.845032  1.050116702  6.912093e-01     0.823497     0.625982
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## 6074     1.480784  0.378345201  1.894725e+00     0.692003     0.523421
## 6075     1.662609  0.482001262  1.588571e-01     0.934784     0.728718
## 6076     1.669841  0.497721444  3.909501e-01     0.819907     0.746690
## 6077     1.465517  0.445738051  2.771375e+00     0.851887     0.713540
## 6078     1.872596  0.800848309  2.024061e+00     0.721329     0.621464
## 6079     1.506152  0.386557819  1.882125e+00     0.826242     0.718075
## 6080     1.830137  0.852205423  2.629816e+00     0.931045     0.752249
## 6081     1.704621  0.577778937  3.776348e-01     0.917940     0.722950
## 6082     1.802050  0.591793387  1.767327e+00     0.857711     0.651520
## 6083     1.710856  0.861536800  5.466004e-01     0.881787     0.710667
## 6084     1.640072  0.659931405  3.334167e-02     0.806060     0.716644
## 6085     2.182086  1.216403445  1.118756e+00     0.916948     0.855304
## 6086     1.762961  0.837106533  4.679412e-01     0.971867     0.668572
## 6087     1.519663  0.886676812  3.424227e-01     0.979944     0.861587
## 6088     1.693666  1.209388997  5.982683e-01     0.909349     0.795108
## 6089     1.630561  0.500413506  9.431537e-03     0.909724     0.606292
## 6090     1.728061  1.199500119  7.243546e-01     0.968562     0.836491
## 6091     1.568939  0.484620102  2.076874e+00     0.875905     0.746679
## 6092     1.693672  0.326456709  2.633490e+00     0.969624     0.817415
## 6093     2.043845  1.375974366  1.085667e+00     0.885656     0.748881
## 6094     1.940856  0.948064608  6.558516e-02     0.861508     0.641011
## 6095     1.821427  0.968708910  1.641330e+00     0.769694     0.612988
## 6096     1.626953  0.419101181  2.577967e+00     0.900102     0.761898
## 6097     1.660253  0.732215984  1.312966e-01     0.943996     0.657671
## 6098     1.826449  0.980911030  7.278700e-01     0.919987     0.783024
## 6099     1.853473  0.864647518  1.167089e-01     0.929973     0.634332
## 6100     1.701226  0.742926917  5.093228e-01     0.914403     0.700718
## 6101     1.777026  0.856940248  2.603548e+00     0.764048     0.722822
## 6102     1.539856  0.427711637  2.937992e+00     0.926897     0.796687
## 6103     2.241225  1.795255574  7.210561e-01     0.636863     0.531750
## 6104     1.655701  0.777118574  2.136292e+00     0.920774     0.840186
## 6105     1.743496  0.429779725  1.497514e+00     0.534736     0.510317
## 6106     1.569257  0.253718331  1.629126e+00     0.865724     0.813244
## 6107     1.538210  0.500088207  2.178879e+00     0.844758     0.541255
## 6108     1.648091  0.636908948  2.630732e+00     0.763593     0.669458
## 6109     1.586207  0.706722048  1.150907e+00     0.836881     0.628289
## 6110     1.710907  0.631609135  1.724260e+00     0.778549     0.704694
## 6111     1.660770  0.931178592  1.994497e+00     0.889568     0.795007
## 6112     1.634171  0.791996442  2.029293e+00     0.922740     0.819718
## 6113     1.730710  0.684789725  2.674094e+00     0.774326     0.667478
## 6114     1.866795  0.733324886  2.099292e+00     0.890955     0.843175
## 6115     1.654734  1.012098718  6.265031e-01     0.904066     0.734655
## 6116     1.641858  0.435895307  2.808008e-01     0.818161     0.703510
## 6117     1.652661  0.585703190  4.999351e+00     0.932548     0.794586
## 6118     1.467220  0.303800624  4.634011e-01     0.927924     0.671792
## 6119     1.718449  0.818249654  2.041544e+00     0.857706     0.823931
## 6120     1.611188  0.525002024  3.013004e+00     0.879898     0.751440
## 6121     1.932520  1.021743188  1.994156e+00     0.872314     0.627518
## 6122     1.923517  0.866764505  1.895313e+00     0.880771     0.683438
## 6123     1.580092  0.521403550  1.180943e+00     0.720739     0.625043
## 6124     1.561025  0.417170988  2.381951e+00     0.858629     0.726740
## 6125     1.565160  0.538631535  1.038787e+00     0.800140     0.761505
## 6126     1.741546  1.074007784 -1.243214e-02     0.806306     0.732972
## 6127     1.567104  0.465076357  2.254023e+00     0.941744     0.794918
## 6128     1.787656  0.490023127  2.755674e+00     0.858899     0.811164
## 6129     1.881386  0.565416851  2.224003e+00     0.793857     0.726036
## 6130     1.713853  0.684462942  2.313386e+00     0.979532     0.670562
## 6131     1.642351  0.670316374  3.033035e-01     0.727581     0.695807
## 6132     1.808856  0.704408785  1.827264e+00     0.961154     0.798726
## 6133     1.635503  0.646452741  2.584116e+00     0.791781     0.700731
## 6134     1.580127  0.693864952  1.571543e+00     0.874956     0.825917
## 6135     1.870999  0.868372258  1.016542e+00     0.791070     0.747209
## 6136     1.767952  0.572458013  2.867012e+00     0.959488     0.761608
## 6137     1.914032  0.951598309  4.338241e-01     0.771891     0.693396
## 6138     1.788064  0.574320701  2.375950e+00     0.967722     0.856813
## 6139     1.651719  0.490537153  1.496771e-01     0.768820     0.670134
## 6140     1.691614  0.607462529 -1.501145e-02     0.859018     0.731637
## 6141     1.525524  0.439413228  2.392725e+00     0.879900     0.692044
## 6142     1.963106  0.990776038  3.484465e-01     0.792956     0.551150
## 6143     1.661828  0.438536020  1.760384e+00     0.915695     0.822949
## 6144     2.612815  1.837222795  2.547833e+00     0.656857     0.536417
## 6145     1.741175  0.629512553  6.337088e-01     0.886537     0.719059
## 6146     1.752411  0.439656320  6.217307e-01     0.799291     0.611005
## 6147     1.735723  0.644907099  7.056026e-01     0.866607     0.771720
## 6148     1.625103  0.573476174  3.864140e-01     0.852163     0.691220
## 6149     1.502161  0.256979783  2.368936e+00     0.940073     0.875055
## 6150     1.767416  0.761156243  2.707831e+00     0.907817     0.845435
## 6151     1.793532  1.128418656  4.771213e-01     0.904231     0.842447
## 6152     1.579602  0.302486779  2.428783e+00     0.922992     0.728078
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## 6153     1.583730  0.573126994  2.543783e+00     0.909726     0.786866
## 6154     1.533350  0.293450952  2.120773e+00     0.938439     0.724901
## 6155     1.567851  0.424228071  3.387859e+00     0.974766     0.660131
## 6156     2.004106  1.212427333  2.793029e+00     0.904803     0.779840
## 6157     1.923711  0.922504363  7.693875e-01     0.878765     0.697428
## 6158     1.612165  0.457444355  3.218105e-01     0.922487     0.760881
## 6159     1.907168  1.154022057  2.440234e+00     0.896559     0.823228
## 6160     1.511357  0.346194487  1.998844e+00     0.834041     0.813754
## 6161     1.586466  0.342813370  3.067777e+00     0.832890     0.756904
## 6162     1.537825  0.552164288  1.736366e-01     0.852765     0.810139
## 6163     1.492534  0.366910214  1.920157e-01     0.825631     0.764423
## 6164     1.843093  1.161308095  1.343304e+00     0.834687     0.743145
## 6165     1.523037  0.594602464 -5.501178e-02     0.833476     0.717606
## 6166     1.531041  0.471031937  2.068873e+00     0.952557     0.817175
## 6167     1.611407  0.588624603  2.576666e+00     0.928891     0.804171
## 6168     1.680423  0.423822365  2.041496e+00     0.931186     0.820202
## 6169     1.583622  0.629602236  1.175936e+00     0.676910     0.665668
## 6170     1.713959  0.564031318  2.917198e+00     0.940715     0.807243
## 6171     1.815203  1.045056843  5.077607e-01     0.722250     0.623703
## 6172     1.656243  0.809052405  1.275149e+00     0.880492     0.736994
## 6173     1.551256  0.543366402  2.688245e+00     0.785887     0.642991
## 6174     1.439629  0.398934273  1.870107e+00     0.724743     0.567172
## 6175     1.733510  1.255906594  6.137364e-01     0.841922     0.790219
## 6176     1.705875  0.483321933  2.597834e+00     0.944379     0.855163
## 6177     1.740775  0.703926445  1.677011e+00     0.787212     0.684962
## 6178     1.728811  0.504177156  1.169712e+00     0.834161     0.709144
## 6179     1.771983  0.705507068  3.007223e+00     0.786366     0.732114
## 6180     1.848308  0.887770851  1.386987e+00     0.758176     0.544206
## 6181     1.618706  1.013073282  5.253936e-01     0.769507     0.665589
## 6182     1.682971  0.403417388  2.050403e+00     0.846835     0.735693
## 6183     1.533050  0.420999772  2.104009e+00     0.737827     0.697370
## 6184     1.590181  0.701490271  2.132220e+00     0.932287     0.854816
## 6185     1.651630  0.289310183  1.574775e+00     0.930027     0.827052
## 6186     1.641832  0.485220137  2.210643e+00     0.939278     0.891914
## 6187     1.822311  0.778743658  1.940390e+00     0.792222     0.689911
## 6188     1.758009  0.671405207  4.355569e-01     0.961186     0.700018
## 6189     1.599407  0.416688760  2.438985e+00     0.951515     0.771577
## 6190     1.610560  0.525871125  2.235719e+00     0.967780     0.767688
## 6191     1.761343  0.554611496  3.573924e-01     0.904356     0.628778
## 6192     1.612236  0.853788832  8.081982e-02     0.879034     0.658029
## 6193     1.879180  1.342053374  1.288474e+00     0.890272     0.787559
## 6194     1.905565  1.056432204  7.022325e-01     0.910527     0.679617
## 6195     1.442815  0.461554048  2.176650e+00     0.747807     0.625413
## 6196     1.752482  0.478637189  3.292168e+00     0.981126     0.955601
## 6197     1.665050  0.682520520  2.044392e+00     0.782704     0.570619
## 6198     1.887084  0.281733131  2.295997e+00     0.881756     0.740127
## 6199     1.700460  0.566380918  5.955594e-01     0.641334     0.587528
## 6200     1.673601  0.776380792  8.602018e-01     0.737135     0.717011
## 6201     1.614145  0.745059169  2.068267e+00     0.944498     0.654276
## 6202     1.495976  0.578738891  9.382968e-01     0.819369     0.693298
## 6203     1.741126  0.541137237  1.814320e+00     0.944179     0.837501
## 6204     1.714548  0.636161802  5.598914e-01     0.761989     0.713918
## 6205     1.621403  0.896909088  6.023382e-01     0.740952     0.556629
## 6206     1.591767  0.569575207  2.788047e+00     0.897013     0.661793
## 6207     1.988757  0.624894421  1.950492e+00     0.851881     0.794235
## 6208     1.796804  1.503733499  6.988317e-01     0.864468     0.769871
## 6209     1.572180  0.403696909  2.574547e+00     0.920455     0.693272
## 6210     1.591129  0.610192619  3.637744e-02     0.921946     0.832180
## 6211     1.513126  0.483156354  2.283360e+00     0.895833     0.724949
## 6212     1.725227  0.965458061  9.512397e-01     0.897947     0.687212
## 6213     1.679654  0.829055993  2.129091e+00     0.864594     0.616136
## 6214     1.567597  0.317885823  2.462014e+00     0.843066     0.791806
## 6215     1.620226  0.553348929  2.551007e+00     0.779839     0.736671
## 6216     1.606936  0.681027657  8.049919e-01     0.923136     0.845529
## 6217     1.601836  0.444076039  1.355050e+00     0.669793     0.550304
## 6218     1.545761  0.573124673  9.359196e-01     0.808423     0.626142
## 6219     1.537173  0.608085097  2.332983e+00     0.805870     0.754623
## 6220     1.990300  1.153888003  4.781173e-01     0.730513     0.634962
## 6221     1.963053  1.004540616  7.274823e-01     0.827835     0.725025
## 6222     1.988748  1.046643416  7.336797e-01     0.726680     0.630685
## 6223     1.595469  0.368643845  1.934647e+00     0.940865     0.810426
## 6224     1.614173  0.864617862  6.008889e-01     0.908448     0.793847
## 6225     1.651363  0.532628275  2.345286e-01     0.904580     0.868875
## 6226     1.614202  0.620005851  2.320396e-01     0.972556     0.907172
## 6227     1.741418  0.461274869  2.091056e+00     0.959302     0.908109
## 6228     1.740036  0.665169952  6.998545e-01     0.941201     0.779189
## 6229     1.958091  1.115939852  5.772981e-01     0.812240     0.759303
## 6230     1.465765  0.413909695  1.861369e+00     0.660244     0.411680
## 6231     1.578057  0.609567732  3.025947e+00     0.714522     0.610152
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## 6232     2.374123  1.676255437  5.079769e-01     0.832975     0.656001
## 6233     1.631017  0.512593686  2.943298e+00     0.904935     0.825774
## 6234     1.713328  0.536646807  1.973323e+00     0.888509     0.833459
## 6235     1.743927  0.483190617  2.761908e+00     0.843637     0.709436
## 6236     1.582710  0.704286105 -1.243214e-02     0.963585     0.914474
## 6237     1.547684  0.349349418  1.043788e+00     0.707606     0.692742
## 6238     1.617108  0.524015542  5.469679e-01     0.839299     0.554118
## 6239     1.622940  0.854605996  1.566379e+00     0.910034     0.849425
## 6240     1.808683  0.720400787  1.461962e+00     0.762373     0.622361
## 6241     1.596131  0.428191508  2.299109e+00     0.798775     0.724627
## 6242     1.622142  0.365192115  2.535460e+00     0.692119     0.638018
## 6243     1.669382  0.416850116  2.289417e+00     0.845542     0.633340
## 6244     1.667884  0.569707404  3.578300e-01     0.889158     0.779584
## 6245     1.556219  0.442953002  2.433036e+00     0.947889     0.840178
## 6246     1.511809  0.378361557  5.487606e-01     0.958633     0.832396
## 6247     1.622154  0.694120625  1.392661e+00     0.775768     0.631651
## 6248     1.773896  0.937374441  2.559809e-01     0.873260     0.781028
## 6249     1.641192  0.522270742  2.719862e+00     0.810221     0.754391
## 6250     1.658089  1.149911583  3.185475e+00     0.954483     0.918496
## 6251     1.581099  0.550291963  2.561316e+00     0.878025     0.693426
## 6252     1.628055  0.537443803  1.298180e+00     0.736735     0.620458
## 6253     1.926931  0.953597828  2.485482e+00     0.965382     0.635698
## 6254     1.538905  0.320513930  1.508469e-01     0.801248     0.767555
## 6255     1.615638  0.664138767  3.083313e-01     0.968813     0.846380
## 6256     1.581724  0.507564446  2.390389e+00     0.899324     0.800090
## 6257     1.647293  0.371247087  1.387291e+00     0.746973     0.730690
## 6258     1.678695  1.157236089  4.575292e-01     0.826010     0.576628
## 6259     1.866784  0.874641822 -1.886110e-01     0.956190     0.820353
## 6260     1.690557  0.488653638  4.553292e-01     0.945336     0.929567
## 6261     1.989909  1.030441842  2.091421e+00     0.884109     0.788872
## 6262     2.020494  0.905682571  2.872693e+00     0.895758     0.791569
## 6263     1.713244  1.029042702  4.335739e-02     0.883872     0.785554
## 6264     1.611023  0.194708552  2.269463e+00     0.864173     0.732000
## 6265     1.804101  0.842389541  3.391068e-01     0.903530     0.855592
## 6266     1.940125  1.271918240  4.887777e-01     0.863112     0.617648
## 6267     1.654915  0.577289542  6.340688e-01     0.945232     0.758065
## 6268     1.631633  0.526999265 -1.710462e-01     0.906373     0.802047
## 6269     1.604073  0.714964807  2.469426e+00     0.827480     0.794150
## 6270     1.731959  0.833515564  2.199007e+00     0.835622     0.705403
## 6271     1.619563  0.459056081 -1.088904e-01     0.838987     0.734565
## 6272     1.902261  0.995661515  1.576294e+00     0.786006     0.755929
## 6273     1.659272  0.887948520  5.644190e-01     0.821407     0.774112
## 6274     1.855577  0.975268170  2.036203e+00     0.885286     0.758215
## 6275     2.029510  1.721787540  1.283862e+00     0.706206     0.572652
## 6276     1.711321  0.554977089  2.332318e+00     0.897376     0.862427
## 6277     1.852274  0.816852198  5.839135e-01     0.951011     0.926751
## 6278     2.286650  1.428670849  1.413923e+00     0.852709     0.749015
## 6279     1.582604  0.315922088  2.719463e+00     0.948617     0.838659
## 6280     1.783493  0.823310523  5.750995e-01     0.862977     0.728399
## 6281     1.778918  0.763541794  2.567877e+00     0.906005     0.714174
## 6282     1.631842  0.760156246  4.428054e-01     0.818649     0.774963
## 6283     1.710655  0.839658390  3.538402e-02     0.987394     0.770121
## 6284     1.648802  0.585819297 -3.504034e-03     0.876768     0.642863
## 6285     1.643373  0.795597808  2.687802e+00     0.872051     0.694604
## 6286     1.965859  0.616130882  2.480823e+00     0.949170     0.832406
## 6287     1.754551  0.514150464  1.382759e+00     0.905492     0.852574
## 6288     1.603246  0.463367339  2.341616e+00     0.870937     0.792935
## 6289     1.801844  0.762183982  2.368434e+00     0.898133     0.772876
## 6290     1.599802  0.706161119  2.396541e+00     0.883507     0.692900
## 6291     1.931147  1.126293791  5.515980e-01     0.893343     0.766077
## 6292     1.514128  0.460221079 -1.260554e-01     0.857405     0.677976
## 6293     1.750789  0.652056719  2.435397e+00     0.740449     0.648661
## 6294     1.679722  0.636150761  6.191756e-01     0.900783     0.818217
## 6295     1.765514  0.707925131  6.701810e-01     0.939443     0.785291
## 6296     2.258295  2.212147637  1.733479e+00     0.752144     0.570445
## 6297     1.656075  0.466725303  5.850666e-01     0.836403     0.741394
## 6298     1.499602  0.386145679  2.663768e+00     0.913748     0.704948
## 6299     1.608655  0.405745802  1.867979e+00     0.633631     0.442104
## 6300     1.599373  0.699558509  1.577136e+00     0.897411     0.831477
## 6301     1.752171  0.461975478  2.114233e+00     0.899128     0.878994
## 6302     1.630791  0.690900130  4.228438e-01     0.976227     0.743861
## 6303     1.658861  1.057513960  1.312966e-01     0.911858     0.731698
## 6304     1.617411  0.546579676  2.440683e+00     0.938470     0.806901
## 6305     1.667750  0.575814578  1.748877e+00     0.893031     0.778570
## 6306     1.588579  0.464570020  2.075937e+00     0.803756     0.742433
## 6307     1.810879  1.583287211  2.378514e+00     0.667657     0.561215
## 6308     1.830739  1.184237029  5.154070e-01     0.919835     0.822932
## 6309     1.625285  0.579049247  2.544260e+00     0.955643     0.848272
## 6310     1.867876  1.206423765  2.707170e+00     0.900364     0.606637
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## 6311     1.713238  0.578313654  2.819047e-01     0.886441     0.746449
## 6312     1.583603  0.507442961  2.754685e+00     0.860560     0.758856
## 6313     1.662041  0.792608082  3.556332e-01     0.927885     0.740891
## 6314     1.591092  0.484658518  3.168578e-01     0.917509     0.879676
## 6315     1.721671  0.717199346  8.969918e-01     0.884540     0.744857
## 6316     2.066013  1.749307992  1.150502e+00     0.816563     0.577644
## 6317     1.773639  0.703462482  5.551204e-01     0.823358     0.744079
## 6318     1.827805  0.700271803  2.545626e+00     0.856449     0.680990
## 6319     1.710537  0.639749377  1.566271e+00     0.891169     0.523000
## 6320     1.631338  0.494296552 -1.088904e-01     0.939494     0.673485
## 6321     1.582353  0.339173086  2.361055e+00     0.829721     0.620944
## 6322     1.705609  0.657421119  6.334685e-01     0.803772     0.652739
## 6323     1.597652  0.701267415  1.857167e+00     0.822828     0.700643
## 6324     1.982361  0.900423392 -3.648557e-01     0.868367     0.777297
## 6325     1.614855  0.727598183  2.481000e+00     0.852040     0.826476
## 6326     1.846448  0.802972703  2.276345e+00     0.767448     0.683149
## 6327     1.639902  0.666616247  1.485008e-01     0.829917     0.719135
## 6328     1.903973  0.745342628  1.145099e+00     0.900501     0.721762
## 6329     1.769574  0.522809253  2.436755e+00     0.807931     0.721168
## 6330     1.911471  1.095838591  1.628900e+00     0.895420     0.794024
## 6331     1.574549  0.591310638  2.465176e+00     0.922393     0.770471
## 6332     1.632515  0.768658077  5.501840e-01     0.690404     0.601195
## 6333     1.649236  0.711287451  5.461843e-01     0.854404     0.750637
## 6334     1.703839  0.495405563  2.293907e+00     0.836491     0.807594
## 6335     1.568728  0.434923220  2.328041e+00     0.962242     0.888707
## 6336     2.047174  0.774194958  2.819835e+00     0.899699     0.767870
## 6337     1.579421  0.895447962  2.565378e+00     0.933282     0.843084
## 6338     1.814170  0.678852393  2.654183e+00     0.863897     0.731882
## 6339     1.602604  0.432408031  1.974035e+00     0.764223     0.627447
## 6340     1.698446  0.546520455  8.345049e-01     0.893840     0.775391
## 6341     1.984864  1.098501822  2.641224e+00     0.836542     0.805656
## 6342     1.893956  0.966554234  2.798258e+00     0.751299     0.650786
## 6343     1.943885  0.685269579  2.325069e+00     0.919368     0.839935
## 6344     1.943372  0.693882529 -3.502659e-01     0.964323     0.880877
## 6345     1.701028  0.751356100  5.476930e-02     0.897638     0.805142
## 6346     1.764938  0.899961598  1.251300e+00     0.900535     0.672810
## 6347     1.669282  0.493858003  2.697729e+00     0.953885     0.813077
## 6348     1.678181  0.697648609 -3.434971e-02     0.831685     0.728225
## 6349     1.786343  0.410923941  1.739735e+00     0.955517     0.784781
## 6350     1.704585  0.606608128  1.111407e-01     0.954521     0.873770
## 6351     1.862276  0.850527998  4.594359e-01     0.852719     0.727691
## 6352     1.807254  0.860407488  4.547756e-01     0.929554     0.750612
## 6353     1.564531  0.465873387 -6.172243e-01     0.909751     0.821051
## 6354     1.647257  0.791605746  2.891709e+00     0.841109     0.760455
## 6355     1.711617  0.436733377  2.676742e-01     0.838869     0.598819
## 6356     1.872716  0.637135345  2.226503e+00     0.827131     0.771126
## 6357     1.643693  0.757379325  1.099389e+00     0.919054     0.849602
## 6358     1.494163  0.419539419  2.415546e+00     0.771707     0.668612
## 6359     1.635916  0.481326514  1.806932e+00     0.608587     0.529368
## 6360     1.613048  0.363286607  2.212934e+00     0.772665     0.592349
## 6361     1.630248  0.581740364  4.769780e-03     0.972463     0.820257
## 6362     1.732147  0.615590269  2.955806e+00     0.798206     0.619553
## 6363     1.931781  1.154490923  2.716513e-01     0.852415     0.756361
## 6364     1.518555  0.359949256  1.947396e+00     0.972100     0.841536
## 6365     1.637037  0.625435929  2.460750e+00     0.919525     0.869393
## 6366     1.676244  0.796324507  6.499203e-01     0.794429     0.721386
## 6367     1.597216  0.522749306  1.419533e+00     0.974801     0.866472
## 6368     1.548447  0.491164115  2.458922e+00     0.898256     0.710646
## 6369     1.696841  0.503665414  5.211706e-01     0.782800     0.744710
## 6370     1.763763  0.661037076 -2.172698e-01     0.920295     0.764801
## 6371     1.643745  0.498802475  3.440894e-01     0.972467     0.802445
## 6372     1.697669  0.508039262  4.335739e-02     0.899929     0.888064
## 6373     1.798314  0.821023279  2.568350e-01     0.985634     0.672902
## 6374     1.617496  0.536384185  1.024990e-01     0.809667     0.770363
## 6375     1.719088  0.784530996  5.881139e-01     0.792392     0.669272
## 6376     1.731591  1.070562399  5.603992e-01     0.851604     0.741745
## 6377     1.826112  1.011621186  1.789905e+00     0.921273     0.585052
## 6378     1.779888  0.899881212  4.231655e-01     0.964519     0.894977
## 6379     1.618445  0.410411091  2.263518e+00     0.933654     0.826454
## 6380     1.579393  0.392193795  2.063986e+00     0.622649     0.476115
## 6381     1.757165  0.689872454 -3.378003e-02     0.957801     0.861489
## 6382     1.667082  0.341493877  1.124839e+00     0.713055     0.666317
## 6383     1.658723  0.736249056 -7.143442e-02     0.851434     0.843908
## 6384     1.612951  0.711538980  1.599768e-01     0.854299     0.828066
## 6385     1.694645  0.768681750  7.724005e-01     0.948998     0.854217
## 6386     1.812649  1.555470513  8.783230e-01     0.814363     0.677717
## 6387     1.914740  0.675025462  2.812785e+00     0.927743     0.805963
## 6388     1.666627  1.438102294  1.573140e+00     0.696568     0.664808
## 6389     2.148994  1.553881814  1.365395e+00     0.877488     0.574025
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## 6390     1.855752  1.350224752  2.253888e+00     0.780836     0.688466
## 6391     1.679626  0.598058043  3.242773e-01     0.786681     0.648073
## 6392     1.816448  0.614589306  1.770856e+00     0.790445     0.721785
## 6393     1.790148  0.812370483  2.946548e-01     0.922969     0.806278
## 6394     1.704824  0.899504238  5.128885e-01     0.722775     0.641551
## 6395     1.724739  0.637555769  4.043567e-01     0.910259     0.856051
## 6396     1.793971  0.684126926  9.298443e-01     0.964597     0.641552
## 6397     1.585776  0.341214849  8.955411e-01     0.827284     0.731091
## 6398     1.768851  0.475155248  1.619004e+00     0.811730     0.716031
## 6399     1.638175  0.708718260  1.264663e+00     0.885743     0.773187
## 6400     1.603859  0.497731108  2.306883e+00     0.932686     0.813579
## 6401     1.668031  0.551058224  9.231238e-01     0.855624     0.733982
## 6402     1.587020  0.587403371  2.016883e+00     0.922257     0.875967
## 6403     1.892066  1.202978461  1.069251e+00     0.937010     0.841735
## 6404     1.718804  0.567680258  2.622521e-01     0.951206     0.787946
## 6405     1.460126  0.256352073  3.102026e+00     0.786231     0.613246
## 6406     1.644386  0.726204601  8.081982e-02     0.923882     0.719141
## 6407     1.624548  0.694706961  3.082744e-01     0.921050     0.845772
## 6408     1.533195  0.460529513  2.312457e-01     0.904997     0.736672
## 6409     1.606853  0.841918562  5.385225e-01     0.875801     0.670104
## 6410     2.033597  1.656628044  1.035326e+00     0.861869     0.832347
## 6411     1.677371  0.577527415  3.014638e-01     0.975804     0.944418
## 6412     1.468553  0.484146029  2.975377e+00     0.852218     0.649533
## 6413     1.864451  0.489294584  1.951756e+00     0.873551     0.792905
## 6414     1.697044  0.996026322  7.749377e-01     0.744854     0.663051
## 6415     2.093404  1.491005707  1.620336e+00     0.913412     0.726779
## 6416     1.667611  0.599463852  2.687020e+00     0.849860     0.807649
## 6417     1.756225  0.811814874  1.072243e-01     0.751585     0.733868
## 6418     1.899962  1.255949958  1.081375e+00     0.815358     0.682280
## 6419     1.845935  0.733759637  4.287995e-01     0.931904     0.692854
## 6420     1.904693  0.747648702  1.932583e+00     0.827457     0.663529
## 6421     1.794731  1.037474308  3.990230e-01     0.956161     0.835661
## 6422     1.592252  0.763217534  7.218991e-01     0.868053     0.729368
## 6423     1.750893  0.464620680  8.565941e-02     0.924394     0.831403
## 6424     2.512247  2.132365368  2.799544e+00     0.824971     0.777450
## 6425     1.550799  0.410392523  3.245240e+00     0.728715     0.652101
## 6426     1.853589  1.267603461  1.285282e+00     0.967016     0.809730
## 6427     1.726334  0.861724336  1.167089e-01     0.707541     0.625920
## 6428     1.597348  0.611579935  4.282478e-01     0.900209     0.854153
## 6429     1.675436  0.407487781  4.999592e+00     0.612622     0.532124
## 6430     1.633551  0.656554307  2.667285e+00     0.972735     0.747237
## 6431     1.549350  0.534285082  2.749092e-01     0.874019     0.659909
## 6432     1.712427  0.636330398  1.890742e+00     0.924020     0.850623
## 6433     1.577587  0.526917951  2.555186e+00     0.933880     0.804864
## 6434     1.581682  0.506149063  3.387120e+00     0.897434     0.740114
## 6435     1.736087  0.781542841  3.740637e-02     0.950767     0.919645
## 6436     1.666791  0.689524621  2.782769e-01     0.830779     0.629945
## 6437     1.608103  0.569332937  1.690516e+00     0.681337     0.647533
## 6438     1.581979  1.065019214 -4.899824e-01     0.934650     0.889235
## 6439     1.529509  0.485401975  2.296163e+00     0.911315     0.882059
## 6440     1.633543  0.507799221  2.285078e+00     0.980746     0.832268
## 6441     1.496877  0.390705541 -3.120784e-02     0.855163     0.731031
## 6442     1.636392  0.560194863  5.407580e-01     0.910449     0.739428
## 6443     2.033199  1.192260719  1.414162e+00     0.792239     0.735948
## 6444     1.890918  1.163957051  5.500510e-01     0.843873     0.716901
## 6445     1.743732  0.417831933  2.858171e+00     0.855050     0.745425
## 6446     1.722710  0.732139543  7.362289e-01     0.920681     0.798886
## 6447     1.624444  0.397030513  3.365994e+00     0.942482     0.900912
## 6448     1.800446  0.693156013  1.217588e+00     0.832055     0.638715
## 6449     1.688985  0.882728830  3.659765e-01     0.866799     0.708632
## 6450     1.787637  0.472465360  1.949608e+00     0.737947     0.645342
## 6451     1.585352  0.728861650  7.249451e-02     0.903398     0.740138
## 6452     1.538910  0.643983376  1.221322e-01     0.817746     0.777172
## 6453     1.661198  0.572064970  3.120539e+00     0.884558     0.858755
## 6454     2.020527  1.029339128  2.608600e+00     0.900754     0.829668
## 6455     1.564573  0.477736070  2.618677e+00     0.961441     0.806845
## 6456     1.586316  0.283199429  3.322854e+00     0.891380     0.777850
## 6457     1.745562  0.514768164  2.495110e+00     0.691014     0.535599
## 6458     1.600369  0.712626135  2.868506e-01     0.840082     0.778555
## 6459     1.681008  0.678546603  2.805549e+00     0.844772     0.757692
## 6460     1.777935  0.687189954  7.026607e-01     0.842214     0.748382
## 6461     1.658362  0.477121255  2.608878e+00     0.975223     0.909180
## 6462     1.519114  0.444862624  2.540967e+00     0.825082     0.610205
## 6463     1.690910  0.291495390  1.741230e+00     0.867560     0.784078
## 6464     1.652134  0.888568106  8.217096e-01     0.879745     0.671183
## 6465     1.818843  0.485551082  1.461591e+00     0.692589     0.585180
## 6466     1.692142  0.636682433  7.962520e-01     0.878486     0.673120
## 6467     1.803466  1.269779043  1.098960e+00     0.738744     0.509621
## 6468     1.783420  0.649737806  4.068007e-01     0.883136     0.663851
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## 6469     1.595246  0.553065833  1.991606e+00     0.788475     0.705652
## 6470     1.595051  0.381966582  2.382847e-01     0.876045     0.721028
## 6471     1.617204  0.675901100  1.811987e-01     0.970355     0.854710
## 6472     1.595883  0.636490905  1.526023e+00     0.919612     0.817807
## 6473     1.536206  0.702080547  2.722593e+00     0.830218     0.748523
## 6474     1.640825  0.841919812  2.793876e-01     0.975018     0.924087
## 6475     1.611412  0.466180803 -1.172905e-01     0.865034     0.735333
## 6476     1.714479  0.518683676  2.684141e+00     0.955626     0.856805
## 6477     2.177473  1.274725757  2.086287e+00     0.882208     0.756998
## 6478     1.495286  0.303284636  2.906519e+00     0.869609     0.658325
## 6479     1.539294  0.249763184  2.465126e+00     0.808659     0.710998
## 6480     1.670382  1.142880429  4.244475e-01     0.833731     0.770471
## 6481     1.981463  0.848332626  7.702165e-01     0.864400     0.636860
## 6482     1.585452  0.561789267  2.384240e+00     0.890056     0.814013
## 6483     1.721884  0.564746526  3.004400e+00     0.980305     0.923618
## 6484     1.920841  1.129435298  6.087744e-01     0.874702     0.569815
## 6485     1.576177  0.414640818  1.584501e+00     0.685302     0.522323
## 6486     1.576248  0.929278396  2.306140e+00     0.883083     0.812578
## 6487     2.007773  1.158428838  6.340688e-01     0.977741     0.752546
## 6488     1.561236  0.504855372  1.057494e+00     0.817425     0.740407
## 6489     1.653259  0.388873502  2.511956e+00     0.824566     0.701403
## 6490     2.012331  1.272472849  1.915138e+00     0.779885     0.597376
## 6491     2.261275  1.742633236  1.243757e+00     0.680398     0.555294
## 6492     1.670285  1.065269660  1.793507e+00     0.582029     0.532128
## 6493     1.670715  0.527008299  8.537777e-01     0.927893     0.816175
## 6494     1.585560  0.377648597  4.553292e-01     0.968610     0.806787
## 6495     1.995327  1.162107171  2.126863e+00     0.890539     0.849251
## 6496     1.627181  0.380672435  2.467510e+00     0.972627     0.915494
## 6497     1.464516  0.479501890  1.885968e+00     0.907923     0.698921
## 6498     1.699281  1.501932453  9.836242e-01     0.603092     0.516387
## 6499     1.737333  0.682751401  3.876483e-01     0.924726     0.742676
## 6500     1.628312  0.610372667  3.604365e-01     0.957083     0.689348
## 6501     1.575209  0.500461525  2.922799e-01     0.907781     0.824962
## 6502     1.534583  0.329589049  4.192726e-01     0.817282     0.725518
## 6503     1.730656  0.398965469  6.541816e-01     0.738271     0.689814
## 6504     1.589015  0.463551090  1.920157e-01     0.815707     0.786879
## 6505     1.768129  0.748690277  3.264981e-01     0.881267     0.714423
## 6506     1.510029  0.307322713  1.880181e+00     0.891913     0.877094
## 6507     1.699967  0.788844749  8.446004e-02     0.902756     0.714944
## 6508     1.559532  0.495387519  2.703308e+00     0.934917     0.656971
## 6509     1.545885  0.379582870  3.123355e+00     0.842111     0.816171
## 6510     1.609692  0.323439807  1.782104e+00     0.714133     0.707063
## 6511     1.972925  1.219128513  1.025813e+00     0.877405     0.723829
## 6512     1.611637  0.560948638  9.354469e-01     0.880602     0.826252
## 6513     1.731433  0.428656282  2.774837e+00     0.889532     0.793575
## 6514     1.926253  0.893817779  2.152979e+00     0.859847     0.692225
## 6515     1.773138  1.433529826  7.032697e-01     0.866222     0.692365
## 6516     1.773687  0.946816644  8.431561e-01     0.873750     0.748569
## 6517     1.782318  0.706894365  3.108224e+00     0.854929     0.769169
## 6518     1.755581  1.147045289  1.438226e+00     0.658097     0.579748
## 6519     1.706670  0.512033000  5.088392e-01     0.964047     0.800613
## 6520     1.501443  0.448669226  2.533608e+00     0.713520     0.547605
## 6521     1.457676  0.487552667  2.812053e+00     0.844421     0.737107
## 6522     1.562145  0.454077691  2.426336e+00     0.795613     0.744762
## 6523     1.843796  0.651559051  2.803147e+00     0.829814     0.800106
## 6524     1.596564  0.608593419  2.117024e+00     0.867833     0.798035
## 6525     1.644972  0.648763863  9.041867e-01     0.894160     0.840483
## 6526     1.674874  0.571981199  1.097250e-01     0.957056     0.833362
## 6527     1.588833  0.526538283  2.102581e+00     0.845203     0.744965
## 6528     1.587075  0.369599871  3.028411e+00     0.741986     0.717371
## 6529     1.746935  0.807560057  5.279351e-01     0.919602     0.745747
## 6530     1.750644  0.480738300  5.875189e-01     0.772764     0.602903
## 6531     1.717240  0.417250753  2.462645e+00     0.823792     0.648874
## 6532     1.624199  0.718982219  2.451591e+00     0.776547     0.775348
## 6533     1.569497  0.617144033  1.789895e+00     0.774840     0.731266
## 6534     1.672120  0.666757525  6.556075e-01     0.971657     0.873298
## 6535     1.896864  1.320709050  2.597739e+00     0.848435     0.746967
## 6536     1.616712  0.732117010  1.976294e+00     0.798639     0.643794
## 6537     1.720940  0.439853535  9.336213e-01     0.911626     0.739662
## 6538     1.607031  0.587020258  2.095183e+00     0.819211     0.582021
## 6539     1.696313  0.930811542  5.672213e-01     0.936674     0.801248
## 6540     1.653260  0.471005511  1.838088e+00     0.859423     0.759560
## 6541     1.553919  0.702192643  6.507861e-01     0.899230     0.749131
## 6542     1.653969  0.699505593  2.910854e-01     0.895815     0.837295
## 6543     2.083234  1.124050783  2.068763e+00     0.912246     0.862638
## 6544     1.677047  0.532145175  2.723785e+00     0.886853     0.829964
## 6545     1.537245  0.411405873  2.718724e+00     0.755940     0.559952
## 6546     1.704254  0.325880843  2.443500e-01     0.829076     0.791737
## 6547     1.477357  0.381143973  1.834024e+00     0.775927     0.685717
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## 6548     1.778924  0.568840957  2.507709e+00     0.929259     0.824500
## 6549     1.581751  0.552400501  2.549991e+00     0.844634     0.836177
## 6550     1.550036  0.156661193  1.973254e+00     0.889890     0.723960
## 6551     1.753936  0.816076834  6.359787e-01     0.934219     0.648689
## 6552     1.474642  0.393382141  8.338867e-01     0.830839     0.798629
## 6553     1.733476  0.900895608  2.687421e+00     0.872855     0.867517
## 6554     1.775442  0.624388335  2.516220e+00     0.989326     0.766736
## 6555     1.558526  0.422141527  3.310943e+00     0.936803     0.646182
## 6556     1.682748  0.577753676  3.498127e-01     0.880183     0.769406
## 6557     1.599514  0.647808253  1.059169e+00     0.912751     0.739739
## 6558     1.578225  0.329383640  2.066139e+00     0.812667     0.729776
## 6559     1.737267  0.689992180  2.231527e+00     0.733559     0.620321
## 6560     1.701848  0.634389596 -3.367184e-01     0.970075     0.776115
## 6561     1.645218  0.462800657  2.297783e+00     0.887774     0.783036
## 6562     1.540547  0.646956291  2.229389e+00     0.926387     0.911359
## 6563     1.622237  1.040867266  1.268038e+00     0.845022     0.657674
## 6564     1.697560  0.817115639  5.492955e-01     0.757803     0.698167
## 6565     1.771122  0.514029478  1.363583e-01     0.912633     0.709400
## 6566     1.723399  0.952010785  7.707251e-01     0.969004     0.903786
## 6567     1.526630  0.456202003  2.054779e+00     0.765018     0.747844
## 6568     1.618364  0.571291802  2.352713e+00     0.858465     0.656720
## 6569     1.938325  1.176140476  9.206041e-01     0.951914     0.849481
## 6570     1.715863  0.680076129  2.158024e+00     0.902809     0.787621
## 6571     1.675427  0.851548801  4.553292e-01     0.951884     0.762676
## 6572     1.858803  0.812284845  2.189196e+00     0.946546     0.761609
## 6573     1.568624  0.365867826  2.885456e+00     0.784189     0.576967
## 6574     1.798039  1.110586344  2.097639e+00     0.857683     0.727620
## 6575     1.497183  0.452706227 -6.142295e-02     0.797895     0.703193
## 6576     1.505758  0.357389732  2.353564e+00     0.776274     0.710604
## 6577     1.725212  0.907419961  1.404485e+00     0.713909     0.639061
## 6578     1.647525  0.667200709  7.731872e-01     0.827908     0.757028
## 6579     1.624933  0.377524801  3.016007e-01     0.915286     0.688807
## 6580     1.584822  0.468759272  2.380273e+00     0.832731     0.785773
## 6581     2.011942  1.040163077  1.655850e-01     0.920546     0.705958
## 6582     1.553570  0.370526042  2.387369e+00     0.953509     0.749757
## 6583     2.094122  1.246995618  5.670575e-01     0.774062     0.713204
## 6584     1.792914  0.863849643  3.196183e-01     0.944788     0.853354
## 6585     1.733824  0.653004968  3.395017e+00     0.909980     0.708146
## 6586     1.370741  0.448647586  2.070255e+00     0.948705     0.503080
## 6587     1.581079  0.388593147  2.810986e+00     0.962702     0.750337
## 6588     1.847882  0.657697255  1.508502e+00     0.743157     0.640058
## 6589     1.959457  0.922591050  6.733419e-02     0.942606     0.739229
## 6590     1.722990  0.563240139  2.339209e+00     0.886509     0.845560
## 6591     1.582589  0.447344118  2.331470e+00     0.886880     0.779273
## 6592     1.808805  0.977110131  3.113134e-01     0.929797     0.789817
## 6593     1.472856  0.324482061  2.697647e+00     0.952171     0.762524
## 6594     1.685492  1.391208662  9.962710e-01     0.884243     0.670744
## 6595     1.627589  0.539332081  2.450960e-01     0.874329     0.798560
## 6596     2.050206  1.454274569  2.327474e+00     0.809072     0.618141
## 6597     1.730105  0.466529540  5.816289e-01     0.960448     0.951242
## 6598     1.609142  0.606034006  2.369000e+00     0.804495     0.683766
## 6599     1.645679  0.913823386  3.909501e-01     0.933795     0.879081
## 6600     1.517369  0.261222412  3.223044e+00     0.955633     0.709021
## 6601     1.826468  1.314955808  5.195396e-01     0.763251     0.701296
## 6602     1.829015  1.051507534  4.998397e-01     0.946237     0.733253
## 6603     1.625514  0.325195366  7.590145e-01     0.814001     0.687321
## 6604     1.761578  1.452287963  1.121060e+00     0.919583     0.779891
## 6605     2.026251  1.106795835  9.438100e-01     0.875153     0.610123
## 6606     1.420025  0.545299693  2.651163e+00     0.814105     0.645457
## 6607     1.603272  0.881733778  7.855670e-01     0.877737     0.729295
## 6608     1.602949  0.980928275 -1.243214e-02     0.966440     0.814996
## 6609     1.814901  0.877441611  2.101265e+00     0.675492     0.659144
## 6610     1.649727  0.595984253  1.796998e+00     0.936189     0.787283
## 6611     1.625031  0.323810856 -2.227639e-02     0.920891     0.720256
## 6612     1.644978  0.681829850  2.625019e+00     0.904193     0.796664
## 6613     1.862042  0.792776780  2.723069e-01     0.927641     0.870399
## 6614     1.545794  0.497142594  1.866685e+00     0.895195     0.691864
## 6615     1.678540  0.605847844  2.820452e+00     0.933411     0.808111
## 6616     1.898413  0.810534940  2.312457e-01     0.912271     0.750378
## 6617     1.968089  1.214335108  1.078123e+00     0.697007     0.635026
## 6618     1.616851  0.515074696  1.324855e+00     0.760118     0.722242
## 6619     1.601812  0.429548808  1.932091e+00     0.853614     0.697301
## 6620     1.649495  0.686952492  8.491509e-01     0.827668     0.657287
## 6621     1.566847  0.843706069  3.126907e+00     0.948858     0.690245
## 6622     1.648685  0.638705851 -2.147400e-01     0.893108     0.768774
## 6623     1.682381  0.554229838  3.507186e-01     0.969637     0.852150
## 6624     1.805313  1.339043788  6.292184e-01     0.880947     0.793255
## 6625     1.783941  0.374381698  2.398025e+00     0.864173     0.793435
## 6626     1.739097  0.537574814 -1.579758e-01     0.909368     0.794677
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## 6627     1.794630  0.558863305  3.177588e-02     0.922305     0.915600
## 6628     1.672975  0.551648801  5.237946e-01     0.801329     0.718865
## 6629     1.511791  0.473295692  2.074832e+00     0.956180     0.657354
## 6630     1.766759  0.454094483  2.660530e+00     0.828588     0.765795
## 6631     1.651870  0.552417542  1.687251e-01     0.875343     0.695578
## 6632     1.696174  0.905290618 -2.904667e-01     0.973776     0.865983
## 6633     1.739670  0.981602991  1.762727e+00     0.846212     0.745846
## 6634     1.832179  0.524554491  2.352031e+00     0.913150     0.786706
## 6635     1.621665  0.765191537  2.318236e+00     0.824363     0.632592
## 6636     1.804039  1.064633918  6.947634e-01     0.675608     0.535875
## 6637     1.676995  0.679522377  2.663612e+00     0.783486     0.754553
## 6638     1.832329  1.118730855  1.348437e+00     0.671772     0.565386
## 6639     1.859974  0.716499158  1.542750e+00     0.727206     0.616016
## 6640     1.778239  1.062006304 -2.078779e-01     0.826010     0.695280
## 6641     1.646766  1.461049594  1.173776e+00     0.785349     0.681899
## 6642     1.865034  0.722507235 -5.228787e-01     0.964291     0.828950
## 6643     2.041385  1.534554050  8.272545e-01     0.771112     0.627920
## 6644     1.604175  0.741772251  3.127023e-01     0.827685     0.699474
## 6645     1.698342  0.293813191  2.424073e+00     0.964405     0.822478
## 6646     1.556412  0.411220578  2.003675e+00     0.789259     0.665284
## 6647     1.678725  0.713398970  1.028502e+00     0.884004     0.842012
## 6648     1.785830  0.779370628  3.562913e-01     0.979008     0.840888
## 6649     1.574500  0.742915928  8.064491e-01     0.824693     0.691165
## 6650     1.895456  0.975337127  2.780807e+00     0.902933     0.838696
## 6651     1.914075  1.047021617 -2.904667e-01     0.938984     0.833020
## 6652     1.516095  0.509158149  2.050738e+00     0.775551     0.709845
## 6653     1.688486  0.646289010  2.198060e-01     0.896734     0.646199
## 6654     1.701204  0.474891955  3.159224e-01     0.928831     0.629747
## 6655     1.691350  0.652245374  6.117220e-01     0.899075     0.754127
## 6656     1.632387  0.822532890  3.701418e-01     0.967636     0.793138
## 6657     1.537579  0.171281696  2.077598e+00     0.745101     0.665786
## 6658     1.841933  1.165161200  6.798894e-01     0.623863     0.514305
## 6659     1.736021  1.026790578  3.517826e-01     0.884777     0.796820
## 6660     1.896880  0.953944191  1.017984e+00     0.881236     0.722632
## 6661     1.714994  0.884768184  5.680688e-01     0.824389     0.767977
## 6662     1.827572  0.839551576 -1.762359e-02     0.958635     0.807345
## 6663     1.509383  0.430424996  2.032102e+00     0.810750     0.742303
## 6664     1.947278  1.302521405  7.459913e-01     0.674393     0.564348
## 6665     1.570961  0.557971324  1.482742e+00     0.658257     0.499747
## 6666     1.413233  0.491096834  2.407176e+00     0.737542     0.594701
## 6667     2.102958  1.644545919  1.873457e+00     0.693664     0.629952
## 6668     1.664342  1.162570380  8.753350e-01     0.908883     0.815620
## 6669     1.545217  0.532987384  2.561322e+00     0.761983     0.726524
## 6670     1.646100  0.502975787  3.318217e-01     0.876081     0.651977
## 6671     1.661011  0.466299553  3.502661e-01     0.817673     0.692772
## 6672     1.654431  0.395520340  9.298443e-01     0.916184     0.729704
## 6673     1.633376  0.435114622  7.146892e-01     0.780783     0.711232
## 6674     1.567148  0.372060983  1.730926e+00     0.764702     0.675748
## 6675     1.536499  0.436741321  1.457071e+00     0.788434     0.770250
## 6676     1.632882  0.768473823 -3.806690e-01     0.828301     0.669082
## 6677     1.647111  0.687173890  3.061115e-01     0.940582     0.807085
## 6678     1.881695  1.208857714  4.698194e-01     0.897879     0.668126
## 6679     1.544043  0.520238477  2.805214e+00     0.842966     0.750994
## 6680     1.534768  0.286746053  2.349807e+00     0.901782     0.717824
## 6681     2.081210  1.129657673  2.059218e-01     0.870798     0.708998
## 6682     1.613383  0.744374357 -6.142295e-02     0.942131     0.766548
## 6683     1.746888  0.277022119  2.747687e+00     0.905700     0.842434
## 6684     1.574758  0.741880066  1.832074e-01     0.953507     0.844139
## 6685     1.680193  0.784573790  2.636207e-01     0.841540     0.719729
## 6686     1.731004  0.614648374  1.387540e+00     0.828453     0.746741
## 6687     1.793885  0.627810167  2.276237e+00     0.877431     0.724889
## 6688     1.746439  0.522742790  2.274309e+00     0.854310     0.679165
## 6689     1.546067  0.503873722  2.355079e+00     0.925538     0.891481
## 6690     1.657853  0.649882737  1.107918e-01     0.852115     0.728681
## 6691     1.697151  1.084315265  3.821691e-01     0.890065     0.624622
## 6692     1.762050  0.944593699  5.662365e-01     0.909955     0.743688
## 6693     1.593431  0.450586249  5.243956e-01     0.921820     0.802164
## 6694     1.499416  0.337940213  3.347337e+00     0.920861     0.705048
## 6695     1.798204  0.663334305  3.010471e+00     0.905666     0.780933
## 6696     1.835144  1.322583122  4.735980e-01     0.926630     0.850344
## 6697     1.659934  0.642608931  2.694159e+00     0.862572     0.732728
## 6698     1.608802  0.560491273  2.741164e+00     0.923089     0.813746
## 6699     1.689892  0.374676874  2.057911e+00     0.738969     0.631935
## 6700     1.531401  0.478003424  2.410266e+00     0.904519     0.762509
## 6701     1.674453  0.372057295 -3.981290e-02     0.902025     0.709450
## 6702     1.760180  1.638474281  6.305632e-01     0.755750     0.606198
## 6703     1.629292  0.343276611  6.947634e-01     0.890935     0.625368
## 6704     1.891530  0.685577840 -1.601400e-01     0.980809     0.859416
## 6705     1.472571  0.448146477  2.500109e+00     0.739054     0.614450
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## 6706     1.601507  0.795610324  2.656881e+00     0.861464     0.741339
## 6707     1.566850  0.668930773  3.156582e+00     0.843651     0.730985
## 6708     1.753697  0.832770688  3.475308e-01     0.843631     0.728391
## 6709     1.683699  0.736349484 -5.501178e-02     0.929355     0.794642
## 6710     2.053593  1.162370215  1.529649e+00     0.990263     0.659773
## 6711     1.670400  0.765936647  6.997662e-01     0.691963     0.559675
## 6712     1.655394  0.719048572  2.636207e-01     0.863323     0.758449
## 6713     2.057674  0.682512401  2.756256e+00     0.783476     0.601654
## 6714     1.709779  0.732897731  2.409205e+00     0.851367     0.666253
## 6715     2.036541  1.576180044  6.181450e-01     0.793565     0.658437
## 6716     1.624617  0.420741062  2.442144e+00     0.944453     0.718379
## 6717     2.085797  0.871049015  2.980467e+00     0.842063     0.815843
## 6718     2.038338  1.100694422  2.854987e+00     0.979882     0.647931
## 6719     1.791115  0.641908188  2.328054e+00     0.928283     0.765104
## 6720     1.593925  0.399952204  2.341175e+00     0.839613     0.764806
## 6721     1.581762  0.556052710 -9.691001e-02     0.903424     0.815597
## 6722     1.642568  0.473316138  9.274944e-01     0.870400     0.804334
## 6723     1.868698  0.853774237  1.468486e+00     0.956257     0.728202
## 6724     1.870523  1.016477588  2.758300e+00     0.762966     0.610002
## 6725     1.634846  0.514161098  8.217096e-01     0.941715     0.858436
## 6726     1.598961  0.491340679 -2.448560e-01     0.864958     0.751405
## 6727     1.610280  0.620118350  9.526371e-01     0.910695     0.647893
## 6728     1.525154  0.292236129  1.871329e+00     0.779584     0.513460
## 6729     1.706427  0.658147868  3.689008e-01     0.820939     0.711570
## 6730     2.029627  0.969933775  2.725478e+00     0.799449     0.681363
## 6731     1.469710  0.292687935  2.725662e+00     0.867205     0.724362
## 6732     1.773118  0.757435508  1.390125e+00     0.862977     0.803202
## 6733     1.616824  0.580328409  1.694273e+00     0.926920     0.766074
## 6734     1.660284  0.500362737  1.508701e+00     0.899493     0.763756
## 6735     1.702366  0.363015591  2.129084e+00     0.933657     0.761514
## 6736     1.608349  0.604489575  2.785302e+00     0.864075     0.762632
## 6737     1.470468  0.426195592  2.765610e+00     0.664817     0.458725
## 6738     1.419840  0.432732047  2.497560e+00     0.703943     0.514978
## 6739     1.619670  0.468691380  9.996707e-01     0.967797     0.877961
## 6740     1.779316  0.713350236  2.569662e+00     0.662903     0.588985
## 6741     1.551387  0.524596020  1.577840e+00     0.769167     0.689630
## 6742     1.618574  0.500119787  2.430417e+00     0.802402     0.739187
## 6743     1.660338  0.574233891  1.845005e-02     0.925137     0.911015
## 6744     2.027574  1.242347592  1.824380e+00     0.754233     0.598415
## 6745     1.704239  0.656080945  1.304091e+00     0.866710     0.725237
## 6746     1.579523  0.374988333  2.708652e+00     0.826470     0.772796
## 6747     1.591960  0.279201379  2.573124e+00     0.932194     0.833554
## 6748     1.655969  0.507780336  3.352526e-01     0.910360     0.859929
## 6749     1.747413  0.589278103  3.149391e+00     0.964778     0.947551
## 6750     2.240599  1.575358757  1.432256e+00     0.897119     0.698474
## 6751     1.818556  0.586067190  2.960909e+00     0.965824     0.851065
## 6752     1.804897  1.104811345  2.053317e+00     0.840158     0.722727
## 6753     1.599649  0.351071234  2.227069e+00     0.830880     0.760375
## 6754     1.669017  0.376894350  1.345781e+00     0.840776     0.684491
## 6755     2.476674  1.677815838  2.611689e+00     0.884936     0.828607
## 6756     1.740537  0.563715968  3.056146e+00     0.856520     0.733350
## 6757     1.735370  0.447904996  2.969916e-01     0.913078     0.698500
## 6758     1.457009  0.620911261  2.697401e+00     0.890917     0.658530
## 6759     1.617141  0.542308695  1.413003e-01     0.902520     0.877024
## 6760     1.721443  0.446203085  1.808914e+00     0.806094     0.643242
## 6761     1.559278  0.376597029  2.309920e+00     0.810419     0.689817
## 6762     1.616608  0.279550600  2.928806e-01     0.907105     0.830485
## 6763     1.789192  0.466901710  1.909883e+00     0.815051     0.657943
## 6764     1.838011  1.129028927  1.773792e+00     0.651651     0.502555
## 6765     1.620165  0.422067585  4.205782e-01     0.923144     0.779482
## 6766     1.704445  0.889292736  2.464837e+00     0.848127     0.761629
## 6767     1.886860  1.057525373  4.999826e+00     0.889397     0.722098
## 6768     1.484175  0.258821591  2.077083e-01     0.988697     0.766593
## 6769     1.990819  0.896558733  2.654914e+00     0.916779     0.801976
## 6770     1.639216  0.640862892  1.971626e+00     0.943591     0.727902
## 6771     1.531204  0.519229278  2.099685e+00     0.683673     0.621686
## 6772     1.621971  0.471662757  2.043767e+00     0.895195     0.753452
## 6773     1.892238  1.411863718  1.179063e+00     0.634034     0.563980
## 6774     1.685735  0.761897031  2.103599e-01     0.901357     0.716823
## 6775     2.013090  1.078485818  1.524612e+00     0.813015     0.675225
## 6776     1.772200  0.697944729  1.201960e-01     0.943983     0.784502
## 6777     1.685381  0.913017623 -2.218487e-01     0.953777     0.676045
## 6778     1.688941  0.614625170  1.119504e+00     0.944648     0.625102
## 6779     1.994688  0.896450705  3.659765e-01     0.783347     0.719734
## 6780     1.617970  0.634071000  8.662123e-01     0.891148     0.797222
## 6781     1.602633  0.532712348  2.432528e+00     0.929964     0.849532
## 6782     1.730549  1.040214545  7.749999e-01     0.889660     0.631389
## 6783     1.888403  0.687415691  3.010300e-01     0.971033     0.685736
## 6784     1.798278  0.907411898  2.554118e+00     0.936448     0.885381
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## 6785     1.911898  1.069571905  2.250434e+00     0.870411     0.781051
## 6786     1.570545  0.787129491  3.050384e+00     0.846860     0.745670
## 6787     1.668323  0.652338220  7.752964e-02     0.899211     0.866470
## 6788     1.583042  0.634996903  1.944850e+00     0.930827     0.720162
## 6789     2.098301  1.373871543  9.689393e-01     0.819388     0.764316
## 6790     1.548920  0.431694988  2.673817e+00     0.939779     0.804273
## 6791     1.623155  0.591931217  2.083880e+00     0.887053     0.775837
## 6792     1.625118  0.659152425  2.061762e+00     0.841827     0.704698
## 6793     1.570321  0.370796112  2.089012e+00     0.876247     0.659566
## 6794     1.603284  0.627852117  3.529666e-01     0.911677     0.825583
## 6795     1.603269  0.718105412  2.264189e-01     0.948596     0.868079
## 6796     1.720774  0.510992478  2.266674e+00     0.920771     0.769227
## 6797     1.789265  1.463875080  9.583243e-01     0.899210     0.753443
## 6798     1.639897  0.836586765  3.848802e-01     0.975104     0.742455
## 6799     1.761475  0.537465221  4.408144e-01     0.807976     0.774645
## 6800     1.636735  0.998204394  5.724133e-01     0.843558     0.669152
## 6801     1.627856  0.647854178  1.978219e+00     0.901957     0.750496
## 6802     1.623371  0.587295549  1.330055e+00     0.933191     0.749909
## 6803     1.558893  0.614421551  2.494612e+00     0.826781     0.800779
## 6804     1.548426  0.459065136  1.350561e+00     0.832721     0.799328
## 6805     1.831547  0.734266031  9.290232e-01     0.874050     0.726449
## 6806     1.691570  1.154713001  3.148545e-01     0.853856     0.649533
## 6807     1.721158  0.478279276  1.774387e+00     0.852173     0.831747
## 6808     1.553040  0.338085791  6.494510e-01     0.899281     0.731916
## 6809     1.919152  1.390703775  7.112186e-01     0.869900     0.707873
## 6810     1.581902  0.473021040  5.016186e-01     0.915913     0.753057
## 6811     1.573241  0.686047875  1.745146e+00     0.954294     0.858291
## 6812     1.489259  0.488859407  2.861962e+00     0.680384     0.510656
## 6813     1.614120  0.811599133  1.213344e+00     0.940523     0.677987
## 6814     2.113181  1.394691527  8.787465e-01     0.959955     0.820302
## 6815     1.885461  0.754553201  1.966910e+00     0.976232     0.859685
## 6816     1.534803  0.666457138  1.767614e+00     0.925410     0.788958
## 6817     1.586461  0.440019126  2.999801e+00     0.975179     0.879417
## 6818     1.584803  0.315405605  2.044821e+00     0.789697     0.581788
## 6819     1.512980  0.505936425  2.736500e+00     0.848004     0.713162
## 6820     1.893266  0.935187725  3.381690e-01     0.747149     0.704664
## 6821     1.796631  0.700939833  1.058065e+00     0.753495     0.680038
## 6822     1.666279  0.429445421  1.736889e-01     0.984208     0.931897
## 6823     1.604034  0.377543008  2.820630e+00     0.891905     0.874851
## 6824     2.058221  1.899649814  8.066104e-01     0.937260     0.707006
## 6825     1.707283  0.551304802  2.651243e+00     0.747494     0.656058
## 6826     1.682762  0.645491044  2.055021e+00     0.831387     0.756647
## 6827     1.677877  0.595297768  2.675288e+00     0.875142     0.844312
## 6828     1.551473  0.612641893  4.914198e-02     0.879974     0.736211
## 6829     1.722850  0.465028727  2.600281e+00     0.843730     0.685775
## 6830     1.608372  0.349493164  2.834493e+00     0.788520     0.762570
## 6831     2.239475  1.469746928  1.234544e+00     0.914680     0.618333
## 6832     1.764190  0.454183009  2.250915e+00     0.820603     0.732106
## 6833     1.912340  1.635914811  1.098765e+00     0.873645     0.691458
## 6834     1.707987  0.517494125  1.460825e+00     0.895198     0.739033
## 6835     1.849842  1.272333683  8.220100e-01     0.965157     0.639945
## 6836     1.497599  0.331121462  3.750347e-01     0.730647     0.628007
## 6837     1.648998  0.791654866  5.084085e-01     0.908918     0.713688
## 6838     1.619112  0.793106986  9.953690e-02     0.912791     0.876904
## 6839     2.273740  1.398870139  1.731946e+00     0.685454     0.636917
## 6840     1.697330  0.787253551  2.663317e-01     0.913038     0.842663
## 6841     1.509122  0.582377033  2.710749e+00     0.919172     0.742350
## 6842     1.734884  0.666406585  4.102442e-01     0.784747     0.641901
## 6843     1.530602  0.377912456  2.256456e+00     0.805037     0.486040
## 6844     1.621199  0.444928108  2.261864e+00     0.823577     0.713628
## 6845     1.660540  1.109679769  3.789526e-01     0.895766     0.589665
## 6846     1.554487  0.453381033  2.522829e+00     0.850182     0.809147
## 6847     1.760521  0.846003530  5.476581e-01     0.811938     0.603613
## 6848     1.639615  0.569754190  2.495177e-01     0.979853     0.831763
## 6849     1.641055  0.435087512  2.786329e-01     0.920915     0.798828
## 6850     1.536905  0.529513766  2.486001e+00     0.855122     0.661120
## 6851     1.671937  0.668632817  2.622805e+00     0.782753     0.661628
## 6852     1.841440  0.889230528  3.189030e+00     0.857471     0.762798
## 6853     1.590915  0.632007580 -3.403619e-02     0.925866     0.850354
## 6854     1.755872  0.808740179  3.841091e-01     0.867681     0.832801
## 6855     1.518848  0.680950706  7.509898e-01     0.892351     0.843043
## 6856     1.812116  0.872290912  2.610031e+00     0.938188     0.778054
## 6857     1.907513  1.044970705  1.143555e+00     0.884285     0.709654
## 6858     1.562064  0.530516016 -1.762359e-02     0.950648     0.846070
## 6859     1.603880  0.726547914  8.937546e-01     0.753502     0.611168
## 6860     1.625827  1.075053995  9.061265e-01     0.787574     0.666204
## 6861     1.649583  1.032892626  1.654871e-01     0.944951     0.758215
## 6862     1.620995  0.509478071  2.548710e+00     0.914395     0.873991
## 6863     1.793360  0.645848494  2.304036e+00     0.849300     0.721199
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## 6864     1.526264  0.408384141  2.595171e+00     0.791300     0.698561
## 6865     1.679406  0.747233858 -1.767310e-01     0.929786     0.714882
## 6866     1.748604  0.639559198  2.375537e+00     0.915549     0.613504
## 6867     1.576406  0.445747388  7.084201e-01     0.895452     0.839035
## 6868     2.394420  2.130140706  1.949252e+00     0.850961     0.658854
## 6869     1.890647  0.487274160  5.306883e-01     0.752882     0.722348
## 6870     1.636146  1.134623290  7.568252e-01     0.874101     0.841821
## 6871     1.544790  0.182927969  2.776966e+00     0.819145     0.657062
## 6872     1.612616  0.352610811  1.015508e+00     0.840537     0.694933
## 6873     1.698200  0.930156089  2.025084e+00     0.889516     0.725111
## 6874     1.626943  0.436758796  2.214788e-01     0.915936     0.707468
## 6875     1.660905  0.744785686  5.661160e-02     0.876281     0.745436
## 6876     1.536403  0.600984869  2.152756e+00     0.722208     0.669970
## 6877     1.738833  0.932087497  3.746313e-01     0.936228     0.691471
## 6878     1.500929  0.281478802  2.732597e+00     0.760255     0.677627
## 6879     1.690323  1.068449328  2.041200e-01     0.824250     0.735913
## 6880     1.503018  0.391242182  2.724682e+00     0.902513     0.730154
## 6881     1.592834  0.375972539  1.172343e-02     0.931844     0.808411
## 6882     1.756385  1.024756504  1.262301e+00     0.834765     0.606656
## 6883     1.792748  1.160072173  3.986626e-01     0.935447     0.676030
## 6884     1.635269  0.534529951  2.176530e+00     0.886120     0.666647
## 6885     1.719495  0.594807860  2.237691e+00     0.765447     0.724352
## 6886     1.572346  0.671104313  3.693153e-01     0.942121     0.751340
## 6887     1.612840  0.596120760 -7.368693e-03     0.803771     0.752633
## 6888     1.865601  0.757049670  6.452812e-01     0.871178     0.840537
## 6889     1.641520  0.872847679  2.729605e-01     0.946426     0.830828
## 6890     1.959992  0.459178304  1.869981e+00     0.850937     0.717487
## 6891     1.679165  0.545574292  3.083313e-01     0.936144     0.860847
## 6892     1.887106  0.845877829  8.370832e-01     0.840583     0.816087
## 6893     1.685347  0.526392268  1.861848e-01     0.903709     0.751230
## 6894     1.469639  0.418902588  2.629585e+00     0.856528     0.785080
## 6895     1.795483  1.140787636  2.348570e+00     0.830218     0.665824
## 6896     1.769515  0.663188136  2.588889e+00     0.741255     0.700382
## 6897     1.518357  0.733273521  1.907923e+00     0.907749     0.807936
## 6898     1.745892  1.153729521  1.922135e+00     0.916299     0.834419
## 6899     1.671115  0.740871700  8.624743e-01     0.875461     0.676975
## 6900     1.651081  0.578756076  2.553141e+00     0.786055     0.750109
## 6901     1.825640  0.977211751  2.615474e+00     0.953133     0.841113
## 6902     1.613435  0.547773475  1.620150e+00     0.903729     0.796949
## 6903     1.911900  1.589195351  1.308563e+00     0.762560     0.620147
## 6904     1.641730  1.035349677  7.177160e-01     0.820217     0.797447
## 6905     1.841442  1.037462356  7.805601e-01     0.868912     0.761125
## 6906     1.700312  1.072749729  4.163055e-01     0.699995     0.562148
## 6907     1.593888  0.825481294  2.729062e+00     0.919243     0.709339
## 6908     1.578512  0.704779188  2.431539e+00     0.943115     0.848428
## 6909     1.716728  1.210647528  7.415475e-01     0.702926     0.623256
## 6910     1.537776  0.434495451  2.723069e-01     0.799742     0.758624
## 6911     1.716464  0.347876200  2.932545e+00     0.860217     0.717304
## 6912     1.622930  0.364171878  2.862387e-01     0.943373     0.763621
## 6913     1.541338  0.584496315  2.610763e+00     0.946577     0.816066
## 6914     1.561756  0.488901676  4.353475e-01     0.904428     0.698607
## 6915     1.735850  0.742156957  4.639010e-01     0.838082     0.579033
## 6916     1.616974  0.649745589  2.223103e-01     0.872943     0.730907
## 6917     1.524399  0.209032197 -4.899824e-01     0.947417     0.871960
## 6918     1.604109  0.648853557  3.466112e-01     0.927700     0.757112
## 6919     1.822437  0.425951360  1.425177e-01     0.885754     0.809412
## 6920     1.606200  0.443084538  2.626082e+00     0.940658     0.881002
## 6921     1.483282  0.433841810  1.858533e+00     0.635306     0.594495
## 6922     1.516961  0.424206813  2.973915e+00     0.704401     0.620080
## 6923     1.958751  1.232670903  4.842395e-01     0.969559     0.801099
## 6924     1.638972  1.218976403  2.506337e+00     0.918807     0.802566
## 6925     1.459121  0.180524417  7.518295e-01     0.659277     0.515301
## 6926     1.634248  0.780426052  3.746313e-01     0.959320     0.682453
## 6927     1.590993  0.521022954  1.039644e-01     0.918408     0.675102
## 6928     1.674643  0.742060223  2.681031e+00     0.852530     0.783085
## 6929     1.445098  0.409034878  4.999827e+00     0.807810     0.664903
## 6930     1.531866  0.473662112  1.582585e+00     0.677117     0.548586
## 6931     1.792308  1.019074729  5.556120e-01     0.843507     0.636690
## 6932     1.472424  0.449060103  1.791081e+00     0.584837     0.400744
## 6933     1.978486  1.183796373  1.134730e+00     0.869744     0.622954
## 6934     1.677902  0.792920226  1.779293e+00     0.816119     0.646099
## 6935     1.821332  1.195946675  2.307507e+00     0.867350     0.751499
## 6936     1.744224  0.762119397  4.105855e-01     0.957204     0.704938
## 6937     2.330951  1.133957035  7.721174e-01     0.952548     0.844493
## 6938     1.769080  0.626805214  5.088392e-01     0.737559     0.656706
## 6939     1.612461  0.668930773  2.288710e+00     0.839624     0.665497
## 6940     1.899052  0.705765386  2.751033e+00     0.958269     0.798605
## 6941     1.889978  0.456909321  2.207120e+00     0.981130     0.828258
## 6942     1.645767  0.815004952  1.516149e+00     0.914064     0.821679
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## 6943     1.632221  0.777698625  1.742757e+00     0.904572     0.802082
## 6944     1.831353  0.748386516  2.081258e+00     0.793604     0.752771
## 6945     1.671326  0.806955582  2.837144e+00     0.878599     0.777160
## 6946     1.783748  0.638785674  8.426111e-01     0.915347     0.778264
## 6947     1.712665  0.859150911  5.073278e-01     0.970508     0.829653
## 6948     1.851028  0.710235024  2.412897e+00     0.955965     0.828802
## 6949     1.788725  0.992771273  6.746935e-01     0.904129     0.776645
## 6950     1.670312  0.526753986  1.814343e+00     0.888060     0.820135
## 6951     1.640676  0.720460310  5.665653e-01     0.941602     0.777021
## 6952     1.503540  0.450923128  2.445710e+00     0.886353     0.502705
## 6953     1.708993  1.264834345  1.177382e+00     0.723166     0.657868
## 6954     1.779599  0.430294406  5.071110e-01     0.937392     0.835294
## 6955     1.681119  0.521785119  2.625422e+00     0.859353     0.771883
## 6956     1.662145  0.555430624 -3.578403e-02     0.883868     0.708717
## 6957     1.575935  0.495939601  1.040431e+00     0.954896     0.837865
## 6958     1.633726  0.716073493  4.653965e-02     0.935546     0.842523
## 6959     2.092380  1.423953279  8.368498e-01     0.797479     0.752808
## 6960     1.539824  0.664624115  1.187613e+00     0.773924     0.527507
## 6961     1.846987  0.911796058  2.462957e+00     0.892235     0.734664
## 6962     2.024186  1.151630288 -2.448560e-01     0.928418     0.691904
## 6963     1.627366  0.591308412  2.115203e+00     0.848414     0.631205
## 6964     1.605571  0.663628380  5.091488e-01     0.896061     0.769483
## 6965     1.977693  1.032783906  1.953994e+00     0.921652     0.889238
## 6966     1.833317  1.055863583  7.237307e-01     0.958939     0.682795
## 6967     1.696078  0.717080227  2.899880e+00     0.866161     0.704717
## 6968     1.722062  0.598851763  2.223103e-01     0.936035     0.602764
## 6969     2.217384  1.395488895  1.881880e+00     0.826800     0.760045
## 6970     1.744458  0.656231442  5.375841e-01     0.775291     0.675256
## 6971     1.709848  1.008740656  5.805544e-01     0.874032     0.743443
## 6972     1.644582  0.556297675  2.896811e+00     0.993534     0.866398
## 6973     1.571425  0.359475001  2.656007e+00     0.811101     0.740983
## 6974     1.497118  0.637361624  3.036348e+00     0.953941     0.794789
## 6975     1.526381  0.383890733  2.485643e+00     0.884152     0.706354
## 6976     1.628565  0.884357451  3.400595e-01     0.863425     0.792079
## 6977     1.642404  0.383914058  4.996661e+00     0.888808     0.857837
## 6978     1.885008  1.242861813  1.740198e+00     0.680684     0.543843
## 6979     1.661688  0.755096238 -9.884816e-03     0.831581     0.629494
## 6980     1.728260  0.674046879  1.360599e+00     0.617078     0.597318
## 6981     1.735362  0.896241739  1.434802e+00     0.988300     0.804349
## 6982     1.565583  0.838788033  1.138808e+00     0.922746     0.725749
## 6983     1.792587  0.343184003  1.008263e+00     0.979475     0.807627
## 6984     1.533242  0.360297978  3.362227e-01     0.943885     0.822229
## 6985     1.713184  0.414065392  2.612806e+00     0.992005     0.848166
## 6986     1.562127  0.463291127  2.161648e+00     0.958049     0.805261
## 6987     1.538093  0.395864340  2.073611e-01     0.845087     0.698295
## 6988     1.805653  1.258488822  5.878166e-01     0.773610     0.689011
## 6989     1.609808  0.530686245  1.938439e+00     0.901512     0.772951
## 6990     1.702139  0.619238419  6.308068e-01     0.876715     0.839207
## 6991     1.500051  0.456423733  2.223478e+00     0.859920     0.622062
## 6992     1.664460  0.463706396  1.561906e-01     0.780967     0.546569
## 6993     2.023409  1.256359293  1.065578e+00     0.953850     0.784462
## 6994     1.673895  0.617787442  3.821535e-01     0.805957     0.646486
## 6995     1.596037  0.868976937  2.670847e+00     0.728817     0.625734
## 6996     1.666997  0.618065887  1.746824e+00     0.907743     0.785948
## 6997     1.874167  1.185082971  2.284654e+00     0.747317     0.603113
## 6998     1.806286  0.822294948  3.099810e-01     0.973789     0.772489
## 6999     1.570734  0.306375697  2.435586e+00     0.909712     0.668168
## 7000     1.621878  0.968206874  2.103599e-01     0.773084     0.586505
## 7001     1.533650  0.464489547  2.345449e+00     0.782504     0.740765
## 7002     1.559551  0.723587829  3.121458e+00     0.891579     0.742006
## 7003     1.469106  0.419137580  2.140224e+00     0.860245     0.686406
## 7004     2.430689  2.192868400  1.870006e+00     0.847074     0.743298
## 7005     1.644431  0.585693043 -4.276359e-02     0.847078     0.786306
## 7006     2.001305  1.509670179  4.998887e+00     0.918206     0.794052
## 7007     1.648965  0.374179910  1.116722e+00     0.896743     0.558962
## 7008     1.871269  1.359357306  6.886664e-01     0.916148     0.877754
## 7009     1.901021  0.480845960  2.151449e+00     0.922718     0.871905
## 7010     2.124713  1.626259250  6.418398e-01     0.941761     0.912217
## 7011     1.747510  0.738527675  2.402698e+00     0.976753     0.895388
## 7012     1.695054  1.144676932  2.325412e+00     0.857037     0.747152
## 7013     1.697827  0.508014994  1.103056e+00     0.854744     0.813134
## 7014     1.740981  1.085825534  1.198035e+00     0.921833     0.851507
## 7015     1.646732  0.334648738  1.965284e+00     0.924280     0.709697
## 7016     1.857967  0.883130306  4.234867e-01     0.824624     0.703363
## 7017     1.592010  0.631446813  1.681523e+00     0.920919     0.777156
## 7018     1.738929  0.620069396  2.930222e+00     0.894399     0.781264
## 7019     1.893229  1.408931571  1.208723e+00     0.930252     0.779163
## 7020     1.733258  0.606180296  2.227024e+00     0.901942     0.798127
## 7021     1.666996  0.806220009  1.810142e+00     0.804461     0.650658
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## 7022     1.712234  0.468971734  2.154808e+00     0.971200     0.862783
## 7023     1.743659  0.661360178  4.175930e-01     0.911032     0.773189
## 7024     1.640895  0.766240285  1.936267e+00     0.938413     0.858636
## 7025     1.575590  0.525201643  1.942686e+00     0.864567     0.719814
## 7026     1.518581  0.290047974 -4.169796e-01     0.799358     0.649339
## 7027     1.513896  0.528222302  2.689598e+00     0.923713     0.818981
## 7028     1.681781  0.817781471  1.097148e+00     0.916756     0.830910
## 7029     1.477063  0.411183509  2.164775e+00     0.620767     0.603894
## 7030     1.630400  0.659623404  5.909112e-02     0.851740     0.817557
## 7031     1.676567  0.517763146  2.548536e+00     0.874637     0.864969
## 7032     1.631097  0.642340842  1.403825e-01     0.803773     0.756393
## 7033     1.494678  0.271946103  2.814793e+00     0.855203     0.722747
## 7034     1.638337  0.449043115  2.325056e+00     0.804749     0.733009
## 7035     1.915439  1.364277013  1.633139e+00     0.715928     0.582442
## 7036     1.527590  0.561260039  3.149803e+00     0.954799     0.815649
## 7037     1.640345  0.448217657  1.108023e+00     0.855787     0.802225
## 7038     1.945730  1.229901877  6.738982e-01     0.931686     0.611559
## 7039     1.608660  0.455726269  2.935318e+00     0.935095     0.851571
## 7040     1.593053  0.904130503  5.291046e-02     0.876694     0.831965
## 7041     1.714234  0.909877352  2.567757e+00     0.889755     0.750578
## 7042     1.764231  1.266257575  1.091879e+00     0.865168     0.774616
## 7043     1.884011  1.351229887  4.575292e-01     0.929477     0.727138
## 7044     1.744088  1.331738986  4.586208e-01     0.875145     0.771451
## 7045     1.870727  0.891400848  1.824965e+00     0.871495     0.836407
## 7046     1.770129  1.238126428  5.704720e-01     0.984170     0.805819
## 7047     1.627396  0.556049088  2.728010e+00     0.884211     0.827470
## 7048     1.858918  1.099787648  2.189646e-01     0.829591     0.625371
## 7049     1.769281  0.764778196  2.532101e+00     0.832268     0.815518
## 7050     1.671649  0.563955465  5.645848e-01     0.922168     0.722887
## 7051     1.626326  0.475868682  2.885129e+00     0.934731     0.851783
## 7052     1.809300  0.688206182  1.460780e+00     0.902511     0.815234
## 7053     1.933469  0.894092765 -9.691001e-02     0.910686     0.766392
## 7054     1.513614  0.283208479  2.796744e+00     0.927104     0.725655
## 7055     1.854135  1.009773734  2.736381e-01     0.953030     0.730807
## 7056     1.619252  0.616282218  1.869378e+00     0.869528     0.825669
## 7057     1.878854  1.029797581  1.214234e+00     0.913491     0.702932
## 7058     1.554867  0.350397281  2.494021e+00     0.939105     0.751875
## 7059     1.677497  0.684351565  9.221195e-01     0.760547     0.621627
## 7060     1.678193  0.883621694  1.446297e-02     0.912013     0.795732
## 7061     1.781407  0.632546369  6.419554e-01     0.886895     0.866934
## 7062     1.694662  0.597436287  5.836103e-01     0.881797     0.762790
## 7063     1.807536  0.836941565  1.464679e+00     0.907753     0.667549
## 7064     1.709215  0.447626197  2.719970e+00     0.853575     0.808698
## 7065     1.629314  0.658581809  2.258680e+00     0.825715     0.708181
## 7066     1.615425  0.379646292  2.721882e+00     0.922595     0.755925
## 7067     1.623342  0.287219295  1.762968e+00     0.782962     0.616725
## 7068     1.492950  0.269636677  2.165591e+00     0.969210     0.706794
## 7069     1.770171  0.715878884  9.059909e-01     0.842916     0.771529
## 7070     1.711831  0.739902093  3.594411e-01     0.963890     0.669214
## 7071     1.645476  0.726004685  8.249918e-01     0.864192     0.638010
## 7072     1.911811  1.003848122  2.448737e+00     0.901757     0.769669
## 7073     1.526037  0.437135141  2.153409e+00     0.691375     0.639263
## 7074     1.504839  0.394829773  1.370791e+00     0.909167     0.725728
## 7075     1.769718  0.563876043  3.041177e+00     0.812436     0.714973
## 7076     1.639935  0.733003756  2.096913e-01     0.831766     0.741570
## 7077     1.693640  0.572764757  2.970289e+00     0.849972     0.714265
## 7078     1.603002  0.543880637  2.317723e+00     0.858245     0.707008
## 7079     1.603325  0.578237961  3.442945e-01     0.908619     0.742645
## 7080     1.762684  0.872965812  3.033035e-01     0.922445     0.644015
## 7081     1.603284  0.386944624  1.847931e+00     0.849869     0.774884
## 7082     1.619910  0.656660599  1.958257e+00     0.800607     0.604145
## 7083     1.693897  0.425948103  3.507186e-01     0.880025     0.806958
## 7084     1.629814  0.422970460  2.478366e+00     0.816697     0.699526
## 7085     1.566375  0.464719004  1.520101e-01     0.863046     0.757885
## 7086     2.145346  1.662113465  9.966400e-01     0.858284     0.664270
## 7087     1.699311  0.490198751  2.310784e+00     0.847591     0.786289
## 7088     1.559417  0.546707960  3.372947e+00     0.903558     0.750161
## 7089     1.722185  0.831653533  6.547424e-01     0.924015     0.838898
## 7090     1.879327  0.942485762  2.346132e+00     0.897767     0.684212
## 7091     1.864611  1.136736417  6.464162e-01     0.814135     0.731798
## 7092     1.713006  1.172883031  4.231655e-01     0.850481     0.799089
## 7093     2.261843  1.887610550  1.087490e+00     0.802336     0.573943
## 7094     1.625408  0.475104348  4.471580e-01     0.763327     0.664959
## 7095     1.797712  0.762836801  2.817028e+00     0.923307     0.710978
## 7096     1.899800  1.003063971  5.381476e-01     0.940860     0.772347
## 7097     1.731338  0.371874715  7.714787e-01     0.976875     0.852529
## 7098     1.602002  0.418900933  5.876678e-01     0.683017     0.634278
## 7099     1.548178  0.446774752  2.797496e+00     0.847241     0.804510
## 7100     1.727100  0.677486501  4.165842e-01     0.920022     0.841504
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## 7101     1.609111  0.662244873  4.872622e-01     0.769403     0.716960
## 7102     1.610849  0.530042094  3.516207e-01     0.947911     0.709386
## 7103     1.611163  0.270429598  1.474278e+00     0.753939     0.658427
## 7104     1.622006  1.003688821 -1.130468e-01     0.942689     0.724431
## 7105     1.590026  0.685500795  1.316321e+00     0.938224     0.797210
## 7106     2.178522  1.350337195  2.800197e-01     0.925777     0.843530
## 7107     1.641720  0.474289126  1.832476e+00     0.913474     0.829501
## 7108     1.588753  0.652219257  9.555937e-01     0.860658     0.802874
## 7109     1.835128  0.786934468  3.052154e+00     0.933512     0.778196
## 7110     1.714349  0.510165507  2.181791e+00     0.830898     0.753904
## 7111     2.076152  0.793332808  2.188932e+00     0.801749     0.726656
## 7112     1.629796  0.436071961  2.892809e-01     0.981626     0.939705
## 7113     2.040211  1.518695516  1.504750e+00     0.754861     0.561954
## 7114     1.787791  1.049539747  3.604365e-01     0.942418     0.681754
## 7115     1.771550  0.803609365  1.845005e-02     0.944106     0.766093
## 7116     1.660801  0.529722866  1.817083e+00     0.908358     0.813658
## 7117     1.662771  0.795362030  2.183445e+00     0.921187     0.895909
## 7118     1.952530  0.682172163  2.539248e+00     0.798226     0.747948
## 7119     1.669051  0.566240630  3.121609e-01     0.807628     0.725127
## 7120     2.046561  1.267495568  7.047415e-01     0.888942     0.583200
## 7121     1.594071  0.599753201  6.983211e-01     0.944517     0.888972
## 7122     1.671858  0.604990257  3.546768e+00     0.910777     0.844456
## 7123     1.638292  0.904178700  2.207449e+00     0.898488     0.723163
## 7124     1.700510  0.772105973  3.000506e+00     0.933246     0.800785
## 7125     1.684795  0.566703762  1.811115e+00     0.884351     0.821629
## 7126     1.608524  0.473520544 -1.448193e-01     0.882685     0.831710
## 7127     1.649142  0.386404427  3.291339e+00     0.866003     0.706864
## 7128     1.526443  0.577723821 -1.088904e-01     0.871370     0.670940
## 7129     1.654890  0.249728973  2.116488e+00     0.968169     0.823500
## 7130     1.644620  0.626725210  2.156578e+00     0.904588     0.626464
## 7131     1.595860  0.605025844  2.461703e+00     0.941838     0.735308
## 7132     1.897051  1.136996272  2.637992e+00     0.930566     0.783302
## 7133     1.762450  0.357378289  3.043271e+00     0.777994     0.648212
## 7134     1.646647  0.488509823  1.085500e+00     0.864080     0.731390
## 7135     1.851595  0.869776007  1.508307e+00     0.858841     0.659526
## 7136     1.740487  0.841842308  5.880973e-01     0.919488     0.774063
## 7137     1.793746  0.418276426  2.783725e+00     0.825275     0.808457
## 7138     2.173227  1.161418917  1.210422e+00     0.861071     0.609546
## 7139     1.716996  0.298567090  2.796717e+00     0.868789     0.819987
## 7140     1.808295  0.655311350  2.132269e+00     0.777387     0.732358
## 7141     2.011697  1.236746297  8.402330e-01     0.923358     0.679526
## 7142     1.806655  0.603120545  2.155262e+00     0.888535     0.711170
## 7143     2.164594  0.887990678  2.050739e+00     0.762076     0.708158
## 7144     1.790008  0.713490543  1.164886e+00     0.566170     0.527132
## 7145     1.896268  1.228767249  6.414926e-01     0.898107     0.683449
## 7146     1.961703  1.040796108  1.281213e+00     0.902944     0.720859
## 7147     1.697094  0.593211832  6.053969e-01     0.829696     0.615247
## 7148     1.687277  0.637295554  3.774555e-01     0.897078     0.691026
## 7149     1.675857  0.933677566  1.239022e+00     0.633804     0.500750
## 7150     1.839626  0.653886594  1.519631e+00     0.694635     0.479893
## 7151     1.921900  0.740475591  2.271479e+00     0.873895     0.658712
## 7152     1.629677  0.412601649  2.742616e-01     0.909731     0.857446
## 7153     1.801565  0.494314641  2.226028e+00     0.885891     0.604755
## 7154     1.628625  0.656379012  2.129785e-01     0.874611     0.728368
## 7155     1.633363  0.515508247  1.982318e+00     0.969575     0.747011
## 7156     1.542807  0.449816138  2.631939e+00     0.937162     0.764002
## 7157     1.717395  0.656646237  1.279689e+00     0.799334     0.722808
## 7158     1.754270  0.973628390  5.776104e-01     0.714007     0.563823
## 7159     1.533705  0.349102609  2.190205e+00     0.553774     0.467895
## 7160     1.747371  0.848620117  1.194924e-01     0.926450     0.710105
## 7161     1.706243  1.020265959  5.809234e-01     0.901128     0.783428
## 7162     1.794918  0.487921380  9.469643e-01     0.951623     0.892944
## 7163     1.791679  0.778604851  1.116159e+00     0.886686     0.700930
## 7164     1.604364  0.468297103  2.426853e+00     0.894239     0.721350
## 7165     1.665631  0.578902686  2.605837e+00     0.920571     0.888867
## 7166     1.585447  0.489163654  2.351702e+00     0.861827     0.763334
## 7167     1.683359  0.816231354  2.868689e+00     0.812607     0.738313
## 7168     2.055493  1.326700351  1.066239e+00     0.891557     0.720160
## 7169     1.789454  0.483628656 -1.088904e-01     0.972363     0.824938
## 7170     1.631092  0.549520672  2.061954e+00     0.910705     0.763959
## 7171     1.951749  1.255723455  6.144983e-01     0.758580     0.599482
## 7172     1.709718  0.542098091  2.181904e+00     0.984321     0.787132
## 7173     1.788032  0.663908131  2.429150e-01     0.956421     0.870151
## 7174     1.632956  0.454057846  2.732821e+00     0.812023     0.657813
## 7175     1.670364  0.309104012  2.282465e+00     0.885003     0.823430
## 7176     1.814408  0.984257202  2.116923e+00     0.823208     0.684552
## 7177     1.774245  1.358658069  8.280302e-01     0.891603     0.684390
## 7178     1.551271  0.428798692  2.215844e+00     0.750345     0.707869
## 7179     1.568130  0.564673164  2.323781e+00     0.892235     0.807577
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## 7180     1.689548  0.303409911  1.448546e+00     0.566496     0.534067
## 7181     1.851496  0.524703720  2.193382e+00     0.842628     0.743017
## 7182     1.670194  0.535824319  8.360073e-01     0.923524     0.881600
## 7183     1.624598  0.498134043  9.194175e-02     0.880304     0.826219
## 7184     1.565679  0.449760637  2.459181e+00     0.892784     0.664220
## 7185     1.935305  0.982449890  2.693296e+00     0.816391     0.738125
## 7186     1.687026  0.558702572  2.499823e+00     0.931593     0.886730
## 7187     1.774315  1.011523925  4.335739e-02     0.934251     0.679950
## 7188     1.503389  0.522569417  2.654504e+00     0.814134     0.683964
## 7189     1.761835  1.021073472  3.883158e-01     0.751980     0.689882
## 7190     1.747117  0.804066476 -2.904667e-01     0.910967     0.800125
## 7191     1.660550  1.024731890  5.817820e-01     0.893584     0.672872
## 7192     2.004416  0.882562103  2.151637e+00     0.814158     0.641992
## 7193     1.905316  0.930293276  2.732375e+00     0.953946     0.850173
## 7194     1.692045  0.951634234  2.279113e+00     0.937416     0.648830
## 7195     1.709568  0.723495898  2.851583e+00     0.721544     0.676436
## 7196     1.569307  0.478087209  3.002011e+00     0.801776     0.766572
## 7197     1.512906  0.222817881  8.571132e-01     0.726478     0.584529
## 7198     2.388110  2.023898275  7.987282e-01     0.787169     0.673950
## 7199     1.679423  0.645825917  2.696721e-01     0.935538     0.836814
## 7200     1.681104  0.562414212  2.509832e+00     0.962525     0.858264
## 7201     1.632300  0.578451242  1.528090e-01     0.837376     0.674265
## 7202     1.689802  0.721844402  9.149551e-01     0.894206     0.762739
## 7203     1.632884  0.468769602  2.553810e+00     0.882289     0.849909
## 7204     1.546261  0.512817759  2.725162e+00     0.812647     0.670624
## 7205     1.626067  0.828341469  2.487871e-01     0.743996     0.673711
## 7206     1.598227  0.523155737  2.153947e+00     0.917650     0.744430
## 7207     1.613371  0.486811471  1.545983e+00     0.840136     0.669962
## 7208     1.851509  1.198552624  1.802011e+00     0.778094     0.656732
## 7209     1.620806  0.486015115  3.861157e-01     0.972740     0.784009
## 7210     1.753356  1.027243570  1.976891e-01     0.902493     0.885762
## 7211     1.455589  0.473428574  2.058430e+00     0.838938     0.793314
## 7212     1.716369  1.043653020  6.657786e-01     0.791992     0.676611
## 7213     1.636796  0.504398814  2.437354e+00     0.841528     0.761775
## 7214     1.855563  0.982189795  2.038607e-01     0.802754     0.682881
## 7215     1.715262  0.794517324  8.201631e-01     0.921907     0.806134
## 7216     1.629316  0.254910442  2.683154e+00     0.995556     0.890429
## 7217     1.562038  0.330555809  2.427600e+00     0.762061     0.619692
## 7218     1.615560  0.315147134  4.575292e-01     0.738351     0.701765
## 7219     1.690727  0.543950148  4.335739e-02     0.938565     0.764287
## 7220     1.870072  1.135358489  6.733419e-02     0.886992     0.754978
## 7221     1.699635  0.398294248  1.571936e+00     0.614504     0.559257
## 7222     1.650333  0.937290655  1.920157e-01     0.859226     0.767333
## 7223     1.676712  0.730673285  2.862399e+00     0.941313     0.730486
## 7224     1.524918  0.257548987  2.731488e+00     0.966509     0.957066
## 7225     1.633546  0.753015885  6.261302e-01     0.869335     0.671355
## 7226     1.592887  0.310788868  2.257083e+00     0.853571     0.721215
## 7227     2.169060  1.238462625  9.918875e-01     0.953833     0.698304
## 7228     1.671490  0.832725367  2.291007e+00     0.885991     0.761182
## 7229     1.643717  0.696539855  6.024777e-02     0.889210     0.819285
## 7230     1.682538  0.600991399  2.382009e+00     0.811945     0.739701
## 7231     1.576492  0.730426945  2.041200e-01     0.891862     0.617172
## 7232     1.666700  0.771792455  1.203787e+00     0.751894     0.706016
## 7233     1.614205  0.653229885 -1.448193e-01     0.866679     0.757498
## 7234     1.817516  1.374579726  1.577882e+00     0.796745     0.631613
## 7235     1.807335  1.036261506  1.160315e+00     0.908195     0.706379
## 7236     1.724790  0.382643704  2.180266e-01     0.911612     0.760057
## 7237     1.706966  0.377763258  4.861621e-01     0.876000     0.739498
## 7238     1.677684  0.725047899  7.418649e-02     0.923067     0.695106
## 7239     1.554241  0.596965265  1.363583e-01     0.822851     0.780323
## 7240     1.653808  0.443804149  1.480145e+00     0.717790     0.674402
## 7241     1.681326  0.626440972  2.986393e-01     0.949913     0.850488
## 7242     1.670509  0.651664635  2.739188e+00     0.911004     0.676873
## 7243     1.821491  0.574704770  3.083734e+00     0.752800     0.586300
## 7244     1.605194  0.740401379  5.066964e-01     0.881763     0.667944
## 7245     1.676007  0.352491240  3.750347e-01     0.943809     0.759078
## 7246     1.712038  0.261895407  1.324572e+00     0.820926     0.703252
## 7247     1.641937  0.483688549  2.058031e+00     0.947001     0.759576
## 7248     2.192618  1.137385764  3.165604e+00     0.810476     0.733516
## 7249     1.793194  0.965824699  1.274929e+00     0.989183     0.859926
## 7250     1.882032  1.180289350  8.108152e-01     0.942255     0.752663
## 7251     1.598324  0.640728825  2.155520e+00     0.927209     0.901262
## 7252     1.563278  0.475576766  2.876952e+00     0.915850     0.852381
## 7253     1.774835  1.304212542  7.059461e-01     0.826189     0.702492
## 7254     2.029372  1.227688786  8.693925e-01     0.643779     0.605151
## 7255     1.619574  0.744311763  1.023346e+00     0.907016     0.701495
## 7256     1.672042  0.565636521  2.013880e-01     0.960810     0.823524
## 7257     1.480171  0.470169313  2.661338e+00     0.869298     0.665388
## 7258     1.634183  0.832847913  1.539194e+00     0.817190     0.741374
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## 7259     1.591123  0.602202199  1.920157e-01     0.933865     0.809758
## 7260     1.680413  0.849364740  2.278557e+00     0.939000     0.826980
## 7261     1.570281  0.603790460  3.466112e-01     0.805924     0.752327
## 7262     1.468364  0.280780903  1.839250e+00     0.643754     0.471630
## 7263     1.655611  0.553567503  2.810075e+00     0.885761     0.793279
## 7264     1.569870  0.979202258  1.008600e+00     0.709768     0.577085
## 7265     1.694737  1.308267669  2.339327e+00     0.883163     0.570662
## 7266     1.646770  0.754747275  2.874608e-01     0.738632     0.676712
## 7267     1.567552  0.560850757  3.378936e+00     0.779016     0.718060
## 7268     1.633369  0.340140598  3.293018e+00     0.807431     0.738764
## 7269     1.635340  0.473023962  2.927618e-01     0.939976     0.699729
## 7270     1.846958  1.008463901  1.050420e+00     0.896905     0.671828
## 7271     1.481146  0.002446858  2.373865e+00     0.885249     0.676052
## 7272     2.051257  1.097201761  1.914555e+00     0.623974     0.569699
## 7273     1.331826  0.568456357  2.520114e+00     0.541324     0.363457
## 7274     1.682483  1.042224943  2.814071e+00     0.867079     0.593337
## 7275     1.597373  0.555026698  2.900792e+00     0.860987     0.812757
## 7276     1.886994  0.959746191  2.888104e-02     0.898349     0.638471
## 7277     1.860481  1.061614555  9.645904e-01     0.974550     0.817820
## 7278     1.694628  0.351970144  3.111131e+00     0.847877     0.811999
## 7279     1.503503  0.479535003  1.726922e+00     0.762745     0.509338
## 7280     1.918115  1.231576622  2.793876e-01     0.954724     0.801583
## 7281     1.648564  0.623220336  7.252546e-01     0.923416     0.846744
## 7282     1.580745  0.353568118  8.870647e-01     0.904260     0.710418
## 7283     1.572977  0.357784342  1.752450e+00     0.888646     0.728934
## 7284     1.543564  0.631518851  2.038141e+00     0.797200     0.767698
## 7285     1.643869  0.625968543  1.949084e+00     0.908758     0.705614
## 7286     1.629316  0.587949930  3.864140e-01     0.966334     0.729062
## 7287     1.627967  0.276043393  1.224518e+00     0.908424     0.612323
## 7288     1.600559  0.464073534  1.754962e+00     0.812501     0.745447
## 7289     1.558848  0.590988877  5.858739e-01     0.918150     0.864593
## 7290     1.565024  0.255301457  2.619500e+00     0.895640     0.783424
## 7291     1.678840  0.366458447  1.172130e+00     0.927363     0.815029
## 7292     1.693696  0.530361087  2.378116e+00     0.705351     0.663302
## 7293     1.675612  0.354029644  1.391457e+00     0.815830     0.735100
## 7294     1.479865  0.489525375  1.957126e+00     0.920620     0.676559
## 7295     1.649405  1.036509129  5.580190e-01     0.912582     0.689394
## 7296     1.733082  0.529132509 -3.981290e-02     0.940647     0.840323
## 7297     1.737733  0.912634892  3.659765e-01     0.938375     0.866755
## 7298     1.801593  0.774083915  1.879265e+00     0.826665     0.672082
## 7299     1.498506  0.292661371  2.192413e+00     0.623063     0.514903
## 7300     1.495460  0.597137703  1.418638e+00     0.584528     0.501253
## 7301     1.516397  0.445562173  2.468369e+00     0.838606     0.797138
## 7302     1.814226  0.904888580  9.426992e-01     0.570020     0.463507
## 7303     1.557044  0.551065550  2.761739e+00     0.777090     0.626662
## 7304     1.751631  0.760828690  7.250623e-01     0.885620     0.827273
## 7305     1.872472  1.022527344  2.051408e+00     0.883610     0.760281
## 7306     1.749523  0.897078655  6.943110e-01     0.944535     0.754944
## 7307     1.647516  0.565543234  9.696473e-01     0.880783     0.812747
## 7308     1.709616  0.368221782  2.508279e+00     0.880096     0.672668
## 7309     1.673422  1.170214762  1.153307e-01     0.910628     0.831786
## 7310     1.858685  0.821478810  1.912330e+00     0.907060     0.583589
## 7311     1.810540  1.032481763  7.639528e-01     0.899692     0.763141
## 7312     1.619842  1.068960961  1.508469e-01     0.944086     0.789109
## 7313     1.699031  0.741484877  1.891205e-01     0.931761     0.804602
## 7314     1.712477  0.387347107  2.573431e+00     0.850070     0.624488
## 7315     1.686565  0.839398220 -5.501178e-02     0.880283     0.720640
## 7316     1.737157  1.120728539  2.580921e-01     0.958886     0.626233
## 7317     1.610837  0.465668321  2.070606e+00     0.778594     0.581583
## 7318     2.141585  1.352551029  5.358011e-01     0.767801     0.656980
## 7319     1.898278  0.785843565  2.279833e+00     0.933882     0.807843
## 7320     1.916002  0.857425377  9.182008e-01     0.930853     0.765135
## 7321     1.638220  0.571050488  2.162919e-01     0.786256     0.733072
## 7322     1.700013  0.914664131  6.056489e-01     0.899170     0.825944
## 7323     1.619827  0.863233017  2.085959e-01     0.938702     0.693544
## 7324     1.575959  0.432942046  1.855938e+00     0.944293     0.559344
## 7325     1.710518  1.221714097  2.405797e-01     0.865871     0.722565
## 7326     1.550200  0.508922763  2.620969e+00     0.932652     0.871392
## 7327     1.802971  0.855607580  6.365721e-01     0.922568     0.873831
## 7328     1.724246  0.853877002  5.103479e-02     0.943654     0.746164
## 7329     1.540083  0.293072929  2.454333e+00     0.929156     0.676570
## 7330     1.847215  1.266149347  9.376245e-01     0.906758     0.647411
## 7331     1.686752  0.663663241  9.331413e-02     0.932473     0.727690
## 7332     1.700551  1.263264333  1.955860e+00     0.781520     0.755900
## 7333     1.621572  0.628478845  1.991774e+00     0.842581     0.630151
## 7334     1.783727  1.057552001  4.820557e-01     0.812936     0.705589
## 7335     1.667737  0.768720217  3.105887e+00     0.810692     0.763115
## 7336     1.656553  0.446662964  1.877910e+00     0.996946     0.806864
## 7337     1.973778  0.703100419  2.439062e+00     0.961706     0.847203
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## 7338     2.144269  1.481456961  1.228818e+00     0.839914     0.700176
## 7339     1.686960  0.596024990  8.620400e-01     0.926029     0.840486
## 7340     1.882111  1.360100909  5.193349e-01     0.889395     0.732340
## 7341     1.670267  0.881734919  2.723069e-01     0.893440     0.709857
## 7342     1.913491  0.776497061  2.387122e+00     0.940851     0.906693
## 7343     1.556564  0.642550579  3.303966e+00     0.907834     0.705198
## 7344     1.762161  0.609992241  2.723069e-01     0.702501     0.674517
## 7345     1.536905  0.541079768  2.363553e+00     0.924660     0.652558
## 7346     1.760211  0.670033294  2.608745e-01     0.967640     0.760497
## 7347     2.031045  0.792658488  2.615907e+00     0.885228     0.694933
## 7348     1.441002  0.528215867  3.018618e+00     0.792212     0.625341
## 7349     1.442658  0.372613783  3.076395e+00     0.831539     0.660774
## 7350     1.681590  0.573749754  1.608104e+00     0.605278     0.448631
## 7351     1.834054  1.241439388  9.759679e-01     0.719427     0.589951
## 7352     2.058498  0.490222630  2.505189e+00     0.949677     0.789338
## 7353     1.949766  1.255665605  7.000310e-01     0.860576     0.848606
## 7354     1.739060  0.583071755  3.017431e-01     0.891946     0.740165
## 7355     1.704644  1.539191561  1.048185e+00     0.636532     0.495187
## 7356     1.649826  0.908177150  1.167089e-01     0.781878     0.694114
## 7357     1.642005  0.610877256  2.661194e+00     0.862766     0.839211
## 7358     1.889138  0.503067164  2.338172e+00     0.926436     0.860822
## 7359     1.514206  0.366549958  2.615031e+00     0.759632     0.710208
## 7360     2.044700  0.940109392  1.830531e+00     0.919227     0.749391
## 7361     1.734321  1.031267043  5.418670e-01     0.836491     0.802989
## 7362     1.483554  0.321683334  2.045006e+00     0.624429     0.528481
## 7363     1.499980  0.550944654  2.026707e+00     0.839942     0.765760
## 7364     1.645897  0.712013786  6.315360e-01     0.922261     0.866135
## 7365     1.645741  0.946940817  2.459952e-01     0.925241     0.766640
## 7366     1.729220  0.565076497  2.828408e+00     0.931176     0.760830
## 7367     1.787124  0.912090738  1.243074e+00     0.893931     0.796232
## 7368     1.714273  0.685915422  8.185292e-01     0.753108     0.682097
## 7369     1.715495  0.810224451  1.713762e+00     0.902112     0.565956
## 7370     1.907376  0.665504068  5.603992e-01     0.926966     0.687337
## 7371     1.657123  0.467974918  5.843766e-02     0.973512     0.913760
## 7372     1.666070  0.510679031  8.070936e-01     0.795498     0.701735
## 7373     1.753693  1.504699164  1.213516e+00     0.781720     0.731913
## 7374     1.557366  0.721975402  1.289707e+00     0.838848     0.553066
## 7375     1.487083  0.408616417  3.841091e-01     0.891634     0.732354
## 7376     1.581487  0.603482146  5.677121e-01     0.862043     0.733578
## 7377     1.604164  0.612954363  1.789789e+00     0.960832     0.845804
## 7378     1.674176  0.610545188  2.920306e+00     0.929037     0.876673
## 7379     1.664302  0.512453583  1.907281e+00     0.976989     0.876629
## 7380     1.549133  0.542861513  2.899192e+00     0.923569     0.594806
## 7381     1.628622  0.622094809  2.115201e+00     0.773533     0.728393
## 7382     1.920579  1.026659898  1.096138e+00     0.844925     0.745984
## 7383     1.691235  0.746494081  2.717137e+00     0.971678     0.872785
## 7384     1.626780  0.442486040  5.284461e-01     0.777112     0.681252
## 7385     1.561694  0.539832317  3.104625e+00     0.868668     0.781686
## 7386     1.486337  0.581688025  2.934681e+00     0.896283     0.711743
## 7387     1.639696  0.829209183  5.094837e-01     0.943426     0.897121
## 7388     1.613009  0.402813145  2.708365e+00     0.777750     0.675589
## 7389     1.922059  0.887129289  2.845997e+00     0.966853     0.898398
## 7390     1.768167  0.622981393  2.338317e+00     0.884667     0.756786
## 7391     1.684316  0.967128455  6.733996e-01     0.793538     0.665236
## 7392     1.870297  1.138769906  2.899166e+00     0.788387     0.727604
## 7393     1.748843  0.414446865  2.187949e+00     0.867567     0.804460
## 7394     1.661540  0.391883869  7.847274e-01     0.708292     0.634276
## 7395     1.706599  1.089520078  1.809861e+00     0.968764     0.849718
## 7396     1.481552  0.585921852  2.333229e+00     0.908833     0.704570
## 7397     1.593251  0.595555740  2.710838e+00     0.885084     0.808027
## 7398     1.617390  0.601087169  2.421752e+00     0.804601     0.721524
## 7399     1.596212  0.578327414  3.047160e+00     0.785057     0.644625
## 7400     1.708503  0.954055723 -1.305850e-01     0.829618     0.694560
## 7401     1.644717  0.790734711  1.574207e+00     0.653385     0.586822
## 7402     1.619149  0.344494449  3.001289e+00     0.956737     0.788141
## 7403     1.566042  0.376763043  2.073279e+00     0.874685     0.734941
## 7404     1.632989  0.205556206  1.097250e-01     0.755726     0.528070
## 7405     1.589450  0.428581822  1.959750e+00     0.778519     0.705027
## 7406     1.657933  0.364331448  2.638030e+00     0.838675     0.724651
## 7407     1.569076  0.379046133  3.241024e+00     0.932787     0.752236
## 7408     1.660336  0.416678777  3.342347e+00     0.932124     0.810351
## 7409     1.880694  1.184038079  1.867090e+00     0.852794     0.693753
## 7410     1.510889  0.684450369  2.671853e+00     0.916665     0.863381
## 7411     1.794517  0.482235960  2.538643e+00     0.888935     0.805532
## 7412     1.577511  0.559888679  1.062101e+00     0.876817     0.685013
## 7413     1.838306  0.744684845  2.366816e+00     0.954665     0.744379
## 7414     1.491299  0.348497624  3.094734e+00     0.720111     0.618378
## 7415     1.537698  0.519470965  1.159009e+00     0.891727     0.858313
## 7416     1.850645  1.239104190  1.353296e+00     0.903635     0.842834
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## 7417     1.461562  0.473321980  1.889064e+00     0.670818     0.459029
## 7418     1.681128  0.579315907  2.380076e-01     0.920973     0.872425
## 7419     1.559411  0.576769674  5.181023e-01     0.890436     0.787177
## 7420     1.762800  0.360466552  2.392840e+00     0.922022     0.896062
## 7421     1.895487  1.150314247  2.400972e+00     0.941505     0.873688
## 7422     1.494053  0.211571695  1.274182e-01     0.696694     0.522059
## 7423     1.775355  1.009565616  4.228438e-01     0.912023     0.735075
## 7424     1.620900  0.460603204 -1.655188e-01     0.950535     0.890167
## 7425     1.897675  0.743114487  1.696664e+00     0.826632     0.665984
## 7426     1.810546  0.865694285  2.218446e+00     0.844272     0.711368
## 7427     1.587798  0.370209514  1.903212e+00     0.903221     0.786023
## 7428     1.664762  0.680603805  6.766690e-01     0.833144     0.625236
## 7429     1.688769  0.910865494  6.797926e-01     0.918919     0.833530
## 7430     1.679972  0.678850574  4.335739e-02     0.808968     0.699461
## 7431     1.754519  0.561718979  2.372942e+00     0.895658     0.864987
## 7432     1.496286  0.410370577  3.079528e+00     0.856362     0.824068
## 7433     1.609286  0.470451654 -2.270711e-02     0.936562     0.878509
## 7434     1.692154  0.819005999 -2.294978e-02     0.769185     0.665771
## 7435     1.731805  0.343849558  1.319956e+00     0.916861     0.876882
## 7436     1.801137  0.805655111  2.567504e-01     0.911599     0.863475
## 7437     1.797668  0.823484010  2.003545e+00     0.801290     0.553288
## 7438     1.793839  0.570236958  2.635732e+00     0.983486     0.966951
## 7439     1.597594  0.469419923  1.715865e-01     0.930895     0.810721
## 7440     1.689173  0.347677312  2.477126e+00     0.817112     0.750594
## 7441     1.777098  1.145395322  6.989957e-01     0.915092     0.794089
## 7442     1.738026  0.929067260  3.502661e-01     0.904133     0.689091
## 7443     1.656339  0.801172436  9.831319e-13     0.842431     0.642884
## 7444     1.818208  1.137388930  7.918125e-02     0.965322     0.715141
## 7445     1.931208  1.344877391  1.120033e+00     0.771567     0.710415
## 7446     1.666030  0.367670810  2.667032e+00     0.853547     0.764539
## 7447     1.599208  0.721963869 -2.147400e-01     0.774963     0.670461
## 7448     1.731754  0.604831698  1.677562e+00     0.883865     0.808455
## 7449     2.005798  0.470409021  2.468086e+00     0.914189     0.802027
## 7450     1.663619  0.280908291  2.041401e+00     0.841064     0.656016
## 7451     1.464624  0.309981293  2.301888e+00     0.840640     0.721076
## 7452     1.904782  0.673349961  7.993961e-01     0.834951     0.776186
## 7453     1.799697  0.875507489 -1.549020e-01     0.851903     0.588956
## 7454     2.105480  1.410232126  4.283765e-01     0.936797     0.866114
## 7455     1.510818  0.383897910  1.013044e+00     0.669505     0.624693
## 7456     1.656232  1.165923586  3.288361e-01     0.823531     0.681844
## 7457     1.553794  0.509285877  2.080937e+00     0.870791     0.847559
## 7458     1.629702  0.505518972  6.652608e-01     0.912066     0.842392
## 7459     1.824962  1.043087072  2.367407e-01     0.877344     0.746674
## 7460     2.461375  0.769173426  2.258565e+00     0.734229     0.652048
## 7461     1.784314  0.851251620  2.226565e+00     0.879098     0.818249
## 7462     1.489347  0.415178754  2.449372e+00     0.863599     0.673363
## 7463     1.839877  1.456088056  1.064038e+00     0.906111     0.697488
## 7464     1.611168  0.264853226 -3.048680e-01     0.972819     0.911756
## 7465     1.678662  0.423599721  2.184538e+00     0.906936     0.871852
## 7466     2.079051  1.910754567  1.711815e+00     0.807215     0.594354
## 7467     1.792346  1.254866974  5.863238e-01     0.884248     0.609973
## 7468     1.586473  0.684590453  2.613697e+00     0.952127     0.821344
## 7469     1.752819  0.995191900  9.309342e-01     0.876222     0.822320
## 7470     1.686070  0.532582410  2.933586e+00     0.953774     0.908083
## 7471     1.477292  0.187644787  2.570807e+00     0.718335     0.638443
## 7472     1.719020  0.495774605  2.616507e+00     0.966910     0.836943
## 7473     1.503145  0.523671044  2.561261e+00     0.873317     0.839707
## 7474     1.587172  0.393016842  2.627229e+00     0.962461     0.700635
## 7475     1.741483  0.806325167  9.157938e-01     0.896668     0.707521
## 7476     1.744390  0.507797872  2.751108e+00     0.930083     0.869992
## 7477     1.592962  0.565494811  2.569773e+00     0.942577     0.728863
## 7478     1.531259  0.417182621  3.025469e+00     0.836675     0.734496
## 7479     1.659539  0.630116536 -5.188019e-02     0.883990     0.786502
## 7480     1.623853  0.716163669  1.769640e+00     0.671824     0.629037
## 7481     1.854886  0.780337478  2.918123e+00     0.866012     0.842464
## 7482     1.722337  0.754820603  1.312816e+00     0.904564     0.822292
## 7483     1.553486  0.484792235  3.011694e+00     0.949259     0.688377
## 7484     1.646043  0.387772335  1.407740e+00     0.848832     0.670882
## 7485     1.760484  0.819677493 -2.026940e-02     0.891460     0.757014
## 7486     1.693312  0.643212761  2.957410e+00     0.890903     0.816904
## 7487     1.531239  0.519679705  2.384519e+00     0.874646     0.791018
## 7488     2.058783  1.636701481  1.435427e+00     0.969998     0.614829
## 7489     1.583287  0.611385510  8.081982e-02     0.888742     0.710893
## 7490     1.675203  0.673709147  8.266481e-01     0.969189     0.918543
## 7491     1.604586  0.901395107  8.887017e-01     0.884801     0.756826
## 7492     1.715006  0.681301853  3.414853e-01     0.949684     0.802668
## 7493     1.658938  1.012533534  1.351427e+00     0.546965     0.512382
## 7494     1.650067  0.838084311  1.832074e-01     0.894584     0.636559
## 7495     1.727355  1.004665233  4.074939e-01     0.876238     0.803031
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## 7496     1.748223  0.620876952  7.643718e-01     0.831681     0.752074
## 7497     1.574956  0.505571853  2.720383e+00     0.892833     0.752469
## 7498     1.967417  0.934648408 -9.306900e-02     0.965005     0.737242
## 7499     1.712571  0.369438515  2.661084e+00     0.856873     0.764985
## 7500     1.740958  1.105121701  2.352679e+00     0.889222     0.723635
## 7501     1.887874  0.833084610  2.089498e+00     0.906905     0.871268
## 7502     1.624444  0.750232148  2.443500e-01     0.844449     0.756269
## 7503     1.622990  0.555429416  2.173714e+00     0.848490     0.821446
## 7504     1.864478  1.179040217  1.316166e-01     0.932049     0.899333
## 7505     1.610081  0.806780785  4.132964e-01     0.836493     0.713573
## 7506     1.648498  0.721423121  4.597069e-01     0.950280     0.778438
## 7507     1.783956  0.673972361  3.104459e+00     0.753851     0.696752
## 7508     1.717527  0.480866053  2.771767e+00     0.966403     0.868000
## 7509     1.655928  0.501844939  7.043097e-01     0.889997     0.762541
## 7510     1.722570  0.508095881  6.053421e-01     0.875115     0.781937
## 7511     1.758950  0.752784971  7.173095e-01     0.847012     0.640224
## 7512     1.710019  0.723000615  4.887777e-01     0.835578     0.704284
## 7513     1.502349  0.403799755  2.542924e+00     0.958736     0.739852
## 7514     1.710260  0.702330568  2.105658e+00     0.879256     0.807708
## 7515     1.609740  0.726981356  1.941954e+00     0.840324     0.777011
## 7516     1.464624  0.517823785  2.011507e+00     0.985716     0.841296
## 7517     2.085957  1.299834041 -7.839315e-02     0.972189     0.715503
## 7518     1.644654  0.786591726  3.159224e-01     0.906266     0.786751
## 7519     1.840761  1.024871353 -5.501178e-02     0.837933     0.743540
## 7520     1.670646  0.626573366  3.625844e-01     0.915015     0.743491
## 7521     1.624275  1.015351371  4.813227e-01     0.678000     0.653782
## 7522     1.576246  0.135139015  2.128533e+00     0.961441     0.695639
## 7523     1.522801  0.652524819  2.435415e+00     0.769767     0.642642
## 7524     1.840775  0.803779303  6.200734e-01     0.859132     0.822631
## 7525     1.488319  0.366844905  1.820647e+00     0.845054     0.722256
## 7526     1.908907  1.350931881  1.154464e+00     0.910745     0.689974
## 7527     1.888852  0.691056725  2.730620e-01     0.931803     0.696841
## 7528     1.663698  0.487575279  2.404508e+00     0.875365     0.711205
## 7529     1.734653  0.379780353  2.582694e+00     0.914954     0.803001
## 7530     1.463894  0.720322237  2.196387e+00     0.711646     0.486660
## 7531     1.624336  0.427442288  3.288361e-01     0.847763     0.795551
## 7532     1.584271  0.569796293  2.743806e+00     0.906653     0.625037
## 7533     1.594956  0.505753500  2.922799e-01     0.899222     0.836098
## 7534     1.614290  0.760044573  2.283716e-02     0.896834     0.798827
## 7535     1.606012  0.419764154  6.086395e-01     0.946928     0.724587
## 7536     1.962630  1.179451248  1.330766e+00     0.772532     0.613113
## 7537     1.634573  0.802200215  6.736989e-01     0.890894     0.789974
## 7538     1.804899  0.606868061  2.606890e+00     0.683007     0.636818
## 7539     1.625359  0.529521465  2.196458e+00     0.875577     0.686556
## 7540     1.605636  0.640801326  2.121092e-01     0.849846     0.817373
## 7541     1.580391  0.607763745  1.506247e+00     0.927258     0.832026
## 7542     1.683006  0.677631586  1.567732e+00     0.803122     0.757970
## 7543     1.574313  0.327869569  2.708310e+00     0.864199     0.767947
## 7544     1.559197  0.736531949  3.520703e-01     0.913421     0.757069
## 7545     1.796612  0.400263339  9.289927e-01     0.828665     0.806674
## 7546     1.973473  1.248792010  9.653202e-02     0.764780     0.604257
## 7547     1.705787  0.642231977  1.370839e+00     0.874828     0.812868
## 7548     1.556961  0.471524935  2.693856e+00     0.845195     0.740331
## 7549     1.820885  1.242372448  6.374000e-01     0.958837     0.658363
## 7550     1.528288  0.372562218  2.265802e+00     0.936508     0.664453
## 7551     1.838131  0.798312883  2.508188e+00     0.845270     0.645380
## 7552     1.674609  0.744138801  2.050854e+00     0.859261     0.767026
## 7553     1.761473  0.785480032  4.607874e-01     0.966383     0.795360
## 7554     1.778103  0.622792006  2.338285e+00     0.857448     0.762913
## 7555     1.593955  0.621214722  6.910254e-01     0.835477     0.707092
## 7556     1.897540  1.181017071  8.989621e-01     0.985384     0.824013
## 7557     1.688941  0.453811993  2.770596e+00     0.963263     0.768723
## 7558     1.828686  1.226218280  4.372366e-01     0.955230     0.627041
## 7559     1.495133  0.410282784  2.586092e+00     0.837570     0.490673
## 7560     1.661576  0.519628514  2.222980e+00     0.768929     0.710768
## 7561     1.688284  0.864356796  2.635090e+00     0.907913     0.613519
## 7562     1.824308  0.993474588  5.543983e-01     0.837331     0.784639
## 7563     1.940270  0.715054376  2.878257e+00     0.865314     0.855913
## 7564     1.805168  0.439872463  2.284618e+00     0.770575     0.709062
## 7565     1.581407  0.654632745  3.002415e+00     0.894086     0.808748
## 7566     1.581080  0.927629528  3.229487e+00     0.857495     0.820895
## 7567     1.566668  0.588894403  3.131036e+00     0.922234     0.831125
## 7568     1.570048  0.697517904  3.314255e+00     0.817426     0.650918
## 7569     1.510727  0.661855261  2.937715e+00     0.862551     0.633732
## 7570     1.684598  0.534269852  2.041200e-01     0.932989     0.655839
## 7571     1.653455  0.548707498  4.353475e-01     0.914293     0.756870
## 7572     1.623196  0.341270273 -2.292231e-01     0.912845     0.842787
## 7573     1.468882  0.183175855 -1.305850e-01     0.925889     0.689674
## 7574     1.684183  0.679816589  4.689810e-01     0.950898     0.823358
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## 7575     1.923585  1.112846209  1.172343e-02     0.900197     0.746944
## 7576     1.787976  0.628049537  5.105535e-01     0.904002     0.628271
## 7577     1.971576  1.526362543  3.852647e-01     0.860698     0.814139
## 7578     2.015821  1.453509449  8.383858e-01     0.941217     0.684171
## 7579     1.768389  0.840807177 -2.292231e-01     0.870520     0.681876
## 7580     1.752734  0.395740392  2.263715e+00     0.820812     0.713718
## 7581     1.834174  0.499087452  2.891654e+00     0.835562     0.790399
## 7582     1.648931  0.665311701  1.910303e+00     0.852737     0.750707
## 7583     1.519631  0.331451592  3.416830e+00     0.926633     0.871519
## 7584     1.847976  0.526484018  2.229274e+00     0.873540     0.812726
## 7585     1.838151  0.635203174  3.131727e+00     0.885499     0.691122
## 7586     1.674662  0.520698334  4.339128e-01     0.863860     0.606831
## 7587     1.583251  0.477867600  2.075948e+00     0.836697     0.704324
## 7588     1.461658  0.490114460  1.791599e+00     0.815592     0.657941
## 7589     1.675796  1.060826221  7.110176e-01     0.695228     0.584693
## 7590     1.568440  0.653970420  1.942770e+00     0.929276     0.756078
## 7591     1.675503  0.709063792  4.674195e-01     0.858389     0.795316
## 7592     1.548591  0.520977156  2.067493e+00     0.679403     0.464071
## 7593     1.719506  0.798865323  6.452812e-01     0.839091     0.707922
## 7594     2.064604  1.458456540  7.889189e-01     0.655883     0.525808
## 7595     1.546882  0.638928321 -8.196390e-02     0.888635     0.770711
## 7596     1.634617  0.621825161  2.376860e+00     0.862984     0.817670
## 7597     1.635449  0.579247255 -2.448560e-01     0.826458     0.700496
## 7598     1.858550  0.968452127  8.553267e-01     0.923035     0.740235
## 7599     1.687384  1.184143249  1.102484e+00     0.967185     0.659031
## 7600     1.930787  0.999016948  2.905152e+00     0.956522     0.857050
## 7601     1.754929  1.310427770  3.164544e-01     0.935522     0.809824
## 7602     1.489200  0.394992461  2.553488e+00     0.687857     0.484033
## 7603     1.718397  0.615264946  5.876678e-01     0.918265     0.824418
## 7604     1.604839  0.784265579  6.388120e-01     0.889698     0.796807
## 7605     1.792341  0.992620667  2.344032e-01     0.868360     0.705553
## 7606     1.573032  0.390622514  1.911226e+00     0.817085     0.673620
## 7607     1.589149  0.551280395  1.817294e+00     0.977987     0.800191
## 7608     1.949215  1.134871678  6.535413e-01     0.911774     0.753461
## 7609     1.482681  0.362188322  1.849065e+00     0.516805     0.462568
## 7610     1.563622  0.464495509  2.089675e+00     0.905509     0.871470
## 7611     1.649513  0.494238104  2.108948e+00     0.888849     0.776864
## 7612     1.562909  0.543637259  2.620817e+00     0.892981     0.770946
## 7613     1.644212  0.511888706  1.832074e-01     0.810091     0.537021
## 7614     1.612840  0.787859162  2.008208e+00     0.866914     0.830865
## 7615     1.737607  0.849392385  1.900900e-01     0.881180     0.592044
## 7616     1.577066  0.641027688  5.016186e-01     0.881547     0.685078
## 7617     1.627233  0.669899579  2.607274e+00     0.888772     0.793593
## 7618     1.666925  0.955168981  2.568561e-01     0.959759     0.819580
## 7619     1.582777  0.590393717  6.440258e-01     0.910408     0.852239
## 7620     1.610445  0.417720739  1.694591e+00     0.688335     0.598532
## 7621     1.729674  0.920337811  2.758057e+00     0.838446     0.807203
## 7622     1.824448  0.835604972  1.441212e+00     0.693480     0.633566
## 7623     1.651650  0.769130565  1.547680e+00     0.895561     0.685338
## 7624     1.660056  0.507380855  2.406047e+00     0.840536     0.821271
## 7625     1.666114  0.875450217 -8.929939e-02     0.855189     0.702958
## 7626     1.809413  1.004484741  5.007265e-01     0.974943     0.678519
## 7627     2.208568  1.253350123  5.500705e-01     0.934946     0.686848
## 7628     1.734119  0.487169496  2.567671e+00     0.728579     0.693906
## 7629     1.615591  0.910591325  7.198981e-01     0.851310     0.800161
## 7630     1.678938  1.066161869  1.470281e+00     0.591477     0.499605
## 7631     1.537809  0.574898989  2.200079e+00     0.724032     0.449312
## 7632     1.572024  0.476533111  2.322016e+00     0.789576     0.749122
## 7633     1.645099  0.692279235  5.088392e-01     0.928901     0.684320
## 7634     1.623623  0.553521368  4.497276e-01     0.910159     0.826672
## 7635     1.711363  0.636857842  5.790100e-01     0.892946     0.716722
## 7636     1.651571  0.569220533  1.413003e-01     0.937120     0.755087
## 7637     1.687142  0.536246497  2.480902e+00     0.894796     0.774316
## 7638     1.901226  1.354730610  8.012467e-01     0.624109     0.531761
## 7639     1.569004  0.611075099  2.425819e+00     0.930958     0.738023
## 7640     1.496233  0.562397558  2.932624e+00     0.929076     0.748154
## 7641     2.098336  1.443832283  1.021468e+00     0.827452     0.636929
## 7642     1.769051  0.823907655  4.285615e-01     0.957885     0.716235
## 7643     1.692772  0.728111809  2.228669e+00     0.811977     0.664525
## 7644     2.022028  1.080178976  4.365585e-01     0.639379     0.585886
## 7645     1.658151  0.621637345  2.623355e+00     0.900235     0.877313
## 7646     1.933283  0.933466028  4.586208e-01     0.902624     0.669969
## 7647     1.708785  0.701318388  4.231655e-01     0.913058     0.754016
## 7648     1.800826  0.967839904  5.437028e-01     0.897160     0.886135
## 7649     2.044669  1.299644560  2.006994e-01     0.953446     0.869611
## 7650     1.731062  0.833681202  1.143466e-01     0.956340     0.717399
## 7651     1.639920  0.486784571  2.904910e+00     0.856493     0.829670
## 7652     1.727336  0.777858727  3.728020e-01     0.907384     0.868635
## 7653     1.820402  1.069764267  1.164240e+00     0.942372     0.698937
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## 7654     1.685249  0.587992548  1.635298e+00     0.929591     0.851919
## 7655     1.602703  0.471030469  1.673365e+00     0.952465     0.830449
## 7656     1.672785  0.487436762  1.294624e+00     0.850419     0.747334
## 7657     1.517892  0.147960609  2.969325e+00     0.738618     0.630431
## 7658     1.854814  0.469823488  1.499574e+00     0.893769     0.707188
## 7659     1.577725  0.688995237  1.359542e+00     0.903517     0.762617
## 7660     1.822670  0.767505388  4.602478e-01     0.932687     0.748881
## 7661     1.650636  0.585974810  5.195396e-01     0.895324     0.768704
## 7662     2.067268  0.946935910  2.212770e+00     0.905567     0.740810
## 7663     1.600944  0.597010303  2.727269e+00     0.912295     0.695095
## 7664     1.674943  0.394273023  2.645869e+00     0.885633     0.777776
## 7665     1.717761  0.499685708  2.164205e+00     0.875196     0.772220
## 7666     1.928704  0.727572974 -2.292231e-01     0.933226     0.867016
## 7667     1.515662  0.338468446  2.335957e+00     0.808362     0.631561
## 7668     1.757526  0.483518831  2.278305e+00     0.942624     0.790985
## 7669     2.404163  2.379057019  2.444336e+00     0.611327     0.601974
## 7670     1.527728  0.894365915  2.362823e+00     0.777435     0.678931
## 7671     1.732743  0.681128125  2.125961e+00     0.847422     0.604835
## 7672     2.184595  1.334795423  2.888775e+00     0.702879     0.615514
## 7673     1.664618  0.609597610  2.562501e+00     0.909530     0.834197
## 7674     1.584571  0.475819317  1.473541e+00     0.876985     0.777743
## 7675     1.531085  0.512877758  2.031346e+00     0.969433     0.896750
## 7676     2.315593  1.220664988  3.200305e+00     0.954503     0.711033
## 7677     1.642128  0.336757834  2.448298e+00     0.824355     0.665962
## 7678     1.674926  0.744456497  6.512968e-01     0.950850     0.781482
## 7679     1.505801  0.593200751  6.079038e-01     0.829890     0.737132
## 7680     1.584726  0.178095961  2.159226e+00     0.964275     0.763761
## 7681     1.559975  0.320443333  2.954780e+00     0.783538     0.762185
## 7682     1.698469  0.468282329  2.108545e+00     0.911477     0.837304
## 7683     1.715053  0.673861941  1.255892e+00     0.969510     0.741099
## 7684     1.749768  0.431511721  2.522514e+00     0.947020     0.867914
## 7685     1.797640  0.663668894  2.566870e-01     0.942731     0.805485
## 7686     1.880118  1.066881020  1.650100e+00     0.778651     0.600163
## 7687     1.547781  0.623498421  2.476602e+00     0.893820     0.850487
## 7688     1.760631  0.538361310  1.724316e+00     0.883307     0.858682
## 7689     1.647365  0.766343682  3.211827e-01     0.882880     0.753320
## 7690     1.784942  0.940586703  2.265178e+00     0.947913     0.908060
## 7691     1.532991  0.402744428  2.162255e+00     0.832430     0.641313
## 7692     1.732191  0.568020926  3.004275e+00     0.848074     0.661344
## 7693     1.677869  1.000937064  9.120309e-01     0.853682     0.805326
## 7694     1.640283  0.372923044  2.335164e+00     0.931673     0.675992
## 7695     1.580995  0.907302236  9.953690e-02     0.921097     0.828593
## 7696     1.588035  0.582507662  2.434653e+00     0.779523     0.773617
## 7697     2.117715  0.993567160  2.328112e+00     0.828139     0.755153
## 7698     1.622877  0.517323923  1.875628e+00     0.719974     0.593172
## 7699     1.539554  0.764174637  2.403047e+00     0.895162     0.822252
## 7700     1.675734  1.091304601  1.890136e-01     0.696540     0.576480
## 7701     1.661111  0.568074939  2.096532e+00     0.839343     0.760840
## 7702     1.653473  0.544340944  1.671190e+00     0.960774     0.724728
## 7703     1.711946  0.798307355  5.139415e-01     0.909712     0.679102
## 7704     1.574628  0.504930061  2.653847e+00     0.707560     0.623032
## 7705     1.856413  1.075908115  2.613909e+00     0.959589     0.665072
## 7706     1.687560  0.443449186  2.675745e+00     0.884579     0.840229
## 7707     1.606285  0.973723445 -2.069591e-02     0.936420     0.723964
## 7708     1.637716  0.616346309  2.002575e-01     0.896783     0.817041
## 7709     1.761778  0.916717078  1.172343e-02     0.951660     0.722698
## 7710     1.658419  0.613437983 -1.260554e-01     0.830898     0.637248
## 7711     1.745460  0.559763033  1.060598e+00     0.880405     0.847944
## 7712     1.927284  0.804973132  9.533149e-03     0.896884     0.843804
## 7713     1.667266  0.457759309  6.990586e-01     0.891262     0.749059
## 7714     2.043024  1.400676113  2.896881e+00     0.747875     0.658133
## 7715     1.660063  0.521291106  5.239951e-01     0.858760     0.765734
## 7716     1.671849  0.613630435  2.749092e-01     0.894824     0.678797
## 7717     1.826226  0.491201956  2.802130e+00     0.945763     0.802425
## 7718     1.557181  0.352093720  2.360233e+00     0.834998     0.626889
## 7719     1.678972  0.727583546  2.285371e+00     0.906748     0.798774
## 7720     1.594364  0.367914739  2.712592e+00     0.729409     0.625711
## 7721     1.843305  0.791353045  4.231655e-01     0.845981     0.609249
## 7722     1.669955  1.160963471  1.185707e+00     0.942460     0.716718
## 7723     1.809117  0.597122329 -1.600869e-01     0.927229     0.791562
## 7724     1.693359  0.920690879  2.981533e-01     0.949835     0.726090
## 7725     1.549191  0.409210952  2.222277e+00     0.815048     0.657937
## 7726     1.647970  0.655021198  1.474471e+00     0.783948     0.689151
## 7727     2.071970  1.035097386  9.530736e-01     0.894848     0.764256
## 7728     1.648640  1.073087524  2.524147e-01     0.918067     0.791156
## 7729     1.702503  0.713896087  1.483710e-01     0.926664     0.815533
## 7730     1.737355  0.819821532  7.102780e-01     0.962569     0.869612
## 7731     1.647321  0.446926863  1.866020e+00     0.912733     0.739507
## 7732     1.514894  0.326690117  3.083313e-01     0.883553     0.619069
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## 7733     1.628865  0.590423829  1.112674e+00     0.758677     0.613527
## 7734     1.556369  0.461352937  1.841744e+00     0.913909     0.643010
## 7735     1.696060  0.724989002  1.068646e-01     0.942176     0.576079
## 7736     1.508550  0.273681712  2.493811e+00     0.838525     0.698864
## 7737     1.802966  1.221669783  4.783656e-01     0.842990     0.703009
## 7738     1.622701  0.407905633 -1.601400e-01     0.900768     0.834540
## 7739     1.945629  0.998348717 -6.142295e-02     0.946231     0.787687
## 7740     1.717698  0.974136647  9.357130e-01     0.888513     0.609810
## 7741     1.707075  0.442909148  2.349981e+00     0.970559     0.906261
## 7742     1.554220  0.330381302  1.642256e+00     0.896294     0.808310
## 7743     1.753043  0.836689883  8.825817e-02     0.930618     0.700759
## 7744     1.840615  0.658038122  3.056859e+00     0.977045     0.886303
## 7745     1.710127  0.515697707  7.752964e-02     0.877221     0.629793
## 7746     1.610008  0.317325661  2.476380e+00     0.828693     0.794905
## 7747     2.152979  1.235273350  3.961227e-01     0.934618     0.804366
## 7748     1.544718  0.436893809  2.397794e+00     0.803269     0.694829
## 7749     1.626081  0.417448442  2.607922e+00     0.961508     0.830782
## 7750     1.514812  0.631773424  2.597257e+00     0.837461     0.703162
## 7751     1.714123  0.714507466  3.105281e-01     0.943883     0.783235
## 7752     1.769267  0.595609741  4.335739e-02     0.989964     0.879563
## 7753     1.644752  0.490735017  2.946548e-01     0.913904     0.779632
## 7754     1.680326  0.360023194  2.475234e+00     0.821389     0.729881
## 7755     1.719672  0.327001133  8.245471e-01     0.891372     0.720787
## 7756     2.065371  1.051445813  1.658287e+00     0.814499     0.578090
## 7757     1.678486  1.259354927  6.297928e-01     0.778998     0.617050
## 7758     1.681085  0.669497257  8.012230e-01     0.888053     0.826411
## 7759     1.558966  0.440904361  2.149435e+00     0.786387     0.728954
## 7760     1.588826  0.803039008  3.227357e-01     0.870518     0.716493
## 7761     1.843489  1.266622057  7.193345e-01     0.889588     0.762339
## 7762     1.781708  1.375092713  4.489201e-01     0.865653     0.707075
## 7763     1.838644  0.838894406  2.037573e+00     0.918142     0.616633
## 7764     1.981341  1.668026030  2.316474e+00     0.807243     0.683303
## 7765     1.597445  0.535510580  4.629322e-01     0.812269     0.710819
## 7766     1.636106  0.484052007  3.099480e+00     0.873681     0.796067
## 7767     1.662785  0.725303848 -2.761056e-01     0.959142     0.855181
## 7768     1.594177  0.675129164  1.164174e+00     0.795601     0.681046
## 7769     1.657594  0.335953095  8.941098e-01     0.862324     0.648480
## 7770     1.756414  0.283341942  2.459203e+00     0.843365     0.813093
## 7771     1.628241  0.496818986  1.432569e-01     0.933090     0.828418
## 7772     1.481186  0.437350955  1.547569e+00     0.655578     0.477457
## 7773     1.823952  0.803057463  3.672347e-01     0.958376     0.681167
## 7774     1.670390  0.698771921  3.813881e-01     0.888076     0.726346
## 7775     1.932060  1.462415968  5.482244e-01     0.944691     0.884062
## 7776     1.508865  0.400299623  2.478570e+00     0.819084     0.558516
## 7777     1.439749  0.356341419  2.250791e+00     0.698893     0.576780
## 7778     1.646399  0.869763112  3.721942e-01     0.990845     0.863139
## 7779     1.555205  0.284372072  2.233162e+00     0.828851     0.643651
## 7780     1.478657  0.489886794  2.290886e+00     0.609279     0.521561
## 7781     1.623373  0.598999399  1.861056e+00     0.984574     0.789032
## 7782     1.959166  1.174693479  1.918957e+00     0.794596     0.525571
## 7783     1.633888  0.801239017  5.088392e-01     0.910349     0.844439
## 7784     1.742895  1.175989912  3.010300e-01     0.850413     0.752122
## 7785     1.932957  0.854398358  3.011024e+00     0.927750     0.832185
## 7786     1.575288  0.546248922  2.913153e+00     0.829116     0.688138
## 7787     1.875620  1.064338167  5.002791e-01     0.961041     0.741397
## 7788     1.951997  1.191020419  2.131606e+00     0.900941     0.730302
## 7789     1.877643  0.787339309  2.426908e+00     0.943551     0.712828
## 7790     1.746735  0.517897594  2.086681e+00     0.827163     0.795032
## 7791     1.540237  0.628597341  2.266651e+00     0.874111     0.769228
## 7792     1.866978  0.992648054 -4.276359e-02     0.959211     0.845566
## 7793     1.723044  0.627361759  6.875953e-01     0.921469     0.692067
## 7794     1.736223  0.871910783  4.605178e-01     0.906007     0.776149
## 7795     1.699540  0.568181770  1.976891e-01     0.857636     0.815957
## 7796     1.592502  0.517844874  2.976227e+00     0.649516     0.535715
## 7797     1.476604  0.442261783  2.906550e+00     0.952826     0.836694
## 7798     1.713373  1.591079083  1.019653e+00     0.564882     0.479723
## 7799     1.812534  0.857038041  3.427669e+00     0.906474     0.817886
## 7800     1.688801  0.599027827  2.002171e+00     0.873419     0.662863
## 7801     1.589169  0.645264047  2.066343e+00     0.608496     0.454703
## 7802     1.510391  0.475838193  2.291732e+00     0.810129     0.479646
## 7803     1.666274  1.076487522  2.092107e+00     0.917299     0.831870
## 7804     2.203886  0.673780949  2.546071e+00     0.991969     0.830938
## 7805     1.671535  0.446889616  9.285351e-01     0.933743     0.750653
## 7806     1.572502  0.308773507  9.953690e-02     0.907891     0.859814
## 7807     1.916807  0.632016700  2.567651e+00     0.963159     0.859588
## 7808     1.967918  0.992855166  2.431431e+00     0.907034     0.837546
## 7809     1.670788  0.588445390  2.908151e+00     0.780896     0.739892
## 7810     1.656107  0.810005900  3.841091e-01     0.814919     0.764783
## 7811     1.742661  0.851467494  2.507694e+00     0.972456     0.949939
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## 7812     1.718131  0.686459298  1.187373e+00     0.750537     0.692622
## 7813     1.745567  0.442294723  8.554986e-01     0.598126     0.498191
## 7814     1.543919  0.663136258  3.001179e+00     0.899073     0.760974
## 7815     1.887241  0.806489299  3.115147e+00     0.880450     0.779999
## 7816     1.629597  0.899494933  3.932600e-01     0.904486     0.740637
## 7817     1.948263  1.344488555  4.431716e-01     0.936646     0.671613
## 7818     1.939453  1.255677658  1.279276e+00     0.866736     0.662201
## 7819     1.743699  0.590300022  1.665720e-01     0.881047     0.702083
## 7820     1.555306  0.558784146  3.307994e+00     0.820774     0.712067
## 7821     1.616920  0.857173829  4.494436e-01     0.906939     0.797705
## 7822     1.654608  0.426665758  3.365856e+00     0.916136     0.806299
## 7823     1.704892  0.707181692  4.260392e-01     0.868712     0.843652
## 7824     2.161976  1.567339322  1.374729e+00     0.843553     0.560616
## 7825     1.679486  1.078677897  1.846736e+00     0.909876     0.819260
## 7826     1.526260  0.524226006  2.240041e+00     0.797799     0.722156
## 7827     2.076200  1.072091743  2.789814e+00     0.954054     0.736153
## 7828     1.631931  0.402459135  2.095152e+00     0.977457     0.861057
## 7829     1.557768  0.553938826  3.040291e+00     0.922599     0.849919
## 7830     1.531802  0.338448525  2.785137e+00     0.673155     0.531177
## 7831     1.525009  0.427768406  2.044886e+00     0.915281     0.727579
## 7832     1.591841  0.428313013  1.475016e+00     0.837175     0.556483
## 7833     1.655245  0.511554509  1.098056e+00     0.919868     0.724781
## 7834     1.640103  0.479125957  2.132551e+00     0.812122     0.693655
## 7835     1.599264  0.871148941  2.597867e+00     0.890453     0.852569
## 7836     1.504764  0.472997657  3.020883e+00     0.918213     0.769871
## 7837     1.624207  0.922535510  2.559809e-01     0.831717     0.733659
## 7838     1.553763  0.537843012  2.057854e+00     0.938778     0.697114
## 7839     1.582202  0.742111345  2.088466e+00     0.789903     0.583789
## 7840     1.660022  0.722294086  3.898251e-01     0.862723     0.739588
## 7841     1.771403  0.571217207  5.094837e-01     0.810767     0.688505
## 7842     1.605018  0.651655918  4.282478e-01     0.892109     0.770352
## 7843     1.626028  0.333364640  1.869805e+00     0.752725     0.616741
## 7844     1.609355  0.471914829  3.164544e-01     0.844124     0.725451
## 7845     1.528236  0.391372712  2.534074e+00     0.701887     0.575678
## 7846     1.779400  0.688761428  1.744935e+00     0.952976     0.769564
## 7847     1.776817  0.595103636  2.440550e+00     0.833460     0.819755
## 7848     1.605226  0.773193821  1.444135e+00     0.906411     0.684433
## 7849     1.640197  0.811958865  4.922936e-01     0.957658     0.784465
## 7850     1.776480  1.082792549 -1.448193e-01     0.968639     0.862839
## 7851     1.931826  1.393419005  3.931823e-01     0.974217     0.881800
## 7852     1.588995  0.425806384  3.809966e-01     0.850420     0.738323
## 7853     1.704207  0.927790594  2.076939e+00     0.881801     0.787068
## 7854     1.728754  0.763826164  3.608678e-01     0.990972     0.800790
## 7855     1.914261  0.810866018  2.485790e+00     0.835574     0.794772
## 7856     1.822484  1.276103191  1.517047e+00     0.840818     0.642041
## 7857     1.705209  1.001500065  1.884966e+00     0.945761     0.695680
## 7858     1.743260  0.875893731 -4.087025e-02     0.876922     0.743361
## 7859     1.594764  0.418841337  1.780794e+00     0.795310     0.730376
## 7860     1.710459  0.495624806  2.404621e+00     0.934901     0.859691
## 7861     1.611748  0.867999276  2.392243e+00     0.915590     0.730493
## 7862     1.621037  0.632420846  5.162399e-01     0.853919     0.706679
## 7863     1.627866  0.700291721  2.380103e+00     0.831331     0.663899
## 7864     1.819649  1.033395606  2.616014e+00     0.926621     0.858926
## 7865     1.550600  0.552906587  4.172991e-01     0.918987     0.832426
## 7866     1.547128  0.691888300  2.344960e+00     0.790082     0.751477
## 7867     1.683132  0.458163265  1.604760e+00     0.840578     0.717959
## 7868     1.750156  1.064356892  4.733441e-01     0.908338     0.871800
## 7869     1.756309  0.887163642  1.687251e-01     0.949394     0.779221
## 7870     1.808100  0.555058155  2.624843e+00     0.971515     0.900975
## 7871     1.618748  0.734309272  1.552900e+00     0.806156     0.605835
## 7872     1.745456  0.653370761  3.652391e-01     0.909200     0.875903
## 7873     1.584871  0.421029423  1.710168e+00     0.727018     0.599787
## 7874     1.649711  0.465672780  1.207550e+00     0.780102     0.697809
## 7875     1.628735  0.626517950  5.445656e-01     0.881770     0.762528
## 7876     1.753141  0.406841527  1.727434e+00     0.804695     0.655052
## 7877     1.567806  0.377570318  3.726481e-01     0.820186     0.779769
## 7878     1.678397  0.755569981  3.829472e-01     0.907540     0.703164
## 7879     1.582745  0.549231391  7.911248e-01     0.927781     0.872514
## 7880     1.440539  0.510204411  2.982805e+00     0.822325     0.445950
## 7881     1.648840  0.492295124  5.392703e-01     0.966366     0.877962
## 7882     1.630842  0.434108819  2.323413e+00     0.871864     0.767798
## 7883     1.676465  0.877662122  2.247851e-01     0.927909     0.782361
## 7884     1.655698  0.931376496  5.476930e-02     0.859553     0.714598
## 7885     1.621436  0.603426951  2.809110e+00     0.843013     0.783334
## 7886     1.508059  0.386718287  2.208471e+00     0.900160     0.749515
## 7887     1.719844  0.796529236  1.915803e+00     0.737792     0.636684
## 7888     1.671786  0.915579743  3.016007e-01     0.974234     0.837478
## 7889     1.883171  1.156427992  2.885889e+00     0.907223     0.715718
## 7890     1.684098  0.594535082  2.435506e+00     0.919764     0.827759
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## 7891     1.543624  0.324405934  2.990121e+00     0.869928     0.828460
## 7892     1.627276  0.467542994  2.960213e+00     0.533537     0.430529
## 7893     1.644899  0.372481175  2.774228e+00     0.939034     0.773345
## 7894     1.614560  0.771451513  3.334167e-02     0.918063     0.611946
## 7895     1.561904  0.497033368  4.344348e-01     0.932470     0.791131
## 7896     1.911669  1.133289756  2.865693e-01     0.891465     0.635507
## 7897     1.498743  0.272899346  2.542482e+00     0.679749     0.595280
## 7898     1.771246  1.208795957  2.079746e+00     0.940006     0.848301
## 7899     1.663427  1.631272250  9.295709e-01     0.601162     0.552663
## 7900     1.866069  1.376992805  8.950192e-01     0.805273     0.657924
## 7901     2.014378  0.790683378  1.952274e+00     0.968463     0.841884
## 7902     1.567653  0.361055103  2.499949e+00     0.849178     0.803515
## 7903     1.644668  0.715211706  8.344070e-01     0.928316     0.690726
## 7904     1.647789  0.793090201  1.831386e+00     0.939251     0.782923
## 7905     1.612141  1.112809367  7.471279e-01     0.723039     0.637468
## 7906     1.634971  0.613033769  4.715583e-01     0.852865     0.753837
## 7907     1.553909  0.453848651  2.308211e+00     0.815452     0.612027
## 7908     1.998965  1.982156763  1.244679e+00     0.686500     0.491141
## 7909     1.446480  0.332983511  2.739882e+00     0.821397     0.626144
## 7910     1.551229  0.430653837  2.234225e+00     0.828847     0.710404
## 7911     1.602566  0.900603605  2.305700e+00     0.752654     0.665723
## 7912     1.757227  0.642914410  1.919517e+00     0.888889     0.796969
## 7913     1.626486  0.528443601  1.997940e+00     0.948320     0.909062
## 7914     1.604198  0.629111812  1.683093e+00     0.969063     0.745424
## 7915     1.548200  0.361665520  2.282652e+00     0.858781     0.745901
## 7916     1.537678  0.497529501  2.160854e+00     0.869522     0.728490
## 7917     1.794272  1.145684208  1.740129e-01     0.929766     0.836389
## 7918     1.655749  0.949349015  2.611386e+00     0.889611     0.762120
## 7919     1.780749  0.782359378  1.972551e+00     0.952986     0.691800
## 7920     1.445998  0.363589419  3.393479e+00     0.711883     0.623541
## 7921     1.731198  0.471670087  2.668121e+00     0.813815     0.740643
## 7922     1.630566  0.622313516 -1.762359e-02     0.893271     0.807209
## 7923     1.733147  0.742849983 -2.841801e-02     0.925913     0.796173
## 7924     1.639144  0.726402793  2.919540e-02     0.961689     0.835050
## 7925     1.472212  0.388641069  2.527983e+00     0.734783     0.588863
## 7926     1.698095  0.511463563  2.587006e+00     0.987509     0.860758
## 7927     1.568264  0.750625631  2.286552e+00     0.806880     0.747027
## 7928     1.679024  0.425270042  2.588322e+00     0.851646     0.761351
## 7929     1.740206  0.357814828  1.638618e+00     0.921007     0.732572
## 7930     1.891346  1.205296412  5.353150e-01     0.871316     0.737843
## 7931     1.829189  1.252263057  1.928957e+00     0.990021     0.935596
## 7932     1.668654  0.876581525  4.356509e-01     0.915399     0.788590
## 7933     1.746874  0.754867191  2.667349e+00     0.871415     0.776080
## 7934     1.798731  0.830466767  2.492546e+00     0.940615     0.828284
## 7935     1.549430  0.393780458  2.080774e+00     0.922933     0.828340
## 7936     1.534995  0.452839435  1.905027e+00     0.597362     0.565071
## 7937     1.677335  0.802541812  3.871767e-01     0.921661     0.699407
## 7938     1.647730  0.790895703  1.478046e+00     0.870361     0.762014
## 7939     2.062657  1.236665717  5.842163e-01     0.886360     0.652201
## 7940     1.484086  0.498346399  2.886834e+00     0.754117     0.685511
## 7941     1.841725  0.869489286  3.006704e+00     0.863270     0.764719
## 7942     1.653703  1.093684284  5.566142e-01     0.963978     0.804657
## 7943     1.868015  1.009896860 -1.130468e-01     0.690451     0.679220
## 7944     1.485179  0.564152180  2.264189e-01     0.879280     0.689640
## 7945     1.639369  0.375987157  1.740129e-01     0.949133     0.734095
## 7946     1.590549  0.631299657  8.883381e-01     0.838342     0.718201
## 7947     1.658374  0.747212873  3.642872e-01     0.974560     0.697889
## 7948     1.597235  0.468887646  1.591382e+00     0.927702     0.850313
## 7949     1.523748  0.509020968  2.471241e+00     0.858111     0.728803
## 7950     1.513720  0.649416646  2.061312e+00     0.945788     0.846278
## 7951     1.634017  0.472376092  4.130572e-01     0.852906     0.658192
## 7952     1.653346  0.413981691  2.562105e+00     0.963771     0.870579
## 7953     1.620060  0.623450880 -3.367184e-01     0.948045     0.831569
## 7954     1.616202  0.595597619  2.407602e+00     0.886897     0.724743
## 7955     1.604923  0.349240606  2.220877e+00     0.937185     0.817878
## 7956     2.224422  1.472228248  8.655424e-01     0.926000     0.854641
## 7957     1.647153  0.460786625  7.281798e-01     0.904588     0.855392
## 7958     1.718341  0.457468591  2.073896e+00     0.728279     0.619716
## 7959     1.416900  0.512613698  1.505178e+00     0.772805     0.526077
## 7960     1.867416  1.368530468  1.180715e+00     0.813341     0.693134
## 7961     1.688872  0.667787184  3.293366e-01     0.826226     0.663261
## 7962     1.594819  0.587028126  1.035038e+00     0.786962     0.633937
## 7963     1.947864  0.856218793  2.858229e+00     0.904243     0.702788
## 7964     1.615846  0.472582404  2.192953e+00     0.974640     0.814540
## 7965     2.173326  1.736039357  8.752177e-01     0.806866     0.694475
## 7966     1.710121  0.627190669  2.774799e-01     0.888610     0.849579
## 7967     1.574358  0.440411561  1.718135e+00     0.923782     0.847186
## 7968     1.744836  0.472657004  1.951348e+00     0.856320     0.777196
## 7969     1.887125  1.244113766  1.293101e+00     0.831892     0.717463
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## 7970     1.730281  1.000794033  3.453216e-01     0.899538     0.746537
## 7971     1.744160  0.595376058  1.566109e-01     0.942447     0.785343
## 7972     1.683957  0.752437217  5.392703e-01     0.778005     0.706499
## 7973     1.595289  0.484529029  2.549553e+00     0.823305     0.714771
## 7974     1.692644  0.778453704  2.271392e+00     0.969430     0.789843
## 7975     1.539950  0.378699440  3.230913e-01     0.848678     0.611027
## 7976     1.599586  0.391136319  3.608678e-01     0.900059     0.848583
## 7977     1.917671  0.952897978  1.199376e+00     0.774680     0.721349
## 7978     1.684334  0.593110984  2.609575e+00     0.958917     0.887000
## 7979     1.742869  0.987123952 -1.762359e-02     0.889100     0.832090
## 7980     1.715600  0.661744556  2.843332e+00     0.896783     0.819701
## 7981     1.902303  0.946787191  2.194022e+00     0.868306     0.794291
## 7982     2.028661  1.506533443  8.051002e-01     0.924439     0.812741
## 7983     1.627732  0.526561538 -1.886110e-01     0.927486     0.874219
## 7984     1.973027  1.227817315  6.121208e-01     0.885016     0.785989
## 7985     1.537449  0.397851404  2.638151e+00     0.816943     0.713857
## 7986     1.613494  0.348540448  2.345948e+00     0.907043     0.789724
## 7987     1.601733  0.313924139  2.656200e+00     0.884622     0.829281
## 7988     1.587625  0.492622119  2.991246e+00     0.886213     0.675502
## 7989     1.717778  0.559784575  1.732131e+00     0.682453     0.522737
## 7990     1.647485  0.568168857  2.837730e-01     0.967587     0.845191
## 7991     1.575632  0.545668260  1.337375e+00     0.759031     0.677165
## 7992     1.530946  0.340941583  2.468079e+00     0.857993     0.789932
## 7993     1.622384  0.912689057  1.508469e-01     0.856247     0.827287
## 7994     1.789098  0.933474633  5.580190e-01     0.939467     0.890814
## 7995     1.646234  0.509977644  3.754374e-01     0.882685     0.773830
## 7996     1.813377  0.939473824  8.092398e-01     0.838579     0.817883
## 7997     1.785594  0.595596517  1.537931e+00     0.842574     0.770832
## 7998     1.624365  0.614062611  2.573907e-01     0.900661     0.720597
## 7999     1.633447  0.755760553  1.051027e+00     0.893212     0.604636
## 8000     1.698868  0.644723102  3.252989e-01     0.895314     0.844880
## 8001     1.845687  0.596011778  2.940591e-01     0.905911     0.739421
## 8002     1.711252  0.981371402 -4.169796e-01     0.884561     0.724170
## 8003     1.635438  0.391169845  1.622080e+00     0.794247     0.753352
## 8004     1.608686  0.747317014  7.839854e-01     0.930466     0.828731
## 8005     1.684748  0.558883693  6.467555e-01     0.779750     0.701274
## 8006     1.777403  0.492802280  6.012176e-01     0.978252     0.831297
## 8007     1.629322  0.597023484  7.548520e-01     0.908013     0.835520
## 8008     2.242437  1.383953529  2.043517e+00     0.632050     0.612523
## 8009     1.915557  0.809925176  2.767335e+00     0.881515     0.670313
## 8010     1.933310  0.819845863  2.809026e+00     0.949449     0.792987
## 8011     1.692082  1.223433635  1.256750e+00     0.698086     0.637192
## 8012     1.471186  0.587853462  2.936659e+00     0.471562     0.419227
## 8013     1.602491  0.427353009  1.458613e+00     0.842302     0.653037
## 8014     1.631397  0.710488008  2.692978e+00     0.875350     0.839003
## 8015     1.526565  0.510259408  2.216345e+00     0.862737     0.759771
## 8016     1.683109  0.741448646  5.464272e-01     0.974299     0.871389
## 8017     1.603273  0.913442955  3.252989e-01     0.981829     0.957426
## 8018     1.645309  0.809380573  4.344348e-01     0.729043     0.486544
## 8019     1.643193  0.443361573  2.745928e+00     0.939087     0.708443
## 8020     1.743272  0.578364108  2.695643e+00     0.769029     0.722876
## 8021     2.026116  1.746059429  1.228505e+00     0.886624     0.682816
## 8022     1.641179  0.753054231  1.885500e+00     0.941916     0.845470
## 8023     1.582870  0.301730815  1.822791e+00     0.887440     0.783620
## 8024     1.704607  0.889046655  1.754474e+00     0.673412     0.661591
## 8025     1.802864  0.610834697  6.553948e-01     0.941467     0.799509
## 8026     1.642006  0.495671971  1.400757e-01     0.924088     0.803183
## 8027     1.554041  0.536921886  1.263557e+00     0.873900     0.732141
## 8028     1.724182  0.874259105  2.877815e+00     0.927335     0.844070
## 8029     1.905038  0.806085640  3.433606e-01     0.982071     0.804408
## 8030     1.686932  0.952441283  2.090009e+00     0.866154     0.770347
## 8031     1.719484  0.404472795  1.963055e+00     0.908514     0.891844
## 8032     1.859902  1.183173007  3.879368e-01     0.977309     0.710352
## 8033     1.489300  0.475938364  2.910379e+00     0.865278     0.850389
## 8034     1.685511  0.986962424  8.188074e-01     0.796694     0.628027
## 8035     1.801658  0.481085586  6.822438e-01     0.830975     0.755068
## 8036     1.896324  0.419139234  2.350276e+00     0.858425     0.817978
## 8037     1.991732  0.921809725  1.549127e+00     0.906766     0.717330
## 8038     1.921038  1.108892988  7.810757e-01     0.811609     0.725840
## 8039     1.697720  0.536134041  2.855488e+00     0.934273     0.866543
## 8040     1.818799  0.333725295  2.705095e+00     0.979565     0.860479
## 8041     1.654819  0.642632666  5.370191e-01     0.974403     0.776685
## 8042     1.573678  0.742835065  3.023457e+00     0.907293     0.809606
## 8043     1.720291  0.502224948  1.842045e-01     0.875010     0.834615
## 8044     1.693405  0.627843932  2.398594e+00     0.920985     0.805287
## 8045     1.690013  0.418698936  1.420827e+00     0.876006     0.804214
## 8046     1.648377  0.885258855  5.657423e-01     0.942532     0.794720
## 8047     1.557757  0.238138977  3.117646e+00     0.935284     0.839898
## 8048     1.743320  0.844651728  1.054196e-01     0.965715     0.823445
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## 8049     1.619467  0.781087987  2.352281e+00     0.891793     0.678702
## 8050     1.770420  0.889006843  5.394568e-01     0.882798     0.811078
## 8051     1.702438  0.826578163  1.232518e+00     0.907085     0.656469
## 8052     1.832349  0.982165813  4.906601e-01     0.881634     0.723227
## 8053     1.522764  0.293192340  2.661357e+00     0.811446     0.768880
## 8054     1.679102  0.328732197  2.394344e+00     0.984651     0.834347
## 8055     2.333528  1.766004389  9.838344e-01     0.752954     0.540945
## 8056     1.406453  0.432151214  9.146495e-01     0.914863     0.729619
## 8057     1.640705  0.670368329  1.290651e+00     0.822677     0.753868
## 8058     1.715861  0.584828569  9.468241e-01     0.789010     0.715088
## 8059     1.696854  0.596547616  2.347671e+00     0.894649     0.846809
## 8060     1.703651  0.990890919  2.690082e-01     0.822502     0.747081
## 8061     1.668641  0.585924106  2.277166e+00     0.903713     0.887836
## 8062     1.772629  0.577252757  4.054076e-01     0.905012     0.897651
## 8063     1.716104  0.640487400  6.409127e-01     0.894431     0.710021
## 8064     1.724471  0.642741431  3.988693e-02     0.834644     0.735246
## 8065     1.918449  1.093985202  1.361348e+00     0.743279     0.695046
## 8066     1.616180  0.457068536  1.846663e+00     0.780016     0.695731
## 8067     1.638671  0.519619325  2.234516e+00     0.940755     0.777292
## 8068     1.614799  1.083706819  8.882645e-01     0.892981     0.693557
## 8069     1.639361  0.739376908  1.733108e+00     0.649768     0.523618
## 8070     1.593636  0.376144272  3.523575e-01     0.953839     0.726315
## 8071     1.706294  0.592342224  2.800197e-01     0.922471     0.745685
## 8072     1.600215  0.678242419  3.853760e-01     0.946269     0.811596
## 8073     1.488754  0.457691189  2.826400e+00     0.809755     0.677832
## 8074     1.660744  0.835228135  7.356946e-01     0.949342     0.774432
## 8075     1.722722  1.266057568  9.171955e-01     0.941103     0.833652
## 8076     1.811683  0.945725048  5.285560e-01     0.986927     0.680884
## 8077     1.653468  0.630846711  3.728020e-01     0.957562     0.829039
## 8078     1.609254  0.728430893  5.521259e-01     0.958137     0.811192
## 8079     1.653930  0.659984617  1.929720e-01     0.953111     0.814173
## 8080     1.821414  1.465402186  7.560788e-01     0.910040     0.726795
## 8081     1.658037  0.654642364  7.784338e-01     0.659933     0.610950
## 8082     1.563461  0.356196098  3.122593e+00     0.842529     0.809766
## 8083     1.738826  0.971970813  9.148900e-01     0.903834     0.704739
## 8084     1.884812  0.800785103  1.190395e+00     0.868080     0.681740
## 8085     1.669433  0.252297069  2.606245e+00     0.881392     0.801470
## 8086     1.534486  0.335676497  1.319721e+00     0.792001     0.671901
## 8087     1.635020  1.179609234  9.211736e-01     0.648437     0.609899
## 8088     1.657152  1.072102779  2.256036e-01     0.920014     0.698679
## 8089     1.555773  0.519062384  2.376863e+00     0.960602     0.793184
## 8090     1.650502  0.438126049  2.276136e+00     0.909060     0.746632
## 8091     1.748007  0.479486053  8.122337e-01     0.909822     0.868097
## 8092     1.534093  0.411572571  2.376908e+00     0.977414     0.817216
## 8093     1.734989  0.403542594  2.830412e+00     0.819422     0.682499
## 8094     1.575107  0.272470530  2.195085e+00     0.980232     0.782709
## 8095     1.555887  0.511131716  3.099262e+00     0.744493     0.708919
## 8096     1.760471  0.963399149  2.227704e+00     0.962474     0.821624
## 8097     1.781844  0.781144780  2.580921e-01     0.929152     0.698325
## 8098     1.567093  0.506509091  1.375380e+00     0.905860     0.758892
## 8099     1.633423  0.854610245  2.904536e+00     0.905782     0.715486
## 8100     1.671667  0.814405432  2.502457e-01     0.956248     0.799390
## 8101     2.073077  1.203100910  2.443500e-01     0.926897     0.697183
## 8102     1.721331  0.560762406  2.405703e+00     0.788836     0.703818
## 8103     1.527385  0.577396428  1.516230e+00     0.691029     0.683178
## 8104     1.611836  0.467815215  3.879368e-01     0.842720     0.634614
## 8105     1.681527  0.723648558  2.577476e+00     0.899225     0.743466
## 8106     1.472089  0.428183406  2.739095e+00     0.808136     0.717262
## 8107     1.891388  1.025604852  2.767593e+00     0.928977     0.745951
## 8108     1.596887  0.630192865  2.174207e+00     0.944794     0.816800
## 8109     1.602911  0.904108299  1.078526e+00     0.769363     0.685043
## 8110     1.651821  0.525644626  3.143185e-01     0.941150     0.876714
## 8111     1.521171  0.452840966  1.913900e+00     0.966370     0.878576
## 8112     1.613259  0.618016701  2.198060e-01     0.966999     0.687330
## 8113     1.776065  0.358555368  2.525159e+00     0.826120     0.740567
## 8114     1.565612  0.693607370  2.724326e+00     0.819252     0.717614
## 8115     1.630832  0.492856733  2.613185e+00     0.722520     0.626695
## 8116     1.535142  0.490266171  2.797003e+00     0.916481     0.686689
## 8117     1.778154  0.506820154  8.962838e-01     0.818158     0.714688
## 8118     1.745631  0.712636235  1.306530e+00     0.890500     0.736928
## 8119     1.642609  0.352002973  3.316911e+00     0.777987     0.747085
## 8120     1.632077  0.621699613  7.294142e-01     0.894176     0.666104
## 8121     1.647588  0.581083390  7.908359e-01     0.767639     0.698093
## 8122     1.618851  0.758457689  5.424580e-01     0.902893     0.669771
## 8123     1.500463  0.394616261  1.674738e+00     0.876549     0.724951
## 8124     1.799872  1.088373556  5.965614e-01     0.978941     0.835974
## 8125     1.553353  0.475968847  4.997188e+00     0.835674     0.750362
## 8126     1.848480  0.554289230  1.557416e+00     0.914369     0.825850
## 8127     1.713024  0.696972004  2.428500e-01     0.941152     0.712646
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## 8128     1.883308  0.649818545  1.803968e+00     0.865931     0.813744
## 8129     1.475841  0.398688088  1.248386e+00     0.787295     0.576168
## 8130     1.547295  0.496182129  2.909122e+00     0.850969     0.808271
## 8131     1.750710  0.966228114  1.261092e-01     0.918774     0.753074
## 8132     1.647840  0.801117517  2.989850e+00     0.945531     0.832075
## 8133     1.699244  0.410468479  2.092017e+00     0.836051     0.733307
## 8134     1.653577  0.194575389  1.908692e+00     0.626298     0.603454
## 8135     1.604081  0.473985939  1.961078e+00     0.517165     0.447019
## 8136     1.676928  0.715405778  1.312966e-01     0.863977     0.765860
## 8137     1.746643  0.687831168  2.160619e+00     0.844911     0.760466
## 8138     1.543820  0.459677400  2.991852e+00     0.807971     0.702314
## 8139     1.562171  0.364164367  3.608678e-01     0.894950     0.736578
## 8140     1.606371  0.670964442  1.845005e-02     0.892714     0.843524
## 8141     2.267554  1.984181991  6.523334e-01     0.672078     0.588356
## 8142     1.671359  0.677483763  2.224058e+00     0.864099     0.684372
## 8143     1.935787  1.319482909 -4.273387e-02     0.907171     0.861818
## 8144     1.631236  0.376987336  1.210619e+00     0.586425     0.558079
## 8145     1.617644  0.452146919  2.982540e+00     0.781971     0.641952
## 8146     1.845554  0.859581376  1.564967e+00     0.850543     0.610722
## 8147     1.761935  1.015581876  2.328304e-01     0.925516     0.808100
## 8148     1.883626  0.995675990 -1.221079e-01     0.916713     0.765079
## 8149     1.789892  0.506239775  2.523107e+00     0.971844     0.810790
## 8150     1.643585  0.685123436  3.587024e-01     0.908667     0.667563
## 8151     1.642200  0.946334341  4.017741e-01     0.858781     0.821855
## 8152     1.856626  1.079944210  5.175990e-01     0.949095     0.933990
## 8153     1.662768  1.337966141  1.939239e-01     0.735011     0.653387
## 8154     1.690836  0.555770164  2.713573e+00     0.887944     0.772020
## 8155     1.628588  0.550743084  2.155648e-01     0.982376     0.831739
## 8156     1.846759  1.058991302  5.137313e-01     0.940834     0.761052
## 8157     2.054268  1.051669508  9.258384e-01     0.920284     0.688773
## 8158     1.786944  1.102303329  1.845005e-02     0.963477     0.746220
## 8159     1.655632  0.625207467  2.519685e+00     0.938273     0.715422
## 8160     1.684859  0.589901592  9.953690e-02     0.904301     0.661111
## 8161     1.552232  0.560571316  4.380625e-01     0.851482     0.756770
## 8162     1.660572  0.292980030  2.783713e+00     0.891081     0.841997
## 8163     1.849022  0.591871200  2.500002e+00     0.988595     0.849726
## 8164     1.950899  0.894934934 -3.981290e-02     0.951198     0.854958
## 8165     1.640398  0.446611718  1.841483e+00     0.891135     0.688013
## 8166     1.473716  0.654249721  2.768402e-01     0.929919     0.729719
## 8167     1.535466  0.315456021  1.512497e+00     0.816382     0.644604
## 8168     1.703269  0.480825865  9.431537e-03     0.936732     0.805610
## 8169     1.629452  1.025780871  3.905757e-01     0.935857     0.839259
## 8170     1.554326  0.768015438  2.828909e+00     0.791087     0.732953
## 8171     1.603927  0.485079445  1.787160e+00     0.780157     0.656921
## 8172     1.540463  0.216081411  1.740639e+00     0.878984     0.794327
## 8173     1.590261  0.522595493  1.461280e-01     0.892308     0.791067
## 8174     1.953373  0.964813344  2.670040e-01     0.959492     0.889710
## 8175     1.674857  0.479424137  2.593038e+00     0.886909     0.742865
## 8176     1.559123  0.136238455  2.918231e+00     0.856104     0.587927
## 8177     1.860491  1.161954652  1.861848e-01     0.973549     0.859196
## 8178     1.708642  0.838698006  1.316494e+00     0.661509     0.528382
## 8179     1.643636  0.688663599  3.391068e-01     0.604457     0.503622
## 8180     1.988471  1.024982072  6.016420e-01     0.946888     0.669979
## 8181     1.792738  0.613944308  2.242262e+00     0.822114     0.723862
## 8182     1.976116  0.699150633  1.960330e+00     0.966755     0.745452
## 8183     1.618773  0.448018013  1.600306e+00     0.832068     0.757892
## 8184     1.637886  0.629018966 -1.243214e-02     0.872204     0.737948
## 8185     1.624420  1.111534703  1.181465e+00     0.928187     0.747404
## 8186     1.873922  1.162549472  1.786785e+00     0.823608     0.659511
## 8187     1.564874  0.321105246  1.325387e+00     0.784417     0.655214
## 8188     1.789719  0.828962637  1.986199e-01     0.817781     0.781828
## 8189     1.623873  0.639780236  1.370214e+00     0.725886     0.622442
## 8190     1.622168  0.776852217  3.809966e-01     0.983959     0.869410
## 8191     1.758400  0.985184333  7.363034e-01     0.712843     0.557875
## 8192     1.736377  0.972829289  2.847455e-01     0.864879     0.702018
## 8193     1.617224  0.586672805  2.685599e+00     0.939835     0.858292
## 8194     1.815020  0.691171703  4.068007e-01     0.953194     0.698870
## 8195     1.608643  0.786549130  2.898841e-01     0.893151     0.819454
## 8196     1.619716  0.540610987  1.038016e+00     0.949745     0.875281
## 8197     1.664942  0.898610561  8.463537e-01     0.867429     0.687254
## 8198     1.704009  0.402111719  2.968396e+00     0.805499     0.696843
## 8199     1.619666  0.806944067  1.905909e-01     0.909352     0.618028
## 8200     1.609592  0.641278733  3.347659e-01     0.950523     0.586238
## 8201     1.643296  0.959490249  1.477999e+00     0.714064     0.619819
## 8202     1.874890  1.303999083  5.941197e-01     0.679127     0.666336
## 8203     1.693901  0.696739832  3.569540e-01     0.897601     0.843848
## 8204     1.649914  0.546494543 -1.305850e-01     0.935377     0.865126
## 8205     1.783734  1.212488575  8.829399e-01     0.755118     0.656998
## 8206     1.568004  1.001209994  5.708282e-01     0.852812     0.753340
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## 8207     1.723675  0.785376110 -1.448193e-01     0.850896     0.694842
## 8208     1.617698  0.350213118  9.518973e-01     0.619803     0.583779
## 8209     2.005047  0.549464302  2.246715e+00     0.952891     0.814883
## 8210     1.610047  0.385804610  3.341644e+00     0.888952     0.720086
## 8211     1.770406  0.964962609 -3.403619e-02     0.923208     0.723910
## 8212     1.584964  0.634389596  2.981533e-01     0.947675     0.798390
## 8213     2.199593  2.026688488  1.211108e+00     0.738804     0.536963
## 8214     1.575650  0.577104439  2.320972e+00     0.786012     0.702642
## 8215     1.620754  1.026504665  7.654865e-01     0.806715     0.616912
## 8216     1.906156  1.082289777  5.555792e-01     0.869150     0.744233
## 8217     1.938718  0.899898165  8.901698e-01     0.850703     0.739150
## 8218     1.959104  1.045432517  1.796693e-01     0.978057     0.775506
## 8219     1.671285  0.901204864  3.617278e-01     0.918692     0.737343
## 8220     2.075065  1.396781504  1.041193e+00     0.930571     0.732378
## 8221     1.615440  0.294591867  2.028763e+00     0.921115     0.877729
## 8222     1.674968  0.807189891  2.581052e+00     0.958084     0.894671
## 8223     1.887870  0.764309913  2.223602e+00     0.869556     0.837552
## 8224     1.633119  0.939163684  5.103400e-01     0.949444     0.749965
## 8225     1.552435  0.265808018  2.581785e+00     0.817015     0.675739
## 8226     2.067985  0.738980225  2.615605e+00     0.920094     0.822252
## 8227     1.617484  0.527036690  1.063316e+00     0.612596     0.581854
## 8228     1.561546  0.508968505  1.485945e+00     0.820640     0.757282
## 8229     1.652628  0.635046216  2.289102e+00     0.987073     0.810379
## 8230     1.663185  1.426343692  5.985515e-01     0.850680     0.762788
## 8231     1.641353  0.192313716  2.194576e+00     0.895161     0.858916
## 8232     1.713955  0.527726543  5.111929e-01     0.926089     0.837943
## 8233     1.533581  0.428019723  2.309627e+00     0.896367     0.740025
## 8234     1.563473  0.387752773  2.536968e+00     0.978269     0.846486
## 8235     1.530635  0.380070073  3.027050e+00     0.812138     0.692608
## 8236     1.652031  0.852266454  2.300272e+00     0.912768     0.748770
## 8237     1.617897  0.388312611  1.300430e+00     0.677629     0.601495
## 8238     1.886985  0.630186759  4.383621e-01     0.857977     0.788206
## 8239     1.523623  0.457733576  2.965516e+00     0.742666     0.598995
## 8240     1.679239  0.379004399  2.958549e+00     0.880825     0.732168
## 8241     1.841942  0.794543811  6.024777e-02     0.919437     0.721172
## 8242     1.865800  1.371760333  1.649516e+00     0.886141     0.653059
## 8243     1.628737  0.867604178  2.057961e+00     0.850295     0.734306
## 8244     1.774528  0.513338813  3.012683e+00     0.888545     0.825534
## 8245     1.637599  0.858182158  5.876678e-01     0.885774     0.767376
## 8246     1.638649  0.574027793  2.981533e-01     0.911952     0.798452
## 8247     1.546185  0.737395425  2.353852e+00     0.856263     0.764008
## 8248     1.701860  1.048220327  4.553292e-01     0.909274     0.710948
## 8249     1.627717  0.489778540  1.945318e+00     0.812814     0.720759
## 8250     1.960603  1.092955619  1.383383e+00     0.898763     0.634497
## 8251     1.616403  0.819995762  3.123124e+00     0.801832     0.752645
## 8252     1.575715  0.912225778  3.905757e-01     0.803719     0.794131
## 8253     1.548533  0.561827385  1.485801e+00     0.864776     0.635570
## 8254     1.708633  0.504324034  2.511455e+00     0.848958     0.782773
## 8255     1.661048  0.307712062  2.288167e+00     0.962218     0.870493
## 8256     1.742037  0.866953337  6.569093e-01     0.819971     0.599679
## 8257     1.518137  0.293050812  2.596581e+00     0.757410     0.591858
## 8258     1.655308  0.547305709  2.071302e+00     0.913464     0.716725
## 8259     2.049113  1.584895215  1.373444e+00     0.885652     0.634068
## 8260     1.532246  0.404113285  2.399671e+00     0.848409     0.665815
## 8261     1.475811  0.319730494  2.886394e+00     0.915975     0.755007
## 8262     1.880935  0.923950856  2.580921e-01     0.888723     0.612723
## 8263     1.742675  0.450787792  2.756765e+00     0.888417     0.696039
## 8264     1.641804  0.614628334  1.097250e-01     0.956826     0.896548
## 8265     1.712465  0.881618576  8.789772e-01     0.896379     0.856651
## 8266     1.688244  1.163703904  5.690153e-01     0.946215     0.570474
## 8267     1.566519  0.488729756  7.418649e-02     0.761095     0.701533
## 8268     1.748991  0.909334547 -8.926205e-02     0.755747     0.677852
## 8269     1.935121  0.945512899  1.828828e+00     0.809718     0.624772
## 8270     1.894206  0.746380397  8.760372e-01     0.831786     0.689398
## 8271     1.880348  0.973330169  2.952462e+00     0.922294     0.755326
## 8272     1.773599  0.461150231  2.852591e+00     0.902970     0.868602
## 8273     1.652560  0.513875205  1.378699e+00     0.909861     0.785346
## 8274     1.671680  0.262068837  5.510689e-01     0.850762     0.811769
## 8275     1.708972  0.815660748  2.628237e+00     0.890387     0.744221
## 8276     1.845157  0.633810706  2.057751e+00     0.868793     0.674755
## 8277     1.797290  0.753065734  4.773707e-01     0.911961     0.728150
## 8278     1.532381  0.602178320  5.925249e-01     0.839332     0.731794
## 8279     1.761862  0.647365363  1.106916e+00     0.963786     0.712209
## 8280     1.842139  0.906245587  2.840395e+00     0.913695     0.671899
## 8281     1.644664  0.562605682  2.463905e+00     0.811007     0.759853
## 8282     1.778705  0.968923091  4.653723e-01     0.935255     0.800348
## 8283     1.868212  1.472765223  1.052271e+00     0.900891     0.604303
## 8284     1.622497  0.468647097  2.627398e+00     0.988396     0.836740
## 8285     1.534252  0.683888681  2.134620e+00     0.956937     0.911225
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## 8286     1.687061  0.365532910  2.797918e+00     0.884842     0.818986
## 8287     1.592816  0.645396722  2.112908e+00     0.943540     0.834171
## 8288     1.624892  1.104650965  7.240394e-01     0.697416     0.518174
## 8289     1.653963  0.910008273  1.717639e+00     0.848058     0.799877
## 8290     1.584375  0.331785518  2.054127e+00     0.801440     0.734878
## 8291     1.604755  0.897536375  1.663748e+00     0.913404     0.846238
## 8292     1.686212  1.185819697  5.620833e-01     0.907650     0.789574
## 8293     2.087650  1.090183959  2.860389e+00     0.940122     0.700530
## 8294     1.637236  0.634482308  7.582428e-01     0.783120     0.642803
## 8295     2.020030  1.116508124  3.424227e-01     0.831304     0.816513
## 8296     1.523331  0.471847428  2.028934e+00     0.701210     0.599545
## 8297     1.880227  1.738969134  1.059135e+00     0.944853     0.714035
## 8298     1.702567  0.481131488  1.450947e+00     0.967748     0.814296
## 8299     1.917771  1.248662193  4.730899e-01     0.893555     0.732558
## 8300     1.712208  0.884407893  6.978147e-01     0.776777     0.666148
## 8301     1.974309  1.451467119  1.291943e+00     0.829996     0.612274
## 8302     1.603291  0.721690282  2.405797e-01     0.931762     0.816173
## 8303     1.595589  0.463028016  2.694472e+00     0.952879     0.830611
## 8304     1.557875  0.522570721  1.785683e+00     0.783006     0.675382
## 8305     1.927992  0.957654688  5.377721e-01     0.637437     0.610853
## 8306     1.690175  0.389268885  2.553658e+00     0.939865     0.735410
## 8307     1.688793  0.805366947 -1.655188e-01     0.876379     0.838503
## 8308     1.807046  1.146323424  1.640933e+00     0.831684     0.644252
## 8309     1.534142  0.543711777  1.470764e+00     0.848770     0.786960
## 8310     1.667224  0.550397145  2.450960e-01     0.964555     0.698081
## 8311     1.678842  1.011933965  5.213736e-01     0.894031     0.661007
## 8312     1.645654  0.426787690  6.024777e-02     0.950781     0.898524
## 8313     1.581463  0.597188213  7.157576e-01     0.922212     0.864031
## 8314     1.591432  0.519000603  1.762783e+00     0.983829     0.842373
## 8315     1.831641  0.713254431  7.701529e-01     0.906037     0.779300
## 8316     1.565849  0.553289409  2.687198e+00     0.957296     0.812620
## 8317     1.651069  0.570163350  1.633613e+00     0.913473     0.792858
## 8318     1.660100  0.773122066  1.607225e+00     0.907122     0.768616
## 8319     1.619432  0.200809473  8.444930e-01     0.863843     0.636759
## 8320     1.737947  1.104244631  4.636884e-01     0.891001     0.696295
## 8321     1.532414  0.315447619  2.475386e+00     0.896018     0.742583
## 8322     1.655950  0.472338038  1.341551e+00     0.920243     0.863689
## 8323     1.685196  0.662828635  1.891205e-01     0.926967     0.844413
## 8324     1.814039  1.172900531  5.750995e-01     0.784375     0.700623
## 8325     1.711014  0.830382699  2.800197e-01     0.953878     0.809527
## 8326     1.686000  0.614788629  1.563942e+00     0.770904     0.574626
## 8327     1.862990  1.346929694  2.969916e-01     0.845489     0.607155
## 8328     1.795137  0.630394310  2.239627e+00     0.849983     0.843463
## 8329     1.712012  0.638744767  6.831577e-01     0.863405     0.736333
## 8330     1.690247  0.741595912  2.928746e-01     0.943278     0.552918
## 8331     1.522414  0.475290469  1.923430e+00     0.923885     0.701975
## 8332     1.604822  0.603099966  2.336183e-01     0.904298     0.839248
## 8333     1.580892  0.788985264  2.850358e+00     0.898707     0.763986
## 8334     1.578603  0.492081186  2.161158e+00     0.913078     0.734593
## 8335     1.545145  0.644182467  2.373430e+00     0.838565     0.766987
## 8336     1.603358  0.471992472  1.999846e+00     0.960819     0.767270
## 8337     1.619495  0.659007699  1.782634e+00     0.843959     0.744397
## 8338     1.607289  0.836810051  2.713233e+00     0.870577     0.650775
## 8339     1.590928  0.281882934  1.957143e+00     0.856710     0.777753
## 8340     1.802524  0.911705593 -1.448193e-01     0.911986     0.763876
## 8341     1.650182  0.454698547  1.001922e+00     0.759565     0.613831
## 8342     1.633681  0.766519920  2.288462e-01     0.774633     0.696609
## 8343     1.613623  0.425098730  3.184147e+00     0.884401     0.749097
## 8344     1.594756  0.465173090  2.304329e+00     0.890429     0.843172
## 8345     1.805803  0.790842280  6.316573e-01     0.776757     0.714563
## 8346     1.706370  0.672083073  4.183703e-01     0.910607     0.786540
## 8347     1.626947  0.399012260  2.184003e+00     0.824642     0.770415
## 8348     1.665053  0.407261702  2.396952e-01     0.767460     0.658462
## 8349     1.647232  0.781905378  2.866812e+00     0.868421     0.739097
## 8350     1.760399  0.533961338  1.856159e+00     0.957702     0.716325
## 8351     1.756227  1.115746935  1.309504e+00     0.981096     0.708643
## 8352     1.604905  0.347380761  1.508469e-01     0.898081     0.718825
## 8353     1.657391  0.625583029  1.771228e-01     0.962907     0.916856
## 8354     1.783371  0.414747790  2.863930e+00     0.969864     0.830874
## 8355     1.859287  0.801732222  4.129594e-01     0.932888     0.886071
## 8356     1.535732  0.326354298  1.878321e+00     0.894495     0.885302
## 8357     1.665874  0.916566061  8.868615e-01     0.602264     0.571723
## 8358     1.548351  0.583269072 -8.929939e-02     0.926522     0.877627
## 8359     1.530934  0.594966810  2.668140e+00     0.838664     0.686464
## 8360     1.743436  0.452623525  1.967541e-01     0.987503     0.920729
## 8361     1.645860  0.917965293  2.300055e+00     0.716784     0.486722
## 8362     1.684577  0.902197682  3.913237e-01     0.966128     0.825172
## 8363     1.798833  0.746180210  1.866611e+00     0.904004     0.781318
## 8364     1.666828  0.579743594  1.710535e+00     0.928946     0.817685
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## 8365     1.634488  0.922285752  4.463638e-01     0.926268     0.782250
## 8366     2.018430  1.685673679  1.297032e+00     0.900623     0.737671
## 8367     1.657639  0.401003980  2.453076e+00     0.870284     0.755957
## 8368     2.261372  0.626601071  2.190585e+00     0.928122     0.735892
## 8369     1.659148  0.776534842  2.621318e+00     0.885257     0.724356
## 8370     1.651012  0.663699983  2.312879e+00     0.847621     0.791910
## 8371     1.774467  0.556575056  1.844516e+00     0.961747     0.736019
## 8372     1.871501  0.729844059  1.744566e+00     0.850685     0.772107
## 8373     1.710929  0.871790029  2.407366e+00     0.957775     0.884494
## 8374     1.521453  0.303301917  1.379643e+00     0.885196     0.852935
## 8375     1.605502  0.711125315  1.759785e+00     0.936425     0.829076
## 8376     1.752265  0.436340783  4.316729e-01     0.859611     0.725346
## 8377     1.599408  0.720643788  1.461280e-01     0.875957     0.821063
## 8378     1.539400  0.599002679  2.814562e+00     0.972900     0.830123
## 8379     1.826690  1.693313557  7.731872e-01     0.860741     0.594487
## 8380     2.016227  0.887811339  2.604798e+00     0.848604     0.725926
## 8381     1.610390  0.428445819  3.806043e-01     0.915526     0.755295
## 8382     1.589994  0.468710568  1.195838e+00     0.693488     0.610368
## 8383     1.759214  0.768395361  1.759292e+00     0.809092     0.725319
## 8384     1.691253  0.365918322  2.280716e+00     0.853387     0.772141
## 8385     1.687705  0.831661852  3.149401e-01     0.830275     0.645793
## 8386     2.185347  1.349728105  2.521271e+00     0.912576     0.738922
## 8387     1.748992  1.103974669  9.566515e-01     0.881993     0.694701
## 8388     1.878932  0.974214078  1.461664e+00     0.700443     0.601128
## 8389     1.900064  0.776582063  2.966746e+00     0.901248     0.765350
## 8390     1.694815  0.338958232  2.042106e+00     0.864424     0.780487
## 8391     1.640638  0.785612390  2.264189e-01     0.910096     0.753224
## 8392     1.683891  0.852538546  2.813743e+00     0.886569     0.835604
## 8393     1.657777  0.467704276  1.746930e+00     0.831999     0.721793
## 8394     1.649671  0.496539438  2.586758e+00     0.961468     0.916873
## 8395     1.472641  0.285717046  1.825586e+00     0.960890     0.775695
## 8396     1.601505  0.652593444 -6.142295e-02     0.864343     0.804623
## 8397     1.585243  0.331838113  2.265452e+00     0.905578     0.810866
## 8398     1.657236  0.575395702  2.206324e+00     0.947084     0.844161
## 8399     1.747184  1.293899289  1.909491e-01     0.858267     0.791131
## 8400     1.900464  1.010956839  1.896358e+00     0.943117     0.758714
## 8401     1.847231  0.707463718  1.792009e+00     0.935639     0.828472
## 8402     1.738137  1.082261029  1.492733e+00     0.911288     0.838537
## 8403     1.443568  0.429340393  2.669626e+00     0.950625     0.849898
## 8404     1.592731  0.749737088  2.580054e+00     0.738356     0.691668
## 8405     1.672657  0.624815095  2.233080e+00     0.959690     0.861049
## 8406     1.632640  0.423761804  2.829906e+00     0.967815     0.851531
## 8407     1.620511  0.467769364 -4.276359e-02     0.969566     0.671799
## 8408     1.668230  0.679741239  1.376599e+00     0.891171     0.807939
## 8409     1.626967  0.399091966  1.314365e+00     0.806140     0.646643
## 8410     2.034512  0.924940048  2.619197e+00     0.893620     0.632841
## 8411     1.808478  0.954216934  1.504287e+00     0.777673     0.718103
## 8412     2.038071  1.293033117  9.464028e-01     0.891686     0.714644
## 8413     2.176450  1.164671024  2.039434e+00     0.956879     0.710701
## 8414     1.702747  1.059070913  3.942897e-01     0.909991     0.664830
## 8415     1.621854  1.037836693  1.842045e-01     0.918185     0.848352
## 8416     1.668264  0.512508295  7.673333e-01     0.928452     0.761433
## 8417     1.670859  1.045131221  1.247920e-01     0.961662     0.806819
## 8418     1.869304  0.550174522  2.181632e+00     0.941113     0.876249
## 8419     1.647613  0.676232556  4.861621e-01     0.841757     0.767857
## 8420     1.679679  0.611329185  4.335739e-02     0.939662     0.717178
## 8421     2.233425  1.527736850  1.822992e+00     0.587862     0.542275
## 8422     1.531898  0.359057228  1.235144e+00     0.862180     0.796657
## 8423     1.709670  0.449086354  9.736241e-01     0.904022     0.805401
## 8424     1.537106  0.490850046  3.316443e+00     0.865292     0.681873
## 8425     1.633332  0.494887543  2.622521e-01     0.871104     0.769811
## 8426     1.844462  0.493941570  1.911936e+00     0.932246     0.751097
## 8427     1.609251  0.406354501  1.185687e-01     0.876243     0.711525
## 8428     1.667065  0.549445919  1.854874e+00     0.890940     0.779579
## 8429     1.736220  0.760305600  6.912093e-01     0.979563     0.687672
## 8430     1.501361  0.451721977  9.953690e-02     0.815511     0.642765
## 8431     1.529510  0.370015040  2.152806e+00     0.873648     0.750813
## 8432     1.695319  0.668247032  2.534815e+00     0.926030     0.808773
## 8433     1.504653  0.538597609  2.664680e+00     0.649151     0.587667
## 8434     1.917303  0.718470133  2.266655e+00     0.904977     0.781837
## 8435     1.728083  0.831560733  3.263156e-01     0.790822     0.707678
## 8436     1.546019  0.641751653  3.008413e+00     0.887722     0.783211
## 8437     1.641154  0.908154615  7.326970e-01     0.922282     0.824734
## 8438     1.746006  0.548999582  2.313597e+00     0.947484     0.903274
## 8439     1.593411  0.402978022  2.149260e+00     0.908534     0.838195
## 8440     1.923643  1.153775243  2.916835e-01     0.955932     0.712931
## 8441     1.719509  0.570545275  2.919540e-02     0.955385     0.860851
## 8442     1.921188  0.769043352  1.874419e+00     0.895929     0.754209
## 8443     1.881881  1.072062312  3.227357e-01     0.902393     0.690780
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## 8444     1.499789  0.358602918  2.537009e+00     0.863410     0.832206
## 8445     1.556026  0.315504330  1.506264e+00     0.711044     0.630245
## 8446     2.173946  1.460069038  3.332989e-01     0.953010     0.674655
## 8447     1.554362  0.403988243  3.278697e+00     0.809060     0.640469
## 8448     1.715584  0.590998901 -8.196390e-02     0.854993     0.806045
## 8449     1.824496  1.093414680  2.533406e-01     0.955163     0.692605
## 8450     1.562398  0.538522209  1.811987e-01     0.967541     0.912000
## 8451     1.701360  0.351137024  1.481347e-01     0.985439     0.885233
## 8452     1.641944  0.590102526  4.241277e-01     0.927901     0.781021
## 8453     1.637679  0.820022712  6.855296e-01     0.882566     0.650620
## 8454     1.788339  1.041317664  3.145984e+00     0.916461     0.760327
## 8455     1.866721  0.944547811  2.892809e-01     0.934677     0.754845
## 8456     1.705916  0.649633698  5.189248e-01     0.828577     0.698530
## 8457     1.791867  1.312771671  4.972022e-01     0.889890     0.692530
## 8458     1.650646  0.507271474  3.318217e-01     0.923436     0.671025
## 8459     1.603611  0.408629977  2.471134e+00     0.790073     0.653238
## 8460     1.620692  0.329477205  2.007619e+00     0.807871     0.721051
## 8461     1.920824  1.009625089  4.522665e-01     0.834689     0.691986
## 8462     1.673469  0.301012624  2.560985e+00     0.905378     0.814074
## 8463     1.866857  1.049105557  4.231655e-01     0.837226     0.742666
## 8464     2.106718  1.417325520  1.288849e+00     0.817841     0.705615
## 8465     1.647840  1.011460482  2.328304e-01     0.835366     0.681881
## 8466     2.431113  2.013768062  1.682147e+00     0.743707     0.492545
## 8467     1.548991  0.521995361  2.131746e+00     0.740879     0.604179
## 8468     1.692532  1.311404166  1.531056e+00     0.903991     0.806643
## 8469     1.852407  0.831295666  1.169562e+00     0.824653     0.743788
## 8470     1.614649  0.499945384  2.436655e+00     0.773488     0.679540
## 8471     1.723546  1.060505197  2.683422e-01     0.962086     0.836126
## 8472     1.586143  1.311474128  8.438807e-01     0.873377     0.542682
## 8473     1.682890  0.519301536  2.791048e+00     0.954671     0.756386
## 8474     1.645388  1.030713037  1.512328e+00     0.851885     0.763334
## 8475     1.512333  0.452248108  2.446527e+00     0.860636     0.652187
## 8476     1.658299  0.615389208  2.880531e+00     0.963676     0.905297
## 8477     1.616938  0.397910476  2.817925e+00     0.855677     0.683038
## 8478     1.611026  0.301802353  2.082999e+00     0.828446     0.711714
## 8479     1.788163  0.837572657  6.298307e-01     0.909672     0.734410
## 8480     1.897331  1.052867010  7.020718e-01     0.918433     0.655276
## 8481     1.758473  1.099794551  1.740129e-01     0.909287     0.784948
## 8482     1.926459  1.000824377  1.807829e+00     0.954243     0.817208
## 8483     1.527306  0.417529817  2.351895e+00     0.675704     0.478768
## 8484     1.648573  0.595672549 -2.804499e-01     0.902053     0.849635
## 8485     1.654833  0.615117470  8.658300e-01     0.901621     0.860290
## 8486     1.529924  0.464006398  2.672259e+00     0.821238     0.695363
## 8487     1.774552  0.621485788  2.839188e+00     0.936222     0.866665
## 8488     1.538447  0.485931427  2.592441e+00     0.936281     0.784892
## 8489     1.642504  0.936996526  2.223103e-01     0.936171     0.887676
## 8490     1.794707  0.870593502 -7.405077e-02     0.929690     0.807093
## 8491     2.099159  1.366523814  3.894488e-01     0.915685     0.540832
## 8492     1.571731  0.298527779  2.873473e+00     0.944908     0.770463
## 8493     1.701736  1.005793756  5.035681e-01     0.913831     0.886514
## 8494     1.641793  0.858330227  3.278315e-01     0.925641     0.578722
## 8495     1.765750  0.808811680  7.056026e-01     0.597466     0.522982
## 8496     1.597899  0.762542779  1.478607e+00     0.934104     0.741614
## 8497     1.806851  0.887401224  1.723634e+00     0.687506     0.486689
## 8498     1.605303  0.726980541 -1.194897e-01     0.989253     0.752946
## 8499     1.646355  0.670032365  6.184031e-01     0.923388     0.733224
## 8500     1.569396  0.682953321  1.811987e-01     0.938700     0.825322
## 8501     1.638820  1.007098838  1.188571e+00     0.846102     0.678955
## 8502     1.547513  0.350627860  2.166820e+00     0.794026     0.695726
## 8503     1.583287  0.717400857  3.717690e-01     0.942839     0.766792
## 8504     1.710130  0.692070133  1.483561e+00     0.806207     0.532844
## 8505     1.679137  1.176395159  1.715978e+00     0.832558     0.748772
## 8506     2.065329  1.298925089  7.744365e-01     0.910008     0.803965
## 8507     1.520828  0.412092459  2.455225e+00     0.968002     0.627919
## 8508     1.557927  0.487425452  2.720840e+00     0.838365     0.815315
## 8509     1.636812  0.576519870  1.290774e+00     0.976180     0.847129
## 8510     1.677392  0.898341715  1.797318e+00     0.966624     0.755954
## 8511     1.698169  0.600148151  2.892809e-01     0.818914     0.675122
## 8512     1.629621  0.740439276  1.295683e+00     0.787044     0.758641
## 8513     1.749738  1.575647307  1.711454e+00     0.903869     0.662600
## 8514     1.607806  0.414637475  1.654823e+00     0.916939     0.765425
## 8515     1.714341  1.218062618  9.530736e-01     0.898944     0.778634
## 8516     1.637461  0.595999667  2.464774e+00     0.906862     0.828227
## 8517     1.783894  0.630257989  8.565941e-02     0.933318     0.856409
## 8518     1.817905  1.038226615  2.581191e+00     0.798275     0.563265
## 8519     1.631443  1.050437761  2.118399e+00     0.844351     0.523582
## 8520     1.694734  0.483738454  2.658416e+00     0.812408     0.776891
## 8521     1.724301  0.429270899  1.534063e+00     0.865758     0.763248
## 8522     1.636660  0.550362902  2.390525e-01     0.916029     0.761804
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## 8523     1.892965  0.805653752  7.731244e-01     0.950586     0.830005
## 8524     1.631418  0.592376642  2.341332e+00     0.950890     0.770331
## 8525     1.459210  0.402037728  2.134637e-01     0.876508     0.781234
## 8526     1.665864  0.412625162  3.092115e+00     0.878167     0.830909
## 8527     1.631529  0.368182716  2.132049e+00     0.686530     0.536269
## 8528     1.610064  0.527573194  4.342060e-01     0.933684     0.848448
## 8529     1.645669  0.353970058  1.578538e+00     0.669835     0.519238
## 8530     1.786937  0.689495326  2.473184e-01     0.928948     0.557119
## 8531     1.600167  0.489077754  5.632543e-01     0.830862     0.698010
## 8532     1.526218  0.757289720  1.212350e+00     0.829364     0.776805
## 8533     1.640784  0.732204720  1.705971e+00     0.695355     0.645596
## 8534     1.570859  0.323351120  3.195243e+00     0.913931     0.874398
## 8535     1.551074  0.497996093  2.842321e+00     0.874823     0.643249
## 8536     1.701545  1.100828725  1.368561e+00     0.818205     0.686232
## 8537     1.561564  0.405125998  2.065857e+00     0.787014     0.701280
## 8538     1.522375  0.516393891  1.984074e+00     0.788776     0.716130
## 8539     1.443141  0.476415677  2.424115e+00     0.871992     0.573088
## 8540     1.883713  0.988827298  1.199644e+00     0.744297     0.690504
## 8541     1.575765  0.630853824  4.307442e-01     0.893761     0.884321
## 8542     2.027847  1.244393412  1.618282e+00     0.656345     0.532465
## 8543     1.923438  1.319828241  1.202110e+00     0.908083     0.737177
## 8544     1.678383  0.559079122  1.825000e+00     0.765794     0.628040
## 8545     1.518544  0.372464596  1.887782e+00     0.813430     0.613194
## 8546     2.173428  1.445063723  9.675217e-01     0.890977     0.594722
## 8547     1.620177  0.487054904  2.499095e+00     0.977545     0.909228
## 8548     1.586001  0.543935254  2.820790e+00     0.893513     0.706508
## 8549     1.706205  0.748630627  5.168625e-01     0.800346     0.682402
## 8550     1.723571  0.568312044  4.070401e-01     0.868810     0.572878
## 8551     1.463948  0.416482402  2.942827e+00     0.862174     0.738338
## 8552     1.595215  0.735807215  7.554663e-01     0.966839     0.758359
## 8553     1.585410  0.642229997  1.600346e+00     0.818803     0.794983
## 8554     1.710095  0.569099902  2.430378e+00     0.924405     0.900811
## 8555     1.493026  0.509074770  2.041145e+00     0.869973     0.822668
## 8556     1.575524  0.441314863  4.575292e-01     0.957527     0.873939
## 8557     1.630447  0.726265781  6.506752e-01     0.862969     0.577348
## 8558     1.899498  0.519175406  2.361255e+00     0.876698     0.785138
## 8559     1.658335  0.372337471  2.504980e+00     0.744025     0.669974
## 8560     1.784121  0.631495516  2.453013e+00     0.908729     0.763989
## 8561     2.129690  1.415664328  8.309303e-01     0.865096     0.805636
## 8562     1.888129  0.924982377  8.404169e-01     0.682471     0.595272
## 8563     2.044301  1.487511680  5.088392e-01     0.885372     0.654493
## 8564     1.667643  0.603659589  8.212581e-01     0.899518     0.698661
## 8565     1.669910  0.526087158  1.325173e+00     0.837276     0.786500
## 8566     1.623034  0.769273172  9.352623e-01     0.890860     0.814651
## 8567     1.667678  0.751670870  3.103518e+00     0.928537     0.883677
## 8568     1.557411  0.447435581  2.781959e+00     0.845449     0.706288
## 8569     1.768744  0.818210713  1.400757e-01     0.889811     0.876613
## 8570     1.592982  0.869620650  7.587811e-01     0.967744     0.808199
## 8571     1.623528  0.723870886  3.790911e-01     0.815116     0.740338
## 8572     1.634555  0.511305699  1.221322e-01     0.876039     0.815736
## 8573     1.430009  0.450772410  1.141173e+00     0.913449     0.719968
## 8574     1.565662  0.578133576  2.898258e+00     0.892479     0.651145
## 8575     1.568767  0.475363151  7.985608e-01     0.939283     0.866736
## 8576     1.696629  0.740447171  5.205930e-01     0.810156     0.581215
## 8577     1.594578  0.568982751  6.230487e-01     0.960991     0.881135
## 8578     1.637243  0.917673523  9.953690e-02     0.903557     0.827321
## 8579     1.568852  0.436291485 -4.276359e-02     0.872126     0.775448
## 8580     1.702454  0.479316124  2.608337e+00     0.965490     0.822846
## 8581     1.648548  0.608657586  7.090206e-01     0.943214     0.830672
## 8582     1.555282  0.610487688  2.600388e+00     0.961789     0.874773
## 8583     1.694259  0.618908507  9.170448e-01     0.775172     0.721279
## 8584     1.605132  0.575897613  4.610567e-01     0.886215     0.769043
## 8585     1.616320  0.725285863  1.750547e-01     0.937257     0.720119
## 8586     1.570395  0.307983543  2.794987e+00     0.624459     0.516402
## 8587     1.734682  0.815943491  5.189248e-01     0.838224     0.636488
## 8588     1.523082  0.158320267  2.607626e+00     0.877255     0.685640
## 8589     1.621420  0.445001377  4.344348e-01     0.886839     0.828119
## 8590     1.633332  0.364702925  1.310013e+00     0.853582     0.628042
## 8591     1.568703  0.377156846  1.947786e+00     0.874159     0.770236
## 8592     1.825792  0.574871249  2.132956e+00     0.978454     0.889341
## 8593     1.513916  0.309934493  2.469190e+00     0.693705     0.507466
## 8594     1.567239  0.537206875  9.226536e-01     0.909451     0.743490
## 8595     1.844914  0.714072293  2.238413e+00     0.702292     0.640402
## 8596     1.654142  0.548811836  1.953446e+00     0.923888     0.865258
## 8597     1.646926  0.715148948  2.531328e-01     0.935903     0.800197
## 8598     1.440459  0.461584057 -1.305850e-01     0.817905     0.611724
## 8599     1.543307  0.442708615  3.718488e-02     0.918417     0.813055
## 8600     1.667917  1.267474455  4.430984e-01     0.669354     0.514403
## 8601     1.583802  0.707096452  6.134304e-01     0.913762     0.778967
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## 8602     1.864394  0.706400264  1.491860e+00     0.865666     0.781526
## 8603     1.638109  0.522063244  1.701497e+00     0.942322     0.874956
## 8604     2.283841  0.889437293  2.578233e+00     0.847892     0.688836
## 8605     1.871597  0.871199188  3.913573e-01     0.905921     0.722370
## 8606     1.545897  0.450744722  2.921749e+00     0.873460     0.762682
## 8607     1.735510  0.806859385  7.531364e-01     0.851870     0.810203
## 8608     1.769679  0.572388268  1.300897e+00     0.680273     0.573979
## 8609     1.676457  0.570818373  5.358846e-01     0.959568     0.798401
## 8610     1.519547  0.437431858 -2.292231e-01     0.872917     0.755167
## 8611     1.641062  0.688775655  2.820867e+00     0.946351     0.724252
## 8612     1.650815  0.847496774  3.083313e-01     0.954234     0.830489
## 8613     2.048970  1.051746617  8.969918e-01     0.906492     0.691545
## 8614     1.880484  1.105656628  1.024990e-01     0.869230     0.637053
## 8615     1.699516  0.835797705  8.473343e-01     0.947512     0.896366
## 8616     1.748670  1.219995575  2.159330e+00     0.926171     0.853931
## 8617     2.048259  1.643650038  1.343470e+00     0.799141     0.575046
## 8618     1.644299  0.534220352  2.345990e-01     0.878081     0.739236
## 8619     1.731903  1.144091390  2.963978e+00     0.896276     0.801987
## 8620     1.743847  1.083488286  1.549702e+00     0.939821     0.736033
## 8621     1.685080  1.134046353  8.827478e-01     0.764993     0.674376
## 8622     1.748462  0.637686818  1.830743e+00     0.854750     0.779933
## 8623     1.665279  1.138492167  3.953914e-01     0.940123     0.789151
## 8624     1.958037  0.476493970  2.341290e+00     0.926337     0.892135
## 8625     1.680520  0.661613943  3.278315e-01     0.909132     0.575568
## 8626     1.784503  1.334620601  7.355570e-01     0.806639     0.613602
## 8627     1.939335  1.190242028  7.585286e-01     0.960075     0.772088
## 8628     1.577976  0.363156766  1.186125e+00     0.438177     0.399017
## 8629     1.562481  0.358159555  2.099439e+00     0.854574     0.642416
## 8630     1.468876  0.326941811  2.237937e+00     0.843174     0.658923
## 8631     1.643783  0.623615184  1.781492e-01     0.883240     0.556293
## 8632     1.574488  0.515748039  2.563344e+00     0.707794     0.568168
## 8633     1.484723  0.375098206  1.896742e+00     0.781494     0.638190
## 8634     1.740969  0.509349055  3.247887e-01     0.942240     0.669277
## 8635     2.062462  1.373390200  2.238489e+00     0.859202     0.792586
## 8636     1.592921  0.468564423  1.153307e-01     0.952905     0.885612
## 8637     1.609298  0.598850669 -1.243214e-02     0.928773     0.683019
## 8638     1.615133  0.390141707  1.856977e+00     0.672000     0.582599
## 8639     1.787050  0.426444567  2.197946e+00     0.890755     0.770674
## 8640     1.592432  0.891580941  2.164430e+00     0.887479     0.717734
## 8641     1.610979  0.550483961  6.161991e-01     0.839755     0.672317
## 8642     1.739185  0.505126906  6.892708e-01     0.947617     0.847715
## 8643     1.607038  0.733006969  1.672286e+00     0.985613     0.900737
## 8644     1.724421  0.682858683  1.458497e+00     0.932091     0.638319
## 8645     1.617270  0.366667588  1.717072e+00     0.866558     0.790218
## 8646     1.759118  0.747038729  2.936808e-01     0.893212     0.805042
## 8647     1.635375  0.477448300  2.573519e+00     0.935855     0.914213
## 8648     1.792781  0.679424262  1.312780e+00     0.879558     0.858082
## 8649     1.669682  0.925950170  1.454525e+00     0.697883     0.598485
## 8650     1.668451  0.511827233  2.795251e+00     0.827722     0.748447
## 8651     1.599947  0.805098321  2.903163e+00     0.925780     0.875378
## 8652     1.600342  0.497893983  2.028764e+00     0.919986     0.844405
## 8653     1.570647  0.320335340  2.633940e+00     0.739967     0.612056
## 8654     2.060033  0.418834715  2.656560e+00     0.944181     0.876568
## 8655     1.738979  1.023149534  1.141812e+00     0.935066     0.634673
## 8656     1.635902  0.898458601  2.828146e+00     0.877744     0.633160
## 8657     1.670812  0.523694452  5.576768e-01     0.912040     0.758791
## 8658     1.652395  0.745948749  2.121092e-01     0.965734     0.857182
## 8659     1.622917  0.709141859  5.605682e-01     0.922408     0.820230
## 8660     1.795943  0.588291880  2.110345e+00     0.917944     0.770619
## 8661     1.751276  1.184370559  1.005104e-03     0.909314     0.654603
## 8662     1.626463  0.778708961  5.355050e-01     0.927625     0.776032
## 8663     1.508660  0.605501135  6.024777e-02     0.944321     0.803624
## 8664     1.542802  0.531489136  2.714476e-01     0.832648     0.738513
## 8665     1.865160  0.634708966  1.952585e+00     0.611358     0.486358
## 8666     1.637955  0.997294622  6.274945e-01     0.902575     0.708995
## 8667     1.528671  0.462748287  2.832141e+00     0.789190     0.537653
## 8668     1.628022  0.572879731  5.645848e-01     0.959341     0.861049
## 8669     1.724128  0.931639890 -1.448193e-01     0.870652     0.648865
## 8670     1.637362  0.486703864  1.938784e+00     0.766812     0.666608
## 8671     2.013217  2.029079259  1.527296e+00     0.707892     0.590428
## 8672     1.696085  1.007743512  2.529014e+00     0.925349     0.781129
## 8673     2.002399  1.015015873  1.111407e-01     0.968728     0.764879
## 8674     1.654798  0.576867484  5.771462e-01     0.866663     0.747047
## 8675     1.812865  0.981243092  6.903806e-01     0.909439     0.885337
## 8676     1.522864  0.476966329  2.469504e+00     0.732188     0.630093
## 8677     1.477334  0.312321251  3.327735e+00     0.898401     0.739716
## 8678     1.560941  0.274455747 -2.531654e-01     0.886276     0.849428
## 8679     1.630188  0.961120544  6.840146e-01     0.905928     0.791167
## 8680     1.498091  0.361087252  2.951520e+00     0.689447     0.611175
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## 8681     1.592278  0.601514609  2.395948e+00     0.923881     0.782128
## 8682     1.564515  0.455432664  3.026432e+00     0.858003     0.721743
## 8683     1.604176  0.425700473  2.231542e+00     0.889732     0.789322
## 8684     1.637329  0.545441962  1.081063e+00     0.733341     0.662191
## 8685     1.552326  0.536702342  4.522665e-01     0.905690     0.802754
## 8686     1.637611  0.611464141  6.733419e-02     0.915974     0.769683
## 8687     1.620103  0.464870915  1.831309e+00     0.792557     0.744614
## 8688     1.631771  0.758478138  4.260392e-01     0.665558     0.631899
## 8689     1.590413  0.434632766  4.136328e-01     0.891993     0.819522
## 8690     1.770450  0.790488538 -2.527936e-12     0.804990     0.763028
## 8691     1.632883  0.499296592  3.470715e-01     0.899993     0.771580
## 8692     1.559551  0.407788472  2.614565e+00     0.899522     0.817530
## 8693     1.614814  0.727839630  2.359564e+00     0.802904     0.649044
## 8694     1.561680  0.565534967  2.731892e+00     0.949984     0.811289
## 8695     1.767047  0.788501391  1.699846e+00     0.983414     0.822433
## 8696     1.982079  0.918006733  1.240347e+00     0.619261     0.577847
## 8697     1.594217  0.735717037  1.875473e+00     0.973288     0.794524
## 8698     1.821247  0.865016277 -2.292231e-01     0.969906     0.748973
## 8699     1.606252  0.429097924  6.388120e-01     0.928966     0.805970
## 8700     1.618234  1.061855673  4.273356e-01     0.773620     0.659347
## 8701     1.790441  0.746132681  2.619862e+00     0.948248     0.862506
## 8702     1.730873  0.844562908 -2.841801e-02     0.972795     0.954872
## 8703     1.566437  0.522668496  1.261092e-01     0.867300     0.758297
## 8704     1.622227  0.415290601  7.996739e-01     0.941647     0.903015
## 8705     1.553334  0.505215118  3.448507e+00     0.954202     0.820632
## 8706     1.709930  0.605674524  1.429590e+00     0.872694     0.726411
## 8707     1.618769  0.287799491  8.200495e-01     0.857110     0.724164
## 8708     1.554120  0.382162984  1.681923e+00     0.969530     0.779401
## 8709     1.579992  0.398505960  1.621657e+00     0.717485     0.633569
## 8710     1.777539  1.293704993  7.326849e-01     0.826166     0.632275
## 8711     1.536526  0.645974121  1.616075e+00     0.880094     0.830634
## 8712     1.725820  0.536131513  3.247749e+00     0.910492     0.810145
## 8713     1.617052  0.624006577  1.939239e-01     0.900188     0.762485
## 8714     1.677217  0.833842319  2.112364e-01     0.798783     0.750913
## 8715     1.871060  0.593498731  2.692606e+00     0.901926     0.761242
## 8716     1.725807  0.459158690  2.495842e+00     0.892401     0.820351
## 8717     1.623140  0.566465776  2.301860e+00     0.908669     0.824776
## 8718     1.704584  0.736668150  4.098784e-01     0.629377     0.553452
## 8719     1.581022  0.466302522  2.564919e+00     0.840927     0.665067
## 8720     1.615926  0.782306328  6.117699e-01     0.949245     0.704010
## 8721     1.714857  1.008740656  8.400955e-01     0.887883     0.821272
## 8722     1.544423  0.519967051  3.044030e+00     0.966880     0.884142
## 8723     1.631076  0.790880239  2.460004e+00     0.690883     0.607527
## 8724     1.660181  0.465192434  2.175344e+00     0.706305     0.613948
## 8725     1.597103  0.477059001  1.024054e+00     0.905434     0.840575
## 8726     1.610963  0.960021505  6.834285e-01     0.841496     0.815107
## 8727     1.575756  0.500934573  2.472878e+00     0.854741     0.807314
## 8728     1.549642  0.622109324  6.389210e-02     0.916517     0.795543
## 8729     2.010275  1.201274193  1.002187e+00     0.843095     0.692853
## 8730     2.047831  1.131223963  1.750547e-01     0.901181     0.828502
## 8731     1.519483  0.635722945  2.327436e-01     0.888683     0.859296
## 8732     1.575421  0.591330670  1.909914e+00     0.916760     0.766613
## 8733     1.697724  1.246247386  1.925036e+00     0.831375     0.568576
## 8734     1.631543  0.643753617  1.720557e+00     0.856136     0.779438
## 8735     1.928621  1.367641008  6.297622e-01     0.950276     0.839035
## 8736     1.671429  0.643632279  1.250874e+00     0.919067     0.777600
## 8737     1.544673  0.340563083  4.564320e-01     0.933949     0.777496
## 8738     1.670214  0.638856505  5.909547e-01     0.755597     0.715376
## 8739     1.655172  0.602857275 -5.501178e-02     0.978038     0.736420
## 8740     1.717379  0.432655075  2.548459e+00     0.979104     0.767767
## 8741     2.140395  1.403580321  9.876328e-01     0.784775     0.727298
## 8742     1.554180  0.650202580  4.497276e-01     0.807403     0.736956
## 8743     1.558874  0.722241400  2.304642e+00     0.828968     0.724934
## 8744     1.836966  0.615693395  2.833407e+00     0.882825     0.748380
## 8745     1.638090  0.522345104  3.412708e+00     0.825286     0.780147
## 8746     1.687543  0.513081695 -1.601400e-01     0.937270     0.782806
## 8747     1.472189  0.396276083  2.417926e+00     0.760606     0.604572
## 8748     1.589866  0.379454186  3.401179e+00     0.809523     0.757469
## 8749     1.921383  0.925303323  1.704854e+00     0.923359     0.851992
## 8750     1.651313  0.543390016  2.954664e+00     0.847866     0.727772
## 8751     1.823787  0.580162867  2.203395e+00     0.981476     0.841824
## 8752     1.429831  0.473319059  2.774040e+00     0.981101     0.711788
## 8753     1.509667  0.239589746  2.004237e+00     0.745470     0.632696
## 8754     1.519387  0.428483062  2.183305e+00     0.698397     0.553344
## 8755     1.751728  0.539886193  5.770809e-01     0.836700     0.815079
## 8756     1.600204  0.632386423  1.485008e-01     0.930154     0.653746
## 8757     1.771363  1.325819317  9.123047e-01     0.473162     0.433289
## 8758     1.610052  0.582897044  2.836311e+00     0.913100     0.825381
## 8759     1.576133  0.261165290  1.061969e+00     0.610947     0.389685
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## 8760     1.653279  0.575731528  4.070817e-01     0.979885     0.834744
## 8761     1.678506  0.455178453  2.559809e-01     0.892202     0.670297
## 8762     1.759697  1.250066079  1.475644e+00     0.629463     0.531016
## 8763     1.669798  0.633215885  6.861890e-01     0.922707     0.856453
## 8764     1.680121  0.763849354  1.548713e+00     0.857762     0.755288
## 8765     1.778119  0.483846798  1.247920e-01     0.929036     0.744170
## 8766     1.557246  0.421592411  1.805209e+00     0.754590     0.667556
## 8767     1.484123  0.421569379  1.530361e+00     0.789942     0.556308
## 8768     1.570985  0.401290230  2.061324e+00     0.952542     0.774738
## 8769     2.152686  1.551996182  2.032173e+00     0.933510     0.889768
## 8770     1.877440  0.893376661  2.589472e+00     0.886647     0.808129
## 8771     1.752092  0.865358078  4.071476e-01     0.813471     0.736518
## 8772     2.011025  1.121874864  1.778084e+00     0.826645     0.607835
## 8773     1.561582  0.524948863  1.348467e+00     0.893491     0.826256
## 8774     1.888126  1.167051359  5.799380e-01     0.890810     0.574381
## 8775     1.618526  0.362210956  2.051812e+00     0.903026     0.670257
## 8776     1.595453  0.739749507  2.242938e+00     0.754495     0.719492
## 8777     1.720963  0.492317490  9.027117e-01     0.768829     0.662889
## 8778     1.854474  1.166498198  1.687263e+00     0.959369     0.607343
## 8779     1.578425  0.424765700  1.777187e+00     0.937210     0.646513
## 8780     1.739560  0.622136278  1.799824e+00     0.888981     0.816959
## 8781     1.464020  0.395336879  2.691728e+00     0.907641     0.758192
## 8782     1.721417  0.798384049  2.566870e-01     0.978445     0.800570
## 8783     1.819882  0.599325115  2.707197e+00     0.875755     0.826926
## 8784     1.654346  0.530659371  2.880692e-01     0.879151     0.794528
## 8785     1.658612  0.562672260  2.839387e+00     0.906213     0.607139
## 8786     1.598371  0.763408525  2.643017e-01     0.890093     0.594013
## 8787     1.684583  0.447977764  1.238963e+00     0.526275     0.466971
## 8788     1.766179  0.615925865  2.156836e+00     0.932566     0.709004
## 8789     1.582345  0.261553095  1.691229e+00     0.593724     0.453330
## 8790     1.576179  0.642295320  3.709652e-01     0.885638     0.716243
## 8791     1.513332  0.345734349  2.584564e+00     0.841553     0.621375
## 8792     1.874336  0.695430013  4.365102e-01     0.972356     0.865051
## 8793     1.626735  0.474763888  4.389599e-01     0.877263     0.833446
## 8794     1.590374  0.451921460  2.501968e+00     0.903042     0.815569
## 8795     1.862451  0.722899518  2.126574e+00     0.870140     0.602344
## 8796     1.718546  0.570901202  1.954087e+00     0.922965     0.744461
## 8797     1.584487  0.637191425  1.938700e+00     0.768672     0.638373
## 8798     1.660487  1.021627509  1.083711e+00     0.754067     0.704040
## 8799     1.569133  0.346274716  2.496110e+00     0.725429     0.664792
## 8800     1.654187  0.613765734  2.037196e+00     0.939892     0.852506
## 8801     1.606703  0.513226925  3.384279e+00     0.904999     0.866176
## 8802     1.772662  1.386233135  1.811987e-01     0.771264     0.576187
## 8803     1.827501  1.084007570  7.274233e-01     0.810286     0.750508
## 8804     1.867887  1.508553958  8.188341e-01     0.814972     0.775827
## 8805     1.701232  0.324860444  2.406222e+00     0.953634     0.752033
## 8806     1.731407  0.528244180  2.629782e+00     0.811127     0.689765
## 8807     1.497680  0.551547581  2.218825e+00     0.744011     0.536863
## 8808     1.571695  0.478915522  2.476718e+00     0.910375     0.789546
## 8809     1.564836  0.428716165  6.237531e-01     0.534728     0.439749
## 8810     1.643178  1.093712285  3.516207e-01     0.830024     0.789783
## 8811     1.814372  0.626497424  2.286973e+00     0.765727     0.705162
## 8812     1.647481  0.758868007  4.228438e-01     0.893830     0.806550
## 8813     1.658410  0.982087071  3.538592e-01     0.849519     0.743036
## 8814     1.830267  0.837119172  2.742982e+00     0.928132     0.840055
## 8815     1.643085  0.403331609  2.853487e+00     0.980130     0.726247
## 8816     1.581179  0.704858886  2.157325e+00     0.869987     0.774599
## 8817     1.998868  1.032433401  1.042318e+00     0.947600     0.798503
## 8818     1.687435  0.764314397  5.843766e-02     0.864882     0.700531
## 8819     1.641680  0.663587862  8.850615e-01     0.850235     0.747614
## 8820     1.601404  0.447285199  1.207896e-01     0.883810     0.691484
## 8821     2.241479  1.013523963  2.012455e+00     0.677534     0.617739
## 8822     1.762164  1.074670189  5.427869e-01     0.856907     0.798698
## 8823     1.698418  0.527689177  2.181678e+00     0.726016     0.582024
## 8824     1.726635  0.690060453  1.560343e+00     0.903610     0.832343
## 8825     1.862560  1.014843829  4.485894e-01     0.804947     0.684574
## 8826     1.609816  0.356326124  2.480675e+00     0.812523     0.687187
## 8827     1.627472  0.741050698  4.353597e-01     0.843269     0.790800
## 8828     1.711259  0.371123301  1.760913e-01     0.957264     0.896654
## 8829     1.657534  0.418889345 -1.448193e-01     0.956327     0.852425
## 8830     1.743351  1.087753032  8.484438e-01     0.832752     0.639356
## 8831     1.472354  0.564698014  2.766740e+00     0.948212     0.717577
## 8832     2.058984  1.227277237  2.575639e+00     0.900039     0.723831
## 8833     1.447386  0.525763714  5.866232e-01     0.843715     0.605125
## 8834     1.756946  0.381326308  2.934845e+00     0.837113     0.762160
## 8835     2.097701  0.878457451  3.461499e-01     0.909454     0.877138
## 8836     1.547355  0.350199545  1.903807e+00     0.823843     0.749020
## 8837     1.607407  0.266346960  2.817938e+00     0.787530     0.627077
## 8838     1.601402  0.474581908  3.308714e+00     0.951041     0.915582
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## 8839     1.692927  0.831243145  4.282478e-01     0.944533     0.871500
## 8840     1.683818  0.655419866 -2.078779e-01     0.813263     0.736683
## 8841     1.575920  0.234436289 -2.099798e-01     0.928126     0.837065
## 8842     1.666111  0.471401738  2.355492e+00     0.966963     0.804345
## 8843     1.646324  0.937365913  8.672936e-01     0.971149     0.852676
## 8844     1.646019  0.610457871  3.709652e-01     0.959636     0.825065
## 8845     1.502629  0.418445480  3.116035e+00     0.950703     0.780671
## 8846     1.634660  0.752728182  2.781710e+00     0.958601     0.883412
## 8847     1.592467  0.362919565  1.717021e+00     0.867053     0.723157
## 8848     1.718269  0.418072481  1.825637e+00     0.749637     0.729919
## 8849     1.578694  0.400874588  2.548878e+00     0.836568     0.779425
## 8850     1.622396  0.463134177  9.953690e-02     0.859771     0.802221
## 8851     1.778654  0.574272090  1.424133e+00     0.866393     0.845719
## 8852     1.608773  0.423170480  2.925615e+00     0.855812     0.709663
## 8853     1.750190  0.743159993  4.189449e-01     0.909427     0.687562
## 8854     1.632975  0.621739045  1.252116e+00     0.890070     0.783761
## 8855     1.643829  1.045436428  8.713442e-01     0.951454     0.687594
## 8856     1.993866  1.178876271  5.330216e-01     0.886478     0.807732
## 8857     1.631463  0.796392530  2.528044e+00     0.720581     0.653071
## 8858     1.751609  0.899243065  6.203292e-01     0.842075     0.709217
## 8859     1.597532  0.587275330  3.010300e-01     0.902514     0.841733
## 8860     1.632398  0.616549028  1.777546e+00     0.975320     0.851646
## 8861     1.717585  0.557823484  2.570287e+00     0.812312     0.738055
## 8862     1.879696  0.753625184  2.509815e+00     0.828612     0.748350
## 8863     1.594778  0.376657239  2.375506e+00     0.861855     0.784334
## 8864     1.626988  0.417768871  2.272318e+00     0.841319     0.768017
## 8865     1.457820  0.581467220  2.125033e+00     0.875192     0.852891
## 8866     1.742288  0.534834259  2.297950e+00     0.944243     0.741980
## 8867     1.643507  0.769512468  6.053750e-01     0.927367     0.671723
## 8868     1.704334  0.729057823  2.103380e+00     0.896586     0.796207
## 8869     1.682948  0.428063486  2.517235e+00     0.842045     0.824131
## 8870     2.079698  1.270683493  2.375477e+00     0.861216     0.639907
## 8871     1.775650  0.589920573  3.020803e+00     0.941932     0.879133
## 8872     1.744883  0.544712803 -1.501145e-02     0.937740     0.734863
## 8873     1.814238  0.994065391  2.064435e-02     0.956759     0.912793
## 8874     2.085772  1.634016533  1.688332e+00     0.830806     0.663947
## 8875     1.675700  0.268751094  2.457635e+00     0.949924     0.839459
## 8876     1.826085  0.409459704  7.897342e-01     0.910935     0.819183
## 8877     1.777080  0.517703818  2.895178e+00     0.840751     0.706326
## 8878     1.691803  0.410107144  2.112364e-01     0.855749     0.697557
## 8879     1.500940  0.220620567  2.431152e+00     0.672700     0.496375
## 8880     1.630786  0.415776050  2.072951e+00     0.912276     0.832277
## 8881     1.498878  0.366660120  2.429838e+00     0.902493     0.840573
## 8882     1.704057  1.041357151  5.587512e-01     0.890909     0.875179
## 8883     1.561625  0.581398907  2.210385e+00     0.835026     0.778166
## 8884     1.562138  0.507890938  2.925771e+00     0.949071     0.782113
## 8885     1.738792  0.642753294  7.895598e-01     0.749595     0.640457
## 8886     1.558394  0.404849105  2.489661e+00     0.775917     0.617819
## 8887     1.663280  0.388074546  1.029154e+00     0.813081     0.579214
## 8888     1.717991  0.719533469  5.155843e-01     0.934160     0.734688
## 8889     1.564174  0.583532021  2.652871e+00     0.927891     0.696963
## 8890     1.442555  0.489954263  2.601690e+00     0.608797     0.567206
## 8891     1.731411  0.705438614  4.997807e+00     0.989379     0.852335
## 8892     1.753792  0.873760487  1.139521e+00     0.885752     0.849835
## 8893     1.793487  0.428551063  2.826329e+00     0.986253     0.786878
## 8894     1.671698  0.635426440  2.629375e-01     0.886614     0.792117
## 8895     1.711123  0.758948965  1.166933e+00     0.893535     0.786431
## 8896     1.985056  1.012883603  1.711675e+00     0.849305     0.579954
## 8897     1.650566  0.882802215  7.467421e-01     0.990141     0.901945
## 8898     1.919651  1.427502338  1.303304e+00     0.952414     0.677512
## 8899     1.810091  0.882585437  2.003044e+00     0.546570     0.517359
## 8900     1.639304  0.477497480  2.583663e+00     0.958971     0.781882
## 8901     1.859875  0.500802994  3.491209e+00     0.836830     0.689923
## 8902     1.637218  0.863170533  4.025936e-01     0.799273     0.773425
## 8903     1.774745  0.668850717  1.856601e+00     0.888222     0.699233
## 8904     1.591917  0.561266003  1.244249e-01     0.985772     0.795780
## 8905     1.576295  0.775883389  1.152668e+00     0.908202     0.818149
## 8906     1.669484  0.300491136  3.281681e+00     0.946471     0.789614
## 8907     1.677717  0.637055218  7.535776e-01     0.737385     0.505560
## 8908     1.833807  1.262752381  3.258129e-01     0.857411     0.645922
## 8909     1.640437  0.347068384  2.146585e+00     0.878826     0.826679
## 8910     1.950466  1.402330176  1.019136e+00     0.884798     0.691825
## 8911     1.710828  0.909954306  2.337063e+00     0.793800     0.762228
## 8912     1.535343  0.652737425  2.623980e+00     0.901591     0.836227
## 8913     1.671570  0.552652401  4.485894e-01     0.971231     0.755579
## 8914     2.133813  1.244299392  9.264066e-01     0.840333     0.643298
## 8915     1.711709  0.478390434  6.694705e-01     0.781045     0.685366
## 8916     1.587183  0.458890044  7.418649e-02     0.988386     0.929572
## 8917     1.517981  0.567767212  3.112729e+00     0.712950     0.703349
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## 8918     1.743324  1.187701169  4.602478e-01     0.784482     0.670648
## 8919     1.557494  0.406380058  4.769780e-03     0.852250     0.690245
## 8920     1.624387  0.755684334  4.832717e-01     0.800562     0.713683
## 8921     1.401154  0.417541440  3.404746e+00     0.616032     0.413883
## 8922     1.667962  0.506960735  2.111500e+00     0.866523     0.835458
## 8923     1.769845  0.804380034  1.114927e+00     0.901242     0.731097
## 8924     1.853844  1.122471463  4.505772e-01     0.879191     0.621559
## 8925     1.485807  0.283972509  2.247767e+00     0.773914     0.658759
## 8926     1.704417  0.691486409  3.206625e-01     0.907014     0.758315
## 8927     1.655328  0.367655909  1.327092e+00     0.938511     0.865954
## 8928     1.612685  0.568488029  4.344348e-01     0.827319     0.752337
## 8929     1.536690  0.367829100  2.470552e+00     0.887007     0.706400
## 8930     1.804255  0.974665027  2.946489e-01     0.893816     0.811989
## 8931     1.566316  0.711322066  2.553441e+00     0.921183     0.867002
## 8932     1.783663  0.689874228 -5.188019e-02     0.961571     0.880278
## 8933     1.619707  0.633792541  1.910551e-01     0.911833     0.856579
## 8934     1.620220  0.474452293  2.531314e+00     0.812741     0.614246
## 8935     1.755302  1.060096966  8.932125e-01     0.904397     0.753630
## 8936     1.486838  0.449822304  2.919540e-02     0.880599     0.722684
## 8937     1.717727  0.522827496  6.784082e-01     0.851359     0.642390
## 8938     1.483947  0.448653769  2.099861e+00     0.918226     0.557679
## 8939     1.651978  0.881349843  9.341714e-01     0.902929     0.666728
## 8940     1.877377  0.902813579  2.457270e+00     0.785690     0.655897
## 8941     1.494315  0.249506536  2.344113e+00     0.850951     0.756693
## 8942     1.619739  0.446140902  2.161371e+00     0.967922     0.824468
## 8943     1.761144  0.818974373  5.073278e-01     0.786540     0.670450
## 8944     1.537246  0.421985412  2.296670e+00     0.844004     0.759446
## 8945     1.652166  0.815036203 -1.601400e-01     0.977383     0.861352
## 8946     1.807294  0.376799522  1.585709e+00     0.921219     0.870026
## 8947     1.622435  0.388113640  2.059178e+00     0.853804     0.652555
## 8948     1.886953  0.757455247  2.148684e+00     0.983995     0.927435
## 8949     1.635799  0.455455490  4.773707e-01     0.782109     0.645421
## 8950     1.802642  0.764922985  2.463516e+00     0.769102     0.711673
## 8951     1.771351  1.165217609  1.251493e+00     0.589319     0.542283
## 8952     1.967497  1.198431635  7.615810e-01     0.906462     0.885702
## 8953     1.446284  0.370947722  2.463250e+00     0.690488     0.581624
## 8954     1.736297  0.733059168  2.340088e+00     0.802481     0.728060
## 8955     1.656143  0.995576407  2.112364e-01     0.761747     0.606634
## 8956     1.573248  0.508170015  2.631604e+00     0.769817     0.690727
## 8957     1.664527  0.585770829  2.151218e+00     0.839072     0.764897
## 8958     1.554925  0.402113439  2.544448e+00     0.936121     0.867900
## 8959     1.650673  0.240881082  1.030277e-01     0.919837     0.822837
## 8960     1.664698  0.663048523  5.554391e-01     0.857353     0.816056
## 8961     1.462038  0.397284598  3.031090e+00     0.769605     0.547349
## 8962     1.581352  0.247654176  2.041481e+00     0.792904     0.645894
## 8963     1.632526  0.783629916  3.267116e+00     0.852275     0.759093
## 8964     1.567921  0.791408512  2.121092e-01     0.839655     0.714881
## 8965     1.916052  0.887462569  1.954004e+00     0.956597     0.732410
## 8966     1.756199  0.779661414  6.530249e-01     0.584657     0.508157
## 8967     1.646505  0.615856453  7.249451e-02     0.948444     0.776684
## 8968     1.752216  0.458241894  2.958220e+00     0.982027     0.916982
## 8969     1.867486  0.751776256  2.685779e+00     0.973130     0.891592
## 8970     1.607431  0.693537013  1.546425e+00     0.762112     0.631176
## 8971     1.613253  0.532104361  2.745543e+00     0.917119     0.868484
## 8972     1.827160  0.695189130  1.017762e+00     0.877406     0.739557
## 8973     1.503340  0.486481486  2.037468e+00     0.830555     0.750091
## 8974     1.585827  0.404233154  2.042000e+00     0.765138     0.493672
## 8975     1.731440  0.410215239  2.647798e+00     0.857681     0.773953
## 8976     1.579338  0.833695851  9.411180e-02     0.934529     0.847254
## 8977     1.554146  0.340289407  2.953256e+00     0.818002     0.702362
## 8978     1.715028  1.845442857  1.300331e+00     0.655817     0.567627
## 8979     1.557446  0.460467844  2.463296e+00     0.970357     0.768126
## 8980     1.634739  0.665092017  2.580038e+00     0.919168     0.802364
## 8981     1.502909  0.364166245  1.376095e+00     0.809230     0.654400
## 8982     1.609571  0.863677885  4.961388e-01     0.938690     0.669430
## 8983     1.556380  0.355294402  3.551911e-01     0.845855     0.746341
## 8984     1.601078  0.453804355  1.654871e-01     0.869004     0.804279
## 8985     1.616405  0.527555149  5.564748e-01     0.871791     0.668526
## 8986     1.567129  0.549219129  2.541824e+00     0.871982     0.769065
## 8987     1.709535  0.564587955  2.349582e+00     0.754993     0.734714
## 8988     1.604453  0.523534469  2.014825e+00     0.914229     0.828283
## 8989     2.063630  1.696511029  5.501840e-01     0.805516     0.776456
## 8990     1.802360  0.405098658  3.333126e+00     0.730699     0.679063
## 8991     1.784003  0.879044243  5.528277e-01     0.973833     0.704942
## 8992     1.892044  1.176638126  2.291569e+00     0.887680     0.803191
## 8993     1.604052  0.594896172  1.881823e+00     0.890134     0.823594
## 8994     2.268767  1.690724003  1.141903e+00     0.826250     0.670154
## 8995     1.671664  0.642082490  6.733419e-02     0.877686     0.750372
## 8996     1.769497  0.555865574  2.240323e+00     0.800319     0.720072
```

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## 8997     1.595482  0.508066224 -3.934471e-02     0.907596     0.773439
## 8998     1.638205  0.653115028  5.331446e-01     0.949703     0.848603
## 8999     2.279945  1.788719731  4.269886e-01     0.903555     0.706423
## 9000     1.518773  0.581305529  6.645338e-01     0.851580     0.797051
## 9001     1.619698  0.482491980  1.671886e+00     0.835206     0.783807
## 9002     1.680510  0.510516861  2.968232e+00     0.982891     0.697394
## 9003     1.619056  0.498051278  1.765973e-01     0.853839     0.741708
## 9004     1.674885  0.908345593  3.721942e-01     0.867424     0.785668
## 9005     1.701386  0.812113519  4.539425e-01     0.861439     0.761611
## 9006     1.598838  0.616660325  2.461408e-01     0.869573     0.763420
## 9007     1.599768  0.547485490  2.440295e+00     0.975618     0.741911
## 9008     1.815777  0.990376599  1.811987e-01     0.984659     0.865519
## 9009     1.794660  0.501895535  2.351853e-01     0.958852     0.731689
## 9010     1.671225  0.812845869  4.887777e-01     0.881429     0.634317
## 9011     1.669779  0.444622429  2.524147e-01     0.967404     0.765895
## 9012     1.505326  0.448854666  2.219620e+00     0.734851     0.396731
## 9013     1.430094  0.335315453  2.525230e+00     0.691328     0.559468
## 9014     1.794917  1.692248361  1.402855e+00     0.505845     0.444473
## 9015     1.773786  0.572166172  1.654871e-01     0.951192     0.907005
## 9016     1.610155  0.344211444  7.283777e-01     0.833223     0.623142
## 9017     1.500504  0.609794971  3.481929e+00     0.783831     0.717457
## 9018     1.592056  0.512732411  6.031707e-01     0.954717     0.898146
## 9019     1.638197  0.864189988  5.766722e-01     0.769097     0.720330
## 9020     1.568000  0.397270680  1.567509e+00     0.942004     0.833990
## 9021     1.880371  0.725955713  1.279749e+00     0.928361     0.723054
## 9022     1.461634  0.594039888  2.499523e+00     0.701146     0.633049
## 9023     1.950958  1.324780271  1.995566e+00     0.911794     0.673818
## 9024     1.794472  1.574422536  1.812608e+00     0.593448     0.526762
## 9025     1.585078  0.393799750  2.110431e+00     0.919533     0.808932
## 9026     1.526051  0.337565076  2.607633e+00     0.787668     0.602239
## 9027     1.639234  0.507114781  1.540293e+00     0.919671     0.769823
## 9028     1.768184  0.921735883 -2.448560e-01     0.958866     0.889263
## 9029     1.764020  0.434337325  2.161771e+00     0.766382     0.732222
## 9030     1.621871  1.446126910  1.125048e+00     0.552999     0.529398
## 9031     1.619738  0.814511955  3.679902e-01     0.861817     0.698863
## 9032     1.634362  0.369243696  1.205159e+00     0.950513     0.878442
## 9033     1.640731  0.573464578  1.078618e+00     0.716601     0.654707
## 9034     1.718125  0.563573630  2.713434e+00     0.878326     0.782417
## 9035     1.537398  1.066605424  6.494510e-01     0.853568     0.722918
## 9036     1.734476  1.040503446  2.842031e+00     0.753430     0.671904
## 9037     1.634859  0.491458349  2.253201e+00     0.758775     0.677395
## 9038     1.386782  0.361461513  2.086646e+00     0.848617     0.672593
## 9039     1.723708  0.625753725  3.647108e-01     0.962435     0.892200
## 9040     1.775168  1.157087899  2.562525e+00     0.721980     0.627033
## 9041     1.724768  0.473056111  1.251053e+00     0.836436     0.697787
## 9042     1.439391  0.221416846 -1.428135e-01     0.787372     0.704854
## 9043     2.033998  0.651604581  2.094401e+00     0.902657     0.648559
## 9044     1.587667  0.413303118  2.628509e+00     0.858921     0.713598
## 9045     1.571739  0.493389730  3.049825e+00     0.931423     0.755920
## 9046     1.721542  0.582084963  2.648580e+00     0.932422     0.926657
## 9047     1.492064  0.483034985  2.876692e+00     0.609729     0.563277
## 9048     1.513356  0.361115616  2.617933e+00     0.918625     0.789102
## 9049     1.633440  0.703006628  4.544983e-01     0.918879     0.900887
## 9050     1.547429  0.453582812  2.894500e+00     0.890040     0.747851
## 9051     1.573577  0.536622824  3.025882e+00     0.914294     0.783364
## 9052     1.724759  0.437752148  1.719138e-01     0.978206     0.841118
## 9053     1.762931  0.421169415  2.112364e-01     0.922822     0.664238
## 9054     1.792145  0.689345271  2.663253e+00     0.962921     0.929859
## 9055     1.694659  1.802571235  1.422432e+00     0.696437     0.494950
## 9056     1.586575  0.296158218  2.317884e+00     0.781265     0.693715
## 9057     1.511365  0.471067170  2.053478e+00     0.955081     0.770774
## 9058     1.605410  0.479401097  2.804185e+00     0.959328     0.883937
## 9059     1.585299  0.500185685  5.768289e-01     0.862452     0.739358
## 9060     1.689815  0.905436427  6.649496e-01     0.853623     0.712074
## 9061     1.732407  1.136634968  2.198060e-01     0.968943     0.832434
## 9062     1.749490  0.709285229  2.033784e+00     0.760064     0.687957
## 9063     1.753901  0.584427347 -6.978883e-01     0.880610     0.803506
## 9064     1.548683  0.526398730  9.641465e-01     0.733661     0.618245
## 9065     1.644635  0.313538213  2.648965e+00     0.896800     0.737181
## 9066     1.577403  0.596119659  2.257777e+00     0.939834     0.794029
## 9067     2.212733  1.751086555  2.295536e+00     0.650247     0.605191
## 9068     1.665059  0.410321618  2.922799e-01     0.906728     0.652074
## 9069     1.547009  0.359569894  2.525545e+00     0.782353     0.696978
## 9070     1.644331  0.654493240  2.723069e-01     0.927229     0.698040
## 9071     1.600558  0.790916087  6.293410e-01     0.827788     0.617758
## 9072     1.856775  1.398910007  6.059225e-01     0.920657     0.801679
## 9073     1.665468  0.737387475  9.576049e-01     0.989668     0.885261
## 9074     1.630580  0.667355809  1.181127e+00     0.703532     0.561359
## 9075     1.748216  0.722247162  2.587912e-01     0.953905     0.811162
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## 9076     1.768247  0.740991566 -1.897773e-01     0.939043     0.857816
## 9077     1.615560  0.633289651  4.335739e-02     0.937677     0.733834
## 9078     1.669239  1.055271274  8.296247e-01     0.764673     0.633593
## 9079     1.770457  0.840392183  3.152729e+00     0.893594     0.699413
## 9080     1.696485  1.217112661  4.241277e-01     0.862265     0.847087
## 9081     1.826090  0.506952626  2.211671e+00     0.908211     0.814745
## 9082     1.744664  0.832114675  2.417704e+00     0.886447     0.849769
## 9083     1.508991  0.485163298  2.394864e+00     0.906319     0.830302
## 9084     1.647469  0.402376606  2.224313e+00     0.846866     0.693645
## 9085     1.802694  0.506495562  2.377146e+00     0.862360     0.814255
## 9086     1.787480  0.687022137  1.841488e+00     0.808766     0.744229
## 9087     1.840947  0.828215065  8.728590e-01     0.914033     0.794705
## 9088     1.661710  0.399305020  2.537928e+00     0.903280     0.723139
## 9089     1.571623  0.549469204  2.307511e+00     0.636734     0.625337
## 9090     1.563922  0.586406123  2.080305e+00     0.902370     0.793958
## 9091     1.510818  0.409708314  2.819047e-01     0.883581     0.630437
## 9092     1.634915  0.682711727  1.103641e+00     0.925872     0.774279
## 9093     1.553672  0.391767589  2.807043e+00     0.871811     0.825183
## 9094     1.858328  0.598706265  3.065729e+00     0.879228     0.867025
## 9095     1.566575  0.412962594  3.018869e+00     0.876497     0.715845
## 9096     1.625527  0.911493724  5.291046e-02     0.883816     0.840103
## 9097     1.730628  0.666213681  2.460132e+00     0.968705     0.707091
## 9098     1.528676  0.461483520  8.565941e-02     0.936533     0.887555
## 9099     1.590286  0.378390632  3.105281e-01     0.859282     0.723549
## 9100     2.075886  1.504304997  6.679399e-01     0.884303     0.577180
## 9101     1.991296  0.971008044  2.161216e+00     0.910411     0.882380
## 9102     1.642692  0.489924747  3.391068e-01     0.991599     0.729716
## 9103     1.828805  0.764042310  1.188890e+00     0.824885     0.717558
## 9104     1.971487  1.095563352  4.924702e-01     0.943926     0.683098
## 9105     1.753039  0.409175405  2.471485e+00     0.954965     0.823211
## 9106     1.952400  1.219778318  2.756882e+00     0.936283     0.846609
## 9107     1.715969  0.478547738  2.893061e+00     0.912538     0.828694
## 9108     1.567859  0.584629699  2.194381e+00     0.833277     0.676913
## 9109     1.671509  0.737156848  3.019269e+00     0.895133     0.807436
## 9110     1.543758  0.567489837  4.029474e-01     0.902409     0.774114
## 9111     1.589813  0.759019318  4.588929e-01     0.884574     0.697387
## 9112     1.702856  0.369914991  2.818368e+00     0.927940     0.874713
## 9113     1.636725  0.974993156  1.110195e+00     0.963151     0.815502
## 9114     1.572895  0.486838368  2.044433e+00     0.843041     0.772897
## 9115     1.782739  0.542896352  2.591533e+00     0.848515     0.703762
## 9116     1.541442  0.496482676  2.169173e+00     0.786816     0.778338
## 9117     1.724405  0.959114882  2.199717e+00     0.887284     0.752549
## 9118     1.651638  0.615095344  3.746313e-01     0.878464     0.761699
## 9119     1.584990  0.445521695  2.934638e+00     0.830463     0.672148
## 9120     1.695841  0.489568986  2.635972e+00     0.701123     0.496626
## 9121     1.778058  1.065153800  8.868985e-01     0.958976     0.721704
## 9122     1.637695  0.678686783  4.577371e-01     0.827790     0.546026
## 9123     1.528185  0.412937421  4.425121e-01     0.830630     0.791844
## 9124     1.538765  0.330900560 -1.762359e-02     0.817713     0.651266
## 9125     1.567449  0.629036312  3.798175e-01     0.897614     0.600173
## 9126     1.789934  1.109291622  2.323634e+00     0.836273     0.764528
## 9127     1.658629  0.734561422  9.194175e-02     0.909269     0.711869
## 9128     1.766793  0.548568750  9.446244e-01     0.842857     0.707707
## 9129     1.631365  0.840947509  7.470570e-01     0.905997     0.876962
## 9130     1.591629  0.531463589  4.769780e-03     0.903504     0.799476
## 9131     1.632520  0.845939136  1.796185e-01     0.885568     0.721064
## 9132     1.731992  0.370209514  5.492955e-01     0.931189     0.903273
## 9133     1.667259  0.388362339  2.795828e+00     0.908462     0.881425
## 9134     1.579870  0.545015014  7.249451e-02     0.929510     0.789438
## 9135     1.725647  0.958301507 -8.929939e-02     0.977810     0.748347
## 9136     1.670224  0.478586695  1.814343e+00     0.959050     0.782238
## 9137     1.664521  0.551009380  1.560221e+00     0.720372     0.710250
## 9138     2.061192  1.489914907  1.554683e+00     0.891607     0.812762
## 9139     1.644946  0.416512363  3.060690e+00     0.968215     0.868046
## 9140     1.822768  0.763290196  3.983016e-01     0.866526     0.848272
## 9141     1.567129  0.374453219  8.565941e-02     0.801620     0.661239
## 9142     1.658669  0.778677875  2.206441e-01     0.944797     0.730711
## 9143     1.597019  0.477630528  2.223506e+00     0.830175     0.659298
## 9144     1.471944  0.568935882  1.694446e+00     0.874077     0.868085
## 9145     1.760415  0.541220928  2.824861e+00     0.909454     0.811964
## 9146     1.975634  1.462194281  1.391838e+00     0.822730     0.721493
## 9147     1.515985  0.561289855  3.106255e+00     0.911510     0.731304
## 9148     1.688801  0.459683428  1.687061e+00     0.908760     0.857444
## 9149     2.004326  1.208701962  7.473403e-01     0.945363     0.657969
## 9150     1.705257  0.812331681  4.637309e-01     0.941259     0.841854
## 9151     1.621448  0.430723110  2.355589e+00     0.832520     0.788797
## 9152     1.616824  0.821015409  6.788213e-01     0.977064     0.818209
## 9153     1.648306  0.766397230  2.412749e+00     0.860236     0.768800
## 9154     1.763690  0.615529224  2.036114e+00     0.954100     0.881463
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## 9155     1.763503  0.392084641  2.480134e+00     0.656630     0.555143
## 9156     1.864539  0.578118661  2.453897e+00     0.909015     0.836121
## 9157     1.572959  0.959852908  6.015876e-01     0.915362     0.669955
## 9158     1.836349  0.552102170  3.334167e-02     0.909230     0.858153
## 9159     1.594003  0.698186700  2.098661e+00     0.836371     0.809267
## 9160     1.470466  0.356121506  2.583740e+00     0.776741     0.557441
## 9161     1.623147  0.707752371  7.127029e-01     0.843409     0.791912
## 9162     1.525333  0.233749757  2.926541e+00     0.809704     0.655073
## 9163     1.543688  0.489847432  2.278289e+00     0.950381     0.758242
## 9164     1.668288  0.805074510  1.058705e+00     0.834075     0.805554
## 9165     1.658962  0.893724044  7.624405e-01     0.828803     0.556671
## 9166     1.792468  0.540223078  2.821134e+00     0.858033     0.736978
## 9167     1.654452  0.583785752  1.593719e+00     0.943721     0.804840
## 9168     1.636281  0.800667599  2.450960e-01     0.929670     0.869383
## 9169     1.684318  0.759404167  2.760934e+00     0.860084     0.690324
## 9170     1.792137  1.360491170  6.365721e-01     0.904752     0.699474
## 9171     1.694240  0.687458505  5.038876e-01     0.935784     0.839570
## 9172     1.889529  0.791050312  2.927039e+00     0.967214     0.838972
## 9173     1.773536  0.381412935  1.704975e+00     0.916733     0.817025
## 9174     1.651552  0.729674139  2.272901e+00     0.957862     0.766898
## 9175     1.613805  0.685040930  1.449315e-01     0.948133     0.837062
## 9176     1.469041  0.442043688  1.306054e+00     0.927502     0.844364
## 9177     1.576619  0.673261500  8.754131e-01     0.822932     0.686486
## 9178     1.544382  0.409603475  2.381711e+00     0.870053     0.728699
## 9179     1.672249  0.409150012  2.384739e+00     0.868565     0.857673
## 9180     1.629354  0.541434455  2.776344e+00     0.877886     0.822595
## 9181     1.879680  1.049086163  2.375141e-01     0.968768     0.838897
## 9182     1.559364  0.799177831  2.427539e+00     0.700658     0.636586
## 9183     1.579913  0.553694953  2.866491e-01     0.930131     0.915865
## 9184     1.671419  0.321047187  2.684643e+00     0.903990     0.761388
## 9185     1.522616  0.336653822  2.115674e+00     0.858540     0.823294
## 9186     1.627046  0.453993724  1.859899e+00     0.865416     0.666838
## 9187     1.793183  1.381051873  7.798352e-01     0.750660     0.617423
## 9188     1.724123  0.882033046  1.899780e+00     0.894237     0.701361
## 9189     1.624320  0.726238047  1.473178e-01     0.946448     0.709840
## 9190     1.563822  0.531094268 -4.546953e-01     0.923875     0.817638
## 9191     1.621554  0.683183072  2.447610e+00     0.873809     0.784538
## 9192     1.624750  0.517075757  2.407567e+00     0.953644     0.796874
## 9193     1.626180  0.363839408  3.004659e+00     0.850248     0.712209
## 9194     2.271533  0.643373707  3.423008e+00     0.910871     0.743290
## 9195     1.663236  0.503745754  2.820708e+00     0.902997     0.816315
## 9196     1.852265  0.939689443  1.682981e+00     0.827301     0.731292
## 9197     1.708075  0.414508739  2.196723e+00     0.898738     0.760032
## 9198     1.776615  0.823549213  4.477317e-01     0.946043     0.807133
## 9199     1.914193  1.123890824  1.879120e-01     0.924788     0.637047
## 9200     1.701270  0.732883272  6.226179e-01     0.846059     0.812500
## 9201     2.122137  0.590470665  2.355762e+00     0.889607     0.843327
## 9202     1.612672  0.489794007  1.502903e+00     0.937305     0.800061
## 9203     1.685294  0.744736441  4.483039e-01     0.923547     0.772391
## 9204     1.692464  0.819736035  2.868506e-01     0.961413     0.781574
## 9205     1.666709  0.725993259  2.864207e+00     0.921704     0.837910
## 9206     1.492674  0.409395415  2.239334e+00     0.943999     0.703850
## 9207     1.559018  0.415736034 -1.172905e-01     0.909401     0.738299
## 9208     1.850058  0.895067119 -1.886110e-01     0.830171     0.768760
## 9209     1.635548  0.629864045  7.180407e-01     0.896863     0.772800
## 9210     1.728390  0.502511785  2.868201e+00     0.934055     0.797384
## 9211     1.563385  0.325960813  1.000175e+00     0.826214     0.693213
## 9212     2.066125  1.391097496  1.589190e+00     0.885586     0.722317
## 9213     2.340018  1.990209169  2.404359e+00     0.814242     0.646435
## 9214     1.730878  0.606866987  8.251034e-02     0.848687     0.702736
## 9215     1.792804  0.791805697  5.673851e-01     0.957877     0.854772
## 9216     1.856344  0.975543470  6.750901e-01     0.829229     0.573431
## 9217     1.672624  0.608358060  2.939949e+00     0.962987     0.779811
## 9218     1.578431  0.479985372 -1.501145e-02     0.949186     0.820617
## 9219     1.796597  0.595491813  2.006825e+00     0.934164     0.834873
## 9220     2.188844  0.741871411  2.935148e+00     0.941379     0.761440
## 9221     2.117884  1.580683254  4.999972e+00     0.920429     0.831240
## 9222     1.588627  0.767982836  8.700342e-01     0.883937     0.849739
## 9223     1.656853  0.525552699  4.319815e-01     0.911267     0.786458
## 9224     1.628814  0.880746729  1.750547e-01     0.944661     0.858102
## 9225     1.710501  0.602762979  1.143975e+00     0.665929     0.612966
## 9226     1.682526  0.840258573  1.188036e+00     0.797157     0.569221
## 9227     1.473878  0.464768158  1.768225e+00     0.850610     0.589510
## 9228     1.596604  0.711797109 -2.804499e-01     0.876319     0.795831
## 9229     1.540771  0.438577154  1.861848e-01     0.971173     0.812440
## 9230     1.791083  1.159930958  4.229854e-01     0.660908     0.519941
## 9231     1.726341  0.638892415  3.105281e-01     0.896644     0.859470
## 9232     1.459730  0.331651978  2.081106e+00     0.940069     0.769567
## 9233     1.588943  0.395532568  2.409637e+00     0.884106     0.826174
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## 9234     1.890935  0.903145899  2.248317e+00     0.893670     0.776149
## 9235     1.528664  0.397811438  2.294093e+00     0.816622     0.722279
## 9236     1.722668  0.504909693  5.872207e-01     0.923052     0.624957
## 9237     1.673019  0.519180662  8.081982e-02     0.906124     0.752278
## 9238     1.661603  0.424961631  2.618772e+00     0.899272     0.774708
## 9239     1.808133  0.979543367  1.680391e+00     0.800296     0.594977
## 9240     1.744751  1.208766418  3.033035e-01     0.949308     0.819995
## 9241     1.667584  0.526339277  4.319815e-01     0.940911     0.761651
## 9242     1.610240  0.781817105  2.637287e+00     0.881609     0.793785
## 9243     1.739561  0.417106167  2.136245e+00     0.973353     0.746649
## 9244     1.635153  0.355146813  6.436706e-01     0.906478     0.825945
## 9245     1.524408  0.539778435  2.551110e+00     0.807932     0.714234
## 9246     1.507907  0.543595026  2.380191e+00     0.823144     0.648738
## 9247     1.567526  0.485895961  2.033786e+00     0.924138     0.740706
## 9248     1.602281  0.566173417  1.774437e+00     0.928382     0.914462
## 9249     1.683663  1.424643199  9.292364e-01     0.720275     0.630863
## 9250     1.765820  0.979952890  1.449956e+00     0.873453     0.607719
## 9251     1.650706  0.800465499  2.223103e-01     0.934082     0.827627
## 9252     1.879667  0.595041849  3.048468e+00     0.917801     0.805777
## 9253     1.647917  0.535912834  2.267488e+00     0.923059     0.862547
## 9254     1.654613  0.585960163  5.607371e-01     0.886395     0.753856
## 9255     1.879696  0.693606490  3.182173e+00     0.881793     0.805002
## 9256     1.743593  0.560157797  2.233169e+00     0.898872     0.829360
## 9257     1.533438  0.412287467  1.660185e+00     0.684220     0.480175
## 9258     1.831936  0.570706353 -3.240698e-01     0.992054     0.874620
## 9259     1.628527  1.430987212  9.945807e-01     0.729624     0.594260
## 9260     1.960743  0.757537986  3.209242e+00     0.858048     0.832449
## 9261     1.606215  0.673436561 -2.841801e-02     0.906920     0.836247
## 9262     1.736171  0.742686648  3.864140e-01     0.964504     0.651604
## 9263     2.041965  1.173130885  1.811625e+00     0.913541     0.705059
## 9264     1.675788  0.997256601  2.622521e-01     0.854561     0.641739
## 9265     1.560643  0.582883427  5.405726e-01     0.971883     0.834609
## 9266     1.656239  0.711916000  2.387239e+00     0.793871     0.707786
## 9267     1.566080  0.743942276  2.275152e+00     0.860549     0.643476
## 9268     1.832532  0.877270536  1.466390e+00     0.802157     0.599361
## 9269     1.584988  1.030040810  3.804039e-01     0.950577     0.760320
## 9270     2.215349  1.528624931  2.559153e+00     0.987214     0.810407
## 9271     1.749914  0.641067389 -4.899824e-01     0.927747     0.805022
## 9272     1.765200  1.218588016  8.498996e-01     0.893649     0.705862
## 9273     1.861468  1.453381033  7.275599e-01     0.893140     0.676529
## 9274     1.666213  0.586568177  1.118973e+00     0.791712     0.728136
## 9275     1.568143  0.673146290  2.283930e+00     0.842321     0.665383
## 9276     1.727487  0.840298723  2.723069e-01     0.861219     0.647902
## 9277     1.644398  0.345465874  1.488512e+00     0.843323     0.754394
## 9278     1.603023  0.582523562  2.818535e+00     0.891466     0.821777
## 9279     1.648144  0.424077611  2.183077e+00     0.737796     0.721607
## 9280     1.678058  1.031040673  5.576768e-01     0.875561     0.778744
## 9281     1.657505  0.613220051  2.094778e+00     0.940295     0.789662
## 9282     1.681606  0.375950611  1.476326e+00     0.940900     0.756274
## 9283     1.609934  0.476721520  2.517430e+00     0.875259     0.837776
## 9284     1.639384  0.531461034  3.968515e-01     0.885602     0.660773
## 9285     1.612735  0.435455747  2.364413e+00     0.906482     0.561181
## 9286     1.645121  0.951107194  9.175733e-01     0.865549     0.744359
## 9287     1.623410  0.839625720  1.478675e+00     0.845244     0.703454
## 9288     1.800414  1.274204048  1.166933e+00     0.894605     0.858696
## 9289     1.902859  0.880922724  5.628352e-01     0.648018     0.564831
## 9290     1.959737  0.993523081  9.452754e-01     0.887802     0.720935
## 9291     1.542934  0.719043596  3.453590e+00     0.845722     0.802455
## 9292     1.972009  0.598064618  5.743087e-01     0.968844     0.757023
## 9293     1.607046  0.378891880  1.918374e+00     0.985209     0.751638
## 9294     1.703876  0.815203722  6.355028e-01     0.862488     0.618501
## 9295     1.617951  0.552609820  3.107637e+00     0.646343     0.566868
## 9296     1.607814  0.436796922  2.185663e+00     0.783762     0.733810
## 9297     1.462037  0.255342469  1.823070e+00     0.803154     0.611817
## 9298     1.620424  0.620817685  1.207896e-01     0.831990     0.694907
## 9299     1.542636  0.390950996  6.236273e-01     0.950422     0.876173
## 9300     1.584456  0.498842411  3.318217e-01     0.929386     0.866372
## 9301     1.815649  1.457933343  6.715105e-01     0.778983     0.652132
## 9302     1.659133  0.406873863  1.994164e+00     0.808999     0.667652
## 9303     1.643450  0.406909599  1.757174e+00     0.907107     0.731510
## 9304     1.647369  0.475646495  1.969961e+00     0.717307     0.666260
## 9305     1.663984  0.855740184  2.362830e-01     0.907537     0.847628
## 9306     2.088508  1.137439569  1.261150e+00     0.938711     0.820566
## 9307     1.710194  0.943798119  3.913237e-01     0.909260     0.838031
## 9308     1.699514  0.334946075  1.947082e+00     0.917241     0.801268
## 9309     1.664171  0.461165250  2.462672e+00     0.771584     0.660476
## 9310     1.669537  0.537675565  2.775821e-01     0.892360     0.820562
## 9311     1.716245  0.611635166  2.543223e+00     0.842639     0.712890
## 9312     1.781253  0.556279579  3.035981e+00     0.889822     0.806584
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## 9313     1.884157  0.931665306  2.378974e+00     0.799747     0.666887
## 9314     1.754420  0.489114369  1.856742e+00     0.872653     0.727482
## 9315     1.898617  1.203060098  1.554912e+00     0.651228     0.480675
## 9316     1.640815  0.658413053  2.559809e-01     0.765617     0.694778
## 9317     1.595875  0.522118064  1.344504e+00     0.912381     0.715207
## 9318     2.026586  1.116375261  2.736202e+00     0.903142     0.647304
## 9319     1.643861  0.674243692  2.626493e+00     0.855894     0.679336
## 9320     1.598966  0.672868739  3.466112e-01     0.962019     0.844839
## 9321     1.635815  0.814450707  2.587912e-01     0.902452     0.817332
## 9322     1.531387  0.323427433  2.424497e+00     0.829752     0.724659
## 9323     1.878019  0.902198769  1.931330e+00     0.908956     0.695327
## 9324     1.651943  0.834428334  2.320396e-01     0.918823     0.889682
## 9325     1.651628  0.648522963  2.843921e-01     0.922046     0.785194
## 9326     1.802636  0.816951503  3.083313e-01     0.913023     0.781352
## 9327     1.613766  0.622981393  4.927581e-01     0.800521     0.621369
## 9328     1.852739  1.023898275  1.302769e+00     0.680949     0.583747
## 9329     1.810924  0.573752071 -2.904667e-01     0.876278     0.766833
## 9330     1.970291  1.503394328  1.315685e+00     0.793382     0.648131
## 9331     1.966102  0.620739690  1.953813e+00     0.761353     0.742492
## 9332     1.659309  0.567106391  1.684161e+00     0.904190     0.730429
## 9333     1.688377  0.672893643 -8.196390e-02     0.892773     0.765239
## 9334     1.833370  0.788246877  3.128536e+00     0.866623     0.771204
## 9335     1.556037  0.355551126  2.005762e+00     0.802954     0.715016
## 9336     1.757473  1.162280559  5.062417e-01     0.762967     0.635360
## 9337     1.662794  0.229226067  1.987244e+00     0.954550     0.828041
## 9338     2.072088  0.783845717  1.077226e+00     0.877035     0.657272
## 9339     1.648458  0.339141262  2.076361e+00     0.949742     0.874477
## 9340     1.625995  0.718666905  1.861848e-01     0.938678     0.880068
## 9341     1.969203  0.870683005 -2.841801e-02     0.923794     0.717090
## 9342     1.679535  0.891588187  2.222902e+00     0.878251     0.767094
## 9343     1.687401  0.589948485  1.089934e+00     0.891856     0.703570
## 9344     1.590213  1.187613774  5.058057e-01     0.801913     0.703328
## 9345     1.618466  0.564361833 -5.188019e-02     0.877441     0.755611
## 9346     1.785883  0.949380735  6.389210e-02     0.880767     0.751579
## 9347     1.702098  0.391441489  2.670167e+00     0.751249     0.663580
## 9348     1.835785  0.877721405  1.269437e+00     0.724178     0.539086
## 9349     1.712819  0.385997499  2.323383e+00     0.846862     0.817248
## 9350     1.484472  0.252095388  1.853942e+00     0.939807     0.771919
## 9351     1.711122  0.370498286  2.501671e+00     0.951281     0.890471
## 9352     1.562201  0.552906587  2.449323e+00     0.826472     0.770397
## 9353     1.618562  0.256125779  2.009415e+00     0.821244     0.650236
## 9354     1.654136  0.742987357  3.556332e-01     0.905750     0.827714
## 9355     1.740401  0.489134084 -2.147400e-01     0.851781     0.773496
## 9356     1.457216  0.408945121  2.221679e+00     0.934602     0.637185
## 9357     1.621239  0.539222931  3.221112e+00     0.837585     0.807940
## 9358     1.950073  1.154576117  3.135941e+00     0.901285     0.789278
## 9359     1.512559  0.490159417  2.782105e+00     0.890119     0.706997
## 9360     1.580155  0.402120321  2.458366e+00     0.970914     0.695952
## 9361     1.779815  0.755749121  2.014988e+00     0.942254     0.755957
## 9362     1.696390  0.839011449  5.674652e-01     0.875019     0.867552
## 9363     1.536577  0.380464506  2.919540e-02     0.933908     0.802296
## 9364     1.801613  0.520655120  2.247102e+00     0.883102     0.857696
## 9365     1.582298  0.415979411  2.607159e+00     0.895685     0.733291
## 9366     1.669405  0.499156259  7.250623e-01     0.687341     0.622470
## 9367     1.788636  1.600256100  7.892104e-01     0.755371     0.474679
## 9368     1.955600  0.775427664  1.011157e+00     0.930821     0.870396
## 9369     1.666748  0.876728645  7.062890e-01     0.841986     0.723073
## 9370     1.648203  0.522108928  2.112364e-01     0.869469     0.739082
## 9371     1.657643  0.505386062  2.866298e+00     0.700816     0.697710
## 9372     1.654968  0.967991404  3.529666e-01     0.943665     0.820336
## 9373     1.729097  1.062062777  5.235939e-01     0.922075     0.769610
## 9374     1.783438  0.425421720  1.398358e+00     0.756835     0.594170
## 9375     1.524233  0.396349318  3.228284e+00     0.769151     0.660103
## 9376     1.515324  0.382607714  2.720536e+00     0.818595     0.617061
## 9377     1.632954  0.803828429  1.785508e+00     0.804920     0.631580
## 9378     1.422230  0.443170641  2.036895e+00     0.818491     0.656546
## 9379     1.504252  0.446855471  6.903806e-01     0.945951     0.864888
## 9380     1.574994  0.404272533  2.159242e+00     0.957294     0.812313
## 9381     1.809910  0.737835654  4.810779e-01     0.897019     0.721822
## 9382     1.562881  0.389458470  3.042750e+00     0.824562     0.792486
## 9383     1.838550  0.679989935  7.763501e-01     0.936111     0.797345
## 9384     2.004764  1.286072306  5.578480e-01     0.912112     0.817504
## 9385     1.715618  0.906870844  1.855908e+00     0.884736     0.841422
## 9386     1.581699  0.403472277 -1.762359e-02     0.882425     0.693501
## 9387     1.823358  0.974175825  2.063339e+00     0.833969     0.640233
## 9388     1.603543  0.762667312  5.936859e-01     0.975485     0.889653
## 9389     1.655980  0.800572060  9.056856e-01     0.866369     0.813412
## 9390     1.659188  0.520609283  1.439771e+00     0.665990     0.502431
## 9391     1.734505  0.916351812  2.336398e+00     0.896933     0.803150
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## 9392     1.618769  0.557664770  5.068940e-01     0.851026     0.717554
## 9393     2.080947  1.192065411  6.537602e-01     0.826342     0.679719
## 9394     1.513381  0.423258985  2.138763e+00     0.888021     0.633053
## 9395     2.122737  2.083387939  1.731967e+00     0.580886     0.482103
## 9396     1.656769  0.431982595  2.771999e+00     0.890235     0.745406
## 9397     1.998841  1.280710369  2.727861e+00     0.851202     0.794237
## 9398     1.620591  0.922498652  6.785291e-01     0.913189     0.688179
## 9399     1.899889  0.896690976  4.839979e-01     0.881375     0.760615
## 9400     1.808300  0.718521618  2.205711e+00     0.892199     0.750463
## 9401     1.577934  0.460093127  3.648123e-01     0.950508     0.777792
## 9402     1.615058  0.884017808  2.169791e+00     0.933074     0.837088
## 9403     1.695931  1.000121585  3.608678e-01     0.796658     0.641667
## 9404     1.716333  1.182249121  8.978384e-01     0.656357     0.523924
## 9405     1.692879  0.624282096  5.543983e-01     0.861210     0.716529
## 9406     1.858053  1.213026075  2.922065e+00     0.955094     0.859213
## 9407     1.394522  0.502747942  2.592196e+00     0.538354     0.472962
## 9408     1.361524  0.414806280  2.761611e+00     0.956904     0.720731
## 9409     1.539721  0.842871235  2.634349e+00     0.930899     0.839140
## 9410     1.575738  0.784953758  4.102442e-01     0.922321     0.773642
## 9411     2.200974  1.559210958  9.016075e-01     0.868483     0.773109
## 9412     1.885472  0.398365409  5.390836e-01     0.923262     0.789302
## 9413     1.540239  0.424388285  3.211272e+00     0.895814     0.742229
## 9414     1.640515  0.733023031  2.687754e-01     0.842102     0.702899
## 9415     2.015867  0.755231319  2.720467e+00     0.951817     0.763695
## 9416     1.601706  0.655009665  2.441543e+00     0.898164     0.782868
## 9417     1.829168  0.409419101  6.187897e-01     0.988593     0.810790
## 9418     1.529076  0.317712417  2.406915e+00     0.973898     0.842888
## 9419     1.659676  0.382568121  2.513575e+00     0.897282     0.820991
## 9420     1.547286  0.646262533  1.633587e+00     0.727055     0.647476
## 9421     1.535753  0.333781683  2.120322e+00     0.779125     0.700851
## 9422     1.681375  0.849063601  5.884108e-01     0.854981     0.680329
## 9423     1.831250  0.460303851  2.362739e+00     0.970178     0.747823
## 9424     1.589769  0.445809627  3.136988e-01     0.978367     0.742071
## 9425     1.565119  0.592367761  2.086013e+00     0.796197     0.535497
## 9426     1.552835  0.478743929  2.139314e+00     0.839396     0.682906
## 9427     1.687860  0.822183776  1.274182e-01     0.971861     0.879418
## 9428     1.554937  0.483731325  2.141976e+00     0.882191     0.854687
## 9429     1.573328  0.419557600  8.519741e-01     0.904999     0.672221
## 9430     1.617043  0.446638118  1.177119e+00     0.858727     0.723854
## 9431     1.715761  0.675298887  9.431537e-03     0.827235     0.724686
## 9432     1.490755  0.421362036  2.083368e+00     0.781767     0.681022
## 9433     1.712013  1.392913168  8.066641e-01     0.948495     0.791291
## 9434     1.577860  0.231293696 -2.804499e-01     0.939012     0.857333
## 9435     1.776215  0.740361110  1.596206e+00     0.807657     0.782481
## 9436     1.441128  0.313249071  2.154367e+00     0.722771     0.463299
## 9437     1.587739  0.700098571  2.426155e+00     0.903744     0.845355
## 9438     1.528133  0.356570775  1.200003e+00     0.824205     0.574654
## 9439     1.703979  0.576156995  5.762016e-01     0.867375     0.697771
## 9440     1.604474  0.489177735  2.067828e+00     0.953306     0.839840
## 9441     1.688264  1.247683640  1.396572e+00     0.774254     0.621898
## 9442     1.600642  0.821873654  1.582047e+00     0.894234     0.829409
## 9443     2.169213  1.338326983  1.080152e+00     0.816424     0.664500
## 9444     1.610380  0.708488886  1.377015e+00     0.732511     0.707608
## 9445     1.851494  1.391674191  5.370191e-01     0.971365     0.734644
## 9446     1.732795  0.913847747  2.451564e+00     0.902457     0.812922
## 9447     1.552531  0.436985912 -1.798407e-01     0.890306     0.750268
## 9448     1.598600  0.413296410  2.919540e-02     0.891279     0.607141
## 9449     1.703660  0.720625609  9.360745e-01     0.881351     0.783325
## 9450     1.524789  0.441582032  2.431821e+00     0.905683     0.843887
## 9451     1.621838  0.678474674  1.802784e-01     0.840495     0.715993
## 9452     1.490252  0.311245121  2.712728e+00     0.914330     0.605651
## 9453     1.533921  0.496777480  2.231194e+00     0.851312     0.798947
## 9454     1.771648  1.166903524  6.966316e-01     0.815196     0.665875
## 9455     1.572920  0.366844905  1.875593e+00     0.852585     0.717605
## 9456     1.976945  1.552315285  8.526954e-01     0.910046     0.702216
## 9457     1.621760  0.770123405  2.609265e+00     0.868382     0.794339
## 9458     1.765288  1.176343077  4.918282e-01     0.779106     0.755060
## 9459     1.650584  1.213727549  7.418649e-02     0.900826     0.710322
## 9460     1.869235  1.249606769  3.701418e-01     0.880207     0.696910
## 9461     1.554996  0.664530097  1.497200e+00     0.851452     0.792040
## 9462     1.656673  0.372328258  1.978032e+00     0.751915     0.619468
## 9463     1.691784  0.586993281  2.827407e+00     0.800798     0.730212
## 9464     1.573010  0.381674518  2.256864e+00     0.850801     0.557774
## 9465     1.519111  0.289071415  5.291046e-02     0.861412     0.819685
## 9466     1.534336  0.430381470  2.103573e+00     0.823382     0.732773
## 9467     1.788369  0.776949489  4.561569e-01     0.925208     0.673480
## 9468     1.879630  0.762138923  2.344151e+00     0.852625     0.725748
## 9469     1.671102  0.602663241  2.776395e-01     0.870676     0.785080
## 9470     1.923133  0.828835125  2.774718e+00     0.966589     0.745127
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## 9471     1.820840  0.525270322  2.447013e+00     0.884362     0.797763
## 9472     1.652754  0.490473986  2.916076e+00     0.877376     0.776026
## 9473     1.514178  0.569748342  3.848186e-01     0.950108     0.840207
## 9474     1.846868  1.079517694  4.941223e-01     0.861545     0.670534
## 9475     1.661123  0.562340456  1.582530e+00     0.912822     0.766086
## 9476     1.606017  0.713990911  2.479269e+00     0.927442     0.679817
## 9477     1.818407  1.148892499  6.364535e-01     0.814637     0.713000
## 9478     1.552482  0.336113361  2.673176e+00     0.878293     0.864234
## 9479     1.748397  0.638840544  2.382847e-01     0.910258     0.856631
## 9480     1.521486  0.460598693  1.964142e+00     0.855198     0.650943
## 9481     1.737477  0.662883381  2.800197e-01     0.932865     0.700656
## 9482     1.829349  0.635984103  2.732876e+00     0.987776     0.892551
## 9483     1.548572  0.296728794  1.998167e+00     0.618713     0.589519
## 9484     1.621291  0.664314721  2.279566e+00     0.956641     0.702597
## 9485     1.598910  0.617427083  6.363396e-01     0.816287     0.793610
## 9486     1.552882  0.369675892  4.232330e-01     0.820420     0.748677
## 9487     1.408186  0.493183306  2.278194e+00     0.957155     0.745821
## 9488     1.693409  1.211763761 -6.572405e-01     0.903812     0.745120
## 9489     1.437476  0.324440913  2.531220e+00     0.923117     0.692463
## 9490     2.189063  1.341187134  5.645848e-01     0.936460     0.734621
## 9491     1.860651  0.787280485  2.344032e-01     0.778404     0.591427
## 9492     1.674895  0.779956330  2.264734e+00     0.845897     0.715464
## 9493     1.732346  0.653676478  5.662365e-01     0.929589     0.741887
## 9494     1.495111  0.371575782  2.297648e+00     0.787326     0.724646
## 9495     1.835855  0.975350917  1.321436e+00     0.857816     0.664032
## 9496     1.556947  0.394199437  2.407040e+00     0.640621     0.471182
## 9497     1.606707  0.648773614  2.070657e+00     0.951119     0.922355
## 9498     1.414089  0.323047800  2.588447e+00     0.865754     0.630849
## 9499     2.000768  1.587192195  2.611151e+00     0.679633     0.485497
## 9500     1.681377  0.650217157  2.121092e-01     0.728463     0.595205
## 9501     1.894026  1.328169542  2.563436e+00     0.882598     0.741439
## 9502     1.673286  0.711651192  8.875272e-01     0.845973     0.598060
## 9503     1.558617  0.558878896  4.997383e+00     0.927391     0.829858
## 9504     2.230423  2.081152804  2.128613e+00     0.929669     0.521668
## 9505     1.671836  0.992601672  1.413533e+00     0.812596     0.727638
## 9506     1.537644  0.442374710  2.924290e+00     0.729918     0.660075
## 9507     1.623968  0.972709066  1.251630e+00     0.845877     0.669034
## 9508     1.678922  1.156839795  1.829869e+00     0.856741     0.749923
## 9509     1.577048  0.368515596  2.545362e+00     0.880971     0.775166
## 9510     1.570998  0.618132854  5.665653e-01     0.957062     0.786332
## 9511     1.611625  0.504514358  1.297848e+00     0.801576     0.716040
## 9512     1.663215  0.915893479  8.348318e-01     0.686051     0.583854
## 9513     1.632581  0.547887878  2.819888e+00     0.714533     0.689400
## 9514     2.084097  1.318441090  1.074998e+00     0.924551     0.725708
## 9515     1.635730  0.721194585  6.572324e-01     0.857182     0.718305
## 9516     1.695208  0.500424482  1.896057e+00     0.947788     0.771545
## 9517     1.631500  0.357904369  3.083313e-01     0.905097     0.827073
## 9518     1.612533  0.393266262  1.732150e+00     0.702043     0.667258
## 9519     1.615984  0.811106278  2.768402e-01     0.897453     0.757187
## 9520     1.596437  0.875551450  1.534091e-01     0.927854     0.895859
## 9521     1.651689  0.680186794  1.032859e+00     0.889239     0.761554
## 9522     1.598234  0.487400005  2.081185e+00     0.906101     0.754862
## 9523     1.661462  0.616426148  9.431537e-03     0.893696     0.806373
## 9524     1.554090  0.338988079  2.405676e+00     0.945943     0.834608
## 9525     1.760202  0.996217373  2.004693e-01     0.859867     0.769527
## 9526     1.605197  0.388278863  1.612754e+00     0.914765     0.647842
## 9527     1.802855  0.607964082  2.388216e+00     0.904692     0.726877
## 9528     1.518132  0.482710693  6.278650e-01     0.797527     0.694297
## 9529     1.682906  0.355119973  2.640535e+00     0.853242     0.756601
## 9530     1.577441  0.573991890 -2.218487e-01     0.944749     0.866153
## 9531     1.708379  0.796320342  7.121201e-01     0.895980     0.608293
## 9532     1.788634  0.923707088  4.068007e-01     0.977006     0.823323
## 9533     1.591960  0.614905649  1.935029e+00     0.907859     0.871413
## 9534     1.510990  0.660544854  4.998999e+00     0.825723     0.767385
## 9535     1.774065  1.082695631  1.035760e+00     0.908542     0.666819
## 9536     1.514868  0.198607608  2.051984e+00     0.879041     0.601624
## 9537     2.017409  1.303433666  1.173196e+00     0.893301     0.731527
## 9538     1.591430  0.504299558  1.975677e+00     0.874291     0.843415
## 9539     1.633224  0.419245104  1.287190e-01     0.979923     0.764885
## 9540     1.602261  0.529002780  8.631162e-01     0.808439     0.740640
## 9541     1.760128  1.300140954  6.752881e-01     0.838255     0.648492
## 9542     1.748546  1.216263575  1.399274e+00     0.831714     0.724195
## 9543     1.722950  1.385843909  8.273478e-01     0.793954     0.583065
## 9544     1.811923  1.050244381  5.988343e-01     0.743087     0.630528
## 9545     1.535045  0.573031820  7.128478e-02     0.834264     0.748614
## 9546     1.610979  0.536399340  2.666555e+00     0.958714     0.837680
## 9547     1.477681  0.341689684  2.343722e+00     0.910779     0.817031
## 9548     1.627193  0.695031388  8.229587e-01     0.822108     0.761403
## 9549     1.709073  0.961501775  6.841751e-01     0.776272     0.692882
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## 9550     1.596821  0.477543762  2.238539e+00     0.804015     0.714492
## 9551     1.637231  0.678008216  2.059218e-01     0.980065     0.860910
## 9552     1.649053  0.538142493  2.564647e+00     0.884338     0.829050
## 9553     1.731162  0.447131663  2.930002e+00     0.917850     0.723273
## 9554     1.531101  0.358195726  2.264850e+00     0.887880     0.840577
## 9555     1.935136  0.985499225  9.368325e-01     0.887994     0.843845
## 9556     1.636308  0.920734145  2.709416e+00     0.846339     0.824610
## 9557     1.713831  0.737493204  2.004693e-01     0.851543     0.608281
## 9558     1.659218  0.430582941  2.041746e+00     0.810978     0.676915
## 9559     1.662262  0.723924195  2.074726e+00     0.895715     0.790555
## 9560     1.815925  0.546084686  8.469781e-01     0.851741     0.733257
## 9561     1.673589  0.585157181  2.281596e+00     0.952572     0.834271
## 9562     1.601500  0.498792835  3.041412e+00     0.935250     0.829136
## 9563     1.682766  0.523056770  2.265097e+00     0.932848     0.676539
## 9564     1.719270  0.420294135  2.473184e-01     0.843998     0.692504
## 9565     1.639349  0.632981369  2.149556e-01     0.812489     0.720590
## 9566     1.647786  0.973099670  1.035015e+00     0.838590     0.742148
## 9567     1.618163  0.940873436  4.009728e-01     0.931221     0.839903
## 9568     1.739659  0.597713829  1.743619e+00     0.874992     0.808404
## 9569     1.678265  1.106326912  6.343085e-01     0.928635     0.786109
## 9570     1.650531  0.638132690  1.290984e+00     0.909026     0.768822
## 9571     1.652165  0.750936307  2.377282e+00     0.975494     0.841247
## 9572     1.696219  0.762397194  7.190893e-01     0.952377     0.842617
## 9573     2.082279  1.168190953  5.774543e-01     0.973627     0.706707
## 9574     1.734997  0.804040563  1.035816e+00     0.888217     0.803289
## 9575     1.823020  0.837828875  1.929720e-01     0.706690     0.537655
## 9576     1.521010  0.608476825  1.736334e+00     0.923823     0.763685
## 9577     1.648779  0.633804651  6.130485e-01     0.883347     0.671582
## 9578     1.650812  0.550587873  1.607462e+00     0.859810     0.689564
## 9579     1.697831  0.859735567  6.233754e-01     0.742187     0.704530
## 9580     1.713524  0.824267754  1.336983e+00     0.535121     0.395409
## 9581     1.497213  0.255573994  1.675053e+00     0.824354     0.625957
## 9582     1.606290  0.660034973  1.557918e+00     0.848341     0.694521
## 9583     1.759565  1.193892287  7.448486e-01     0.863845     0.760696
## 9584     1.555491  0.548898970  1.007098e+00     0.783630     0.761298
## 9585     1.715627  0.374023918  2.845890e+00     0.799635     0.742282
## 9586     1.768276  0.520788676  2.890997e+00     0.914311     0.824231
## 9587     1.701357  0.923119621  2.293261e+00     0.952440     0.786359
## 9588     1.695201  1.583819722  6.502308e-01     0.821848     0.719946
## 9589     1.500771  0.536894134  2.664257e+00     0.878555     0.820756
## 9590     1.822209  0.644563640  1.890945e+00     0.809572     0.679038
## 9591     1.625351  0.305366419  6.520027e-01     0.843787     0.637705
## 9592     1.617094  0.289423943  1.274182e-01     0.945098     0.753197
## 9593     1.519173  0.392197315  4.996716e+00     0.825254     0.705439
## 9594     1.783146  0.639383880  2.038124e+00     0.944569     0.682052
## 9595     1.907733  0.735802428  4.129594e-01     0.879387     0.698550
## 9596     1.804836  1.257851299  2.898841e-01     0.775812     0.632083
## 9597     1.606419  0.478557838 -2.531654e-01     0.899373     0.874100
## 9598     1.652517  1.037263109  1.748914e+00     0.934564     0.828761
## 9599     1.851491  0.546632721  2.962810e+00     0.924550     0.880037
## 9600     1.633352  0.993636797  4.179590e-01     0.786188     0.548138
## 9601     1.487465  0.517129891  1.445484e+00     0.741817     0.619438
## 9602     1.636860  0.478433734  7.809207e-01     0.949357     0.633887
## 9603     1.661995  0.642512992 -7.839315e-02     0.938113     0.717042
## 9604     1.445765  0.317043216  2.701593e+00     0.898883     0.649776
## 9605     1.546023  0.696436774  1.622309e+00     0.808864     0.747500
## 9606     1.757030  0.820437925  4.346298e-01     0.792005     0.691394
## 9607     1.692582  0.554611496  3.676524e-01     0.833316     0.704641
## 9608     1.679421  0.472400972  3.029364e+00     0.929929     0.857684
## 9609     1.584708  0.731024380  3.647108e-01     0.945791     0.859111
## 9610     1.596262  0.477973084  1.015732e+00     0.808647     0.709273
## 9611     1.694053  0.707960865  2.451119e+00     0.897538     0.757548
## 9612     1.603189  0.761650493  4.783656e-01     0.880813     0.694156
## 9613     1.944051  0.973654693  4.462946e-01     0.868141     0.837829
## 9614     1.556181  0.750876964  2.814479e+00     0.977814     0.898876
## 9615     1.541121  0.455257625  2.519779e+00     0.719136     0.621583
## 9616     1.606373  0.695475547  2.415890e+00     0.792474     0.541901
## 9617     1.805209  0.747421131  3.770406e-01     0.796495     0.764741
## 9618     1.573554  0.380024817  1.867201e+00     0.906420     0.671742
## 9619     1.552986  0.471181656  1.386351e+00     0.824140     0.615021
## 9620     1.801790  0.563117835  8.724788e-02     0.984371     0.699999
## 9621     1.616489  0.427158155  3.770406e-01     0.858385     0.829314
## 9622     1.854284  1.424064525  1.105237e+00     0.731545     0.673428
## 9623     1.902423  0.813210580  2.537249e+00     0.965439     0.850780
## 9624     1.672892  0.840755795  2.379688e+00     0.853203     0.761685
## 9625     1.658817  0.504166274 -2.531654e-01     0.945531     0.857735
## 9626     1.799914  1.347505649  3.914320e-01     0.981512     0.638566
## 9627     1.502882  0.723783117  2.650784e+00     0.899732     0.764246
## 9628     1.583141  0.468187764  2.227931e+00     0.887959     0.802570
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## 9629     1.659083  0.902718506  2.531328e-01     0.825076     0.589526
## 9630     1.638571  0.630790822  1.643966e-01     0.914222     0.725314
## 9631     1.852236  1.440532845  1.108010e+00     0.890733     0.682036
## 9632     1.871652  0.424002362  3.754374e-01     0.967300     0.913568
## 9633     1.887172  1.236423887  7.202107e-01     0.746779     0.596061
## 9634     1.812334  0.569466378  1.927189e+00     0.592085     0.506773
## 9635     1.656385  0.455161703  2.050228e-01     0.943808     0.618348
## 9636     1.846881  0.419666673  1.423289e+00     0.973553     0.861392
## 9637     1.680365  1.040364956  1.591779e+00     0.873160     0.789610
## 9638     1.601164  0.453313752  1.696516e+00     0.721849     0.623605
## 9639     1.684041  0.461590058  2.247851e-01     0.828662     0.799279
## 9640     1.639606  0.843250847  8.298565e-01     0.926634     0.839612
## 9641     1.609158  0.747535320  1.434079e+00     0.866947     0.656991
## 9642     1.759220  0.948421769  8.330326e-01     0.716382     0.604025
## 9643     1.833615  0.889724583  1.520439e+00     0.796734     0.604508
## 9644     1.561512  0.534408168  1.697430e+00     0.922669     0.863401
## 9645     1.649212  0.870977708  2.238666e+00     0.908410     0.791444
## 9646     1.549555  0.401879379  2.327075e+00     0.903834     0.848183
## 9647     1.632044  0.742798162  7.657797e-01     0.750624     0.728671
## 9648     1.768793  1.332682808  5.521259e-01     0.728173     0.643696
## 9649     1.642087  0.491073002 -2.147400e-01     0.910934     0.817520
## 9650     1.673692  0.916707608  6.064687e-01     0.743563     0.632879
## 9651     1.715316  1.422217099  1.136639e+00     0.779492     0.628944
## 9652     1.656004  1.156334071  5.458851e-01     0.762397     0.727014
## 9653     1.673099  0.761495583  1.339975e+00     0.884976     0.750529
## 9654     1.737809  0.961188934  2.523795e+00     0.886250     0.689250
## 9655     1.647294  0.568452838  2.817202e+00     0.889306     0.776285
## 9656     1.650930  0.882881844  2.773975e+00     0.822865     0.746641
## 9657     1.588492  0.504658405  2.785717e+00     0.961079     0.841501
## 9658     1.645288  0.421022834  7.033565e-01     0.806353     0.718276
## 9659     1.951632  1.041720257  2.351433e+00     0.985791     0.817774
## 9660     1.745001  0.586889855  5.287521e-01     0.898145     0.877291
## 9661     1.563315  0.387215362  2.204270e+00     0.946072     0.831264
## 9662     1.714201  0.486468735  1.852271e+00     0.736031     0.718063
## 9663     1.641474  0.785744708  4.174345e-01     0.968427     0.735450
## 9664     1.601114  0.285282694  2.033675e+00     0.835627     0.772411
## 9665     1.630052  0.694832376  6.000489e-01     0.869309     0.729706
## 9666     1.804508  1.223820308  2.112364e-01     0.894191     0.765973
## 9667     1.475036  0.306765895  2.384791e+00     0.911629     0.817786
## 9668     1.635049  0.604361074  1.291864e+00     0.855907     0.764779
## 9669     1.840619  0.544259092  2.577603e+00     0.970297     0.838481
## 9670     1.632406  0.601586352  2.825293e-01     0.840852     0.782695
## 9671     1.552677  0.367546000  2.595057e+00     0.866013     0.677220
## 9672     1.601076  0.588973855  2.975056e+00     0.897163     0.732204
## 9673     1.766608  0.624716173  7.696509e-02     0.927242     0.823820
## 9674     1.569235  0.538763445  3.259066e+00     0.839668     0.739690
## 9675     1.602963  0.618027166  2.862681e+00     0.885703     0.830354
## 9676     1.586772  0.383799214  8.447831e-01     0.887860     0.799311
## 9677     1.681851  0.771847539  4.692401e-01     0.871096     0.717173
## 9678     1.709606  0.627580902  5.103479e-02     0.891747     0.764082
## 9679     1.760551  0.978203807  4.741049e-01     0.790709     0.707383
## 9680     1.692491  1.306006617 -1.655188e-01     0.934019     0.831881
## 9681     2.089060  0.941031655  3.414609e+00     0.927450     0.901872
## 9682     1.672607  0.775820082  1.798000e+00     0.653754     0.564380
## 9683     1.502047  0.468744513  1.908288e+00     0.658942     0.629393
## 9684     1.446091  0.407001480  2.111464e+00     0.738040     0.615787
## 9685     1.795420  1.319709694  9.813646e-01     0.933740     0.790563
## 9686     1.634509  0.860550609  4.254040e-01     0.811799     0.718434
## 9687     1.774711  0.674431224  1.449315e-01     0.891154     0.696589
## 9688     1.620481  0.434640748  2.131180e+00     0.818612     0.663794
## 9689     2.031356  1.052540046  5.312000e-01     0.905643     0.618672
## 9690     1.635482  0.404181786  1.904635e+00     0.822199     0.792082
## 9691     1.703451  0.644219910  2.477452e+00     0.886268     0.733677
## 9692     1.769852  1.132035438  4.081848e-01     0.773427     0.604162
## 9693     1.782970  1.243707587  1.670178e+00     0.820554     0.535619
## 9694     1.601897  0.519681017  3.243392e-01     0.932307     0.751163
## 9695     1.568814  0.592001227  1.283076e+00     0.812822     0.769556
## 9696     1.715525  1.114871083  5.959894e-01     0.831326     0.710540
## 9697     2.019216  0.698348519  1.971436e+00     0.914506     0.696659
## 9698     1.473182  0.566239451  2.400726e+00     0.807023     0.780697
## 9699     1.599854  0.560642985  4.553292e-01     0.879550     0.712838
## 9700     1.684661  0.661682094  4.088357e-01     0.893885     0.746142
## 9701     1.694488  0.815749042  3.961227e-01     0.916573     0.682574
## 9702     1.584775  0.808296067  1.540052e+00     0.806987     0.689659
## 9703     1.765215  1.022910653  9.108844e-01     0.608667     0.534064
## 9704     1.484973  0.359338319  2.349930e+00     0.983960     0.860814
## 9705     1.760811  0.721036932  6.774542e-01     0.937342     0.815033
## 9706     1.733877  0.771111775  2.511078e+00     0.922421     0.807672
## 9707     1.521792  0.224476085  2.057080e+00     0.945820     0.741005
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## 9708     1.682548  0.803475552  2.709062e-02     0.933773     0.787998
## 9709     1.562735  0.498958066  2.378121e+00     0.921327     0.750302
## 9710     1.672341  0.933577883  2.969916e-01     0.889145     0.774444
## 9711     1.489561  0.396058048  2.416726e+00     0.861698     0.664321
## 9712     1.509970  0.551281615  3.097057e+00     0.866037     0.733033
## 9713     1.767546  1.101055914  2.329732e+00     0.932255     0.876119
## 9714     1.729260  0.799400519  7.373591e-02     0.877677     0.760000
## 9715     1.681229  0.490929987  7.103083e-01     0.876562     0.568699
## 9716     1.900260  0.765809324  2.642379e+00     0.903486     0.865252
## 9717     1.633933  0.446942382  2.690082e-01     0.900212     0.839061
## 9718     1.777639  0.716680148  3.465611e+00     0.955291     0.675792
## 9719     1.661069  0.592140102  2.778172e+00     0.956403     0.804953
## 9720     1.698773  1.071767898  9.050055e-01     0.903006     0.660557
## 9721     1.688590  0.576215767  1.332084e+00     0.832210     0.544287
## 9722     1.953492  1.054770046  2.480775e+00     0.806288     0.723309
## 9723     1.644509  0.877525683  7.825832e-01     0.841335     0.831773
## 9724     1.973376  1.061011175  2.573910e+00     0.878834     0.778165
## 9725     2.069513  0.911373370  3.020501e+00     0.982601     0.864456
## 9726     1.506194  0.373853181  2.365920e+00     0.827116     0.759690
## 9727     1.791065  0.514716391  2.174524e+00     0.895756     0.741202
## 9728     1.588829  0.396453919  7.418649e-02     0.875498     0.772984
## 9729     1.878649  0.600006359  3.281320e+00     0.913032     0.827338
## 9730     1.612461  0.495015370 -4.899824e-01     0.831143     0.685598
## 9731     1.662813  0.685602026  6.943110e-01     0.805495     0.774727
## 9732     1.856286  0.985468689  5.060260e-01     0.961989     0.799930
## 9733     1.964351  1.289296798  1.048027e+00     0.738570     0.732627
## 9734     1.672572  0.724999637  1.740129e-01     0.923407     0.625747
## 9735     1.936922  1.054352553  2.213138e+00     0.762459     0.714815
## 9736     1.520836  0.468959933  2.978121e+00     0.932525     0.873698
## 9737     1.633799  0.697952564  4.582421e-01     0.865613     0.707184
## 9738     1.834250  0.830405161  2.433215e+00     0.835523     0.674061
## 9739     1.747310  0.728436574  1.703514e+00     0.819953     0.622490
## 9740     1.567594  0.634523619  1.699830e+00     0.914833     0.812693
## 9741     1.760518  0.609104351  1.613792e+00     0.845808     0.745122
## 9742     1.593841  0.683373087  2.523796e+00     0.828683     0.735811
## 9743     1.751742  0.675418113  3.659765e-01     0.928876     0.719267
## 9744     1.688230  0.614560824  5.007265e-01     0.918626     0.752966
## 9745     1.644786  0.430793982  3.418685e+00     0.990841     0.918387
## 9746     1.605328  0.478755466  2.764755e+00     0.925621     0.867202
## 9747     1.619415  0.638398395  5.989756e-01     0.878188     0.794022
## 9748     2.001349  1.053086130  1.031081e+00     0.941064     0.726410
## 9749     1.503434  0.583348427  2.080370e+00     0.886504     0.696585
## 9750     1.673821  0.898748212  5.275727e-01     0.815407     0.679883
## 9751     1.654664  0.910939607 -3.981290e-02     0.854101     0.780450
## 9752     1.734391  1.008114512  3.987383e-01     0.596386     0.552631
## 9753     1.499965  0.406170447  3.365899e+00     0.848992     0.704230
## 9754     2.031841  0.805679569  1.895596e+00     0.956313     0.847790
## 9755     1.662501  0.944125713  4.811293e-01     0.911184     0.835801
## 9756     1.542068  0.951208766  3.003394e+00     0.882573     0.747335
## 9757     1.650457  0.859104658  1.891374e+00     0.805911     0.768298
## 9758     1.731803  0.643595773  1.229297e+00     0.934052     0.889785
## 9759     1.656845  0.452932809  2.831828e+00     0.942023     0.804317
## 9760     1.777902  0.740206315  1.385348e+00     0.856974     0.743976
## 9761     2.080807  1.206836666  3.405342e-01     0.976916     0.858860
## 9762     1.981307  0.973534699  2.176921e+00     0.934179     0.788443
## 9763     1.967956  1.243942920  1.199004e+00     0.886781     0.643687
## 9764     1.714841  0.768199146 -5.188019e-02     0.784825     0.712172
## 9765     1.641047  0.655878602  6.130485e-01     0.836938     0.635324
## 9766     1.903665  0.995543062  3.293366e-01     0.791339     0.618935
## 9767     1.662518  0.938474192  2.536116e+00     0.979487     0.906548
## 9768     1.748700  0.437474682  1.902762e+00     0.718240     0.694549
## 9769     1.529718  0.519977544 -4.826341e-01     0.915163     0.713829
## 9770     1.756571  0.521487210  2.238740e+00     0.918388     0.804817
## 9771     2.293007  1.483804034  1.381348e+00     0.846418     0.564658
## 9772     1.800256  0.585581413  6.407966e-01     0.808810     0.719382
## 9773     1.820551  0.947059067  2.474073e+00     0.861539     0.728825
## 9774     1.717348  0.527887566  6.204570e-01     0.823314     0.628653
## 9775     1.562627  0.643952814  1.526912e+00     0.910137     0.642508
## 9776     1.675152  0.860191819  4.728354e-01     0.882563     0.713606
## 9777     1.767272  1.160570565  1.643983e+00     0.830520     0.534715
## 9778     1.614283  0.532205114  6.267514e-01     0.897012     0.693068
## 9779     1.713633  0.422087304  2.368597e+00     0.721137     0.639077
## 9780     2.228731  1.474299326  1.321466e+00     0.974463     0.724576
## 9781     1.799728  1.147060766  1.679485e+00     0.934910     0.666593
## 9782     1.945710  0.793734523  2.441807e+00     0.893692     0.758990
## 9783     1.599908  0.361353804  3.371029e+00     0.863667     0.799356
## 9784     1.570090  0.434846636  4.586208e-01     0.859971     0.645335
## 9785     1.640640  0.424824489  1.507697e+00     0.715594     0.576702
## 9786     1.673756  0.597580017  4.519859e-01     0.910541     0.816584
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## 9787     1.659988  0.698958713  5.843766e-02     0.849429     0.764924
## 9788     1.644129  0.604581338  2.238490e+00     0.845449     0.733370
## 9789     1.903410  0.439640539  2.805277e+00     0.855051     0.822396
## 9790     1.532700  0.459990738  2.130133e+00     0.830145     0.708614
## 9791     1.719833  0.819015881  3.743282e-01     0.882467     0.848940
## 9792     1.663876  1.106958821  2.050228e-01     0.968874     0.782044
## 9793     1.632547  0.901031446  1.439724e+00     0.880432     0.825028
## 9794     1.693145  1.022927132  2.969916e-01     0.890170     0.812947
## 9795     1.470794  0.513708901  1.319235e+00     0.775099     0.533444
## 9796     1.899302  1.047021617  1.781492e-01     0.961224     0.697560
## 9797     1.787684  0.580166293  3.180851e+00     0.926840     0.868109
## 9798     1.594336  0.554983139  2.197438e+00     0.778413     0.613736
## 9799     1.653769  1.087756580  2.613266e+00     0.889696     0.766264
## 9800     1.517673  0.502491303  2.593604e+00     0.885212     0.715683
## 9801     1.723906  0.573968725  2.800197e-01     0.938148     0.926379
## 9802     1.637372  0.829477456  5.548517e-01     0.868160     0.790277
## 9803     1.632931  0.590682483  3.636247e-01     0.950986     0.782828
## 9804     1.537320  0.466137748  2.540427e+00     0.748787     0.633097
## 9805     1.459174  0.527856654  2.572703e+00     0.682883     0.582517
## 9806     1.668405  0.437530190  3.196610e+00     0.911196     0.745515
## 9807     1.609914  0.555359300  2.236656e+00     0.733632     0.701920
## 9808     1.706002  0.428505730  6.281117e-01     0.966396     0.806221
## 9809     1.577337  0.585194431  4.528266e-01     0.969095     0.793695
## 9810     1.692013  0.470535439  3.203626e+00     0.803985     0.769447
## 9811     1.513319  0.553391438  2.144219e+00     0.791759     0.749894
## 9812     1.540741  0.328982711  2.801985e+00     0.603284     0.328520
## 9813     1.634140  0.510522223  2.820364e+00     0.854151     0.751819
## 9814     1.931395  0.965656460  1.642903e+00     0.754769     0.664907
## 9815     1.694379  0.948885640  3.211827e-01     0.823897     0.752049
## 9816     1.764089  0.638187642  2.081589e+00     0.886324     0.823359
## 9817     1.512948  0.444083849  1.666456e+00     0.860810     0.799853
## 9818     1.799003  0.607422852  2.605690e+00     0.940872     0.911014
## 9819     1.681411  0.686196390  1.611718e+00     0.737356     0.619015
## 9820     1.627813  0.383646640  2.961044e+00     0.833761     0.708348
## 9821     1.410121  0.339483242  3.138649e+00     0.676769     0.466282
## 9822     1.587978  0.557401322 -1.835348e-01     0.939775     0.781383
## 9823     1.873614  0.725273600  2.283584e+00     0.805823     0.757506
## 9824     1.699822  0.748240760  4.820557e-01     0.844877     0.749616
## 9825     1.544559  0.636615257  6.733419e-02     0.906648     0.740182
## 9826     1.616806  0.354492601  3.986626e-01     0.919410     0.648138
## 9827     1.700979  0.456939652  4.788712e-01     0.850271     0.801694
## 9828     1.627843  0.403564888  4.081848e-01     0.943565     0.850356
## 9829     1.855457  0.847430133  6.470943e-01     0.892380     0.674164
## 9830     1.512474  0.743214124  1.916677e+00     0.863908     0.776121
## 9831     1.501017  0.418672438  2.060230e+00     0.924074     0.721779
## 9832     1.642831  0.632221353  2.408282e+00     0.935654     0.884346
## 9833     1.589564  0.452574509  1.427527e+00     0.757594     0.557473
## 9834     1.807927  0.825831659  2.385866e+00     0.830723     0.747208
## 9835     1.722657  0.976865598  1.732282e-01     0.845058     0.652779
## 9836     1.507176  0.244672878  2.434131e+00     0.761823     0.700141
## 9837     1.515374  0.362904500  2.716513e-01     0.765668     0.718823
## 9838     1.560804  0.527637633  1.450578e+00     0.817263     0.655954
## 9839     1.727940  0.812203206  1.196088e+00     0.894933     0.775021
## 9840     1.644530  1.691776161  1.346052e+00     0.891058     0.578667
## 9841     2.082362  1.004157945  2.493882e+00     0.907659     0.645034
## 9842     1.661380  0.668848855  6.869402e-01     0.845431     0.714575
## 9843     1.980513  0.852134617  2.474812e+00     0.899764     0.844949
## 9844     1.782459  0.788290720  2.931548e+00     0.807772     0.711112
## 9845     1.542661  0.582723398  2.787527e+00     0.787697     0.756797
## 9846     1.636686  0.568824549  2.078232e+00     0.792469     0.763736
## 9847     1.659820  0.719548380  1.598671e-02     0.883873     0.557325
## 9848     1.541457  0.274358779  2.676679e+00     0.893499     0.815315
## 9849     1.650790  0.608451149  2.204314e+00     0.958145     0.843272
## 9850     1.615297  0.729411036  5.538081e-01     0.951442     0.704143
## 9851     1.926712  1.255684889  1.453167e+00     0.986118     0.747401
## 9852     1.774248  0.916084246  2.668338e+00     0.850820     0.705354
## 9853     1.691094  0.454414924  1.532458e+00     0.899499     0.754900
## 9854     1.728365  1.187393798  3.466112e-01     0.955631     0.824326
## 9855     1.614703  0.673574717  3.940914e-02     0.860533     0.770371
## 9856     1.594441  0.379648103  2.385023e+00     0.931311     0.796727
## 9857     1.714109  0.838356611 -9.306900e-02     0.940783     0.764594
## 9858     1.904975  0.602134901  2.235393e+00     0.752063     0.746729
## 9859     1.515708  0.599719362  3.852647e-01     0.769595     0.699861
## 9860     1.651687  1.175798736  6.102533e-01     0.726380     0.575752
## 9861     1.670856  0.803228983  5.405726e-01     0.916808     0.837719
## 9862     1.561316  0.461711570 -2.904667e-01     0.851941     0.710964
## 9863     1.645197  0.311647923  1.958223e+00     0.877264     0.801704
## 9864     1.593340  0.409373419  2.083707e+00     0.968691     0.805321
## 9865     1.473306  0.374792323  3.141387e+00     0.779843     0.651293
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## 9866     1.593348  0.623517023  6.206008e-02     0.930442     0.731550
## 9867     1.785670  0.491717389  1.239306e+00     0.819444     0.709020
## 9868     1.895513  1.156212852  1.543131e+00     0.835980     0.765247
## 9869     2.119721  1.385615210  9.778452e-01     0.776747     0.610467
## 9870     1.624953  0.421146361  9.953690e-02     0.893764     0.785368
## 9871     1.620894  0.557726099 -2.078779e-01     0.967990     0.803078
## 9872     1.573156  0.366566764  2.101904e+00     0.824240     0.641064
## 9873     1.534644  0.358977425  4.999918e+00     0.935058     0.646701
## 9874     1.726856  0.957693946  1.198280e+00     0.937447     0.824266
## 9875     1.610852  0.413854435  1.543174e-01     0.931081     0.738076
## 9876     1.560716  0.406770040  2.654661e+00     0.799315     0.702765
## 9877     1.645204  0.683763663  1.103491e+00     0.896445     0.790799
## 9878     1.620068  0.458439917  1.013405e-01     0.971990     0.846331
## 9879     1.645437  0.809117115  9.774560e-01     0.854923     0.752365
## 9880     2.055959  1.078340797  1.943037e+00     0.740938     0.576736
## 9881     1.715631  0.920659078  4.192726e-01     0.914489     0.679942
## 9882     1.635755  0.899614793  1.132348e+00     0.811499     0.691721
## 9883     1.802584  0.541621673  2.041200e-01     0.901215     0.831263
## 9884     1.640303  0.659024840  2.236765e+00     0.915044     0.786577
## 9885     1.905410  0.884672476  6.706113e-01     0.981697     0.646745
## 9886     1.486875  0.469604078  2.755315e+00     0.893150     0.862628
## 9887     1.502428  0.525714530 -9.691001e-02     0.867564     0.625812
## 9888     1.622197  0.320518082  2.751448e+00     0.733757     0.694190
## 9889     2.192899  1.153586228  4.357994e-01     0.959685     0.705196
## 9890     1.583343  0.442460954  2.179714e+00     0.874547     0.834109
## 9891     1.815106  1.293791112  1.043142e+00     0.719974     0.506133
## 9892     1.723977  0.471407605  2.118633e+00     0.873617     0.845064
## 9893     1.608686  0.463500305  2.238243e+00     0.910646     0.702578
## 9894     1.797666  0.568305003  1.063888e+00     0.922111     0.584996
## 9895     1.557328  0.540846065  8.227593e-01     0.952014     0.854997
## 9896     1.746382  0.623065193  1.376048e-01     0.891455     0.596079
## 9897     1.585620  0.635993141 -6.172243e-01     0.968396     0.806984
## 9898     1.698031  0.381387671  2.494935e+00     0.689871     0.660323
## 9899     1.655095  0.412279063  1.584593e+00     0.890776     0.800767
## 9900     1.635718  0.412489107  2.211974e-12     0.939536     0.813825
## 9901     1.729574  0.927893665  5.759960e-01     0.855963     0.634436
## 9902     1.690597  0.816645569  6.134449e-01     0.757552     0.680276
## 9903     1.687413  0.477448300  6.754859e-01     0.908989     0.756174
## 9904     1.566302  0.379359914  2.138959e+00     0.853580     0.760375
## 9905     1.679837  0.678986109  1.829516e+00     0.798297     0.692380
## 9906     1.633282  0.395853867  2.199855e+00     0.893111     0.744413
## 9907     1.618862  1.111017061  3.428969e-01     0.795918     0.670320
## 9908     1.670109  0.470329623  1.586739e+00     0.958642     0.775039
## 9909     1.698455  0.851069910  1.771228e-01     0.916773     0.744720
## 9910     1.950929  1.211382214  1.858993e+00     0.900771     0.788075
## 9911     1.629927  0.401974051  2.654720e+00     0.864940     0.707357
## 9912     1.634439  0.495613708  2.728004e+00     0.896679     0.851244
## 9913     1.800837  0.598003250  2.302375e+00     0.918968     0.894841
## 9914     1.824866  1.064124653  3.099810e-01     0.920718     0.845779
## 9915     1.618808  0.459841630  2.231625e+00     0.810198     0.668089
## 9916     2.087014  0.445675801  2.614299e+00     0.890405     0.826621
## 9917     1.322490  0.278696453  1.744044e+00     0.553132     0.377610
## 9918     1.487290  0.494758289  6.733996e-01     0.846881     0.702566
## 9919     1.692399  0.445379993 -1.910125e-01     0.897228     0.837173
## 9920     1.633506  0.634807652  3.538592e-01     0.892921     0.737053
## 9921     1.553400  0.479720674  4.081848e-01     0.891532     0.749212
## 9922     1.623840  0.556014082  2.210573e+00     0.816653     0.710240
## 9923     1.747151  0.728695401  1.941735e+00     0.952240     0.716814
## 9924     1.640640  0.730857342  6.086395e-01     0.908148     0.789529
## 9925     1.605591  0.476125580  4.847218e-01     0.868544     0.795915
## 9926     1.638039  0.568780007  2.816398e+00     0.829203     0.706039
## 9927     1.698452  0.470253152  1.584208e+00     0.838955     0.783431
## 9928     1.597777  0.319638967  2.329548e+00     0.678283     0.624524
## 9929     1.465546  0.278591282  1.465700e+00     0.564214     0.422247
## 9930     1.448779  0.626432761  1.897061e+00     0.817815     0.525675
## 9931     2.284228  1.796713757  1.978653e+00     0.930842     0.788954
## 9932     1.795760  1.437657037  2.898841e-01     0.913289     0.776419
## 9933     1.542387  0.482487690  2.640826e+00     0.908958     0.741698
## 9934     1.782215  0.789828810  2.255959e+00     0.934624     0.761914
## 9935     1.673805  0.850664611  4.627320e-01     0.942429     0.931141
## 9936     1.704237  0.595806951  4.992440e+00     0.879449     0.752708
## 9937     1.661377  0.647141302  8.118668e-01     0.822596     0.713111
## 9938     1.593361  0.550644098  1.716164e+00     0.936997     0.781776
## 9939     1.665082  0.841580942  4.992937e-01     0.979971     0.922567
## 9940     1.492357  0.296461156  2.937567e+00     0.757657     0.675644
## 9941     1.576022  0.500961980  1.937294e+00     0.899772     0.735482
## 9942     2.087025  1.477503266  2.738700e+00     0.930932     0.832037
## 9943     1.835429  0.618919996  1.401115e+00     0.865316     0.731111
## 9944     1.496398  0.376994628  2.248403e+00     0.758464     0.729079
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## 9945     1.693598  0.770718022  9.229985e-01     0.926287     0.781795
## 9946     1.614418  0.459707539  1.852119e+00     0.865524     0.825482
## 9947     1.708051  1.206529052  6.002428e-01     0.817118     0.725188
## 9948     1.685293  0.364500340  2.491409e+00     0.826382     0.798755
## 9949     1.693886  1.096270261  2.755385e+00     0.819688     0.757003
## 9950     2.051508  1.737683134  8.738056e-01     0.895092     0.608515
## 9951     1.572307  0.412253851  1.561281e+00     0.737354     0.646611
## 9952     1.632522  0.623239984  2.959699e-01     0.941403     0.826592
## 9953     1.733427  0.738227829  6.024777e-02     0.840675     0.632495
## 9954     1.693251  0.628700488  1.788175e+00     0.651772     0.622484
## 9955     1.529117  0.257152784  3.105192e+00     0.939100     0.788962
## 9956     1.647240  0.406310199  9.194175e-02     0.898570     0.763368
## 9957     1.579477  0.686753316  1.727295e+00     0.880743     0.755894
## 9958     2.150640  1.517421567  1.485928e+00     0.835806     0.498198
## 9959     1.660313  0.614382504 -3.120784e-02     0.863166     0.805891
## 9960     1.738191  0.888301394  3.475308e-01     0.935292     0.822495
## 9961     1.592352  0.248272507  2.310821e+00     0.826133     0.808939
## 9962     1.754470  0.747172453  2.107627e+00     0.887430     0.661818
## 9963     1.560703  0.387918134  1.389750e+00     0.897142     0.782013
## 9964     1.810966  0.708206675  2.667911e+00     0.832089     0.618412
## 9965     1.849371  0.961376476  4.544983e-01     0.933434     0.756419
## 9966     1.561799  0.902309728  5.066768e-01     0.915553     0.798869
## 9967     1.595199  0.429623103  1.774650e+00     0.832228     0.784376
## 9968     1.617905  0.616338955  2.083042e+00     0.876599     0.826835
## 9969     1.559144  0.460129258  3.079302e+00     0.904563     0.721380
## 9970     1.732407  0.433103885  3.099810e-01     0.981916     0.723085
## 9971     1.643723  0.551435359  1.054196e-01     0.985297     0.866845
## 9972     1.553612  0.450441572  3.359829e+00     0.731700     0.632746
## 9973     1.602166  0.625190996  1.578405e+00     0.867018     0.784570
## 9974     1.645680  0.989942125  7.448486e-01     0.830106     0.690455
## 9975     1.633988  0.566126244  5.493578e-02     0.945781     0.858551
## 9976     1.685858  0.731221192  4.011725e-01     0.983140     0.798778
## 9977     1.550312  0.595314309  3.252746e+00     0.946786     0.658911
## 9978     1.670877  0.665777927  7.704258e-01     0.931157     0.809196
## 9979     1.478727  0.339735578  2.110536e+00     0.874188     0.755616
## 9980     1.746915  0.613568056  2.662048e+00     0.925006     0.763449
## 9981     1.575350  0.501266085  2.582768e+00     0.770512     0.632076
## 9982     1.689884  1.132387781  7.202998e-01     0.611849     0.526653
## 9983     1.612442  1.062036424  1.025033e+00     0.847837     0.737597
## 9984     1.454442  0.478980393  3.513269e+00     0.769481     0.687030
## 9985     1.720117  0.967863287  2.549600e-01     0.888558     0.631125
## 9986     1.670460  1.005588009  3.121609e-01     0.916437     0.876160
## 9987     1.953729  1.132227661  5.650817e-01     0.860633     0.726436
## 9988     1.603020  0.476970673  2.311614e+00     0.819298     0.639084
## 9989     2.107908  1.404832007  5.485820e-01     0.968466     0.674982
## 9990     1.603208  0.597630476  1.816747e+00     0.948776     0.823580
## 9991     1.844934  0.508463728  2.380452e+00     0.671885     0.562652
## 9992     1.900169  0.587424708  2.454626e+00     0.934600     0.801963
## 9993     1.803598  0.868726706  2.845828e+00     0.838062     0.794340
## 9994     1.711535  0.877040603  9.784276e-01     0.831677     0.680470
## 9995     1.618214  0.594348345  3.326429e+00     0.857082     0.788037
## 9996     1.622073  0.592064559  2.405797e-01     0.965013     0.802170
## 9997     1.671442  0.655577312  1.014771e+00     0.900131     0.739313
## 9998     1.932514  0.396685694  2.757390e+00     0.891406     0.858540
## 9999     1.654493  0.573681375  2.759389e+00     0.964014     0.891038
## 10000    1.801255  0.727919270  1.687251e-01     0.930288     0.661389
## 10001    1.958741  0.941534290  1.425417e+00     0.895144     0.726736
## 10002    1.544600  0.585029605  2.798988e+00     0.857600     0.725962
## 10003    1.904584  0.679455153  2.132876e+00     0.920909     0.807808
## 10004    1.820781  1.183850413  9.431537e-03     0.935353     0.693245
## 10005    1.641352  0.730450374  6.906860e-02     0.897978     0.704513
## 10006    1.779348  0.731397763  1.108076e+00     0.957112     0.569920
## 10007    1.618443  1.172743004  2.766013e+00     0.898251     0.860598
## 10008    1.512794  0.442985890  3.018903e+00     0.864147     0.761363
## 10009    1.716516  0.874454565  4.982540e-01     0.935510     0.675037
## 10010    1.690984  0.570995678 -9.884816e-03     0.818616     0.759117
## 10011    1.482718  0.333749462  2.034595e+00     0.849918     0.705220
## 10012    1.820575  0.562657994  1.224215e+00     0.880719     0.814440
## 10013    1.571010  0.578654106  2.656764e+00     0.942144     0.797894
## 10014    1.557177  0.581834787  2.507648e+00     0.897311     0.759190
## 10015    1.598729  0.582525833  2.552725e-01     0.950338     0.621461
## 10016    1.591935  0.500204904  1.876534e+00     0.967884     0.897511
## 10017    1.751519  0.928613969  6.697357e-01     0.964288     0.870388
## 10018    1.524936  0.496907518  3.061115e-01     0.894199     0.851907
## 10019    1.577015  0.317384219  2.363271e+00     0.909862     0.830120
## 10020    1.711797  0.854674580 -1.117465e-02     0.921435     0.753430
## 10021    1.888663  1.142129688  2.295932e+00     0.928195     0.633626
## 10022    2.178652  1.827967309  1.602404e+00     0.718673     0.485106
## 10023    1.775791  0.591522046  9.347360e-01     0.808341     0.641890
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## 10024    1.568108  0.455109927  2.510880e+00     0.889468     0.813911
## 10025    1.832487  1.190494178  2.608745e-01     0.959908     0.783104
## 10026    1.734147  0.493699181  7.586253e-01     0.846760     0.772060
## 10027    1.883306  1.591964557  1.518326e+00     0.659078     0.490904
## 10028    1.748535  0.819987873  2.787775e+00     0.888411     0.723873
## 10029    1.752268  0.791510299  2.253655e+00     0.925314     0.871737
## 10030    2.237385  0.856963793  7.495935e-01     0.868451     0.839015
## 10031    1.631697  0.423429386  5.957028e-01     0.883211     0.738507
## 10032    1.755078  0.569517870  1.717492e+00     0.934866     0.810561
## 10033    1.503130  0.182822504  1.535609e+00     0.860119     0.797806
## 10034    1.465133  0.426172803  2.966490e+00     0.787172     0.617255
## 10035    1.564245  0.544881274  4.030032e-02     0.922545     0.817606
## 10036    1.643877  0.493022841  2.593516e+00     0.897320     0.809891
## 10037    1.829802  0.652933511  3.211827e-01     0.896121     0.858334
## 10038    1.561447  0.566369131  2.440283e+00     0.936434     0.693265
## 10039    1.621140  0.926083542  7.905465e-01     0.904778     0.851667
## 10040    1.703408  0.920868087  2.809533e+00     0.895436     0.676878
## 10041    1.828081  1.061113054  2.362888e+00     0.966791     0.680178
## 10042    1.431525  0.675388768  9.033647e-01     0.984556     0.822446
## 10043    1.633133  0.735501492  3.786319e-01     0.854858     0.760605
## 10044    1.699798  0.500165093  2.843921e-01     0.882602     0.836525
## 10045    1.532382  0.523758169  6.075568e-01     0.689832     0.651867
## 10046    1.561885  0.455218040  3.689008e-01     0.917142     0.852068
## 10047    1.680888  0.573629215  1.861438e+00     0.901809     0.765050
## 10048    1.801373  0.599962722  2.311164e+00     0.907477     0.892591
## 10049    1.619244  0.523765971  3.852647e-01     0.874361     0.761024
## 10050    1.733255  0.335012345  8.650101e-01     0.856027     0.832059
## 10051    1.822250  0.978972120  2.259769e+00     0.874824     0.693305
## 10052    1.391866  0.668456740  2.692244e+00     0.923109     0.755542
## 10053    1.836868  0.876630571  2.247916e+00     0.926112     0.828715
## 10054    1.474171  0.470752911  2.133402e+00     0.628909     0.604259
## 10055    1.699775  0.502201720  1.028424e+00     0.908153     0.705819
## 10056    1.596630  0.519944752  2.519338e+00     0.832701     0.778811
## 10057    1.638252  0.341503769  6.696737e-01     0.937242     0.836310
## 10058    1.702155  0.682083675  1.403274e+00     0.893342     0.801746
## 10059    1.800075  0.446383366  2.218747e+00     0.971428     0.874033
## 10060    1.625757  0.394831522  1.995428e+00     0.894811     0.699494
## 10061    1.973293  0.757224403  2.994780e+00     0.965743     0.879244
## 10062    1.582077  0.349166754 -1.710462e-01     0.834031     0.783857
## 10063    1.733805  0.827475895  2.516265e+00     0.854877     0.765385
## 10064    1.760014  0.630312929  2.472845e+00     0.908731     0.879823
## 10065    1.670031  0.598146793  4.266726e-01     0.956880     0.720246
## 10066    1.698421  1.015577686  8.933923e-01     0.792048     0.688068
## 10067    1.624969  0.715192461  7.196568e-01     0.808401     0.622258
## 10068    1.633290  0.996213430  1.068646e-01     0.894526     0.720163
## 10069    1.594554  0.797178179  4.522665e-01     0.978428     0.811757
## 10070    1.517255  0.477176262  2.041986e+00     0.577016     0.504052
## 10071    1.800064  1.035609823  4.871169e-01     0.934000     0.648985
## 10072    1.528774  0.538415368  9.264868e-01     0.683813     0.587869
## 10073    1.554345  0.407686566  2.017307e+00     0.809371     0.757112
## 10074    1.590117  0.867334292  3.931823e-01     0.926225     0.730264
## 10075    2.156416  0.780010389  2.135592e+00     0.879431     0.744481
## 10076    1.597434  0.541228422  3.591372e-01     0.823581     0.760653
## 10077    1.601051  0.821304519 -6.142295e-02     0.963667     0.734244
## 10078    1.929535  1.189661527  2.739981e+00     0.855493     0.756750
## 10079    1.917314  1.120889667  1.310906e+00     0.890169     0.659381
## 10080    1.546240  0.344993189  2.007552e+00     0.634766     0.410130
## 10081    1.872808  1.520251585  1.020572e+00     0.892783     0.734570
## 10082    1.612827  0.347809914  3.676524e-01     0.869067     0.766670
## 10083    1.696654  0.805638125  2.423887e+00     0.726143     0.681162
## 10084    1.710296  0.713576217  3.428922e-01     0.879496     0.769756
## 10085    2.063071  1.076145073  3.277736e+00     0.879725     0.675135
## 10086    1.480277  0.377379113  2.068822e+00     0.890572     0.665394
## 10087    1.590853  0.504246521 -1.305850e-01     0.950598     0.670652
## 10088    1.706769  0.517118008  1.675511e+00     0.834370     0.748467
## 10089    1.427877  0.504319955  2.095506e+00     0.729623     0.549547
## 10090    1.660545  0.719217726  8.211074e-01     0.847276     0.619836
## 10091    1.772366  0.704968554  8.724788e-02     0.899473     0.739265
## 10092    2.138350  0.963479463  9.178623e-01     0.907716     0.614728
## 10093    1.681702  0.581585604  3.211827e-01     0.916861     0.773803
## 10094    1.743603  0.774592869  2.369050e+00     0.763519     0.587283
## 10095    1.521120  0.418733713  2.673402e+00     0.830670     0.711588
## 10096    1.582069  0.759163771  2.335310e+00     0.934136     0.818346
## 10097    1.552700  0.498440133  6.906860e-02     0.820508     0.730596
## 10098    1.667572  1.385792105  1.013704e+00     0.692151     0.546820
## 10099    1.667041  0.540087855  2.252711e+00     0.753756     0.582514
## 10100    1.659846  0.426540539  3.194105e+00     0.930397     0.755776
## 10101    2.583735  2.118205184  2.798282e+00     0.906881     0.641751
## 10102    1.623643  0.603289474  1.913676e+00     0.740667     0.694106
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## 10103    1.557924  0.491987467  1.967541e-01     0.868303     0.847114
## 10104    2.168217  1.606752077  2.475729e+00     0.932717     0.833113
## 10105    1.619465  0.418462050  2.872222e+00     0.851512     0.777518
## 10106    1.816176  1.229308040  2.210560e+00     0.860031     0.666120
## 10107    1.591933  0.679097962  1.368078e+00     0.855701     0.729373
## 10108    1.631235  0.258464871  1.212426e+00     0.935063     0.713117
## 10109    1.538324  0.411799783  2.281556e-02     0.945475     0.785912
## 10110    1.780641  1.051885379  2.539344e+00     0.823103     0.666641
## 10111    1.621927  0.328986783  3.308958e+00     0.889812     0.826360
## 10112    1.932771  1.123227507  1.021269e+00     0.910197     0.793912
## 10113    1.504316  0.462751280  2.518340e+00     0.797481     0.766163
## 10114    1.657093  0.685368174 -1.260554e-01     0.844763     0.804485
## 10115    1.912781  0.894327695  2.568305e+00     0.834753     0.611875
## 10116    1.542051  0.439214234  2.198264e+00     0.987066     0.711878
## 10117    1.627023  0.350691780  2.964084e-01     0.930001     0.842516
## 10118    1.668669  0.651163609  3.210468e+00     0.839184     0.781916
## 10119    1.605071  0.421645051  2.194926e+00     0.995923     0.837595
## 10120    1.757373  0.664604373  5.530028e-01     0.971922     0.800540
## 10121    1.653071  0.967652325  4.319815e-01     0.805592     0.604502
## 10122    1.603862  0.930630194  2.669771e-01     0.817348     0.763640
## 10123    1.493284  0.388610896  1.379331e+00     0.857666     0.710755
## 10124    2.098900  1.263704698  6.936761e-01     0.843363     0.664564
## 10125    1.803130  1.049555245  1.174022e+00     0.781372     0.757529
## 10126    1.774634  1.133628313  5.402032e-01     0.866518     0.639184
## 10127    1.753948  0.813709057  2.636441e+00     0.962895     0.857679
## 10128    1.564188  0.461794059 -1.767310e-01     0.852110     0.814534
## 10129    1.724745  0.805466874  1.169652e+00     0.828928     0.678186
## 10130    1.773383  1.199782594  9.608631e-01     0.948016     0.899106
## 10131    1.868262  0.927641328  4.112665e-01     0.927527     0.890858
## 10132    1.811860  1.109352398  6.322627e-01     0.692787     0.595744
## 10133    1.678221  0.577498693  6.152849e-01     0.846641     0.740839
## 10134    1.733168  0.773624103  6.772582e-01     0.819309     0.545956
## 10135    1.607594  0.755556256  2.545447e+00     0.734900     0.573381
## 10136    1.555740  0.947931943  1.892936e+00     0.783972     0.666486
## 10137    1.627745  0.635444538  1.360667e+00     0.856144     0.639737
## 10138    1.609136  0.647045380  6.074211e-01     0.859181     0.770948
## 10139    1.509772  0.334988248  2.467157e+00     0.921233     0.781868
## 10140    1.622077  0.626740596  1.172343e-02     0.938903     0.892908
## 10141    1.827176  0.923773349  6.623378e-01     0.972029     0.782857
## 10142    1.509279  0.327773615  1.702770e+00     0.763799     0.633909
## 10143    1.497509  0.361540860  1.831348e+00     0.626802     0.562609
## 10144    1.669930  0.595117978  4.205782e-01     0.905820     0.754522
## 10145    1.641454  0.575549222  2.719863e+00     0.900900     0.891009
## 10146    1.769768  0.916215416  2.191416e-01     0.881535     0.687046
## 10147    1.619689  0.776685206  5.016186e-01     0.940585     0.747234
## 10148    1.557332  0.411048688  1.341935e+00     0.846425     0.752966
## 10149    1.634100  0.573608349 -1.216254e-01     0.965606     0.841225
## 10150    1.643220  0.788916072  3.492172e-01     0.915517     0.788318
## 10151    1.644859  0.689568115  2.248220e+00     0.976304     0.764046
## 10152    1.727205  0.686264368  2.517014e-01     0.928355     0.892265
## 10153    1.470843  0.431629085  2.671327e+00     0.749666     0.706598
## 10154    1.501660  0.535144687  2.601092e+00     0.838628     0.814072
## 10155    1.566142  0.328878857  2.157496e+00     0.608131     0.580874
## 10156    1.724212  1.236028103  5.114056e-01     0.749192     0.657772
## 10157    2.240487  1.486008023  8.568647e-01     0.841829     0.686958
## 10158    1.643461  0.665209384  8.660505e-01     0.947478     0.677610
## 10159    1.740048  0.780785924 -1.601400e-01     0.836272     0.597824
## 10160    1.742388  0.481679061  4.310542e-01     0.942121     0.921829
## 10161    1.939514  1.221599393  2.612622e+00     0.775551     0.766893
## 10162    1.573629  0.741841508  1.944847e+00     0.739516     0.627053
## 10163    1.782617  1.171594829  6.045510e-01     0.924164     0.734202
## 10164    1.590277  0.596731211  2.588752e+00     0.932620     0.664126
## 10165    1.669891  0.658343433  2.601647e+00     0.900489     0.702151
## 10166    1.588912  0.303275995  4.112665e-01     0.883429     0.763161
## 10167    2.072731  0.904357903  2.140832e+00     0.816054     0.698617
## 10168    1.656748  0.468843384  6.426293e-01     0.939643     0.866199
## 10169    1.791812  0.716811882  1.041610e+00     0.861919     0.633846
## 10170    1.503600  0.347372955  2.590063e+00     0.840317     0.759898
## 10171    1.917617  1.402656797  1.592872e+00     0.819839     0.772371
## 10172    1.649758  0.775126739  1.305608e+00     0.783635     0.678548
## 10173    1.500867  0.501976203  2.097340e+00     0.796226     0.615435
## 10174    1.862563  0.909706295  2.293573e+00     0.925353     0.797861
## 10175    1.618230  0.850825062  2.718850e+00     0.896787     0.731342
## 10176    1.919628  1.361939267  2.526824e+00     0.892227     0.618945
## 10177    1.588787  0.526362543  9.391253e-01     0.897533     0.852179
## 10178    1.740115  0.703992563  8.464604e-01     0.616001     0.586414
## 10179    1.586390  0.605826318  2.801060e+00     0.836782     0.774555
## 10180    1.875017  0.932250979  4.997438e+00     0.951282     0.811360
## 10181    1.847651  0.571428138  2.647513e+00     0.805822     0.734754
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## 10182    1.603424  0.130462429  2.017538e+00     0.574025     0.512221
## 10183    1.423927  0.434639152  2.378331e+00     0.565051     0.422269
## 10184    1.583045  0.442501718  4.861621e-01     0.914991     0.823252
## 10185    1.693072  0.255048062  2.844610e+00     0.882976     0.790937
## 10186    1.695392  0.394414904  2.375141e-01     0.850696     0.786586
## 10187    1.659823  0.423211457  1.383204e+00     0.934255     0.728758
## 10188    1.545757  0.507634622  1.783147e+00     0.959673     0.814466
## 10189    1.639196  0.855577906  3.006926e-01     0.899914     0.688224
## 10190    1.548586  0.715449265  2.012633e+00     0.792447     0.600064
## 10191    2.115986  1.354173771  3.038715e+00     0.897963     0.841489
## 10192    1.796504  1.057472111  2.236763e+00     0.817554     0.770087
## 10193    1.954266  0.871725262  2.010613e+00     0.968992     0.752097
## 10194    1.557688  0.351171850  2.180107e+00     0.906956     0.754160
## 10195    1.520438  0.331560905  2.076045e+00     0.895709     0.862636
## 10196    1.853605  1.026373899  2.274880e+00     0.940513     0.718692
## 10197    1.615726  0.324463545  1.770890e+00     0.819530     0.495926
## 10198    1.837894  1.134024025  1.166993e+00     0.967741     0.887406
## 10199    1.539187  0.386140324  2.105266e+00     0.883124     0.791245
## 10200    1.467282  0.338950273  2.462953e+00     0.778205     0.497908
## 10201    1.658851  0.865092717  4.838263e-01     0.761799     0.638543
## 10202    1.716397  1.270988437  1.234678e+00     0.840977     0.612514
## 10203    2.145886  1.443205078  7.083870e-01     0.960989     0.888291
## 10204    1.463363  0.370283576  2.907150e+00     0.759091     0.569747
## 10205    1.642705  0.603200686  6.791093e-01     0.804224     0.634194
## 10206    1.641687  0.440866595  8.358896e-01     0.919245     0.738798
## 10207    1.808274  0.651015225  3.424227e-01     0.937420     0.690883
## 10208    1.655722  0.504299558  1.712253e+00     0.853146     0.811437
## 10209    1.792713  1.356178886  8.635293e-01     0.879431     0.533368
## 10210    1.509322  0.362380675  2.938792e+00     0.752465     0.726002
## 10211    2.011300  1.243224135  1.417226e+00     0.747569     0.722440
## 10212    1.634690  0.594794612  1.062695e+00     0.846808     0.731468
## 10213    1.626698  0.855064029  2.946489e-01     0.938185     0.904268
## 10214    1.554426  0.415083578  1.965748e+00     0.882696     0.796867
## 10215    1.705211  0.339320239  1.109403e+00     0.973293     0.900802
## 10216    1.550082  0.563135648  1.199487e+00     0.771770     0.728566
## 10217    1.731310  0.845801647  2.244881e+00     0.816090     0.777792
## 10218    1.779233  0.677495628  8.958223e-01     0.836788     0.664697
## 10219    1.647809  0.581359053  8.332227e-01     0.702848     0.658208
## 10220    1.656555  0.706531738  2.164513e+00     0.928857     0.827872
## 10221    1.652295  0.829691569  4.885413e-01     0.907428     0.814367
## 10222    1.633877  0.448976704  2.633794e+00     0.962265     0.835265
## 10223    1.537435  0.641860639  1.561425e+00     0.927850     0.715239
## 10224    1.543134  0.345044208  3.300160e+00     0.847501     0.755094
## 10225    1.604602  0.706345614  1.790955e+00     0.865169     0.581698
## 10226    1.581360  0.689036118 -4.276359e-02     0.860694     0.742800
## 10227    1.803791  1.044982452  6.791132e-01     0.895138     0.717346
## 10228    1.432843  0.882449398  2.037819e+00     0.738789     0.539327
## 10229    1.702412  0.624282096  2.701138e+00     0.822696     0.767017
## 10230    1.575853  0.311166637  2.303149e+00     0.863217     0.687015
## 10231    1.981509  1.429761967  9.575782e-01     0.886728     0.819254
## 10232    1.749425  0.754938972  1.307507e+00     0.760527     0.715000
## 10233    1.642265  0.679486041  1.334065e+00     0.930560     0.832526
## 10234    1.983595  1.480471189  9.374780e-01     0.968010     0.869172
## 10235    1.663192  0.767207088  1.039099e+00     0.919869     0.830184
## 10236    1.773533  1.040297673  5.104582e-01     0.907151     0.684996
## 10237    1.760401  0.912948639  2.005891e+00     0.916427     0.743167
## 10238    1.619271  0.652148638  1.184052e-01     0.961954     0.893295
## 10239    1.681101  0.548826564  1.363583e-01     0.850381     0.723038
## 10240    1.550314  0.441935384  2.463432e+00     0.856362     0.786259
## 10241    1.602272  0.522427279  7.679291e-01     0.934924     0.845220
## 10242    1.683294  1.559833638  9.814841e-01     0.593366     0.478936
## 10243    1.722679  0.571078473  2.384912e+00     0.938650     0.861506
## 10244    1.874719  0.687519152  1.907317e+00     0.872883     0.671940
## 10245    1.494889  0.573564295  2.794809e+00     0.974715     0.874408
## 10246    1.602830  0.510326468  1.918336e+00     0.873197     0.750262
## 10247    1.814052  0.728117494  2.678997e+00     0.674303     0.648035
## 10248    1.717267  0.841757287  9.953690e-02     0.828133     0.665914
## 10249    1.608369  0.505049536  2.448660e+00     0.810103     0.650826
## 10250    1.535557  0.361629637  1.884694e+00     0.861548     0.844218
## 10251    1.527357  0.318526614  2.328830e+00     0.718727     0.671517
## 10252    2.226955  1.735905352  1.150240e+00     0.873986     0.641711
## 10253    1.663408  0.499146627  1.782962e+00     0.770611     0.623307
## 10254    1.523058  0.783956434  1.641169e+00     0.935341     0.489782
## 10255    1.473945  0.483421820  1.670988e+00     0.796438     0.662829
## 10256    1.622306  0.441192225  2.540357e+00     0.868648     0.662356
## 10257    1.798985  1.365021617  1.583182e+00     0.811838     0.725363
## 10258    1.927111  0.864245796  5.533525e-01     0.925962     0.629285
## 10259    1.652635  0.663893065  4.404472e-01     0.769625     0.539039
## 10260    1.744222  0.587940957  2.869705e+00     0.907514     0.811658
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## 10261    1.592403  0.765478556  2.786273e+00     0.871067     0.733933
## 10262    1.845360  0.911234869  2.562716e+00     0.852440     0.673093
## 10263    1.748905  1.343369200  1.587882e+00     0.804894     0.715926
## 10264    1.610561  0.315512732  1.960979e+00     0.770131     0.723672
## 10265    1.865681  0.939724371  2.278357e+00     0.770449     0.730367
## 10266    1.751783  0.542684787  2.931007e+00     0.934738     0.833840
## 10267    1.673238  0.455575688  7.416020e-01     0.966402     0.762431
## 10268    1.947346  1.015284292  4.661094e-01     0.914710     0.834676
## 10269    1.497938  0.472788618  2.018350e+00     0.876111     0.732384
## 10270    1.586888  0.488601475  2.499255e+00     0.828863     0.784834
## 10271    1.787305  0.398835469  2.537835e+00     0.922798     0.828755
## 10272    1.831403  1.218577515  7.743141e-01     0.959535     0.868784
## 10273    1.731917  0.864742999  5.711162e-01     0.940422     0.797282
## 10274    1.624860  0.779745799  2.348069e+00     0.920453     0.871486
## 10275    1.971580  0.941531805 -3.611014e-01     0.969535     0.855115
## 10276    2.042323  0.884178874  1.118492e+00     0.856163     0.666066
## 10277    1.550954  0.617116767  2.750838e+00     0.930876     0.813494
## 10278    1.729226  0.975298513  1.967764e+00     0.595454     0.540373
## 10279    2.107285  1.307320573  1.198254e+00     0.824014     0.638446
## 10280    1.837008  0.671792821 -1.948279e-01     0.878428     0.872915
## 10281    1.665737  0.362772661  2.126577e+00     0.693629     0.626553
## 10282    1.593953  0.655352647  1.163046e+00     0.918561     0.729748
## 10283    1.792740  0.545449383  2.390169e+00     0.892167     0.685922
## 10284    1.697890  1.258974723  1.321446e+00     0.683213     0.633200
## 10285    1.753360  0.320183688  1.437251e+00     0.826153     0.780352
## 10286    1.897478  0.714842562  2.732328e+00     0.881196     0.870936
## 10287    1.695414  0.543039410  1.844807e+00     0.859927     0.690965
## 10288    1.551479  0.478608336 -1.501145e-02     0.880501     0.812743
## 10289    1.407430  0.391422091  5.126773e-01     0.959105     0.737079
## 10290    1.670929  0.276211266  7.816196e-01     0.855439     0.741489
## 10291    1.480550  0.421645051  2.155843e+00     0.773426     0.707600
## 10292    1.793840  0.804007147  4.914761e-01     0.913403     0.642620
## 10293    1.743952  0.936859934  2.781177e-01     0.905648     0.727475
## 10294    1.674508  0.392930741  2.175691e+00     0.858047     0.689366
## 10295    1.636066  0.442517396  2.563084e+00     0.793484     0.636361
## 10296    1.490313  0.651477666  2.656142e+00     0.900478     0.781935
## 10297    1.568175  0.775739297  2.756081e+00     0.786597     0.772053
## 10298    1.616882  0.582501983  2.533296e+00     0.926371     0.814178
## 10299    1.703698  0.436985912  2.775607e+00     0.889351     0.844354
## 10300    1.660694  0.516355537  1.814105e-01     0.955108     0.834202
## 10301    1.778779  0.489921935  3.167095e+00     0.925365     0.823301
## 10302    1.697954  0.686731875  1.547167e+00     0.770732     0.685568
## 10303    1.487390  0.404592565  4.307442e-01     0.876144     0.645060
## 10304    1.950906  0.654947188  2.463848e+00     0.842414     0.767342
## 10305    1.855867  0.697345314  1.382115e+00     0.704446     0.607967
## 10306    1.473407  0.454381365  1.986231e+00     0.595982     0.464693
## 10307    1.795966  1.168291189  1.543734e+00     0.965052     0.589524
## 10308    1.641883  1.010478049  2.940591e-01     0.912637     0.770635
## 10309    1.660684  0.633368455  3.386288e-01     0.854388     0.686709
## 10310    1.539865  0.495343100  2.918043e+00     0.914007     0.865082
## 10311    1.653618  0.463501799  2.056645e+00     0.893369     0.832663
## 10312    1.719037  0.376635346  2.680863e+00     0.920275     0.839748
## 10313    1.336099  0.540589723  1.884248e+00     0.570014     0.526218
## 10314    1.709972  0.651562926  3.899040e-01     0.918751     0.892378
## 10315    1.734427  0.920825355 -2.078779e-01     0.956524     0.830419
## 10316    1.657649  1.041084622  2.781488e+00     0.802503     0.743723
## 10317    1.684368  0.572506827  3.702365e-02     0.931732     0.852847
## 10318    1.644176  0.428449058  3.848802e-01     0.890240     0.794825
## 10319    1.646608  0.547801771  1.460788e+00     0.697975     0.624924
## 10320    1.604890  0.641507822  8.025411e-01     0.854375     0.760664
## 10321    1.950259  1.228839052  3.222193e-01     0.886296     0.753008
## 10322    1.618883  0.712224457  4.071476e-01     0.746953     0.545849
## 10323    1.727536  0.897402739  1.113853e+00     0.871745     0.597321
## 10324    1.593296  0.573789153  3.391068e-01     0.890840     0.844355
## 10325    1.788144  1.418554832  1.181512e+00     0.965374     0.750639
## 10326    1.910628  1.036700740  8.781303e-01     0.898335     0.660251
## 10327    1.745678  1.419940886  4.485894e-01     0.724880     0.638667
## 10328    1.922137  1.154764701  4.890139e-01     0.912359     0.842370
## 10329    1.606148  0.421692751  2.127254e+00     0.834096     0.688789
## 10330    1.687854  0.781377625  1.104427e+00     0.949219     0.906659
## 10331    1.595821  0.545164803  1.638030e+00     0.928057     0.814214
## 10332    1.810460  0.976222011  6.206881e-01     0.935102     0.703182
## 10333    1.698300  0.542347316  2.614545e+00     0.926423     0.806200
## 10334    1.602211  0.517519188  2.832945e+00     0.883640     0.646536
## 10335    1.572819  0.485644780  2.171684e+00     0.881460     0.767035
## 10336    1.713110  0.405552955  2.998353e+00     0.823157     0.674519
## 10337    1.988305  1.214801476  1.565995e-01     0.941488     0.711323
## 10338    1.757139  0.341828080  1.898886e+00     0.884054     0.773208
## 10339    1.707306  0.607366011  5.828504e-01     0.905961     0.672076
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## 10340    1.803391  1.270758003  1.168024e+00     0.845706     0.718384
## 10341    1.704964  0.530261187  2.906076e+00     0.857882     0.774384
## 10342    1.790341  1.196076654  1.044539e+00     0.770062     0.598838
## 10343    1.733070  0.440430465  3.110738e-01     0.972361     0.824468
## 10344    1.636498  0.480639229  2.273094e+00     0.934278     0.873923
## 10345    1.852993  1.217336522  7.701529e-01     0.856399     0.627039
## 10346    1.613977  0.533222808  4.316729e-01     0.853675     0.846679
## 10347    1.783874  0.752656802  1.960533e+00     0.906456     0.633131
## 10348    1.780152  0.905928576  7.132419e-01     0.917496     0.589475
## 10349    1.759771  0.492086780  2.280483e-01     0.881836     0.732630
## 10350    2.051920  1.021623377  9.341964e-01     0.852751     0.806563
## 10351    1.495272  0.503915916  2.831520e-01     0.924640     0.830976
## 10352    1.605116  0.508068920  5.429997e-01     0.965010     0.824625
## 10353    1.896408  0.703275898  1.039644e-01     0.803512     0.678679
## 10354    1.866416  0.899854413  2.744441e+00     0.848092     0.577474
## 10355    2.409395  1.539698225  2.773920e+00     0.959868     0.571783
## 10356    1.628494  0.611097431  2.928746e-01     0.915148     0.656580
## 10357    1.668735  0.798894997  3.126926e+00     0.893561     0.733033
## 10358    1.647070  0.535438439  2.112364e-01     0.960739     0.892304
## 10359    1.923779  0.710817767  2.039740e+00     0.960128     0.859911
## 10360    1.746551  0.415964412  2.849691e+00     0.870998     0.827290
## 10361    1.614221  1.037063770  7.114521e-01     0.690720     0.592530
## 10362    1.743706  1.230525555  1.682696e+00     0.869328     0.685174
## 10363    1.850998  0.871554840  2.310933e+00     0.783280     0.695745
## 10364    2.020751  1.244447836  4.899561e-01     0.904210     0.682808
## 10365    1.986883  0.508236050  2.655963e+00     0.977636     0.933661
## 10366    1.699029  0.956964228  2.849200e+00     0.953374     0.833327
## 10367    1.734453  1.241342234  9.795156e-01     0.833156     0.651723
## 10368    1.625851  0.930658726  2.856604e+00     0.875388     0.768025
## 10369    1.601279  0.403540880  1.850553e+00     0.755605     0.680473
## 10370    1.576419  0.654481693  2.192466e+00     0.753878     0.662661
## 10371    1.514689  0.493315819  1.913609e+00     0.690527     0.636908
## 10372    1.508820  0.793868579  2.025328e+00     0.797909     0.713027
## 10373    2.017334  0.308122425  1.943506e+00     0.642588     0.523755
## 10374    1.667383  0.765189300  6.767958e-01     0.779844     0.705857
## 10375    2.284300  1.580232516  2.395105e+00     0.708192     0.692023
## 10376    1.884799  0.727055454  3.162386e+00     0.803399     0.740979
## 10377    1.860929  0.795766739  3.370432e+00     0.954409     0.827571
## 10378    1.560574  0.779203140  2.701015e+00     0.896431     0.833376
## 10379    1.526198  0.417614497 -3.979400e-01     0.875431     0.839776
## 10380    1.615503  0.577532010  2.681696e+00     0.820712     0.737686
## 10381    1.701899  0.643899572  1.115710e+00     0.957431     0.884030
## 10382    1.700957  0.558810534  2.543622e-01     0.836768     0.715450
## 10383    1.530129  0.533622101  2.382806e+00     0.882929     0.786333
## 10384    1.676157  0.407314408  9.431740e-01     0.795041     0.735808
## 10385    1.859381  0.548036679  1.619897e+00     0.840442     0.810711
## 10386    1.585243  0.686260791  1.991670e+00     0.816611     0.654607
## 10387    1.601790  1.125233956  1.907089e+00     0.726135     0.696430
## 10388    1.660514  0.784848997  8.298714e-01     0.839025     0.797371
## 10389    1.793984  0.830861861  5.849714e-01     0.910609     0.741985
## 10390    1.659079  0.673314026 -1.601400e-01     0.976670     0.799881
## 10391    1.732122  0.439391122  6.694705e-01     0.805845     0.782391
## 10392    1.544475  0.491151500  2.441791e+00     0.836288     0.635926
## 10393    1.505909  0.531365219  2.900683e+00     0.968628     0.815465
## 10394    1.596336  0.538498329  2.922986e+00     0.911384     0.716913
## 10395    1.620920  0.802031713  5.214628e-01     0.892957     0.736414
## 10396    1.568779  0.153497790  6.123863e-01     0.921174     0.834565
## 10397    1.485929  0.483219167  2.781582e+00     0.752587     0.526714
## 10398    1.821449  0.707927683  2.733840e+00     0.912570     0.760561
## 10399    1.542819  0.455164749 -1.773663e-01     0.857330     0.794950
## 10400    1.591462  0.473116019  2.245162e+00     0.971013     0.822986
## 10401    1.583465  0.312173124  3.085145e+00     0.725904     0.615851
## 10402    1.478676  0.497819455  2.603219e+00     0.882194     0.751261
## 10403    1.568221  0.434998196  2.165768e+00     0.934794     0.686794
## 10404    1.661538  0.627753885  2.709062e-02     0.879523     0.809525
## 10405    1.944280  1.549403021  7.810757e-01     0.599675     0.491995
## 10406    1.663853  0.543433511  2.670950e+00     0.887855     0.840570
## 10407    1.672085  0.756250320  5.642530e-01     0.853126     0.743489
## 10408    1.896254  0.804057611  7.948465e-01     0.785100     0.697594
## 10409    1.614980  0.599190705  2.521354e+00     0.904050     0.694277
## 10410    1.792010  0.517756555  2.378468e+00     0.884916     0.753523
## 10411    2.541593  1.916749168  1.171892e+00     0.956465     0.761505
## 10412    1.665102  0.498360185  1.624597e+00     0.889311     0.805901
## 10413    1.693877  0.756894630  8.794378e-01     0.850001     0.485012
## 10414    1.603676  0.795213124  6.218577e-01     0.872325     0.853739
## 10415    1.760878  0.843924481  4.215521e-01     0.938169     0.776336
## 10416    1.836858  1.140922656  4.890139e-01     0.695275     0.568092
## 10417    1.611737  0.580221099  3.142116e+00     0.813992     0.753024
## 10418    1.653851  0.548429959  2.304182e+00     0.891127     0.771615
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## 10419    1.920752  0.986160606  2.898841e-01     0.883730     0.668905
## 10420    1.876095  0.474804640  2.171150e+00     0.954892     0.775430
## 10421    1.783677  0.792981089  8.462191e-01     0.980626     0.797606
## 10422    1.597145  0.723973397  4.873098e-01     0.906183     0.806114
## 10423    1.674656  0.854783200  5.417269e-01     0.895932     0.725130
## 10424    1.668835  0.336559790  3.137169e+00     0.797495     0.589906
## 10425    1.919138  0.922670973  1.771228e-01     0.931399     0.871133
## 10426    1.577696  0.308376570  2.612073e+00     0.962749     0.853514
## 10427    1.636880  0.799270919 -4.276359e-02     0.907783     0.806180
## 10428    1.603445  0.727858323  2.281556e-02     0.956812     0.876943
## 10429    1.934482  0.920083653  7.174722e-01     0.838215     0.722453
## 10430    1.825663  1.304785558  9.309040e-01     0.738874     0.628172
## 10431    1.699591  0.537831683  1.952822e+00     0.912392     0.838774
## 10432    1.614523  0.317912976  1.687251e-01     0.913987     0.834835
## 10433    1.512139  0.185352304  1.891205e-01     0.988211     0.935966
## 10434    1.677605  0.465366491  4.999657e+00     0.860122     0.771969
## 10435    1.672558  0.723646917  4.978014e-01     0.807693     0.617185
## 10436    1.671917  0.431444182  3.737774e-01     0.778574     0.639582
## 10437    1.693156  0.501319487  2.319588e+00     0.916156     0.788462
## 10438    1.630299  0.463422622  2.098611e+00     0.884974     0.740714
## 10439    1.881547  1.189223535 -1.093434e-01     0.939527     0.845416
## 10440    1.824596  0.903453014  2.151569e+00     0.827608     0.698195
## 10441    1.634607  0.529353345  1.111548e+00     0.748370     0.657542
## 10442    2.129551  1.036995974  1.096307e+00     0.892011     0.637155
## 10443    1.745711  0.537564738  2.538975e+00     0.901773     0.812270
## 10444    1.625400  0.597175037  7.194119e-01     0.931890     0.762661
## 10445    1.526547  0.484220093  2.316555e+00     0.971214     0.937357
## 10446    1.696699  0.606985088 -1.271428e-02     0.856259     0.771565
## 10447    1.485665  0.528524630  2.062962e+00     0.890723     0.823939
## 10448    1.779060  0.546504414  2.804319e+00     0.928304     0.896432
## 10449    1.657831  0.745467510  3.083313e-01     0.940934     0.801609
## 10450    1.515442  0.255819854  2.965271e+00     0.881838     0.653652
## 10451    1.677018  0.353889315  2.897006e+00     0.816607     0.737681
## 10452    1.585500  0.539248025  2.282093e+00     0.921272     0.761512
## 10453    1.680003  0.494932009  1.458985e+00     0.820934     0.744780
## 10454    1.431726  0.384111375  2.384141e+00     0.941814     0.741719
## 10455    1.685624  0.276845376  2.853717e+00     0.877174     0.771628
## 10456    1.542523  0.515551976  2.747002e+00     0.775073     0.729386
## 10457    1.640636  0.430938913  2.414197e+00     0.913861     0.796320
## 10458    1.633777  0.525302714  2.606443e+00     0.856804     0.752544
## 10459    1.575760  0.625373166  1.652205e+00     0.944065     0.886114
## 10460    1.461309  0.427309174 -4.899824e-01     0.769124     0.534229
## 10461    1.749329  0.656826209  2.410413e+00     0.722879     0.652800
## 10462    1.755215  0.409364958  2.539717e+00     0.954458     0.786271
## 10463    1.643655  0.899029410  7.403049e-01     0.973040     0.708634
## 10464    1.739164  1.201560978  1.517361e+00     0.944679     0.835725
## 10465    1.626315  0.571715818 -2.904667e-01     0.961851     0.712317
## 10466    1.598179  0.520010333  3.116014e+00     0.799611     0.766175
## 10467    1.610393  0.435315504  5.661160e-02     0.904680     0.828608
## 10468    1.635235  0.351512223  1.663927e+00     0.935592     0.792315
## 10469    1.776973  1.282304828  1.455137e+00     0.608649     0.563283
## 10470    1.571393  0.532300744  2.810955e+00     0.863244     0.668780
## 10471    1.683169  0.710258721  8.358779e-01     0.847387     0.650881
## 10472    1.747978  0.894762868  4.316729e-01     0.923173     0.744919
## 10473    1.619490  0.604058569  2.137172e+00     0.746827     0.649218
## 10474    1.625189  0.645265030  9.573378e-01     0.811588     0.769324
## 10475    1.784229  1.139932583 -1.305850e-01     0.887383     0.819724
## 10476    1.592186  0.759236357  5.427869e-01     0.788939     0.728706
## 10477    1.713988  0.665520955  1.383085e+00     0.887234     0.609420
## 10478    1.803014  1.588319897  1.167368e+00     0.574278     0.508150
## 10479    1.568103  0.711219058  2.321964e+00     0.675540     0.616583
## 10480    1.623864  0.534983799 -3.120784e-02     0.906756     0.648034
## 10481    1.980459  1.654343102  1.315690e+00     0.578859     0.522141
## 10482    1.790605  1.131397291  1.712618e+00     0.817343     0.540664
## 10483    2.095312  1.192263508  5.934763e-01     0.884463     0.799977
## 10484    1.591326  0.702628681  3.318217e-01     0.922027     0.759481
## 10485    1.784328  0.557898011  1.282310e+00     0.724244     0.619852
## 10486    1.709425  0.235975136  6.684881e-01     0.727694     0.490828
## 10487    1.594493  0.572877408  1.508469e-01     0.927978     0.728536
## 10488    1.609008  0.460219574  2.285959e+00     0.915182     0.780220
## 10489    1.703820  0.666873507  2.340766e+00     0.868315     0.760601
## 10490    1.547109  0.333273925  2.932119e+00     0.990025     0.892801
## 10491    1.800254  0.792538764  2.199603e+00     0.909134     0.831805
## 10492    1.497502  0.426964838  2.322320e+00     0.844678     0.715750
## 10493    1.810076  1.197793137  4.434962e-01     0.869540     0.770928
## 10494    1.686282  0.772524135  3.087780e-01     0.865557     0.738148
## 10495    1.581941  0.506285800  2.106553e+00     0.875293     0.741693
## 10496    1.756285  0.432881141  2.298314e+00     0.906702     0.833433
## 10497    1.568123  0.254301496  1.995403e+00     0.856641     0.648905
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## 10498    1.504285  0.566505843  2.101070e+00     0.893788     0.690252
## 10499    2.056211  1.285143069  6.624744e-01     0.912642     0.799583
## 10500    1.646025  0.676667094  6.889925e-01     0.850607     0.827267
## 10501    1.550506  0.401312639  2.545064e+00     0.801098     0.732358
## 10502    1.723163  0.904920475  1.665887e+00     0.774992     0.678131
## 10503    1.861333  0.916052106  6.716313e-01     0.875186     0.841029
## 10504    1.681959  0.603393398  2.539814e+00     0.924805     0.785285
## 10505    1.577003  0.334938041  4.192726e-01     0.960708     0.873178
## 10506    1.764077  0.774722751  2.274186e+00     0.980210     0.638003
## 10507    1.738091  0.949078569 -3.378003e-02     0.921494     0.873699
## 10508    1.814667  0.726450900  3.360238e+00     0.877761     0.740542
## 10509    1.769405  0.732101719  1.845005e-02     0.946671     0.887787
## 10510    1.601006  0.328852380  2.191983e+00     0.952734     0.794056
## 10511    1.946424  1.051885379  3.447809e+00     0.940362     0.648143
## 10512    1.580749  0.480123410  5.652156e-01     0.902341     0.668544
## 10513    1.728005  0.495687229  2.029699e+00     0.857810     0.734162
## 10514    1.814788  1.416146029  8.070936e-01     0.939557     0.873496
## 10515    1.668624  1.000989064  2.344032e-01     0.858379     0.754549
## 10516    2.098896  1.298968727  4.984258e-01     0.943305     0.606096
## 10517    1.900977  0.888879531  2.413237e+00     0.854785     0.751354
## 10518    1.690846  0.745891060  5.025069e-01     0.885857     0.706065
## 10519    1.661408  0.594380394  2.568019e+00     0.858269     0.807164
## 10520    1.361649  0.643138687  2.447506e+00     0.393924     0.270635
## 10521    1.600205  0.210823966  2.241018e+00     0.790306     0.652932
## 10522    1.627971  0.685846494  4.544983e-01     0.982043     0.824588
## 10523    2.030268  1.295226127  3.758394e-01     0.758454     0.721122
## 10524    1.665375  0.443244207  1.504092e+00     0.717119     0.604486
## 10525    1.505417  0.420409621  2.310014e+00     0.944097     0.750325
## 10526    1.712863  0.366013687  2.577244e+00     0.873484     0.861603
## 10527    1.475276  0.350931881  2.656248e+00     0.947707     0.772976
## 10528    1.875413  1.151044851  8.181729e-01     0.936122     0.737016
## 10529    1.621980  0.487412729  2.055064e+00     0.919256     0.745480
## 10530    1.956297  1.101317377  2.165261e+00     0.808802     0.687749
## 10531    1.553752  0.421284669  2.614517e+00     0.918431     0.807345
## 10532    2.067733  1.224874770  1.673691e+00     0.968359     0.845985
## 10533    1.552536  0.463919852  2.536942e+00     0.790979     0.624909
## 10534    1.880004  0.715382360  3.459536e+00     0.895703     0.831306
## 10535    1.605399  0.752512472  1.441435e+00     0.823025     0.706499
## 10536    1.643896  0.749689947  1.596333e+00     0.968182     0.759505
## 10537    1.877085  0.357750042  2.178336e+00     0.816983     0.747178
## 10538    1.608429  0.676742979 -4.622451e-01     0.929361     0.730738
## 10539    1.727592  0.448180521  2.568350e-01     0.831125     0.743027
## 10540    1.591837  0.516596184  2.443500e-01     0.895102     0.851439
## 10541    1.513649  0.378837424  1.875002e+00     0.790366     0.753590
## 10542    1.933872  0.536077170  2.124586e+00     0.885656     0.863992
## 10543    1.709402  1.049721822  5.071197e-01     0.860600     0.669624
## 10544    1.539345  0.461467012 -2.904667e-01     0.957722     0.796544
## 10545    1.664639  1.192062620  1.112918e+00     0.922879     0.787938
## 10546    1.700592  0.798571236  2.618242e+00     0.885299     0.735408
## 10547    1.434318  0.343707868  2.766726e+00     0.778923     0.677607
## 10548    1.944924  0.843334953  7.421828e-01     0.777778     0.626991
## 10549    1.478799  0.427716503  8.784386e-01     0.934406     0.800382
## 10550    1.628705  0.492107759  3.447598e-01     0.852494     0.770032
## 10551    1.686768  0.817605029  3.743282e-01     0.935658     0.746844
## 10552    1.947782  0.919216207  1.285652e+00     0.795751     0.575113
## 10553    1.491664  0.496373284  4.588820e-01     0.814980     0.791717
## 10554    1.738872  0.697346185  2.892371e+00     0.976115     0.827032
## 10555    1.752922  1.444005739  1.280248e+00     0.676669     0.504396
## 10556    1.499466  0.407134161  1.816760e+00     0.868948     0.670418
## 10557    1.707094  0.484867611  1.680691e+00     0.873495     0.762681
## 10558    1.869034  0.728052513  1.923791e+00     0.869355     0.766582
## 10559    2.045163  1.141803963  2.480688e+00     0.750747     0.745838
## 10560    1.870851  0.823768876  8.154560e-01     0.896918     0.622823
## 10561    1.570111  0.612871766  2.827454e+00     0.786983     0.634908
## 10562    1.926010  0.799717464  5.956081e-01     0.931525     0.806663
## 10563    1.692124  0.588084500  6.312932e-01     0.965025     0.747805
## 10564    1.609057  0.578759512 -5.395839e-01     0.922937     0.780181
## 10565    2.000746  1.247118559  2.231259e+00     0.903442     0.650681
## 10566    1.633645  0.287949454  2.220839e+00     0.816212     0.641162
## 10567    1.670778  0.740510325  2.100553e+00     0.869612     0.795578
## 10568    1.800485  0.519273948  1.707534e+00     0.782377     0.735155
## 10569    1.477641  0.255680068  2.595859e+00     0.855435     0.706888
## 10570    1.483031  0.506748494  2.275434e+00     0.803537     0.624426
## 10571    1.732341  0.420797101  2.797925e+00     0.913587     0.706869
## 10572    1.660911  0.728540448 -1.762359e-02     0.939936     0.795925
## 10573    1.870509  0.698297196  1.701048e+00     0.930831     0.610657
## 10574    1.672715  0.899142277  2.452500e+00     0.904918     0.736829
## 10575    1.811148  1.058877547  1.595697e+00     0.874640     0.611200
## 10576    1.738199  0.801538849  4.404472e-01     0.873746     0.831044
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## 10577    1.680902  0.661329868  2.089066e+00     0.927853     0.824931
## 10578    1.836005  1.258661223  1.092523e+00     0.868647     0.715328
## 10579    1.897391  0.665572549  1.862311e+00     0.923840     0.723919
## 10580    1.704593  0.926572397  3.208425e+00     0.821941     0.700798
## 10581    1.759842  1.327845072  6.094264e-01     0.816860     0.771730
## 10582    1.509791  0.441237826  2.020005e+00     0.804433     0.672637
## 10583    1.657481  0.474910871  4.100015e-01     0.868742     0.745854
## 10584    1.624083  0.749671398  1.798192e+00     0.815379     0.592242
## 10585    1.428617  0.537618896  1.910011e+00     0.757880     0.562181
## 10586    1.623432  0.392842866  2.596577e+00     0.963938     0.766945
## 10587    1.866612  1.112122184  1.329308e+00     0.931828     0.890601
## 10588    1.649780  0.600609199  5.507154e-01     0.858740     0.784241
## 10589    1.576815  0.341727253  2.172146e+00     0.852173     0.736566
## 10590    1.566478  0.587357326  2.851167e+00     0.960800     0.720767
## 10591    1.606122  0.348925674  2.397071e+00     0.868370     0.785644
## 10592    1.639722  0.407898842  1.425574e+00     0.835185     0.704124
## 10593    1.798648  0.453050647 -8.559852e-02     0.966790     0.828618
## 10594    2.216213  1.321306317  2.258765e+00     0.704435     0.623493
## 10595    2.315593  1.360775120  2.918857e+00     0.941614     0.622311
## 10596    1.990091  1.256193198  5.688870e-01     0.814170     0.774518
## 10597    1.649695  0.707070024  1.623106e+00     0.915920     0.858899
## 10598    1.728726  0.843735944  3.196183e-01     0.919888     0.617305
## 10599    1.689343  0.510752725  1.565995e-01     0.861122     0.693519
## 10600    1.744100  0.450415402  2.918996e+00     0.833944     0.679105
## 10601    1.697276  1.288729770  1.457756e+00     0.748814     0.493165
## 10602    1.775322  0.618129715  2.170690e+00     0.932517     0.743761
## 10603    1.500459  0.416389176  2.229813e+00     0.944489     0.722645
## 10604    1.555595  0.557395306  2.213501e+00     0.801285     0.426015
## 10605    1.670875  0.411343555  2.552880e+00     0.713508     0.671160
## 10606    1.680186  0.378394267  2.729605e-01     0.915087     0.877788
## 10607    1.523218  0.585141377  2.113626e+00     0.945674     0.882000
## 10608    2.108846  1.490222630  2.141207e+00     0.921611     0.777523
## 10609    2.449055  2.348392492  1.676995e+00     0.824876     0.660431
## 10610    1.649060  0.584570925  2.804222e+00     0.908577     0.831343
## 10611    1.601431  0.490381324  2.025360e+00     0.689198     0.616350
## 10612    1.974199  1.146571410  1.478391e-01     0.936411     0.781534
## 10613    1.768454  0.528612073  2.005119e+00     0.820932     0.756421
## 10614    1.874272  0.652134126  7.739391e-01     0.958912     0.704619
## 10615    1.855994  1.063355880  1.086427e-01     0.882943     0.796999
## 10616    2.064866  0.591411904  2.611772e+00     0.897805     0.801721
## 10617    1.553275  0.404248564  1.508043e+00     0.855076     0.558646
## 10618    1.677452  1.017984404  3.419521e-01     0.871573     0.595984
## 10619    1.952588  1.123400786  8.113942e-01     0.830566     0.707105
## 10620    2.111615  1.390935107  1.706755e+00     0.938092     0.741018
## 10621    1.728038  0.918655627  7.903727e-01     0.894654     0.817183
## 10622    1.683191  0.772299698  8.462191e-01     0.783060     0.725627
## 10623    1.812442  0.770341600  3.049115e+00     0.781644     0.754403
## 10624    1.532542  0.558832123  2.076895e+00     0.865451     0.818581
## 10625    1.703280  0.916956387  2.635934e-01     0.970520     0.783464
## 10626    1.646701  0.634191005  4.980188e-01     0.915870     0.731628
## 10627    1.464866  0.288810181  2.226651e+00     0.743770     0.698581
## 10628    1.641450  0.653841303  1.976891e-01     0.917143     0.690754
## 10629    1.718316  0.330344768  4.871169e-01     0.909249     0.684652
## 10630    1.659694  0.632841812  3.391068e-01     0.918737     0.705731
## 10631    1.603140  0.775671602  2.739071e+00     0.796150     0.720832
## 10632    1.618219  0.263043983  2.453998e+00     0.836092     0.685319
## 10633    1.619838  0.372825504  2.439426e+00     0.745866     0.571036
## 10634    1.519976  0.636483884  5.030404e-01     0.923895     0.849746
## 10635    1.566126  0.520071970  2.960556e+00     0.747336     0.615821
## 10636    1.611497  0.471489739  5.750995e-01     0.851148     0.831539
## 10637    1.652843  0.347220696  1.622576e+00     0.889521     0.793876
## 10638    1.990252  1.258601369  1.413566e+00     0.857129     0.709510
## 10639    1.513232  0.311425368  2.706709e+00     0.811257     0.685122
## 10640    1.614170  1.007999408  1.658881e+00     0.784592     0.727791
## 10641    1.908379  0.934360061  9.890911e-01     0.945167     0.695776
## 10642    1.770490  0.442321387  4.998691e+00     0.800388     0.716857
## 10643    1.988038  0.927044777  2.107169e+00     0.869927     0.666610
## 10644    1.433495  0.424804894  2.846827e+00     0.815146     0.704747
## 10645    1.647522  0.513521234  4.658465e-01     0.873012     0.795831
## 10646    2.070935  0.940097428  1.251115e+00     0.899444     0.788628
## 10647    1.745680  0.507201239  2.365853e+00     0.807947     0.585458
## 10648    1.644405  0.746160731  4.707884e-01     0.955101     0.758825
## 10649    1.613143  0.839559745  1.092699e+00     0.724854     0.589424
## 10650    1.624239  0.484832058  2.084718e+00     0.910998     0.735956
## 10651    2.327134  1.695619123  2.475460e+00     0.766676     0.741458
## 10652    1.730787  0.904139168 -9.691001e-02     0.879903     0.805382
## 10653    1.554430  0.310064245  7.108659e-01     0.834005     0.770903
## 10654    1.804727  0.569455844  1.745716e+00     0.842390     0.821270
## 10655    1.678157  1.165330405  6.411449e-01     0.887642     0.648105
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## 10656    1.717305  0.762950756  1.660322e+00     0.689440     0.543019
## 10657    1.525151  0.344295971  2.166992e+00     0.826136     0.647879
## 10658    2.201629  0.653796970  2.501064e+00     0.855248     0.820697
## 10659    1.714458  0.502627832  4.839979e-01     0.934376     0.854649
## 10660    1.588785  0.852031438  2.101749e+00     0.592362     0.552758
## 10661    1.730253  0.538857641  6.272471e-01     0.899690     0.799207
## 10662    1.791163  0.490447313  2.207488e+00     0.919903     0.886839
## 10663    1.564751  0.440023856 -3.240698e-01     0.808615     0.703881
## 10664    1.640121  0.732876845  7.202195e-01     0.805013     0.594671
## 10665    1.604162  0.427649994  2.160904e+00     0.788751     0.731730
## 10666    1.840295  0.481673331  2.968243e+00     0.777118     0.712214
## 10667    1.797581  0.815833999  2.196268e+00     0.879985     0.657169
## 10668    1.747914  0.459327640  3.437333e+00     0.872189     0.803169
## 10669    1.698306  0.854394714  4.236464e-01     0.934099     0.717708
## 10670    1.589707  0.476624427  2.955997e+00     0.882351     0.790815
## 10671    1.535561  0.242432096  1.886886e+00     0.846630     0.701232
## 10672    1.830628  0.838606699  1.677439e+00     0.938955     0.645443
## 10673    1.499049  0.335804796  1.986162e+00     0.727559     0.648609
## 10674    1.518999  0.534309194  2.330370e+00     0.943279     0.730702
## 10675    1.732175  0.545576765  2.522683e+00     0.897147     0.787192
## 10676    1.586857  0.314322359  1.740129e-01     0.873152     0.815188
## 10677    1.781164  1.141897947  7.941779e-01     0.847501     0.768608
## 10678    1.706998  1.115953153  2.723069e-01     0.954108     0.741422
## 10679    1.857950  1.140627442  7.484699e-01     0.783952     0.635906
## 10680    2.249056  1.406492491  7.202685e-01     0.961438     0.720218
## 10681    1.714311  0.821124258  5.187195e-01     0.917625     0.795746
## 10682    1.501329  0.312991424  1.797912e+00     0.798103     0.662569
## 10683    1.965842  1.478775657  1.131829e+00     0.865349     0.813401
## 10684    1.540632  0.460783619  2.811848e+00     0.794067     0.770899
## 10685    1.702295  0.442155103  2.409180e+00     0.938310     0.804172
## 10686    1.689223  0.470322271  2.768563e+00     0.942640     0.899695
## 10687    1.666381  0.823407058  2.259893e+00     0.880436     0.739396
## 10688    1.530906  0.353906618  2.968926e+00     0.786492     0.690951
## 10689    1.503659  0.475507026  2.040472e+00     0.798938     0.422667
## 10690    1.792728  0.675393353  5.936859e-01     0.982092     0.846051
## 10691    1.694006  0.503915916  2.628912e+00     0.716569     0.636551
## 10692    2.056787  1.089686144  2.908469e+00     0.917558     0.715055
## 10693    1.881547  0.651945423  2.007483e+00     0.860622     0.814139
## 10694    1.637305  0.455423534  1.152733e+00     0.882536     0.814247
## 10695    1.773635  0.606198579  2.070958e-01     0.874385     0.694639
## 10696    1.762133  0.895172727  4.311657e-01     0.896123     0.721933
## 10697    1.754471  0.371252629  2.644277e+00     0.797970     0.678621
## 10698    2.156888  1.566132141  6.949441e-01     0.947326     0.789947
## 10699    1.776250  0.864923821  2.803689e+00     0.893943     0.774968
## 10700    1.656047  0.778654017  2.669771e-01     0.885859     0.735800
## 10701    1.637395  0.679057043  2.693522e+00     0.906992     0.768031
## 10702    1.873574  0.336229517  2.960689e+00     0.799165     0.714939
## 10703    1.799099  0.927641841  3.424227e-01     0.879063     0.804986
## 10704    1.792219  0.724376647  5.657423e-01     0.770624     0.702788
## 10705    1.808322  0.894511008  7.206206e-01     0.865943     0.749953
## 10706    1.492591  0.321134272  2.895829e+00     0.932792     0.877604
## 10707    1.837993  1.291251158  4.607874e-01     0.825708     0.711497
## 10708    1.907655  0.889533638  1.106929e+00     0.861198     0.788819
## 10709    1.671503  0.520155887  2.417761e+00     0.871680     0.677766
## 10710    1.726180  0.809414252  3.050388e+00     0.879050     0.642863
## 10711    1.574699  0.428923262  2.934567e+00     0.872253     0.707614
## 10712    1.518593  0.213876201  2.557920e+00     0.627538     0.441799
## 10713    1.680270  0.505735880  1.693130e+00     0.902285     0.869148
## 10714    1.671276  0.265197665  1.811987e-01     0.858860     0.698243
## 10715    1.556010  0.625133345 -1.325644e-01     0.962535     0.804553
## 10716    1.726962  0.603913724  2.771016e+00     0.763129     0.707244
## 10717    1.625266  1.179537429  7.696430e-01     0.949298     0.588567
## 10718    1.723790  0.701752715  8.080567e-01     0.827128     0.666718
## 10719    1.721713  1.209673155  1.438319e+00     0.745317     0.659713
## 10720    1.826381  0.561546188  2.979686e+00     0.970855     0.927243
## 10721    1.716237  0.697159571  6.765707e-01     0.815810     0.762221
## 10722    1.757828  0.436162647  1.848981e+00     0.825282     0.767332
## 10723    1.673957  0.446884960  3.215436e+00     0.941671     0.759240
## 10724    1.431304  0.384953448  2.314497e+00     0.627627     0.569748
## 10725    1.673889  0.679097962  6.947128e-01     0.918768     0.788761
## 10726    1.632378  0.820504243  2.741480e+00     0.846900     0.682971
## 10727    1.822895  0.826006088  3.391068e-01     0.942502     0.800837
## 10728    1.714973  0.654863551  2.729605e-01     0.974748     0.851210
## 10729    1.713086  0.583163621  9.620168e-01     0.947363     0.749167
## 10730    1.602802  0.536536980  1.544971e+00     0.645844     0.505113
## 10731    1.705485  0.498019548  6.141039e-01     0.838645     0.726084
## 10732    1.984960  1.747588908  2.206062e+00     0.932219     0.707240
## 10733    1.784268  0.728402485  6.645338e-01     0.722256     0.691194
## 10734    1.663220  0.507661610  1.922398e+00     0.837306     0.771065
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## 10735    1.610847  0.417391968  1.018199e+00     0.773067     0.567712
## 10736    1.662134  0.678752307  2.804689e+00     0.895308     0.793962
## 10737    1.597409  0.612035378  4.401505e-01     0.899123     0.708983
## 10738    1.650333  0.423948371  2.386597e+00     0.816926     0.728626
## 10739    1.721995  0.882051850  8.724634e-01     0.910440     0.797521
## 10740    1.731693  0.648977344  5.051500e-01     0.845448     0.598661
## 10741    1.661331  0.939965299 -1.243214e-02     0.970413     0.742827
## 10742    1.608245  0.633602763  1.626587e+00     0.940340     0.696188
## 10743    1.748015  0.891041555  1.695846e+00     0.890912     0.733117
## 10744    1.779931  0.298709015  2.871454e+00     0.915964     0.802704
## 10745    1.903061  0.722739193  2.826071e+00     0.960140     0.865762
## 10746    1.567813  0.277632132  2.320256e+00     0.926406     0.709902
## 10747    1.888775  0.839280024  2.592515e+00     0.873946     0.772654
## 10748    1.692444  0.336829827  1.202062e+00     0.873249     0.759657
## 10749    1.733546  0.554733798  5.021720e-01     0.913705     0.718613
## 10750    1.679599  0.537145101  5.607303e-01     0.988523     0.897799
## 10751    1.877448  0.773608011  3.693153e-01     0.978080     0.631985
## 10752    1.640683  0.396227253  2.154738e+00     0.956664     0.896544
## 10753    1.649592  0.621067175 -3.991956e-02     0.844690     0.753072
## 10754    1.765599  0.498985598  2.751420e+00     0.923180     0.912004
## 10755    1.565457  0.421608862  2.149775e+00     0.732495     0.706385
## 10756    1.559064  0.249120055 -1.172905e-01     0.871307     0.687728
## 10757    1.704771  1.077749335  3.867957e-01     0.930579     0.811613
## 10758    1.927879  1.130729279  2.264189e-01     0.860005     0.706366
## 10759    2.200678  1.354759393  1.990297e+00     0.975227     0.860515
## 10760    1.634533  0.551987653  3.328076e-01     0.872199     0.760145
## 10761    1.736690  0.621434911  1.271735e+00     0.628656     0.526356
## 10762    1.624933  0.617586348  2.340324e+00     0.852334     0.771847
## 10763    1.723455  0.364000979  1.789861e+00     0.705010     0.550116
## 10764    1.674304  0.927605414  9.882207e-02     0.820196     0.664997
## 10765    1.767500  0.869180071  3.516207e-01     0.867865     0.754353
## 10766    1.618957  0.854230110  5.603992e-01     0.796974     0.712029
## 10767    1.746441  0.636089527 -5.188019e-02     0.956438     0.838244
## 10768    1.645635  0.659549223  1.382756e+00     0.855902     0.671040
## 10769    1.587846  0.444826759  1.923667e+00     0.941074     0.833921
## 10770    1.911806  0.977263924  9.463184e-01     0.951813     0.830114
## 10771    2.001323  1.049249043  3.022098e+00     0.979150     0.804555
## 10772    1.620719  0.799049544  8.883013e-01     0.791930     0.700311
## 10773    1.643802  0.705500223  2.074034e+00     0.816754     0.715122
## 10774    1.779632  0.810962004  3.726024e-01     0.951947     0.774847
## 10775    1.741410  0.807697351  1.261092e-01     0.949284     0.618209
## 10776    1.589837  0.756724327  2.448276e+00     0.803843     0.732463
## 10777    1.685563  0.549005716  7.813780e-01     0.876689     0.785948
## 10778    1.837896  0.537486638  1.503081e+00     0.545908     0.495011
## 10779    1.564127  0.592727329  1.729660e-01     0.930542     0.820752
## 10780    1.560045  0.424868575  2.155763e+00     0.723319     0.651581
## 10781    1.801668  0.868429883  2.272871e+00     0.925775     0.789791
## 10782    1.725173  0.682105347  2.398709e-03     0.944093     0.859578
## 10783    1.627055  0.889562761  5.255926e-01     0.867998     0.560494
## 10784    1.768614  0.874704416  3.617278e-01     0.891098     0.820034
## 10785    1.534189  0.369197297  2.039714e+00     0.871603     0.728345
## 10786    1.511039  0.445052813  2.767804e+00     0.871966     0.759750
## 10787    1.746370  0.578352642  2.685822e-01     0.823469     0.754314
## 10788    1.525458  0.591199329  2.768726e+00     0.947843     0.819311
## 10789    2.094649  1.246924296  3.006868e+00     0.926278     0.774475
## 10790    1.568720  0.450105860  5.103479e-02     0.844378     0.817011
## 10791    1.625689  0.616926903  2.174207e+00     0.821633     0.744855
## 10792    1.624366  0.848396051  4.359539e-01     0.932481     0.787238
## 10793    1.636885  0.851342753  5.863238e-01     0.808355     0.700135
## 10794    1.839429  0.890925446  1.842045e-01     0.953258     0.784020
## 10795    1.567909  0.492844168  1.643608e+00     0.960206     0.901258
## 10796    1.541072  0.503767538  2.564520e+00     0.805646     0.789297
## 10797    1.667579  0.801133993  4.808327e-01     0.845552     0.793484
## 10798    1.630534  0.771660959  2.553441e+00     0.914310     0.779259
## 10799    1.984619  1.527032819  1.068010e+00     0.763264     0.658433
## 10800    1.571455  0.686548687  3.151756e+00     0.875074     0.764791
## 10801    1.700462  0.600482813  1.132239e+00     0.919226     0.814816
## 10802    1.495432  0.460594181  2.466328e+00     0.797994     0.610663
## 10803    1.580926  0.777943463  1.204120e+00     0.957967     0.905681
## 10804    1.616436  0.849620236  8.106570e-01     0.945438     0.712246
## 10805    1.656578  0.591489785  3.055528e-01     0.884516     0.672917
## 10806    1.629586  0.664506590  4.605178e-01     0.939722     0.731447
## 10807    2.008161  0.854151734  2.735802e+00     0.893216     0.833341
## 10808    1.683527  0.410470167  4.995942e+00     0.868676     0.766782
## 10809    1.526564  0.642046843  7.956963e-01     0.736066     0.647259
## 10810    1.730245  0.487293958  1.463308e+00     0.609343     0.601911
## 10811    1.365578  0.396143531  1.947179e+00     0.466489     0.344785
## 10812    1.818943  0.680862874  4.461475e-01     0.918183     0.766277
## 10813    1.683074  0.462000961  3.059954e+00     0.979637     0.927066
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## 10814    1.597929  0.585588179  2.500927e+00     0.926979     0.811138
## 10815    1.645430  0.510235264  1.848078e+00     0.851196     0.781812
## 10816    1.599749  0.577380340  1.813047e+00     0.822289     0.664689
## 10817    1.696118  1.069131371  2.764811e-01     0.996535     0.820660
## 10818    1.602209  0.497573696  4.047075e-01     0.899444     0.738302
## 10819    1.557486  0.379604616  2.448705e+00     0.689030     0.538103
## 10820    1.698465  0.507928698  2.776776e+00     0.934696     0.827923
## 10821    1.720068  0.811457033  4.914198e-02     0.929331     0.657225
## 10822    1.539397  0.610469585  1.745993e+00     0.847507     0.752737
## 10823    1.969515  0.662359231  1.994844e+00     0.888077     0.849469
## 10824    1.804711  0.664875041  2.400930e+00     0.895691     0.760388
## 10825    1.627093  0.454355432  2.783804e+00     0.867057     0.781129
## 10826    1.558598  0.481998399  2.207060e+00     0.667642     0.610057
## 10827    1.803529  0.777213610  2.097852e+00     0.860802     0.747567
## 10828    1.789481  0.741902885  9.253976e-01     0.959380     0.812109
## 10829    1.673194  0.585417862  1.097250e-01     0.965786     0.943469
## 10830    1.985837  1.192266298  2.105667e+00     0.940121     0.744717
## 10831    1.524553  0.375954265  2.660711e+00     0.773077     0.710595
## 10832    1.718007  0.733430004  2.112364e-01     0.938013     0.838829
## 10833    1.675783  0.912348552  2.581134e+00     0.972699     0.838687
## 10834    1.730542  0.359789964  2.020966e+00     0.807743     0.773572
## 10835    1.793965  1.082613054  1.168940e+00     0.926337     0.722769
## 10836    1.928443  1.354822708  9.012959e-01     0.770305     0.546365
## 10837    1.573260  0.574238521  6.024777e-02     0.973826     0.806100
## 10838    1.620117  0.700089041  1.333629e+00     0.745201     0.674877
## 10839    1.692226  0.872278674  1.386994e+00     0.703173     0.544092
## 10840    1.934154  1.303064237  1.199243e+00     0.750588     0.600221
## 10841    1.600904  0.382159381  4.163055e-01     0.957446     0.915698
## 10842    1.647543  0.733604075  1.449337e+00     0.863290     0.764464
## 10843    1.558748  0.577677886  2.528283e+00     0.838611     0.665342
## 10844    2.098886  1.479618493  8.571200e-01     0.808425     0.639191
## 10845    1.604727  0.482052792  2.692606e+00     0.879847     0.772079
## 10846    1.631374  0.415015105  2.819047e-01     0.905071     0.811594
## 10847    1.728457  0.517401776  1.783999e+00     0.972375     0.808028
## 10848    1.717675  1.334652757  3.794388e-01     0.908625     0.790456
## 10849    1.763525  0.683324466  2.369563e+00     0.768647     0.731320
## 10850    1.550478  0.411036889  3.458935e+00     0.820768     0.729619
## 10851    1.577595  0.658386351  2.705593e+00     0.863919     0.672358
## 10852    1.562467  0.563925831  1.135856e+00     0.889304     0.800816
## 10853    1.650371  0.337682840  8.081982e-02     0.926421     0.683401
## 10854    1.552498  0.375541080  2.448253e+00     0.957357     0.800229
## 10855    1.435014  0.344739963  2.454675e+00     0.918829     0.820092
## 10856    1.627446  0.871428147  3.573924e-01     0.756861     0.707426
## 10857    1.659829  0.429039711  3.288361e-01     0.804363     0.702089
## 10858    1.806946  0.785480744  4.070401e-01     0.857482     0.776492
## 10859    1.583096  0.296836242  4.530361e-02     0.887896     0.771108
## 10860    1.678182  1.127626287 -3.120784e-02     0.955556     0.800859
## 10861    1.705187  0.743753497  3.702365e-02     0.735382     0.559489
## 10862    1.964542  1.093715785  7.553299e-01     0.931750     0.799204
## 10863    1.720943  0.947232213  2.608745e-01     0.944316     0.807467
## 10864    1.734256  0.896225745  7.221379e-01     0.691737     0.652864
## 10865    1.627556  0.553732575  6.961149e-01     0.837990     0.776651
## 10866    1.518918  0.498825886  5.517407e-01     0.816015     0.704639
## 10867    1.622733  0.419843445  2.513572e+00     0.884305     0.850900
## 10868    2.048756  1.392316999  1.103247e+00     0.710568     0.571772
## 10869    1.563615  0.322217227  2.840297e+00     0.761750     0.729483
## 10870    1.663463  0.383253291  1.891930e+00     0.877325     0.726659
## 10871    1.585545  0.298890175  2.064029e+00     0.855571     0.702249
## 10872    1.775763  1.067546942  8.894756e-01     0.802462     0.655489
## 10873    1.540214  0.459727127  9.194175e-02     0.849157     0.682897
## 10874    1.868626  1.025551623  6.666046e-01     0.875427     0.753717
## 10875    1.688637  0.687246176  1.918642e+00     0.925375     0.695502
## 10876    1.813163  0.740266344  3.105281e-01     0.910868     0.660898
## 10877    1.616222  0.542440738  1.403340e+00     0.990615     0.799665
## 10878    1.732089  0.797763890  1.596519e+00     0.944041     0.863514
## 10879    1.631630  0.814624442 -1.130468e-01     0.819920     0.752531
## 10880    1.842691  1.117476791  1.554616e-01     0.821229     0.685743
## 10881    1.488270  0.356524913  2.578219e+00     0.863313     0.725507
## 10882    1.596873  0.311149666  3.054504e+00     0.956168     0.700186
## 10883    1.772914  1.134103762  1.891205e-01     0.765282     0.672894
## 10884    1.753296  0.655007742  2.678627e+00     0.960273     0.807001
## 10885    1.892674  1.093474218  1.740129e-01     0.919985     0.738812
## 10886    1.489607  0.354895605  1.950483e+00     0.826472     0.612553
## 10887    1.686007  0.660983044  8.204531e-01     0.962447     0.706448
## 10888    1.795332  1.368889086  2.059218e-01     0.867147     0.789111
## 10889    1.560118  0.376928994  1.005394e+00     0.694877     0.648569
## 10890    1.630380  0.454465258  2.237521e+00     0.965469     0.721205
## 10891    1.897717  1.163179271  3.551911e-01     0.929689     0.690796
## 10892    1.666664  0.246178405  2.205927e+00     0.833715     0.649064
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## 10893    1.633302  0.488395584  4.791087e-01     0.705247     0.581783
## 10894    1.678864  0.799607937  4.661094e-01     0.861907     0.768029
## 10895    1.766214  0.827128147  8.715638e-01     0.947645     0.681983
## 10896    1.688085  0.779634003  4.784747e-01     0.960399     0.726004
## 10897    1.509406  0.408848569  4.713020e-01     0.829990     0.624368
## 10898    1.541867  0.338368829  2.288221e+00     0.917470     0.772117
## 10899    1.663286  0.824054205  3.055528e-01     0.852866     0.768978
## 10900    1.656645  0.870602863  9.522336e-01     0.922542     0.758988
## 10901    1.648469  0.922692768  5.062417e-01     0.809631     0.504109
## 10902    1.813270  1.237181675  3.837225e-01     0.975511     0.786754
## 10903    1.637290  0.566437492  2.499585e+00     0.926766     0.844866
## 10904    1.628473  0.815224990  4.276191e-01     0.863193     0.756929
## 10905    1.745121  0.828143462  9.649519e-01     0.834011     0.601572
## 10906    1.847855  0.759570401  1.662537e+00     0.720755     0.535728
## 10907    1.613797  0.539473811  1.996689e+00     0.904935     0.792024
## 10908    2.051160  1.651732428  1.209557e+00     0.634446     0.475465
## 10909    1.662691  0.905024796  2.247851e-01     0.896891     0.724589
## 10910    1.777662  0.844013432  2.172662e+00     0.823308     0.705554
## 10911    1.632924  0.334433644  1.588379e+00     0.924244     0.749624
## 10912    1.752598  1.637044199  1.273918e+00     0.537866     0.445867
## 10913    1.699255  0.837037646  1.483385e+00     0.984073     0.822801
## 10914    1.626144  0.561036951  1.945076e+00     0.795921     0.744624
## 10915    1.936551  1.160630573  1.058432e+00     0.897776     0.712670
## 10916    1.650530  0.303362397  1.687933e+00     0.848928     0.823736
## 10917    1.587071  0.513073700  2.691999e+00     0.811489     0.593396
## 10918    1.540393  0.313048458  2.980552e+00     0.892658     0.795700
## 10919    1.792931  0.429461577  2.797964e+00     0.938109     0.843619
## 10920    1.668512  0.766076585  2.704342e+00     0.907085     0.762070
## 10921    1.497230  0.179500086  8.600760e-01     0.939031     0.743089
## 10922    2.115950  1.055580904  2.387117e-02     0.932041     0.750352
## 10923    1.531575  0.584517795  2.339100e+00     0.764157     0.662938
## 10924    1.761384  0.425237416  4.517049e-01     0.852934     0.720620
## 10925    1.530045  0.578231079  4.341297e-01     0.814591     0.740286
## 10926    1.795505  0.689362144  2.770054e+00     0.731539     0.599236
## 10927    1.905389  1.176984985  5.754149e-01     0.914493     0.677387
## 10928    2.217647  0.525887945  2.402534e+00     0.983652     0.869538
## 10929    1.985360  1.294638146  3.185689e-01     0.969130     0.672959
## 10930    1.807077  1.089633151  3.895015e-01     0.664873     0.636260
## 10931    1.763317  0.664790475  1.687251e-01     0.904551     0.779676
## 10932    1.584545  0.802954245  5.022852e-01     0.886818     0.788446
## 10933    1.743304  0.725135413  2.264189e-01     0.967471     0.916492
## 10934    1.640639  0.612125561  2.522665e+00     0.874055     0.763732
## 10935    1.785615  0.690055133  1.781492e-01     0.912553     0.704912
## 10936    1.641638  1.007824562  6.037239e-01     0.877705     0.699635
## 10937    2.401452  1.749493599  1.720180e+00     0.741709     0.498634
## 10938    1.700873  0.921098350  4.202525e-01     0.873264     0.757204
## 10939    1.692043  0.949689030  1.363583e-01     0.821278     0.608600
## 10940    1.689804  0.835968178 -9.691001e-02     0.889306     0.716325
## 10941    1.698643  0.472784232  2.461959e+00     0.837904     0.781128
## 10942    1.584722  0.800722576  1.586181e+00     0.943347     0.823123
## 10943    1.642244  0.428649808  2.503866e+00     0.763061     0.737809
## 10944    1.686182  0.816507762  3.543041e-01     0.782902     0.617663
## 10945    1.453850  0.590038907  2.338567e+00     0.922779     0.674614
## 10946    1.716899  0.907304386  1.348911e+00     0.624547     0.500308
## 10947    1.679679  0.549997076  1.511398e+00     0.920921     0.824792
## 10948    1.524496  0.255451012  2.410287e+00     0.849767     0.686907
## 10949    1.570813  0.416813525  2.968813e+00     0.771538     0.678361
## 10950    1.498199  0.717469949  2.833752e+00     0.961873     0.809674
## 10951    2.225591  1.347562228  2.267117e-01     0.802496     0.686799
## 10952    1.649977  0.776656154  1.250434e+00     0.928020     0.804818
## 10953    1.670279  0.447613801  2.817694e+00     0.862218     0.783628
## 10954    1.726625  0.496550512  7.586461e-01     0.890470     0.675605
## 10955    1.721235  1.030595674  5.439293e-01     0.893222     0.709395
## 10956    1.724225  0.521032113  1.729660e-01     0.969286     0.793499
## 10957    1.579849  0.540573462  2.553028e+00     0.807806     0.759161
## 10958    1.779485  0.530885828  2.081461e+00     0.860082     0.780822
## 10959    1.472834  0.352564529  2.419059e+00     0.927902     0.711576
## 10960    2.159405  1.274852626  1.788342e+00     0.859192     0.780944
## 10961    1.957577  0.850212337  5.813225e-01     0.932892     0.718193
## 10962    2.032510  1.247258669  5.088392e-01     0.854296     0.591571
## 10963    1.904783  0.876734413  5.137313e-01     0.907407     0.763562
## 10964    1.989598  0.995458370  2.274940e+00     0.866843     0.828680
## 10965    1.607059  0.626301351  2.075685e+00     0.961823     0.740592
## 10966    1.562764  0.441198515  5.086240e-01     0.863304     0.811180
## 10967    1.583684  0.494951461  2.316108e+00     0.835378     0.781176
## 10968    1.609359  0.314263386  1.952698e+00     0.799562     0.719674
## 10969    2.090621  0.990925954  2.771208e+00     0.847195     0.570525
## 10970    1.692194  0.928920990  3.726024e-01     0.845214     0.682888
## 10971    1.599344  0.619677565  1.165632e+00     0.881903     0.827436
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## 10972    1.812596  0.740998662  4.720701e-01     0.883526     0.769942
## 10973    1.614168  0.366095946  3.551911e-01     0.815544     0.698724
## 10974    1.679425  1.064514144  1.750547e-01     0.920091     0.819312
## 10975    1.654563  0.796928007  8.576759e-01     0.970275     0.889867
## 10976    1.649332  0.773849318  2.540940e+00     0.886933     0.675867
## 10977    1.721346  0.504462707  2.641066e+00     0.896247     0.720881
## 10978    1.572658  0.584668124  2.011262e+00     0.931209     0.661594
## 10979    1.642435  0.503993488  2.429301e+00     0.912202     0.829119
## 10980    1.663351  0.656477684  1.756240e+00     0.934053     0.817984
## 10981    1.590223  0.364616650  2.215651e+00     0.934035     0.836170
## 10982    1.480674  0.664019229  2.318233e+00     0.737106     0.671195
## 10983    2.140687  1.676270080  1.747449e+00     0.670639     0.557594
## 10984    2.389791  1.470488404  2.708263e+00     0.633085     0.485408
## 10985    1.495170  0.337930240  2.488694e+00     0.853988     0.722597
## 10986    1.646186  1.011485860  1.878436e-01     0.825865     0.798595
## 10987    1.680722  1.526834039  8.553267e-01     0.885442     0.724391
## 10988    1.565677  0.382573520  2.397340e+00     0.941595     0.839340
## 10989    1.732769  0.283369082  2.368632e+00     0.955697     0.827745
## 10990    1.524218  0.380733890  1.822732e+00     0.848208     0.724613
## 10991    1.679026  0.682844260  1.490470e+00     0.791855     0.653768
## 10992    1.605316  0.605579761  2.271968e+00     0.914321     0.772733
## 10993    1.807230  0.472721353  2.612430e+00     0.911129     0.834366
## 10994    1.639756  0.585204589  1.840693e+00     0.953954     0.873354
## 10995    1.983409  0.920036668  3.488786e+00     0.896796     0.852675
## 10996    1.677505  0.525918998  4.381285e-01     0.869097     0.801408
## 10997    1.616847  0.922399485  4.344348e-01     0.943539     0.656034
## 10998    1.627132  0.589730724  2.270770e-01     0.929592     0.695442
## 10999    1.553151  0.892801704  1.206413e-01     0.845892     0.733295
## 11000    1.692187  0.587257356  1.136919e+00     0.966355     0.874558
## 11001    1.636600  0.857374717  4.994550e+00     0.904302     0.593365
## 11002    1.618021  0.756375910  1.207896e-01     0.845392     0.728277
## 11003    2.088575  0.943195650  2.228161e+00     0.942809     0.868587
## 11004    1.499237  0.409251575  1.598836e+00     0.510955     0.446890
## 11005    1.565743  0.422749019  2.116279e+00     0.931164     0.748487
## 11006    1.637295  1.093561758  1.851970e-01     0.897144     0.747736
## 11007    1.633002  0.495220924  5.429263e-01     0.899040     0.608539
## 11008    1.478077  0.457277701  2.722657e+00     0.887206     0.805897
## 11009    1.467075  0.453789080  2.438683e+00     0.747553     0.469314
## 11010    1.646617  0.578013100  2.084541e-01     0.884019     0.695766
## 11011    1.576637  0.583563745  2.841298e+00     0.853489     0.800800
## 11012    1.882178  1.260905768  2.892025e+00     0.888056     0.819072
## 11013    1.716068  0.559813296  1.891323e+00     0.912396     0.850554
## 11014    1.535014  0.569657104  2.021755e+00     0.958913     0.769861
## 11015    1.684404  0.474023849  2.946489e-01     0.963208     0.753826
## 11016    1.651705  0.409341269 -2.531654e-01     0.890792     0.741703
## 11017    1.663216  0.683317262  2.909416e-01     0.904510     0.860941
## 11018    1.706896  0.648025134  4.637309e-01     0.904967     0.753801
## 11019    2.287031  1.867995156  1.260624e+00     0.643969     0.576893
## 11020    1.808437  0.618620151  2.814217e+00     0.871746     0.730833
## 11021    1.643979  0.411016662  2.219283e+00     0.892326     0.801124
## 11022    1.732641  0.449149661  1.565284e+00     0.822386     0.691388
## 11023    1.886330  0.711291673  1.975895e+00     0.856185     0.597452
## 11024    1.723758  0.366958723  6.714944e-01     0.882830     0.728311
## 11025    1.718979  0.719511101  1.363583e-01     0.851251     0.800972
## 11026    1.650167  0.673686131  9.794432e-01     0.935990     0.726671
## 11027    1.703862  0.805051379  2.973283e+00     0.942150     0.815995
## 11028    1.478190  0.295844081  2.897578e+00     0.890448     0.705364
## 11029    1.610282  0.654159208  2.880692e-01     0.763667     0.711626
## 11030    1.610969  0.395002955  2.742783e+00     0.869712     0.749186
## 11031    1.659033  0.402264822  1.749593e+00     0.727955     0.679116
## 11032    1.631285  0.777899287  7.024863e-01     0.895434     0.767405
## 11033    1.726919  0.635989124  4.950653e-01     0.926900     0.723190
## 11034    1.648106  0.532031652  2.471174e+00     0.787428     0.764373
## 11035    1.609363  0.333368671  2.126481e+00     0.944450     0.876542
## 11036    2.169130  1.250354121  2.825293e-01     0.809170     0.695789
## 11037    1.722264  0.705888504  4.645267e-01     0.897781     0.766985
## 11038    1.646181  0.665353935 -6.142295e-02     0.927428     0.816315
## 11039    1.588935  0.325729064  1.089920e+00     0.954628     0.889311
## 11040    1.588903  0.512929751  1.310410e+00     0.719888     0.685199
## 11041    1.626722  1.037649564  1.428694e-01     0.970069     0.920701
## 11042    2.216654  1.537686898  2.601666e+00     0.887320     0.759330
## 11043    1.803323  1.249821826  1.113905e+00     0.808806     0.664032
## 11044    2.080558  1.000438416  6.327567e-01     0.854038     0.784659
## 11045    1.752267  0.822555763  9.137158e-01     0.925159     0.631090
## 11046    1.573612  1.236665717  9.433452e-01     0.639139     0.612037
## 11047    1.632882  0.458867398 -2.531654e-01     0.837149     0.820104
## 11048    1.946289  1.146472233  2.150622e+00     0.961872     0.812904
## 11049    1.726522  0.604383753 -5.188019e-02     0.973940     0.928400
## 11050    1.644963  0.447029275  1.759795e+00     0.911502     0.839453
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## 11051    1.653564  0.453362685  2.444256e+00     0.901730     0.805202
## 11052    1.561916  0.500041520  8.565941e-02     0.888283     0.794775
## 11053    1.637629  0.816207483  4.682016e-01     0.880133     0.750925
## 11054    1.694761  0.849094339  1.442584e-01     0.968467     0.720920
## 11055    1.636306  0.349392158  1.811987e-01     0.898246     0.795434
## 11056    1.565279  0.486339785  2.666152e+00     0.901431     0.892801
## 11057    2.037096  1.388102979  2.398709e-03     0.897274     0.701953
## 11058    1.612150  0.825476101  5.688528e-01     0.908272     0.769067
## 11059    1.519970  0.478325475  2.884621e+00     0.980890     0.879948
## 11060    1.891064  1.141434095 -3.403619e-02     0.896566     0.643555
## 11061    1.604300  0.485556761  1.229373e+00     0.888688     0.759233
## 11062    1.575084  0.555315773  8.244557e-02     0.943497     0.837547
## 11063    1.806405  0.335114743  2.711147e+00     0.909029     0.688337
## 11064    2.095365  2.040127442  1.546430e+00     0.512421     0.439475
## 11065    1.681581  0.681100069  1.851970e-01     0.842841     0.731836
## 11066    1.865124  1.889522996  1.624514e+00     0.992921     0.754559
## 11067    1.657047  0.707805994  6.470943e-01     0.949486     0.742679
## 11068    1.600743  0.485468724  2.346681e+00     0.792674     0.762533
## 11069    1.841169  1.050333347  4.796027e-01     0.949787     0.732549
## 11070    1.982491  0.945155307  1.129009e+00     0.876525     0.726678
## 11071    1.682642  0.807126924  3.354095e+00     0.922212     0.744689
## 11072    1.899947  0.785423092  1.773796e+00     0.753018     0.712747
## 11073    1.834815  0.768594448  1.863770e+00     0.954905     0.880405
## 11074    1.634411  0.815492076  2.147095e+00     0.871921     0.784696
## 11075    1.686607  0.677973576  2.768402e-01     0.897920     0.832785
## 11076    1.654062  0.735185165 -7.143442e-02     0.893766     0.858239
## 11077    1.826239  0.787157851  1.505407e+00     0.905976     0.723890
## 11078    1.612348  0.679027944  4.172991e-01     0.918142     0.706229
## 11079    1.552543  0.627238827  2.488623e+00     0.828987     0.641995
## 11080    1.630914  0.826803417  2.181198e-01     0.828998     0.673181
## 11081    1.594269  0.480050083  1.659629e+00     0.775446     0.694774
## 11082    1.965643  0.937640240  2.387649e+00     0.895101     0.663898
## 11083    1.560283  0.331560905  6.733419e-02     0.909636     0.849089
## 11084    1.724901  0.584487271  1.775424e+00     0.909473     0.844089
## 11085    1.650649  0.483547360  1.167089e-01     0.982942     0.896251
## 11086    2.062172  1.258570242  2.890540e+00     0.957178     0.749903
## 11087    1.581418  0.464894740  2.483875e+00     0.927633     0.872792
## 11088    1.625784  0.486443231  2.792674e+00     0.849459     0.775815
## 11089    1.839619  1.035325655  1.592094e+00     0.807339     0.658774
## 11090    1.583309  0.652608908  2.824265e+00     0.924426     0.830765
## 11091    1.745265  1.290980121  1.311640e+00     0.799134     0.683765
## 11092    1.617242  0.372440648  2.571652e+00     0.874110     0.646647
## 11093    1.904042  1.277226316  5.830026e-01     0.884802     0.737599
## 11094    1.785617  0.508117449  2.299747e+00     0.872724     0.578930
## 11095    1.743688  1.186976101  2.364807e+00     0.993119     0.728195
## 11096    1.716551  0.798638217  6.126105e-01     0.716731     0.690405
## 11097    1.911846  1.167142991  4.432857e-01     0.973100     0.752247
## 11098    1.756498  0.619940214  2.736291e+00     0.867881     0.850440
## 11099    1.751659  0.550502300  1.218533e+00     0.847844     0.683788
## 11100    1.648999  0.818816871  1.781492e-01     0.939705     0.696989
## 11101    2.054720  1.186167791  1.708332e+00     0.821464     0.671127
## 11102    1.502834  0.371066014  1.951286e+00     0.968237     0.588120
## 11103    1.563336  0.440589538  2.816191e+00     0.952936     0.859172
## 11104    1.510518  0.560577289  2.537160e+00     0.871649     0.741663
## 11105    1.634376  0.536044307  1.415906e+00     0.776945     0.647230
## 11106    1.775181  0.717370886  2.287317e+00     0.955753     0.738681
## 11107    1.602550  0.460382094  1.577313e-01     0.923217     0.874755
## 11108    1.668584  0.878033227  1.388439e-01     0.992506     0.756444
## 11109    1.776054  0.934844739  2.157512e-01     0.794785     0.680455
## 11110    1.657071  1.034828916  1.553196e+00     0.890579     0.499579
## 11111    1.576958  0.401347112  2.578685e+00     0.685190     0.618944
## 11112    1.727679  0.685903785  1.346928e+00     0.897979     0.805242
## 11113    1.599797  0.386670153  8.195786e-01     0.795287     0.633968
## 11114    1.565501  0.699082906  2.997740e+00     0.787148     0.711049
## 11115    1.536206  0.278401451  2.426631e+00     0.725431     0.693216
## 11116    1.608078  0.449055470  3.693153e-01     0.926143     0.820737
## 11117    1.649727  0.603325201  5.498291e-01     0.811346     0.738270
## 11118    1.756450  0.535925477  1.871990e+00     0.860629     0.812404
## 11119    1.539668  0.651434061  3.034938e+00     0.720531     0.600097
## 11120    1.625422  0.666375688  2.137214e+00     0.881163     0.769146
## 11121    1.842464  0.577318277  1.844664e+00     0.913239     0.583393
## 11122    1.641156  0.772067071  4.231655e-01     0.972065     0.648386
## 11123    1.810779  0.554226202 -2.147400e-01     0.941178     0.894094
## 11124    1.780626  0.913757179 -4.622451e-01     0.795550     0.706445
## 11125    1.767537  0.823383579  1.740129e-01     0.965266     0.835656
## 11126    1.683667  1.023058939  6.558516e-02     0.872253     0.751671
## 11127    2.096670  1.841263089  1.394523e+00     0.704097     0.608110
## 11128    1.643287  0.483826842 -3.120784e-02     0.878507     0.764028
## 11129    2.211977  1.095831625  4.999769e+00     0.894630     0.724154
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## 11130    1.587016  0.348501517  1.475676e+00     0.701515     0.463350
## 11131    1.726997  0.962327183  9.086525e-01     0.869598     0.780265
## 11132    1.760000  1.153491690  8.858218e-01     0.802306     0.612416
## 11133    1.885547  0.468409368  2.559462e+00     0.904743     0.814760
## 11134    1.706854  0.445871858  1.581703e+00     0.706690     0.641537
## 11135    1.735842  0.400278890  2.621048e+00     0.854501     0.820203
## 11136    1.946763  1.273811199  7.980581e-01     0.824142     0.799929
## 11137    1.637471  0.664150061  9.118763e-01     0.875526     0.821395
## 11138    1.762428  0.839777111  4.213220e-01     0.913625     0.809640
## 11139    1.611327  0.741684878 -3.120784e-02     0.968080     0.637357
## 11140    1.799221  1.222638447  1.003697e+00     0.933056     0.852953
## 11141    1.762008  0.620465036  2.829592e-01     0.944396     0.833441
## 11142    1.625804  0.591223819  4.839906e-02     0.935362     0.654954
## 11143    1.714825  0.737349310  2.622521e-01     0.976446     0.864118
## 11144    1.794365  1.056569477  1.116556e+00     0.951690     0.667832
## 11145    1.573159  0.366419221 -3.120784e-02     0.807590     0.586130
## 11146    1.615477  0.593283851  7.079955e-01     0.902686     0.845124
## 11147    1.521193  0.488183949  9.202554e-01     0.877543     0.775809
## 11148    1.538093  0.346564201  2.660852e+00     0.914894     0.795113
## 11149    2.321016  1.634469209  1.229274e+00     0.934665     0.704285
## 11150    1.472380  0.477310855  2.571474e+00     0.723378     0.684520
## 11151    1.773085  0.475524462  8.671718e-01     0.901084     0.690832
## 11152    1.730725  0.752918471  2.724916e+00     0.972300     0.856824
## 11153    2.020328  1.253148930  9.506341e-01     0.809706     0.705303
## 11154    1.732256  0.722524513  5.251943e-01     0.841944     0.759922
## 11155    1.804404  0.670513956  2.070107e+00     0.811998     0.659603
## 11156    1.874068  0.886406114  2.811142e+00     0.971057     0.841598
## 11157    1.787976  1.270753347  5.696639e-01     0.849554     0.640843
## 11158    1.582482  0.564263534  2.471496e+00     0.905206     0.825346
## 11159    1.572284  0.394469192  1.585398e+00     0.623676     0.463686
## 11160    2.276779  1.720536355  2.580656e+00     0.934712     0.747987
## 11161    1.562565  0.497325036  2.266138e+00     0.837061     0.778199
## 11162    1.857937  0.621776399  2.434968e+00     0.975897     0.887759
## 11163    1.651243  0.708011910  7.731872e-01     0.819823     0.722518
## 11164    1.659216  0.405249004  1.097050e+00     0.755011     0.603284
## 11165    1.988287  1.049473871  3.414596e+00     0.971999     0.920351
## 11166    1.693599  0.548012088  1.570375e+00     0.795021     0.447033
## 11167    1.523356  0.440446217  3.050679e+00     0.848623     0.761927
## 11168    2.023713  0.844824969  2.930007e+00     0.982290     0.854213
## 11169    1.630845  0.598214712  6.119879e-01     0.800342     0.684009
## 11170    1.778027  0.362263764  1.407657e+00     0.940620     0.828283
## 11171    1.762699  0.746820174  1.685499e+00     0.864145     0.783404
## 11172    1.703277  0.917305909  3.608678e-01     0.873790     0.721804
## 11173    1.621415  0.319128971  2.440423e+00     0.912969     0.821644
## 11174    1.636502  0.397875728  5.334056e-01     0.801984     0.731637
## 11175    1.619649  0.341938765  1.674835e+00     0.790520     0.703609
## 11176    1.470306  0.379715139  2.923849e+00     0.807351     0.777401
## 11177    1.627081  0.702689829  1.797475e+00     0.973617     0.834375
## 11178    1.788231  0.553512869  8.197969e-01     0.953551     0.771205
## 11179    1.613890  0.585018313  1.508469e-01     0.934834     0.803985
## 11180    1.522224  0.618753905  1.921769e+00     0.758513     0.666249
## 11181    1.640073  0.608429751  8.480450e-01     0.884983     0.692801
## 11182    1.591661  0.391390348  8.465766e-01     0.892467     0.801867
## 11183    1.658948  0.623388863  2.206441e-01     0.904824     0.742452
## 11184    1.720091  0.898908292  2.674094e+00     0.926983     0.768613
## 11185    1.836839  0.574072958  2.202106e+00     0.746582     0.641231
## 11186    2.030377  0.774394324  2.596978e+00     0.832382     0.754314
## 11187    1.554581  0.715345558 -3.120784e-02     0.948072     0.822639
## 11188    1.906284  0.624978884  2.411347e+00     0.901541     0.793327
## 11189    2.229866  0.831961868  1.281476e+00     0.916094     0.796362
## 11190    1.846658  1.064734951  2.601923e-01     0.936298     0.731498
## 11191    1.928777  1.288085943  1.875290e+00     0.943275     0.725350
## 11192    1.604757  0.851613591  3.090274e+00     0.923133     0.780730
## 11193    1.570857  0.479687576  2.865139e+00     0.893558     0.748904
## 11194    1.726196  0.600314969  1.398052e+00     0.850539     0.638344
## 11195    1.584306  0.465376902  2.378510e+00     0.928553     0.864496
## 11196    1.670645  0.895022325  4.362564e-01     0.858122     0.738313
## 11197    1.918795  1.069723582  3.185689e-01     0.929049     0.731941
## 11198    1.659790  0.691964220  3.142102e+00     0.886927     0.735783
## 11199    1.595305  0.278787886  8.668063e-01     0.843123     0.752660
## 11200    1.585950  0.890713803  3.806043e-01     0.919726     0.849069
## 11201    1.636047  0.865859333  2.723069e-01     0.892321     0.704156
## 11202    1.605902  0.383291025  2.020416e+00     0.835222     0.751899
## 11203    1.575277  0.383824339  2.028465e+00     0.874139     0.782664
## 11204    1.832423  0.672821695  2.333176e+00     0.938636     0.780327
## 11205    1.767877  1.048659285  1.769428e+00     0.794293     0.672669
## 11206    1.838355  0.514760200  2.781060e+00     0.980715     0.787709
## 11207    1.657033  0.927716736  2.892809e-01     0.776850     0.718640
## 11208    1.784156  1.208059569  9.918647e-01     0.842628     0.677649
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## 11209    1.968240  0.972612863  9.101860e-01     0.632587     0.549867
## 11210    1.606334  0.459018351  2.522369e+00     0.801068     0.740623
## 11211    1.592137  0.442860590  1.151114e+00     0.602078     0.437660
## 11212    1.676402  0.273503605  3.709652e-01     0.978334     0.794954
## 11213    2.032997  0.793101391  3.062612e+00     0.883185     0.827987
## 11214    2.220383  0.831734156  1.497265e+00     0.848242     0.619244
## 11215    1.519495  0.278616434  8.382466e-01     0.850544     0.797316
## 11216    1.632919  0.562245268  2.108327e+00     0.831654     0.738409
## 11217    1.658503  0.711104200  1.508469e-01     0.815702     0.740235
## 11218    1.724508  1.088299140  4.750546e-01     0.730413     0.671088
## 11219    1.908246  0.532373408  2.672667e+00     0.877765     0.714510
## 11220    2.140605  1.794747291  1.140853e+00     0.913702     0.601878
## 11221    1.545543  0.462594135  1.672596e+00     0.887803     0.774148
## 11222    1.783295  0.611441828  5.982683e-01     0.848290     0.592185
## 11223    1.661337  0.778388600  7.716754e-01     0.977413     0.824311
## 11224    1.672929  0.592600848  5.068940e-01     0.845194     0.718541
## 11225    1.725001  0.853144346  1.038842e+00     0.843947     0.808351
## 11226    1.583333  0.782315648  2.508644e+00     0.883397     0.795875
## 11227    1.742184  1.193628199  2.140945e-01     0.842105     0.693191
## 11228    1.753115  0.834991969  1.540878e-01     0.767640     0.638378
## 11229    1.903864  0.745575192  2.534945e+00     0.834209     0.689850
## 11230    1.549180  0.652566382  2.764382e+00     0.832459     0.618189
## 11231    1.722506  0.712260682  1.170411e+00     0.759089     0.611249
## 11232    2.107813  1.544118916  1.059785e+00     0.644145     0.558775
## 11233    1.659835  0.710611485  9.406161e-01     0.911265     0.841836
## 11234    1.789215  0.487979272  3.134674e+00     0.713618     0.675590
## 11235    1.971479  1.480804334  8.766983e-01     0.864673     0.781622
## 11236    1.627077  0.431966532  2.630904e+00     0.906347     0.779696
## 11237    1.810855  0.715339703  2.393267e+00     0.895891     0.789293
## 11238    1.680909  0.622782690  8.302089e-01     0.839792     0.746781
## 11239    1.664470  0.964694650 -9.884816e-03     0.948632     0.601380
## 11240    1.646675  1.100901025  2.560308e+00     0.831354     0.754574
## 11241    1.627557  0.274418810  4.997346e+00     0.910787     0.776150
## 11242    1.712900  0.991535732  9.243416e-01     0.727643     0.559863
## 11243    1.635627  0.499113600  1.302699e+00     0.978397     0.629454
## 11244    1.460310  0.614836073  2.859046e+00     0.885525     0.785740
## 11245    1.644794  0.681580397  8.081982e-02     0.914029     0.801439
## 11246    1.540882  0.421832529  2.540238e+00     0.865952     0.784897
## 11247    1.483486  0.340499638  2.661425e+00     0.827664     0.645000
## 11248    1.641329  0.440101110  2.763425e+00     0.908583     0.755250
## 11249    1.955507  1.271365247  3.122425e+00     0.704578     0.643374
## 11250    1.622173  1.076556707  1.695322e+00     0.867517     0.680743
## 11251    1.678238  0.680037117  2.409684e+00     0.700239     0.631046
## 11252    1.581719  0.301661435  2.269352e+00     0.985337     0.834501
## 11253    1.580957  0.579067564  2.938514e+00     0.845940     0.735391
## 11254    1.631252  0.586353218  3.006486e+00     0.689045     0.669818
## 11255    1.409764  0.447556469  2.583124e+00     0.867151     0.785142
## 11256    1.640567  1.211163274  1.198228e+00     0.902304     0.750942
## 11257    1.692789  0.332466739  2.305035e+00     0.878406     0.791400
## 11258    1.685656  0.580053233  2.271085e+00     0.838090     0.723718
## 11259    1.509607  0.495318113  2.865836e+00     0.837204     0.758626
## 11260    1.666310  0.402299220  1.768742e+00     0.785865     0.731401
## 11261    1.605362  0.598217999  1.424547e+00     0.786445     0.609588
## 11262    1.523693  0.429648941  1.618100e+00     0.841129     0.715275
## 11263    1.605031  0.419278183  1.922927e+00     0.880504     0.739640
## 11264    2.042520  0.903435114  1.752324e+00     0.852847     0.765283
## 11265    1.477583  0.503559179  2.781177e-01     0.960441     0.707726
## 11266    1.634707  0.507206642  2.544874e+00     0.856199     0.771231
## 11267    1.641673  0.508217184  1.221322e-01     0.962397     0.864826
## 11268    1.497304  0.334506024  1.974472e+00     0.923575     0.754166
## 11269    1.701247  0.542353544  2.774089e+00     0.776211     0.652590
## 11270    1.580325  0.505495919  1.009631e+00     0.901179     0.684380
## 11271    1.577162  0.882156114  7.121641e-02     0.854788     0.850353
## 11272    1.667505  0.868111675  1.610905e-01     0.929016     0.885932
## 11273    1.670976  0.382406111  1.291459e+00     0.759726     0.651412
## 11274    1.792853  0.689715431  2.768697e+00     0.906533     0.840459
## 11275    1.601152  0.525034436  2.068993e+00     0.887523     0.840690
## 11276    1.794502  0.814621115  1.594205e+00     0.851404     0.822787
## 11277    1.983349  1.245608893  9.501210e-01     0.810022     0.698050
## 11278    1.658186  0.419592308  1.588719e+00     0.884662     0.786200
## 11279    1.825044  0.540425835  4.029474e-01     0.950147     0.767986
## 11280    1.947929  1.516705885  8.988219e-01     0.904816     0.881850
## 11281    1.930189  1.208454794  9.468802e-01     0.744326     0.641090
## 11282    1.688664  0.440967299  1.849270e+00     0.874140     0.780491
## 11283    1.676775  0.921326408  3.083313e-01     0.972254     0.877837
## 11284    1.911944  0.700649211  2.435938e+00     0.824443     0.716433
## 11285    1.513515  0.280664856  2.544101e+00     0.871388     0.706879
## 11286    1.616103  0.489103103  2.166179e+00     0.978373     0.734720
## 11287    1.751602  1.286519341  9.667709e-01     0.941438     0.593323
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## 11288    2.457156  1.824648366  1.220694e+00     0.944335     0.755356
## 11289    1.626073  0.264421112  2.938332e+00     0.846613     0.782823
## 11290    1.903838  0.976988798  2.470184e+00     0.882289     0.773667
## 11291    1.644429  0.913072271  5.573066e-01     0.961563     0.830731
## 11292    1.498275  0.413531103  2.152184e+00     0.791279     0.584655
## 11293    1.654861  0.522555075  2.490707e+00     0.973884     0.900610
## 11294    1.576805  0.407013389  1.786133e+00     0.831193     0.765169
## 11295    1.762315  1.349710634  2.405391e+00     0.931163     0.781227
## 11296    1.620318  0.576440409  2.804647e+00     0.972889     0.907304
## 11297    2.132125  1.462092387  1.521904e+00     0.878875     0.719327
## 11298    1.628233  0.612451123  8.806230e-01     0.774360     0.705874
## 11299    1.640638  0.497689690 -1.710462e-01     0.975954     0.864491
## 11300    1.646230  0.795149789  1.325957e+00     0.801949     0.644982
## 11301    1.680628  1.002001820 -2.026940e-02     0.922807     0.774099
## 11302    1.501617  0.446022730  2.349477e+00     0.837765     0.766432
## 11303    1.742328  0.991335965  4.307442e-01     0.833339     0.670439
## 11304    1.685401  0.357263839  2.204648e+00     0.788859     0.671579
## 11305    1.813712  1.176259154  1.879377e+00     0.966748     0.914715
## 11306    1.595753  0.581103900  7.474111e-01     0.888672     0.841861
## 11307    1.492783  0.588476757  1.974029e+00     0.779132     0.686233
## 11308    2.066356  1.424180649  9.736449e-01     0.949321     0.703601
## 11309    1.857523  1.058353889  6.549601e-01     0.917598     0.762150
## 11310    1.786006  0.849696979  1.699242e+00     0.803904     0.795846
## 11311    1.883182  1.061791639  1.468484e+00     0.854975     0.725957
## 11312    1.594919  0.631065118  1.834095e+00     0.793980     0.724416
## 11313    1.781238  0.813503596  5.261886e-01     0.964779     0.893806
## 11314    1.739286  0.395946371  2.064435e-02     0.612084     0.555384
## 11315    1.710204  0.660000770  4.102442e-01     0.966467     0.661088
## 11316    1.539876  0.624842912  2.975877e+00     0.874186     0.776523
## 11317    1.478266  0.400897019  2.309516e+00     0.744704     0.559635
## 11318    2.033994  1.178110370  3.942897e-01     0.845978     0.635697
## 11319    1.724983  0.619055746  4.610567e-01     0.715493     0.628446
## 11320    1.572364  0.490704151  2.074958e+00     0.744796     0.705392
## 11321    1.806829  0.802485696  1.882607e+00     0.824003     0.746925
## 11322    1.652274  0.732890502  1.180780e-01     0.874898     0.752594
## 11323    1.639962  0.742388089  5.494735e-01     0.869023     0.796541
## 11324    1.573548  0.462757265  2.685356e+00     0.929475     0.846174
## 11325    1.634725  0.937837728  4.955237e-01     0.965667     0.879426
## 11326    1.540895  0.432772131  1.899598e+00     0.758048     0.684230
## 11327    1.543228  0.560764794  1.413965e+00     0.833779     0.772140
## 11328    1.577763  0.542620053  2.119243e+00     0.895487     0.827325
## 11329    1.690000  0.927467889  6.129162e-01     0.725418     0.596190
## 11330    1.713465  1.255327995  4.960383e-01     0.964842     0.785601
## 11331    1.765858  0.805405697  1.028770e+00     0.783079     0.668368
## 11332    1.604095  0.276436527  1.988301e+00     0.887690     0.756627
## 11333    1.501178  0.296237265  1.708499e+00     0.905549     0.849729
## 11334    1.602767  0.461639567  3.141012e+00     0.885630     0.720647
## 11335    1.552162  0.529395702 -5.635112e-01     0.893195     0.732854
## 11336    1.547227  0.584236212  2.815557e+00     0.794564     0.738128
## 11337    2.043406  1.134948077  2.414251e+00     0.955840     0.645504
## 11338    1.703618  0.420778971  4.998274e+00     0.878227     0.625796
## 11339    2.012445  1.254180572  4.337507e-01     0.856807     0.803691
## 11340    1.579849  0.514208951  2.688641e+00     0.842932     0.743608
## 11341    1.679385  0.381784516  1.736495e+00     0.601247     0.497215
## 11342    1.822452  0.609973051  2.969646e+00     0.903991     0.861164
## 11343    1.634367  0.431874966  1.268272e+00     0.890953     0.751422
## 11344    1.690279  0.510259408  1.336626e+00     0.875039     0.717288
## 11345    1.610259  0.611137837  7.734716e-02     0.854609     0.748405
## 11346    1.621720  0.468892073  2.241457e+00     0.804565     0.567228
## 11347    1.865100  0.475306460  2.336798e+00     0.905124     0.780328
## 11348    1.641922  0.696893463  3.529666e-01     0.925303     0.710419
## 11349    1.538271  0.524688150  2.730163e+00     0.871787     0.767411
## 11350    1.707511  0.707955761  1.904124e+00     0.890882     0.700790
## 11351    1.637760  0.569313034  2.099899e+00     0.910017     0.814130
## 11352    1.797569  0.354673039  1.376048e-01     0.850701     0.692565
## 11353    1.621453  0.448288826  2.921722e+00     0.919820     0.896974
## 11354    1.649343  1.019162003  3.083313e-01     0.846513     0.684097
## 11355    1.580953  0.462541741  5.716318e-01     0.849854     0.782002
## 11356    1.492488  0.544399223  2.464288e+00     0.743526     0.720734
## 11357    1.483118  0.465941720  2.793871e+00     0.764991     0.692211
## 11358    1.781692  0.571755402  2.542010e+00     0.848478     0.834603
## 11359    1.682013  0.504168994  2.950327e+00     0.893161     0.726129
## 11360    1.677242  0.694286599  2.606630e+00     0.833443     0.725777
## 11361    1.861218  0.929883628  2.632294e+00     0.867512     0.622333
## 11362    1.687884  0.686783690  3.457986e-01     0.894086     0.772985
## 11363    1.700732  1.163778374  8.069863e-01     0.861699     0.628688
## 11364    1.714711  1.117900732  1.261092e-01     0.918543     0.714054
## 11365    1.984314  1.160108220  4.402247e-01     0.955562     0.805038
## 11366    2.018709  1.374746514  4.460060e-01     0.781911     0.617570
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## 11367    1.669701  0.573887637  6.674273e-01     0.886759     0.619964
## 11368    1.642868  0.731385671  2.367709e+00     0.824881     0.794234
## 11369    1.669259  0.713827264  3.953914e-01     0.768663     0.689516
## 11370    1.697743  0.665619447  7.113851e-03     0.897028     0.855723
## 11371    1.950421  1.096186745  9.241235e-01     0.931125     0.797222
## 11372    1.966699  1.116753812  1.176945e+00     0.853569     0.652403
## 11373    1.996946  1.461800057  4.356509e-01     0.972184     0.645902
## 11374    1.598292  0.540651009  3.534134e-01     0.959459     0.776363
## 11375    1.900298  1.213931932  2.687834e+00     0.838658     0.794647
## 11376    1.699547  1.374924227  1.582345e+00     0.886209     0.679061
## 11377    1.692770  0.911252983  1.946995e+00     0.853722     0.807120
## 11378    1.616036  0.513124337  5.420513e-01     0.840349     0.752264
## 11379    1.506226  0.443442928  2.312514e+00     0.884861     0.729875
## 11380    1.549095  0.412413503  2.901800e+00     0.893588     0.747890
## 11381    1.764724  1.394264263  1.762595e+00     0.819450     0.692734
## 11382    1.640200  0.385647378  2.802402e+00     0.908295     0.756775
## 11383    1.995707  1.006097913  4.925933e-01     0.847332     0.775209
## 11384    1.713656  0.512660387  2.189077e+00     0.912137     0.818003
## 11385    1.490423  0.397700212  2.902290e+00     0.842204     0.727529
## 11386    2.002343  0.909444232  3.175055e+00     0.945904     0.706263
## 11387    1.677354  0.770875566 -1.549020e-01     0.901264     0.674303
## 11388    1.607336  0.442738387  2.057257e+00     0.926276     0.799617
## 11389    1.643728  0.441115166  6.010834e-01     0.927710     0.745972
## 11390    1.612679  0.646639926  5.677121e-01     0.851153     0.679142
## 11391    1.619489  0.501693116  2.281556e-02     0.960134     0.667109
## 11392    1.584045  0.487513093  2.883653e+00     0.812817     0.694441
## 11393    1.898752  0.577234364  2.288705e+00     0.796238     0.783119
## 11394    1.488572  0.319089395  1.706550e+00     0.503444     0.358051
## 11395    1.787817  1.485983911  8.746697e-01     0.762090     0.716394
## 11396    1.608315  0.606742410  7.003835e-01     0.792901     0.728630
## 11397    1.699115  0.990652695  1.149061e+00     0.901528     0.806131
## 11398    1.613914  0.693137526  4.326713e-01     0.813101     0.706012
## 11399    1.617868  0.525066845  3.003215e+00     0.781172     0.615197
## 11400    1.652569  0.532644836  1.674767e+00     0.981723     0.933215
## 11401    1.675191  0.519688892  1.167089e-01     0.842013     0.769587
## 11402    1.754461  0.748022809  2.205149e+00     0.912171     0.797806
## 11403    1.790070  1.709586236  9.121071e-01     0.573003     0.472608
## 11404    1.611342  0.401316086  6.581990e-01     0.745972     0.701948
## 11405    1.690473  0.800952715  3.864140e-01     0.967338     0.806567
## 11406    1.779371  1.047138520  3.132245e+00     0.939094     0.809832
## 11407    1.574722  0.622373615  1.039644e-01     0.913634     0.717862
## 11408    1.674485  0.361648523  2.387827e+00     0.884619     0.815125
## 11409    1.784448  0.608010136  2.677050e+00     0.929898     0.810777
## 11410    2.596793  1.785695627  2.970960e+00     0.928975     0.678228
## 11411    1.674439  0.354290958  5.167713e-01     0.890475     0.742633
## 11412    1.946386  1.149960784  2.911277e+00     0.869352     0.619009
## 11413    1.745061  0.572803085  2.690082e-01     0.937916     0.806770
## 11414    1.947165  1.763936868  7.741892e-01     0.912748     0.788931
## 11415    1.530410  0.510137333  1.388066e+00     0.639243     0.418656
## 11416    1.795094  0.616238084  4.269886e-01     0.905679     0.807720
## 11417    1.832579  0.705543858  3.460759e+00     0.943413     0.887223
## 11418    1.679301  0.523569592  3.352526e-01     0.892644     0.638353
## 11419    1.591740  0.538665459  1.078953e+00     0.918651     0.890005
## 11420    1.642263  0.529203137  9.838843e-01     0.849722     0.723200
## 11421    1.636149  0.606289982  4.982540e-01     0.948883     0.867674
## 11422    1.513431  0.488167014  6.866588e-01     0.829341     0.663717
## 11423    1.924981  1.128648012  1.061574e+00     0.761562     0.629242
## 11424    1.626541  0.564764272  3.188210e-01     0.919721     0.788197
## 11425    1.653223  0.529067007  1.807210e+00     0.787543     0.768486
## 11426    1.732864  0.850865471  5.060238e-01     0.893531     0.755761
## 11427    1.813556  0.686012081 -1.655188e-01     0.888219     0.832144
## 11428    1.579947  0.701908898  1.344838e-02     0.918529     0.838981
## 11429    1.727600  1.216139501  7.246169e-01     0.786202     0.599318
## 11430    1.599369  1.073003100  5.981266e-01     0.918224     0.814001
## 11431    1.590515  0.719296476  2.283307e-01     0.934994     0.727727
## 11432    1.529846  0.512593686  4.915951e-01     0.807603     0.761199
## 11433    1.901140  1.259189974  6.666262e-01     0.953354     0.782730
## 11434    1.797299  0.553024508  1.226007e+00     0.920039     0.626777
## 11435    1.710770  0.551415839  2.127969e+00     0.964617     0.885026
## 11436    1.756915  1.234959957  8.951461e-01     0.812802     0.597906
## 11437    1.725637  0.608631920  2.978514e+00     0.942390     0.784254
## 11438    1.596002  0.592026783  1.706201e+00     0.758643     0.557418
## 11439    1.606772  0.681584014  1.729660e-01     0.889430     0.671754
## 11440    1.754138  0.822951588  1.697934e-01     0.891391     0.698476
## 11441    1.892659  1.184787930  4.127063e-01     0.866536     0.837379
## 11442    1.667004  0.937900865  2.815854e-01     0.756241     0.704540
## 11443    1.406355  0.622357037  2.267683e+00     0.929433     0.677296
## 11444    2.053689  1.366009948  3.019292e+00     0.836202     0.677399
## 11445    1.716558  0.761927087  9.103867e-01     0.893432     0.762739
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## 11446    1.934402  0.601896014  2.515196e+00     0.818810     0.801318
## 11447    1.856913  0.680383564  2.642633e+00     0.623892     0.547469
## 11448    1.786269  0.992750960  9.788151e-01     0.838627     0.604810
## 11449    1.539074  0.868872985  3.144850e+00     0.802612     0.683557
## 11450    1.594300  0.481799377 -5.228787e-01     0.916816     0.638335
## 11451    1.792097  1.027561606  2.981533e-01     0.792344     0.664267
## 11452    1.424344  0.503168066  2.948425e+00     0.780704     0.733176
## 11453    1.753674  0.650077199  7.944266e-01     0.834904     0.669663
## 11454    1.865175  1.083885862  2.053819e+00     0.847248     0.754047
## 11455    1.604209  0.726109958  5.322536e-01     0.917187     0.872648
## 11456    1.369906  0.612045989  1.870729e+00     0.837029     0.633448
## 11457    1.588864  0.623368188  1.601034e+00     0.777701     0.647854
## 11458    1.642349  0.569788106  2.249607e+00     0.741832     0.649011
## 11459    1.578049  0.603971019  1.814603e+00     0.920140     0.826990
## 11460    1.580543  0.579403995  2.166175e+00     0.784904     0.731786
## 11461    2.017004  1.109203819  5.774543e-01     0.898769     0.665804
## 11462    1.734118  0.644269172  9.431537e-03     0.936681     0.778482
## 11463    1.753170  1.062186991  8.565941e-02     0.907859     0.634482
## 11464    1.823122  0.765758682  2.596121e+00     0.821017     0.750014
## 11465    1.631503  0.742441530  3.498172e-01     0.896982     0.684619
## 11466    1.712998  0.451209039  1.590060e+00     0.882056     0.712527
## 11467    1.690268  0.466442011  2.166539e+00     0.843526     0.681427
## 11468    1.789100  0.982055389  1.882860e+00     0.835803     0.701910
## 11469    1.635256  0.492223823  1.767647e+00     0.754326     0.639147
## 11470    1.765924  0.556158919  8.032760e-01     0.984748     0.831370
## 11471    1.482491  0.385026828  1.805584e+00     0.855269     0.795812
## 11472    1.519441  0.562259547  2.611680e+00     0.801045     0.611086
## 11473    1.671711  0.689315076 -2.618431e-01     0.898185     0.601400
## 11474    1.932626  0.933482226  2.969356e+00     0.948612     0.863067
## 11475    1.664566  0.526849532  1.337662e+00     0.907971     0.716537
## 11476    1.764057  0.809695032  2.062021e+00     0.896829     0.698177
## 11477    2.098453  0.989908788  9.223081e-01     0.717518     0.674605
## 11478    1.582768  0.793232146  2.280986e+00     0.934002     0.821567
## 11479    2.060048  1.348456742  2.714752e+00     0.835734     0.669424
## 11480    1.808717  1.073237979  2.253464e+00     0.913436     0.897275
## 11481    1.709694  0.927309783  2.191517e+00     0.830004     0.635488
## 11482    1.638577  0.654093720  1.167089e-01     0.938692     0.812505
## 11483    1.731899  1.073505732  3.517332e-01     0.869768     0.663760
## 11484    1.648782  0.426285109  2.746049e+00     0.895533     0.838957
## 11485    1.575257  0.472885110  2.165342e+00     0.883346     0.772904
## 11486    1.901393  0.847238790  2.585187e+00     0.981517     0.835373
## 11487    1.556686  0.481585936  2.982004e+00     0.699663     0.559636
## 11488    1.599667  0.382469122  2.646183e+00     0.878286     0.750079
## 11489    1.687582  0.980267960  5.878166e-01     0.733196     0.629788
## 11490    1.600459  0.450604715  9.194175e-02     0.867531     0.740936
## 11491    1.836636  1.226205382  5.745067e-01     0.908284     0.736832
## 11492    1.716683  0.855875168  4.715583e-01     0.891711     0.713480
## 11493    1.498164  0.396851171  2.276230e+00     0.948635     0.739472
## 11494    1.679534  0.461262857  2.330587e+00     0.882011     0.781601
## 11495    1.764015  0.859401317  3.024757e+00     0.822799     0.684649
## 11496    1.670534  1.005206260  1.679028e+00     0.920254     0.841763
## 11497    1.657123  0.384423311  7.509202e-01     0.856382     0.799283
## 11498    1.594234  0.504629871  2.137687e+00     0.854304     0.691631
## 11499    1.705632  1.149021941 -1.130468e-01     0.880109     0.816151
## 11500    1.744796  0.801930992  1.926582e+00     0.958873     0.796440
## 11501    1.550968  0.330042232  2.144220e+00     0.895650     0.790997
## 11502    1.902785  0.707490974  3.035866e+00     0.943966     0.897795
## 11503    1.600318  0.358347992  2.718078e+00     0.926090     0.853695
## 11504    1.442922  0.552287281  1.921969e+00     0.836389     0.735831
## 11505    1.671548  0.769658640  2.551889e+00     0.987930     0.837651
## 11506    1.463938  0.680006268  2.635239e+00     0.902444     0.677323
## 11507    1.747427  1.057114329  2.147758e+00     0.891890     0.785983
## 11508    1.537638  0.761709133  9.194175e-02     0.877307     0.821001
## 11509    2.039224  1.287167735  1.858851e+00     0.889512     0.865560
## 11510    1.730293  0.390155856  3.093989e+00     0.841535     0.803390
## 11511    1.614003  0.600515503  3.031389e+00     0.855803     0.715782
## 11512    1.621729  0.694212841  2.141071e+00     0.949282     0.776037
## 11513    1.832831  0.853074302  1.068646e-01     0.891566     0.689004
## 11514    1.577828  0.353054092  2.240080e+00     0.843997     0.802979
## 11515    1.457908  0.525230153  2.756560e+00     0.877001     0.732919
## 11516    1.599530  0.868608001  2.138441e-01     0.973431     0.839505
## 11517    1.711804  0.649789364  5.977009e-01     0.873895     0.700864
## 11518    1.580089  0.623571789  2.207085e+00     0.827023     0.736039
## 11519    1.732633  0.858449969  4.996455e+00     0.835180     0.764460
## 11520    1.672194  0.455123633 -1.088904e-01     0.943930     0.849610
## 11521    1.639943  0.588260499  2.071386e+00     0.916634     0.778937
## 11522    1.831450  0.398863205  2.285854e+00     0.759600     0.704510
## 11523    1.708593  1.134613733  5.409432e-01     0.896300     0.686951
## 11524    1.687171  0.366736657  2.386061e+00     0.733870     0.509859
```

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## 11525    1.733728  0.404760188 -3.403619e-02     0.916558     0.707728
## 11526    1.621251  0.748857565  1.568424e+00     0.687022     0.640606
## 11527    1.721614  0.536737678  1.342661e+00     0.824119     0.741797
## 11528    2.047201  1.309668486  9.328584e-01     0.948317     0.741710
## 11529    1.887708  0.950362420  8.740023e-01     0.918061     0.778271
## 11530    1.646027  0.602545044  2.533375e+00     0.739983     0.704421
## 11531    1.633354  0.444191619  8.411050e-01     0.878734     0.769115
## 11532    1.547271  0.267098949  2.301677e+00     0.898904     0.786178
## 11533    1.629735  0.969944479 -5.188019e-02     0.973270     0.653300
## 11534    1.669449  0.803895286  1.594065e-01     0.832881     0.627666
## 11535    1.681008  0.499416251  2.708451e+00     0.890293     0.827846
## 11536    1.618866  0.368792492  9.395483e-01     0.763812     0.580072
## 11537    1.641746  0.551179089  2.183715e+00     0.869207     0.749739
## 11538    1.787785  1.044504482  1.176111e+00     0.926657     0.842455
## 11539    2.054923  0.928474715  2.071687e+00     0.854758     0.755110
## 11540    1.520558  0.465184994  2.729476e+00     0.731182     0.639018
## 11541    2.110684  1.558985615  1.103337e+00     0.888192     0.633778
## 11542    1.569886  0.514493296  1.859426e+00     0.803159     0.714928
## 11543    1.876576  1.008097462  1.442948e+00     0.785364     0.645680
## 11544    1.625067  0.615367096  2.018194e+00     0.835103     0.751882
## 11545    2.138157  1.401321258  2.451657e+00     0.727101     0.532969
## 11546    1.878113  0.683054246  3.065720e+00     0.892457     0.834915
## 11547    1.839829  0.828304712  1.280170e+00     0.873676     0.679523
## 11548    1.616092  0.766882583  1.891283e+00     0.860298     0.685511
## 11549    1.570119  0.508805694  2.618951e+00     0.884441     0.808977
## 11550    1.741516  1.458950429  7.576364e-01     0.759818     0.721333
## 11551    1.998070  0.888964783  2.519782e+00     0.870210     0.814532
## 11552    1.665563  0.508147102  2.919540e-02     0.959521     0.855414
## 11553    1.659228  0.512907088  2.347483e+00     0.901102     0.883098
## 11554    1.685921  0.361716506  2.640831e+00     0.927247     0.867676
## 11555    1.705940  0.891521847  3.543041e-01     0.877939     0.727679
## 11556    1.629664  0.647008181  3.802112e-01     0.887055     0.843358
## 11557    1.998546  1.689838748  1.740479e+00     0.881520     0.818805
## 11558    1.729481  1.282157439  4.088185e-01     0.940720     0.777542
## 11559    1.740382  0.545449383  2.962440e+00     0.853339     0.821065
## 11560    1.653179  0.615157504  1.731065e+00     0.824707     0.725443
## 11561    1.527931  0.400821095  2.373718e+00     0.808494     0.609533
## 11562    1.624857  0.375608752  1.900467e+00     0.802136     0.631634
## 11563    1.896627  0.896384553  1.445308e+00     0.817343     0.734416
## 11564    1.636770  0.613439041 -1.762359e-02     0.932480     0.761702
## 11565    1.519937  0.529142783  1.751330e+00     0.749714     0.703320
## 11566    1.700973  0.811353781  3.148545e-01     0.923194     0.791919
## 11567    1.798832  0.622428526  4.109262e-01     0.661975     0.627201
## 11568    1.693407  0.540308198  3.262363e+00     0.932312     0.866606
## 11569    1.786581  1.279566570  2.563915e+00     0.886154     0.844385
## 11570    1.749895  0.362433463  1.583704e+00     0.884329     0.653149
## 11571    1.733649  0.460112698  2.658531e+00     0.875798     0.798304
## 11572    1.936980  0.881636828  2.330613e+00     0.891461     0.606350
## 11573    1.720195  0.549645641  1.746154e+00     0.738562     0.599564
## 11574    1.624461  0.244269697  1.050055e+00     0.721577     0.696140
## 11575    1.563023  0.469665936  2.370918e+00     0.850264     0.808414
## 11576    1.845211  1.150639794  1.119832e+00     0.804430     0.698265
## 11577    1.745861  1.119127166  2.439127e+00     0.854096     0.656425
## 11578    1.699976  0.685057073  4.783656e-01     0.951816     0.766407
## 11579    1.725194  0.627015412  2.213159e+00     0.905115     0.857117
## 11580    1.588567  0.604878085  2.846977e+00     0.813469     0.767990
## 11581    1.598232  0.463199953 -1.948279e-01     0.856405     0.711700
## 11582    1.782983  0.854320012  1.698877e+00     0.795245     0.695065
## 11583    1.532762  0.458276668  9.632685e-01     0.780862     0.643274
## 11584    1.803775  0.511714956  1.599109e+00     0.943353     0.926461
## 11585    1.798609  1.047037206  7.059461e-01     0.941978     0.860005
## 11586    1.731754  0.666886600  1.728989e+00     0.903906     0.772133
## 11587    1.640067  0.854893612  3.625844e-01     0.899965     0.726630
## 11588    1.966768  0.847634344  2.800948e+00     0.936104     0.910504
## 11589    1.575556  0.747146022  2.685963e+00     0.743038     0.611045
## 11590    1.643322  0.819195702  1.380517e-01     0.811588     0.664246
## 11591    1.774354  0.795932130  4.112665e-01     0.917275     0.665289
## 11592    1.774834  0.864865136  2.028486e+00     0.910237     0.815548
## 11593    1.716900  0.447485180  2.061415e+00     0.823795     0.784764
## 11594    1.765677  0.671929652  6.129162e-01     0.872993     0.601502
## 11595    1.785106  0.910009341  6.724992e-01     0.851165     0.645441
## 11596    1.743088  0.745848178  4.771213e-01     0.809262     0.566733
## 11597    1.605783  0.690626616  2.283775e+00     0.932439     0.840279
## 11598    1.628077  1.261124824  6.161991e-01     0.872132     0.670696
## 11599    1.710149  0.712837350  1.005287e+00     0.823017     0.647775
## 11600    1.515451  0.413135405  2.316661e+00     0.887457     0.831211
## 11601    1.490926  0.183634213  2.100955e+00     0.692137     0.661819
## 11602    1.768338  0.780912529  4.050578e-01     0.964782     0.865099
## 11603    1.675047  0.760907024  7.290415e-01     0.828495     0.651259
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## 11604    1.538880  0.612753137  2.532432e+00     0.930992     0.858595
## 11605    1.552467  0.500872900  2.391348e+00     0.969603     0.855332
## 11606    1.819743  0.527812859 -5.188019e-02     0.832948     0.670886
## 11607    1.613960  0.640530131  2.422772e+00     0.850491     0.776741
## 11608    1.589522  0.417126113  2.480696e+00     0.983942     0.796572
## 11609    1.684753  0.581154031  2.721836e+00     0.847180     0.777875
## 11610    1.521048  0.354966571  3.101796e+00     0.867082     0.777478
## 11611    1.581296  0.486107295  2.718911e+00     0.922296     0.754238
## 11612    1.883062  0.994474210  8.172540e-01     0.989855     0.708357
## 11613    1.648889  0.460234624  2.761985e-01     0.988519     0.709796
## 11614    1.510619  0.369202866 -1.886110e-01     0.947897     0.713249
## 11615    2.066773  1.516867083  8.897316e-01     0.746463     0.709517
## 11616    1.971093  1.210936207  3.806043e-01     0.940869     0.729643
## 11617    1.654868  0.673237539  8.565941e-02     0.895734     0.871939
## 11618    1.650467  0.504145870  1.163222e+00     0.843286     0.801121
## 11619    1.639678  0.830470617  3.341265e-01     0.908503     0.807995
## 11620    1.683242  0.623855845  2.889203e+00     0.775370     0.566770
## 11621    1.608024  0.719776956  1.554616e-01     0.938271     0.808680
## 11622    1.719683  1.106374507  2.089592e+00     0.863211     0.772297
## 11623    1.859908  1.467286890  2.643798e+00     0.620763     0.558282
## 11624    1.582032  0.743445478  2.843462e+00     0.782245     0.620188
## 11625    1.638257  0.593217372  1.591824e-01     0.962239     0.893497
## 11626    1.665217  1.244962048  4.683993e-01     0.949629     0.640540
## 11627    1.763088  0.395186557  8.199990e-01     0.949312     0.677903
## 11628    1.865261  1.131977755  3.790278e-01     0.819090     0.740459
## 11629    1.645999  0.333966908  2.236816e+00     0.901226     0.836661
## 11630    1.844635  0.579765310  3.277731e+00     0.845841     0.780305
## 11631    1.628819  0.772349583  2.690082e-01     0.969728     0.714596
## 11632    1.757750  0.501526186  1.702807e+00     0.846440     0.774423
## 11633    1.838383  0.925699277  1.785203e+00     0.905933     0.766982
## 11634    1.608047  0.825665595  8.215592e-01     0.831112     0.701901
## 11635    1.617157  0.677962637  2.775332e+00     0.883355     0.751534
## 11636    1.709339  0.871748019  1.910551e-01     0.903111     0.874425
## 11637    1.638727  0.460276764  2.528446e+00     0.778992     0.673885
## 11638    1.776723  0.581099342  2.104381e+00     0.804070     0.638254
## 11639    1.548296  0.322333024  3.108016e+00     0.906609     0.595800
## 11640    1.817358  1.430387919  7.889399e-01     0.679656     0.516209
## 11641    1.735841  0.468156731  2.409098e+00     0.854024     0.807294
## 11642    1.622177  0.953732638  1.842575e+00     0.878015     0.687857
## 11643    1.583114  0.428202850  2.820997e+00     0.797722     0.753759
## 11644    1.765867  0.680982393  1.273818e+00     0.693159     0.638092
## 11645    1.953628  1.222794481  7.225164e-01     0.960365     0.687628
## 11646    1.546540  0.539022122  2.789102e+00     0.966438     0.610821
## 11647    1.930225  0.927348288  1.700065e+00     0.842722     0.793274
## 11648    1.650502  0.516347602  1.864979e+00     0.898188     0.754868
## 11649    1.561246  0.551357274  2.651188e+00     0.820796     0.766408
## 11650    1.925350  1.576396641  1.130070e+00     0.873394     0.557513
## 11651    1.656944  0.589174101  2.121092e-01     0.935810     0.873259
## 11652    1.696306  0.964823234  3.774396e-01     0.607953     0.571719
## 11653    1.642602  0.586552425  2.238266e+00     0.807230     0.763122
## 11654    1.694558  0.475217775  1.843217e+00     0.837707     0.695736
## 11655    1.531743  0.400128541  1.425177e-01     0.707148     0.657062
## 11656    1.510883  0.430394367  3.044115e+00     0.883347     0.738204
## 11657    1.505680  0.413054880  2.852036e+00     0.855491     0.798707
## 11658    1.700614  0.360824320  1.152981e+00     0.832563     0.649701
## 11659    1.588375  0.379367167  2.483258e+00     0.888490     0.715294
## 11660    2.049710  1.610199013  1.287504e+00     0.948695     0.639455
## 11661    1.638372  0.449041571  2.344032e-01     0.971771     0.880521
## 11662    1.750035  0.914706945  7.345829e-01     0.764952     0.655827
## 11663    1.531939  0.166909438  2.071498e+00     0.875231     0.692791
## 11664    1.745702  0.379358101  2.798932e+00     0.810899     0.688591
## 11665    1.493017  0.439839338  2.876974e+00     0.742686     0.707787
## 11666    1.640869  0.840874216  3.738220e-01     0.909969     0.853045
## 11667    1.632895  0.479778231  2.601823e-01     0.891090     0.807407
## 11668    1.598473  0.805269037  2.280219e+00     0.717419     0.687897
## 11669    1.748562  0.410194973  2.043535e+00     0.957133     0.866185
## 11670    1.618906  0.360973775  3.551911e-01     0.896175     0.641818
## 11671    1.691162  0.420803693  2.175840e+00     0.919373     0.853322
## 11672    1.708254  0.720428069  2.587912e-01     0.937025     0.844074
## 11673    1.940310  1.589791038  1.310159e+00     0.720598     0.564525
## 11674    1.879359  1.202858699  6.090440e-01     0.699031     0.508957
## 11675    1.650119  0.672862282  2.447929e+00     0.831128     0.814171
## 11676    1.665487  0.688934796  2.653100e+00     0.892752     0.834011
## 11677    2.034861  1.107250683  3.013909e+00     0.804613     0.764001
## 11678    1.595212  0.504459988  6.612081e-01     0.827160     0.643373
## 11679    1.609585  0.601992670  3.252989e-01     0.862992     0.763582
## 11680    1.713255  0.653875031  1.123183e+00     0.719845     0.633755
## 11681    2.135781  1.050437761  4.769780e-03     0.991231     0.737177
## 11682    2.059014  1.079709316  2.613886e+00     0.957225     0.644473
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## 11683    1.714056  0.981808644  5.703526e-01     0.909361     0.901090
## 11684    1.555718  0.487917143  2.537763e+00     0.977300     0.806960
## 11685    1.791677  0.416237641  4.068007e-01     0.935436     0.748225
## 11686    1.522887  0.332807958  2.483360e+00     0.826907     0.665904
## 11687    1.997286  1.046842305  1.963534e+00     0.754424     0.673348
## 11688    1.926177  1.273658586  9.115845e-01     0.904274     0.718753
## 11689    1.975967  1.060595864  1.499698e+00     0.985474     0.762216
## 11690    1.683629  0.886921422  2.713161e-01     0.917386     0.738304
## 11691    1.537677  0.594043206  2.320475e-01     0.971034     0.744397
## 11692    1.682368  0.421141420  2.687805e+00     0.972289     0.777513
## 11693    1.672657  0.846812596  5.635877e-01     0.894901     0.763799
## 11694    1.637596  0.744880253  2.030730e+00     0.966777     0.842091
## 11695    1.760204  0.606287831  3.111241e+00     0.860755     0.743703
## 11696    1.624177  0.352967399  3.608678e-01     0.912797     0.801606
## 11697    1.601139  0.382276461  2.024706e+00     0.769706     0.707808
## 11698    2.374062  0.476137187  3.179866e+00     0.923134     0.741088
## 11699    1.748347  0.825881596  1.329822e+00     0.847212     0.682039
## 11700    1.706714  0.433331319  1.870228e+00     0.945239     0.671789
## 11701    1.602699  0.680433423  3.625844e-01     0.901958     0.848432
## 11702    1.453719  0.393731346  2.471285e+00     0.707322     0.670212
## 11703    1.642090  0.547008786  2.256036e-01     0.933132     0.746425
## 11704    1.676588  0.668115563  1.376048e-01     0.932602     0.753244
## 11705    1.796606  1.020568435  1.968952e+00     0.828795     0.613472
## 11706    1.730837  0.543301770  1.750547e-01     0.913465     0.891109
## 11707    1.481546  0.348445061  2.861349e+00     0.858601     0.639172
## 11708    1.645322  0.365137787  1.851414e+00     0.849900     0.663814
## 11709    1.681799  1.060777139  9.073426e-01     0.839694     0.678188
## 11710    1.558557  0.424932247  1.420818e+00     0.886306     0.735109
## 11711    1.714641  1.074454378  3.994761e-01     0.941320     0.694964
## 11712    1.765577  1.149468529  8.927891e-01     0.816309     0.761071
## 11713    1.737189  0.664485902  2.129785e-01     0.834440     0.808280
## 11714    1.519639  0.473377470  2.361865e+00     0.884488     0.829276
## 11715    1.610255  0.515685785  1.946488e+00     0.714795     0.564131
## 11716    1.481585  0.331925083  2.919843e+00     0.833830     0.650479
## 11717    1.630381  0.494378643 -2.147400e-01     0.899153     0.808307
## 11718    1.775468  1.063682306  1.161980e+00     0.757566     0.562942
## 11719    1.731809  0.609190872  3.121609e-01     0.985570     0.711401
## 11720    1.785252  0.943881647  9.778938e-01     0.953041     0.653712
## 11721    1.707637  1.038798929  6.607554e-01     0.784815     0.552091
## 11722    1.456445  0.347720217  1.263939e+00     0.732279     0.582014
## 11723    1.623969  1.691151363  1.470679e+00     0.743982     0.482651
## 11724    1.785705  0.952698989  1.062660e+00     0.960690     0.722281
## 11725    1.586372  1.083910923  3.428922e-01     0.931820     0.766966
## 11726    1.758045  1.184484169  1.140728e+00     0.910633     0.588693
## 11727    1.651074  0.939772268  6.782365e-01     0.886247     0.862183
## 11728    1.544337  0.543427298  1.831668e+00     0.845201     0.700537
## 11729    1.757721  0.894587966  6.543326e-01     0.876444     0.679371
## 11730    1.912113  1.532397627  1.221519e+00     0.760486     0.554541
## 11731    1.597455  0.453223519  2.703185e+00     0.936838     0.837902
## 11732    1.747220  0.657845283  3.179842e-01     0.905985     0.835497
## 11733    1.738403  0.972862113  2.800026e+00     0.856970     0.759598
## 11734    1.516658  0.347710466  2.802979e+00     0.795692     0.601256
## 11735    1.690900  0.890442817  2.013880e-01     0.986493     0.774292
## 11736    1.643633  1.130848183  6.383424e-01     0.963334     0.829017
## 11737    1.981738  0.729388361  2.456172e+00     0.928790     0.911117
## 11738    2.077063  1.613197828  1.279821e+00     0.976150     0.824118
## 11739    1.694229  0.756800364  2.456448e+00     0.856411     0.777978
## 11740    1.939999  1.037987929 -1.130468e-01     0.922289     0.786230
## 11741    1.687785  1.022395375  1.049375e+00     0.814569     0.681857
## 11742    1.847743  0.895285495  3.410836e-01     0.910229     0.854574
## 11743    1.548396  0.864663532  2.304220e+00     0.941182     0.883640
## 11744    1.915769  1.010410213  6.657786e-01     0.868143     0.823522
## 11745    1.755429  0.724867909  2.115393e+00     0.930241     0.897828
## 11746    1.612629  0.727353347  3.506643e+00     0.849955     0.768164
## 11747    1.837515  1.383820750  4.583485e-01     0.807578     0.687643
## 11748    1.667009  0.939210644  3.802112e-01     0.983952     0.803814
## 11749    1.644134  0.954282077  6.183005e-01     0.962548     0.940705
## 11750    1.648528  0.495177877  2.086955e+00     0.943288     0.718169
## 11751    2.255926  0.850897918  4.637309e-01     0.901045     0.746688
## 11752    1.640611  0.636019247  1.839564e+00     0.870698     0.802071
## 11753    1.703756  0.758664410  2.581116e+00     0.863757     0.717811
## 11754    1.641199  0.543388773  3.386288e-01     0.964917     0.693418
## 11755    1.796799  0.998551386  2.070458e+00     0.632567     0.557986
## 11756    1.897397  0.815240275  1.619675e+00     0.852013     0.664872
## 11757    1.511834  0.492736649  1.554616e-01     0.745939     0.656471
## 11758    1.859766  1.148806183  2.672611e+00     0.857081     0.774761
## 11759    1.897224  0.835431185  1.312780e+00     0.836345     0.695616
## 11760    1.624886  0.405351484  3.014750e+00     0.924999     0.670099
## 11761    1.680040  0.720642136  2.312457e-01     0.798079     0.721731
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## 11762    1.639582  0.865150186  1.012610e+00     0.769358     0.585604
## 11763    1.517903  0.654378716  1.915315e+00     0.871769     0.645760
## 11764    1.617577  0.634905308  2.433277e+00     0.861979     0.749096
## 11765    1.672118  0.588529405  2.968296e+00     0.919189     0.881288
## 11766    1.533519  0.421439390  2.626939e+00     0.888234     0.738470
## 11767    1.650744  0.346302108  9.953690e-02     0.859408     0.690197
## 11768    1.628096  0.691368863  7.747508e-01     0.881094     0.799075
## 11769    1.567874  0.670148404  3.308312e-01     0.937904     0.823583
## 11770    2.123927  1.356947038  9.160091e-01     0.915829     0.645339
## 11771    2.116628  1.294574235  9.340625e-01     0.725548     0.630143
## 11772    1.688882  0.571316276  5.349345e-01     0.971765     0.819460
## 11773    1.622001  0.387193994  1.694567e+00     0.859054     0.694678
## 11774    2.089308  0.875061263  3.257876e+00     0.884792     0.832567
## 11775    1.730723  0.932584354  1.498007e+00     0.857630     0.761757
## 11776    2.461586  1.635693806  1.234789e+00     0.767807     0.708726
## 11777    1.831468  0.855789824  3.045931e+00     0.888731     0.734916
## 11778    1.971781  1.567896437  1.906719e+00     0.869413     0.638068
## 11779    1.707218  0.571514345  1.645945e+00     0.858180     0.687317
## 11780    1.667572  1.162424000  2.874608e-01     0.640250     0.554273
## 11781    1.833551  0.550923890  2.170001e+00     0.873223     0.770193
## 11782    1.581364  0.604065053  5.187195e-01     0.953272     0.741965
## 11783    2.093050  1.380710393  1.213663e+00     0.741197     0.584890
## 11784    1.685375  0.584146836  1.909370e+00     0.845206     0.575056
## 11785    1.542372  0.416870074  2.259949e+00     0.780533     0.737896
## 11786    2.140643  0.451169084  2.617565e+00     0.912382     0.865341
## 11787    1.642956  0.407333108  3.056192e+00     0.883793     0.834466
## 11788    1.759781  1.042701491  1.963271e+00     0.783242     0.702136
## 11789    1.852028  0.973271517  4.705852e-01     0.976848     0.686087
## 11790    1.684607  0.452206715  2.851914e+00     0.978573     0.788303
## 11791    2.021772  1.383612528  2.157182e+00     0.831460     0.760878
## 11792    1.641325  0.465146305  8.536481e-01     0.818593     0.655583
## 11793    1.483824  0.329542281  2.812783e+00     0.778856     0.634908
## 11794    1.547027  0.326376830  2.993443e+00     0.871267     0.753183
## 11795    1.895628  1.408667264  3.386288e-01     0.914048     0.817160
## 11796    1.486144  0.455135816  1.182686e+00     0.980002     0.856316
## 11797    1.523951  0.451809454  9.194175e-02     0.872326     0.827173
## 11798    1.508095  0.413584729  2.763105e+00     0.882144     0.719922
## 11799    1.692392  0.558383328  2.563046e+00     0.935868     0.793595
## 11800    1.953794  1.252967049  9.225280e-01     0.885485     0.653478
## 11801    1.774806  0.643848296  1.155518e-01     0.888177     0.641733
## 11802    1.837071  0.632353008  7.704709e-01     0.839205     0.783894
## 11803    1.638558  0.516466622  2.092791e+00     0.871439     0.714749
## 11804    2.111750  1.232800507  6.444877e-01     0.848872     0.753506
## 11805    1.558610  0.483942289  2.798284e+00     0.747107     0.673689
## 11806    1.665663  0.714780588  6.688596e-01     0.685272     0.521983
## 11807    1.831188  1.017867719  5.390836e-01     0.918607     0.724990
## 11808    1.650432  0.529367464  1.986199e-01     0.972840     0.884443
## 11809    1.766108  0.702257301  1.012601e-01     0.900407     0.841066
## 11810    1.628154  0.615739689  4.244475e-01     0.838338     0.708871
## 11811    1.655581  1.232823374  8.845151e-01     0.832815     0.732351
## 11812    2.403637  1.756095756  1.287831e+00     0.961213     0.672641
## 11813    1.619617  0.367601889 -3.240698e-01     0.932401     0.780253
## 11814    1.609727  0.454527786  2.668143e+00     0.968738     0.846549
## 11815    1.635376  0.590542026  1.654871e-01     0.864300     0.787512
## 11816    1.508526  0.553614846  3.308312e-01     0.936793     0.842748
## 11817    1.880879  0.546790585  1.974461e+00     0.901798     0.876648
## 11818    1.798703  0.754846571  2.115766e+00     0.956469     0.776347
## 11819    1.627487  0.512234663  5.027284e-01     0.888230     0.798251
## 11820    1.640005  0.403858024  1.999811e+00     0.867964     0.785697
## 11821    1.605555  0.442277469  2.686843e+00     0.855146     0.829702
## 11822    1.677953  0.680269322  4.228438e-01     0.848622     0.722128
## 11823    1.911281  0.847157290  9.605737e-01     0.875042     0.803028
## 11824    1.496582  0.249582324  2.795211e+00     0.794126     0.695387
## 11825    1.725262  0.529836994  1.893760e+00     0.798979     0.750307
## 11826    1.497096  0.253318617  3.007949e+00     0.751545     0.723299
## 11827    1.662679  0.785447292  3.264423e-01     0.675239     0.577819
## 11828    1.729863  0.787143671  2.431049e+00     0.848652     0.835107
## 11829    1.643876  0.660955552  2.142788e+00     0.840581     0.788983
## 11830    1.850964  1.757685209  1.268533e+00     0.919181     0.683154
## 11831    1.582045  0.128114816  1.914940e+00     0.753026     0.666683
## 11832    1.681814  0.686956957  1.346419e+00     0.989776     0.915223
## 11833    1.591187  0.587030374  1.312966e-01     0.945077     0.912259
## 11834    1.530116  0.432898772  2.591490e+00     0.935425     0.742707
## 11835    1.710518  1.100990523  3.127023e-01     0.926367     0.640491
## 11836    1.624985  0.390336215  9.967291e-01     0.851733     0.756195
## 11837    1.587138  0.589034274  7.342823e-01     0.881717     0.722771
## 11838    1.675787  0.686106035  5.027284e-01     0.909534     0.794232
## 11839    1.646508  0.595281226  2.723069e-01     0.938363     0.895423
## 11840    1.644203  0.520074593  1.695444e+00     0.940422     0.884024
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## 11841    1.598097  0.353695086  1.927182e+00     0.725959     0.701930
## 11842    1.694534  0.689118758  3.283563e+00     0.969695     0.890627
## 11843    1.634025  0.482523435  1.740129e-01     0.974215     0.751105
## 11844    1.548893  0.300106138  2.108392e+00     0.810143     0.739778
## 11845    1.631490  0.454700071  1.914088e+00     0.799617     0.712532
## 11846    1.601270  0.532960652  2.502726e+00     0.870859     0.725251
## 11847    1.524397  0.310255612  2.701031e+00     0.844752     0.696030
## 11848    1.623217  0.445840744  1.363583e-01     0.981862     0.802390
## 11849    1.768059  0.818984256  1.931401e-01     0.839851     0.718236
## 11850    1.671432  0.345089336  2.017394e+00     0.895221     0.840074
## 11851    1.580021  0.531463589  1.855240e+00     0.866861     0.745300
## 11852    1.653639  0.757412732  1.912325e+00     0.946978     0.675294
## 11853    1.647673  0.534471601 -5.501178e-02     0.902280     0.861495
## 11854    1.622360  0.740924540  2.595095e+00     0.888808     0.685423
## 11855    1.823134  0.950791150  7.331512e-01     0.870881     0.784612
## 11856    1.846817  0.732099305  2.528697e+00     0.873607     0.848954
## 11857    1.714411  0.691057610  1.485008e-01     0.896360     0.765149
## 11858    1.731358  0.556641360  2.646152e+00     0.867757     0.845065
## 11859    1.712959  0.807086296  1.426942e+00     0.856940     0.751067
## 11860    1.810751  0.928681532  6.353169e-01     0.974625     0.772956
## 11861    1.848795  0.824985758  2.129785e-01     0.897669     0.702165
## 11862    1.584658  0.509750759  2.612723e+00     0.939047     0.714485
## 11863    1.865334  0.488860816  2.312644e+00     0.950095     0.777832
## 11864    1.686952  0.521658402  1.919869e+00     0.765560     0.652913
## 11865    1.801701  1.061493946  5.143010e-02     0.891222     0.766435
## 11866    1.773022  0.542734576  2.356855e+00     0.861570     0.724763
## 11867    1.982035  1.114661015  1.707862e+00     0.825894     0.763748
## 11868    1.667317  0.545526064  1.798039e+00     0.782856     0.605015
## 11869    1.624272  0.609977316  5.521295e-02     0.829010     0.736632
## 11870    1.783784  0.468308922  2.994176e+00     0.855813     0.786398
## 11871    1.720202  1.172308048  5.876678e-01     0.805415     0.681793
## 11872    2.139454  1.395001206  1.056500e+00     0.859116     0.716194
## 11873    1.591629  0.446041391  2.934460e+00     0.930413     0.753593
## 11874    1.811552  0.690394569  2.820045e+00     0.786696     0.683855
## 11875    1.622550  0.495946533  2.685271e+00     0.853750     0.800967
## 11876    1.856136  0.659193359  2.548636e+00     0.964680     0.901297
## 11877    2.006196  0.510384131  2.695768e+00     0.434069     0.410103
## 11878    1.654716  0.489750418  2.569749e+00     0.889236     0.806693
## 11879    1.829165  0.533529304  2.678983e+00     0.936776     0.801924
## 11880    1.633723  0.523856977  1.372192e-01     0.867013     0.782163
## 11881    1.607538  0.438792253  5.020632e-01     0.960617     0.844205
## 11882    1.858768  0.558835721  2.589757e+00     0.933071     0.832205
## 11883    1.794108  0.566461062  6.926024e-01     0.902984     0.636486
## 11884    1.497491  0.628353163  2.710301e+00     0.906267     0.726156
## 11885    1.641187  0.395993488  1.520219e+00     0.796121     0.747460
## 11886    1.420659  0.517929223  2.123576e+00     0.725762     0.650109
## 11887    1.712470  0.620322439  7.479058e-01     0.932148     0.812319
## 11888    1.637078  1.121490903  3.033035e-01     0.745096     0.620992
## 11889    1.582486  0.657669554  3.516207e-01     0.703885     0.663392
## 11890    1.580930  0.385406059  2.398244e+00     0.912307     0.703120
## 11891    1.707119  0.552781337  1.997415e+00     0.913491     0.800332
## 11892    1.837735  0.536232600  2.922319e+00     0.879115     0.663745
## 11893    1.654590  0.798435862  2.276948e+00     0.883280     0.702854
## 11894    1.639838  0.722736726  1.977851e+00     0.977102     0.737773
## 11895    1.714426  0.679586867  5.405726e-01     0.971386     0.822114
## 11896    1.642457  0.409095835  2.111576e+00     0.808251     0.585735
## 11897    1.536164  0.693027471  2.499878e+00     0.824326     0.807758
## 11898    1.657217  0.545372689  2.448696e+00     0.709973     0.662534
## 11899    1.526129  0.649088429  1.669066e+00     0.974031     0.876991
## 11900    1.700311  0.957164148 -3.367184e-01     0.952604     0.716324
## 11901    1.720354  0.946404608  1.009819e+00     0.824568     0.678642
## 11902    1.565930  0.689232473 -2.804499e-01     0.910733     0.671168
## 11903    1.997688  1.280154795  8.957232e-01     0.926880     0.703219
## 11904    1.521411  0.474538222  2.099841e+00     0.790875     0.704832
## 11905    1.612253  0.396593347  2.796716e+00     0.965142     0.670750
## 11906    1.676104  0.514531815  2.985400e+00     0.841053     0.751802
## 11907    2.326565  1.298927271  2.103835e+00     0.864688     0.804230
## 11908    1.644362  0.573117710  1.389783e+00     0.852953     0.780865
## 11909    1.622517  0.544795808  2.072902e+00     0.891542     0.850749
## 11910    1.546319  0.776738947  6.768941e-01     0.855674     0.829866
## 11911    1.634668  0.597699573  2.768402e-01     0.916934     0.824277
## 11912    1.789325  0.592298920  2.840356e+00     0.970837     0.916020
## 11913    1.801817  0.510091713  1.968014e+00     0.792626     0.735383
## 11914    1.546469  0.325024855  2.656861e+00     0.815604     0.629907
## 11915    1.461742  0.332303101  1.924660e+00     0.721478     0.603493
## 11916    1.929502  0.454794570  2.516863e+00     0.926752     0.880905
## 11917    1.468848  0.083491870  2.283998e+00     0.966377     0.612600
## 11918    1.591091  0.446586869  2.012297e+00     0.858958     0.771002
## 11919    1.532025  0.493092616  2.465445e+00     0.884877     0.778695
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## 11920    1.582105  0.530125388  1.811223e+00     0.864117     0.735224
## 11921    1.689029  0.463580961  2.631512e+00     0.822966     0.788037
## 11922    1.597447  0.429724833  1.326239e+00     0.876752     0.723480
## 11923    1.698603  0.954225137  3.320637e-01     0.847359     0.748504
## 11924    1.744661  0.523595608  2.388408e+00     0.786937     0.726406
## 11925    1.744809  1.096729309  3.573924e-01     0.910130     0.726802
## 11926    1.711479  0.734340498 -4.500489e-02     0.918667     0.759519
## 11927    1.618874  0.366224911  1.759999e+00     0.878599     0.699380
## 11928    1.580635  0.538478219  2.310336e+00     0.940115     0.774713
## 11929    1.706113  0.407246399  1.789826e+00     0.789853     0.648423
## 11930    1.698311  0.559053949  1.117182e+00     0.759512     0.655480
## 11931    1.842066  0.962265604  7.314814e-01     0.906402     0.829008
## 11932    1.654736  0.676443018  5.375841e-01     0.980637     0.610942
## 11933    1.886433  1.105894918  6.515888e-01     0.898145     0.768917
## 11934    1.726695  1.133455874  6.411449e-01     0.993645     0.954681
## 11935    1.532698  0.549144323  2.871110e+00     0.863683     0.643826
## 11936    1.937757  1.115680393 -1.260554e-01     0.939602     0.914847
## 11937    1.551343  0.511812532  6.602253e-01     0.871881     0.721118
## 11938    1.627759  0.390807978  1.902011e+00     0.785256     0.729111
## 11939    1.582113  0.320133818  2.744266e+00     0.832441     0.612300
## 11940    1.679470  0.519922452  2.603648e+00     0.886209     0.712910
## 11941    1.511374  0.229374631  2.797035e+00     0.901914     0.670155
## 11942    1.671584  0.476222784  2.265331e+00     0.938029     0.743327
## 11943    1.740251  0.340388585  2.529288e+00     0.954119     0.790742
## 11944    1.431631  0.515245781  7.202195e-01     0.684490     0.679457
## 11945    1.688386  0.418011112  1.610905e-01     0.973013     0.743235
## 11946    1.639900  0.616200251  2.898600e-01     0.947715     0.857608
## 11947    1.713734  0.899623001  4.800956e-01     0.713158     0.542598
## 11948    1.584225  0.561599820  4.561569e-01     0.787298     0.696130
## 11949    1.777411  0.375623383  2.739707e+00     0.948360     0.720046
## 11950    1.544826  0.616612030  2.807332e+00     0.863549     0.725569
## 11951    1.850953  0.575413019  2.568509e+00     0.876351     0.826725
## 11952    1.696533  0.867133831  2.387498e+00     0.933539     0.807557
## 11953    2.029461  1.068764535  2.945579e+00     0.932317     0.849972
## 11954    1.604578  0.412870288  2.776176e+00     0.867938     0.842832
## 11955    1.536508  0.362944044  2.928811e+00     0.942188     0.646895
## 11956    1.791064  1.355361472  5.965614e-01     0.878229     0.603874
## 11957    1.847174  0.686051455  1.589075e+00     0.936077     0.754602
## 11958    1.719621  0.532550557  1.781492e-01     0.955544     0.911283
## 11959    1.577169  0.921638622  4.994800e+00     0.864337     0.637792
## 11960    1.521849  0.820130495  3.083313e-01     0.932853     0.879891
## 11961    1.544889  0.768644760  3.371393e-01     0.959149     0.838053
## 11962    1.445758  0.419973913  2.417448e+00     0.708558     0.664911
## 11963    1.594159  0.697466483  6.944016e-01     0.921119     0.890500
## 11964    1.584790  0.501568609  2.148587e+00     0.921596     0.862110
## 11965    1.947953  0.549138191  2.784486e+00     0.833950     0.774953
## 11966    1.687054  0.495548500  2.720665e+00     0.991172     0.859904
## 11967    1.625661  0.875016674  2.375141e-01     0.912046     0.846613
## 11968    1.683462  0.502099227  9.501316e-02     0.972034     0.756083
## 11969    1.720910  0.797326412  2.889493e+00     0.820129     0.702320
## 11970    1.672683  0.826566509  4.182881e-01     0.758021     0.688832
## 11971    1.626322  0.536350083  2.064435e-02     0.831138     0.761946
## 11972    1.602756  0.824895422  1.446505e+00     0.882270     0.622347
## 11973    1.667379  0.494513574  1.137186e+00     0.931219     0.837675
## 11974    1.583860  0.519883097  2.811754e+00     0.836316     0.725719
## 11975    1.634263  0.681174278  2.311214e+00     0.876456     0.727883
## 11976    1.656006  0.768994565  1.273534e+00     0.733942     0.636727
## 11977    1.572996  0.728694590  1.703063e+00     0.924204     0.761606
## 11978    2.292298  1.123864702  2.970752e+00     0.967305     0.897236
## 11979    1.487099  0.399993701  1.994233e+00     0.902971     0.654276
## 11980    1.768570  0.415582603  2.910265e+00     0.940369     0.895365
## 11981    1.791259  0.753884739  2.928746e-01     0.911431     0.774107
## 11982    1.690243  0.742045278  1.257905e+00     0.874333     0.711498
## 11983    1.658883  1.053746666  3.833507e-01     0.971115     0.851268
## 11984    1.738008  1.020812747  6.818257e-01     0.912603     0.786010
## 11985    1.649173  0.537955027  3.289079e+00     0.895706     0.845912
## 11986    1.583238  0.508839338  2.053259e+00     0.872592     0.792288
## 11987    1.605504  0.556046674  2.016291e+00     0.807999     0.723564
## 11988    1.524723  0.568407085  7.759596e-02     0.986821     0.861149
## 11989    1.642244  0.600145970  1.176680e+00     0.886140     0.805977
## 11990    1.709448  0.582817607  2.622409e+00     0.941960     0.828131
## 11991    1.757430  1.618408987  1.203219e+00     0.583573     0.497832
## 11992    1.625452  0.853990076  3.029231e+00     0.798074     0.662373
## 11993    1.491205  0.409017945  2.833045e+00     0.913420     0.709661
## 11994    1.522143  0.328112420  3.405342e-01     0.914459     0.858611
## 11995    1.678735  1.009085289  1.912848e+00     0.747564     0.711324
## 11996    1.852367  1.088451502  3.680694e-01     0.825859     0.749379
## 11997    1.849895  0.755885522  6.284812e-01     0.955551     0.729478
## 11998    1.637415  0.454884478  2.599878e+00     0.910381     0.894716
```

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## 11999    1.620257  0.380175049  2.679423e+00     0.761792     0.604625
## 12000    2.018214  1.053850263  1.520481e+00     0.892455     0.796537
## 12001    1.711840  0.738892288  3.169850e-01     0.923290     0.899952
## 12002    1.584099  0.469271070  2.234309e+00     0.846957     0.779806
## 12003    1.870416  0.673855499  1.763496e-01     0.955478     0.746517
## 12004    1.594577  0.854879660  2.450036e+00     0.861068     0.730462
## 12005    1.648056  0.554882694  1.030277e-01     0.838399     0.735538
## 12006    1.509737  0.570740196  2.409702e+00     0.862193     0.667265
## 12007    1.927837  1.085522473  2.684964e+00     0.815217     0.737184
## 12008    1.592297  0.714177143  2.667650e+00     0.923661     0.828524
## 12009    1.765438  0.679055225  3.334804e-01     0.886087     0.801057
## 12010    1.751505  0.692843396  2.312457e-01     0.915963     0.653924
## 12011    1.698649  0.420478898  5.858739e-01     0.934207     0.761352
## 12012    1.674259  0.364442174  2.877888e+00     0.786660     0.767981
## 12013    1.716422  0.493853824  1.069938e+00     0.869707     0.698228
## 12014    1.714494  0.502986699  1.808472e+00     0.781693     0.575437
## 12015    1.547942  0.457192835  2.828345e+00     0.902863     0.838991
## 12016    1.756077  0.926527651  2.000301e+00     0.791289     0.768582
## 12017    1.644261  0.500997607  2.540623e+00     0.907590     0.768908
## 12018    1.601735  0.377765078  1.929013e+00     0.756102     0.679251
## 12019    1.642319  0.552384676  9.195819e-01     0.904662     0.664509
## 12020    1.784401  0.549036385  2.362921e+00     0.947686     0.625219
## 12021    1.767488  0.926634622  8.875641e-01     0.864614     0.830277
## 12022    1.797333  1.093523242  1.473178e-01     0.880912     0.803483
## 12023    1.670474  0.723610808  4.140493e-01     0.896945     0.658733
## 12024    1.565469  0.450770872  2.339785e+00     0.951512     0.806068
## 12025    1.951611  0.908799099  2.286311e+00     0.933040     0.873042
## 12026    1.610264  0.632985413  5.785445e-01     0.965133     0.814301
## 12027    1.864496  1.131695637  1.501226e+00     0.857006     0.797246
## 12028    1.547686  0.343514939  2.890218e+00     0.887955     0.813804
## 12029    2.034901  1.098494898  5.485820e-01     0.763008     0.645451
## 12030    1.592621  0.525043511  2.034316e+00     0.947572     0.780600
## 12031    1.564588  0.517169496 -3.648557e-01     0.957038     0.741374
## 12032    1.619963  0.814563876  2.842378e+00     0.881385     0.800113
## 12033    1.754540  0.618489492  3.003922e+00     0.736344     0.660621
## 12034    1.583534  0.416314248  2.260665e+00     0.965335     0.810538
## 12035    1.602957  0.302235659  1.452545e+00     0.715978     0.650708
## 12036    1.623628  0.795646478  3.211827e-01     0.924854     0.842775
## 12037    1.838239  0.827227070 -6.165896e-01     0.921959     0.799603
## 12038    1.639577  0.917376305  5.103479e-02     0.918846     0.794409
## 12039    1.647501  0.589301584 -1.115406e-01     0.961925     0.785069
## 12040    1.856418  1.269136860  1.547437e+00     0.875393     0.747570
## 12041    2.311347  1.844065053  1.820092e+00     0.588912     0.439778
## 12042    1.808497  1.104422235  1.561064e+00     0.875008     0.709313
## 12043    1.512020  0.315710110  1.875917e+00     0.832147     0.763365
## 12044    1.740469  0.687975511  1.578329e-01     0.979179     0.771519
## 12045    1.804396  0.524192235  2.770715e+00     0.975263     0.876032
## 12046    1.635287  0.659522591  9.758627e-01     0.809769     0.759638
## 12047    1.837249  0.444918754  1.798440e+00     0.899217     0.736690
## 12048    1.757796  0.411274490  2.012469e+00     0.859149     0.723829
## 12049    1.769280  0.998936414  7.031828e-01     0.835458     0.701196
## 12050    1.696902  0.849796417  2.622521e-01     0.876709     0.848861
## 12051    1.595463  0.623657542  8.382466e-01     0.984659     0.873512
## 12052    1.781179  0.598060235  3.864140e-01     0.857780     0.832826
## 12053    1.702940  1.092011443 -1.914956e-03     0.975195     0.705954
## 12054    1.643598  0.787113184  3.362227e-01     0.975609     0.699805
## 12055    1.606677  0.675176876  5.016186e-01     0.908313     0.697262
## 12056    1.657136  0.464377755  2.428938e+00     0.782003     0.773122
## 12057    1.638225  0.553982491 -3.981290e-02     0.904261     0.805026
## 12058    1.540196  0.494129538  2.682029e+00     0.959158     0.784903
## 12059    1.762196  1.076370974  2.249621e+00     0.788344     0.559794
## 12060    1.754234  0.580807552  2.725327e+00     0.939599     0.793501
## 12061    1.824507  0.878789987  1.418047e+00     0.718617     0.531932
## 12062    1.611717  0.677503841  9.348312e-02     0.915886     0.837212
## 12063    1.725291  1.248823846  6.571517e-01     0.881720     0.625734
## 12064    1.671343  0.513984265  1.293864e+00     0.546418     0.542668
## 12065    1.552770  0.353966213  2.264446e+00     0.767042     0.652685
## 12066    1.541116  0.347675362 -7.751018e-02     0.913872     0.784286
## 12067    1.957420  0.865364592  2.740521e+00     0.829724     0.692065
## 12068    1.525231  0.315894809  1.485008e-01     0.957579     0.795630
## 12069    1.594680  0.544065563  2.687421e-01     0.908802     0.758216
## 12070    1.607429  0.546646290  6.397482e-01     0.931903     0.889916
## 12071    1.523792  0.495083436  2.653218e+00     0.778385     0.705394
## 12072    2.208065  1.301036510  2.221671e+00     0.869419     0.629984
## 12073    1.678310  0.529539428  5.642530e-01     0.841540     0.699037
## 12074    1.684812  0.571267327  2.566814e+00     0.815616     0.595450
## 12075    1.631548  0.328298038  2.813449e+00     0.723789     0.534823
## 12076    1.665636  0.812044567  4.074939e-01     0.851059     0.729553
## 12077    1.739400  0.659207637  1.749105e+00     0.744993     0.627257
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## 12078    1.509303  0.537934891  2.630526e+00     0.851537     0.769221
## 12079    1.466443  0.267812134  2.532205e+00     0.918140     0.748185
## 12080    1.646640  0.712389552  2.531328e-01     0.852832     0.686682
## 12081    1.835012  1.189557684  1.979129e-01     0.893295     0.787761
## 12082    1.881993  1.083996832  9.473285e-01     0.734238     0.661743
## 12083    1.896714  0.607350995  3.283179e+00     0.956557     0.876113
## 12084    1.778721  0.772305567  6.024777e-02     0.957491     0.795095
## 12085    2.288614  2.079467063  1.423847e+00     0.872942     0.678988
## 12086    1.727891  0.388972825  1.950056e+00     0.730985     0.639274
## 12087    1.732223  0.525644626  8.319362e-01     0.923774     0.820195
## 12088    1.681090  0.767266467  4.773707e-01     0.872052     0.785252
## 12089    1.734192  0.658185080  2.004693e-01     0.945548     0.843262
## 12090    1.640666  0.601607003  1.625659e+00     0.697321     0.657867
## 12091    1.759288  0.974971074  1.083386e+00     0.861350     0.701928
## 12092    1.661170  0.442089199  2.501773e+00     0.891478     0.628383
## 12093    1.779407  0.742715707  4.064533e-01     0.957641     0.722202
## 12094    1.756038  0.573821598  2.129785e-01     0.952674     0.803687
## 12095    1.490443  0.454212005  2.892864e+00     0.895777     0.577665
## 12096    1.721931  0.882567225  5.499272e-01     0.926953     0.773723
## 12097    1.526322  0.679947286  9.441136e-01     0.883309     0.703378
## 12098    1.647346  0.764578845  1.760913e-01     0.937202     0.772147
## 12099    2.030867  1.087735289  6.435674e-01     0.984977     0.672665
## 12100    1.538287  0.313168836 -4.622451e-01     0.957049     0.689442
## 12101    1.759521  0.711771809  6.409127e-01     0.884740     0.682807
## 12102    1.611722  0.445143202  3.213012e+00     0.948582     0.750063
## 12103    1.479611  0.458117895  2.244116e+00     0.935010     0.713550
## 12104    1.875182  0.966926509  1.684259e+00     0.988660     0.927870
## 12105    2.038723  0.708950909  2.893370e+00     0.798320     0.744176
## 12106    1.869534  1.105131928  7.061176e-01     0.695351     0.611593
## 12107    1.602392  0.603739630  2.232022e+00     0.868649     0.814703
## 12108    1.699112  0.818364476  2.690082e-01     0.962171     0.841310
## 12109    1.712380  0.870021534  1.172343e-02     0.833737     0.753490
## 12110    1.510935  0.409373419  3.241155e+00     0.884861     0.713999
## 12111    1.750299  1.263138771  7.277925e-01     0.896218     0.845954
## 12112    1.654656  0.559201371  6.020600e-01     0.909775     0.889682
## 12113    1.699774  1.007709381  3.371884e-01     0.912806     0.823424
## 12114    1.560228  0.461393467  2.870950e+00     0.888325     0.717601
## 12115    1.690585  0.934009342  1.097847e+00     0.695895     0.682110
## 12116    1.686233  0.295694621  1.094019e+00     0.717945     0.672871
## 12117    1.747100  0.913105693  3.972150e-01     0.949177     0.804461
## 12118    1.595446  0.465845159  2.163293e+00     0.848022     0.830562
## 12119    1.909888  0.662955108  7.918125e-02     0.903910     0.818038
## 12120    1.583812  0.509326205  1.770073e+00     0.837158     0.766976
## 12121    1.810519  0.927107962  5.549193e-01     0.880993     0.680729
## 12122    1.645138  0.575949502  1.402786e+00     0.710811     0.681419
## 12123    1.781854  0.731380834  7.202998e-01     0.882253     0.803246
## 12124    1.664596  0.578494803  1.139434e-01     0.833436     0.660423
## 12125    1.720310  0.840738875  2.315352e+00     0.760148     0.655957
## 12126    1.748083  0.706863660  2.473184e-01     0.963362     0.829024
## 12127    1.607130  0.504439598  1.967541e-01     0.890703     0.674973
## 12128    1.734713  0.975670720  6.880770e-01     0.707805     0.654825
## 12129    1.526395  0.363758600  2.992184e+00     0.913072     0.841670
## 12130    1.540801  0.211246057  1.425177e-01     0.859180     0.700997
## 12131    1.812498  0.637496734  3.689008e-01     0.947388     0.702627
## 12132    1.591532  0.774831442  1.623251e+00     0.775853     0.704418
## 12133    1.677584  0.694245331  2.443202e+00     0.812223     0.725064
## 12134    1.657531  0.362550328  1.930553e+00     0.890263     0.710460
## 12135    1.658925  0.894419085  7.418649e-02     0.797439     0.712105
## 12136    1.570797  0.658774321  2.763543e+00     0.958445     0.844388
## 12137    1.831749  1.338659648  1.170613e+00     0.718992     0.507314
## 12138    1.697880  0.470354620  2.554286e+00     0.841691     0.708754
## 12139    1.611407  0.502667418  3.155222e+00     0.945324     0.701006
## 12140    1.509849  0.422195743  2.547858e+00     0.876845     0.837119
## 12141    1.618863  0.629273988  2.244302e+00     0.944141     0.897734
## 12142    1.729577  0.292760977  1.250483e+00     0.751013     0.735666
## 12143    1.919035  1.388182935  7.782739e-01     0.950475     0.781094
## 12144    1.544343  0.463228353  2.293071e+00     0.832540     0.737145
## 12145    2.037745  1.241013246  6.243812e-01     0.930785     0.797756
## 12146    1.916937  0.919314012  1.588055e+00     0.812925     0.777069
## 12147    1.656412  0.432000263  5.044923e-01     0.774701     0.687461
## 12148    1.588784  0.675328238  7.309848e-01     0.734129     0.689345
## 12149    1.681295  0.694120625  1.376057e+00     0.774861     0.633977
## 12150    1.731785  0.399668531  1.971229e+00     0.908512     0.793685
## 12151    1.645882  0.592305583 -3.403619e-02     0.955767     0.836099
## 12152    1.536776  0.355652625  1.518100e+00     0.874734     0.823316
## 12153    1.614313  0.497887083  2.927553e+00     0.952300     0.848857
## 12154    1.665581  0.864042716 -2.642995e-01     0.804126     0.695611
## 12155    1.680467  0.865580075  2.298480e+00     0.857949     0.626017
## 12156    1.838302  1.257272884  5.964185e-01     0.875936     0.772345
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## 12157    1.766620  0.366600375  1.271966e+00     0.943670     0.671119
## 12158    1.749299  1.054333392  8.339814e-01     0.898182     0.848681
## 12159    1.609509  0.646815278  1.513795e+00     0.886175     0.755829
## 12160    1.801934  0.709870094  7.528606e-01     0.920565     0.710276
## 12161    1.859406  0.990424551  1.545674e+00     0.541233     0.456921
## 12162    1.610346  0.868431059 -5.188019e-02     0.713982     0.620723
## 12163    1.555757  0.551647581  2.870254e+00     0.898492     0.824625
## 12164    1.520968  0.503743031  2.301908e+00     0.882467     0.785284
## 12165    1.549591  0.671752133 -2.804499e-01     0.776580     0.680989
## 12166    1.631656  0.370740632  2.816905e+00     0.957725     0.862367
## 12167    1.664889  0.645328915  5.162399e-01     0.702123     0.593965
## 12168    1.570323  0.530654252  1.356778e+00     0.734152     0.577325
## 12169    1.599899  0.697925574  4.081848e-01     0.944909     0.918681
## 12170    1.888533  0.669017328  2.760456e+00     0.804984     0.658832
## 12171    1.806016  0.180214790  8.264447e-01     0.696500     0.561017
## 12172    1.607912  0.418249902  3.499261e-01     0.918762     0.724206
## 12173    1.709935  0.474960339  2.065575e+00     0.987380     0.932643
## 12174    1.790837  0.625491483  7.320901e-01     0.898308     0.537937
## 12175    1.542961  0.549656666  2.080924e+00     0.935943     0.759334
## 12176    1.750617  0.711089840  3.721942e-01     0.866898     0.811651
## 12177    1.563511  0.354851484  1.557220e+00     0.775347     0.499202
## 12178    1.556591  0.452517828  1.892675e+00     0.923323     0.853855
## 12179    1.941360  0.730255637  3.268833e+00     0.973304     0.884391
## 12180    1.487989  0.312769557  2.432703e+00     0.938568     0.819244
## 12181    1.601516  0.367659635 -3.240698e-01     0.868796     0.740193
## 12182    1.843066  1.281276595  1.570713e+00     0.906587     0.821841
## 12183    1.796968  1.078837293  2.336183e-01     0.976721     0.893135
## 12184    1.568572  0.412794750  1.518804e+00     0.729802     0.585632
## 12185    1.598658  0.454146380  2.024488e+00     0.735097     0.703397
## 12186    1.611472  0.505578633  1.951049e+00     0.860265     0.581551
## 12187    1.727817  0.445870302  2.611895e+00     0.808429     0.660818
## 12188    1.919439  1.237284793  2.104819e+00     0.899970     0.769917
## 12189    1.564478  0.287418755  2.277999e+00     0.917272     0.761658
## 12190    1.584814  0.295531915  2.790735e+00     0.775910     0.694918
## 12191    1.546283  0.254697891 -1.305850e-01     0.955707     0.742332
## 12192    2.228547  1.586820141  1.501724e+00     0.760759     0.596841
## 12193    1.583995  0.556659441 -8.648066e-03     0.932021     0.714046
## 12194    1.590373  0.528414016  7.249451e-02     0.869908     0.796617
## 12195    1.736497  0.601367826  2.643558e+00     0.923790     0.838647
## 12196    1.592422  0.394283534  1.561205e+00     0.705111     0.609068
## 12197    1.643423  0.500709768  4.597069e-01     0.854430     0.782675
## 12198    1.568359  0.428931350  2.626446e+00     0.871085     0.809543
## 12199    1.702298  0.535190282  2.777097e+00     0.963776     0.885326
## 12200    1.664062  0.649856478  4.428054e-01     0.905958     0.760712
## 12201    1.546853  0.540827314  2.119801e+00     0.516114     0.484685
## 12202    1.803813  0.868840091  3.953914e-01     0.859300     0.705412
## 12203    1.837877  1.157556490  6.429931e-01     0.955777     0.616167
## 12204    1.529822  0.472121360  3.161951e+00     0.930345     0.758151
## 12205    1.829616  1.060856423  7.437719e-01     0.842674     0.807231
## 12206    2.010397  1.126150896  2.008670e+00     0.903181     0.672640
## 12207    2.115551  1.191660565  1.597501e+00     0.737098     0.644646
## 12208    1.677398  0.751709335  3.760561e-01     0.856222     0.745215
## 12209    2.003422  0.783933579  9.877721e-01     0.818876     0.710101
## 12210    1.522717  0.431482777  1.277377e+00     0.883610     0.820365
## 12211    1.636816  0.552303109  9.324690e-01     0.802565     0.731879
## 12212    1.867500  0.870691194  6.075568e-01     0.935562     0.615722
## 12213    1.680809  0.441168637  4.335739e-02     0.942604     0.810916
## 12214    1.640506  0.598123785  1.069542e+00     0.771809     0.607176
## 12215    1.609322  0.435543376  1.879894e+00     0.849305     0.794819
## 12216    1.600078  0.441116738  1.251821e+00     0.695663     0.438089
## 12217    1.683951  1.030077283  1.066022e+00     0.925553     0.765717
## 12218    1.599015  0.695949867 -9.884816e-03     0.919311     0.839643
## 12219    1.793755  0.432483443  2.154248e+00     0.897560     0.725638
## 12220    1.529086  0.426955088  2.794299e+00     0.835412     0.791832
## 12221    1.638624  0.779468781  5.530028e-01     0.908007     0.585280
## 12222    1.570264  0.735576546  1.376048e-01     0.862581     0.769663
## 12223    1.636187  0.399026123  2.422396e+00     0.911811     0.724458
## 12224    1.654815  1.173530070  5.904777e-01     0.882758     0.804048
## 12225    1.452427  0.326196537  1.860325e+00     0.640306     0.577183
## 12226    1.624554  0.437660207  1.465571e-01     0.829078     0.741167
## 12227    1.656532  0.864195332  6.237531e-01     0.786673     0.682226
## 12228    1.565221  0.508582235  2.933387e+00     0.753165     0.714728
## 12229    1.618818  0.575801891 -2.904667e-01     0.951263     0.889633
## 12230    1.682535  0.355192820  2.369689e+00     0.851785     0.718321
## 12231    1.583534  0.761034287  2.489700e-01     0.911451     0.861300
## 12232    1.661384  0.631108787  2.587912e-01     0.876568     0.793490
## 12233    1.717511  0.591065721  1.043645e+00     0.883800     0.688714
## 12234    1.766680  0.439290052  2.683208e+00     0.932089     0.740394
## 12235    1.948855  1.211107186  1.524623e+00     0.844722     0.626982
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## 12236    1.398291  0.361960027  3.240807e+00     0.899477     0.788380
## 12237    1.656046  0.478830455  1.085124e+00     0.921999     0.699321
## 12238    1.795570  0.422084017  2.562866e+00     0.817928     0.809183
## 12239    1.729822  0.862209521  1.561070e+00     0.912078     0.821014
## 12240    1.551938  0.538630279  8.268101e-01     0.870451     0.744423
## 12241    1.602817  0.581818861  2.261797e+00     0.833148     0.761194
## 12242    1.925023  1.147354735  2.296197e+00     0.839985     0.822348
## 12243    1.504664  0.470311977  2.448207e+00     0.899033     0.684261
## 12244    1.651978  0.492960035  1.985916e+00     0.848712     0.732113
## 12245    1.891747  0.945460214  1.599768e-01     0.824005     0.585038
## 12246    1.549922  0.452274167  2.385811e+00     0.821865     0.604950
## 12247    1.660107  0.468369488  2.381128e+00     0.939891     0.855619
## 12248    1.633216  0.457468591  2.320396e-01     0.856874     0.697716
## 12249    1.771180  0.713516583  2.430263e+00     0.913681     0.826570
## 12250    1.659262  0.670395232  8.832757e-01     0.937022     0.812774
## 12251    1.606924  0.582365672  2.885811e+00     0.914731     0.789501
## 12252    1.671443  0.434035288  1.056449e+00     0.964921     0.857521
## 12253    1.679454  0.685906471  3.185689e-01     0.948444     0.800456
## 12254    1.552264  0.631203217  1.880800e+00     0.806983     0.728947
## 12255    1.663648  0.600295347  7.249451e-02     0.875560     0.646889
## 12256    1.712297  1.032131014  2.567268e+00     0.676366     0.615983
## 12257    1.665980  0.513783413  8.643532e-01     0.909186     0.639473
## 12258    1.715378  0.759467645  2.325093e+00     0.870559     0.794367
## 12259    1.682778  0.421426225  8.081982e-02     0.846276     0.650024
## 12260    1.911069  1.414604041  1.431964e+00     0.826936     0.725509
## 12261    2.199025  1.118195260  2.313962e+00     0.841273     0.754369
## 12262    1.548660  0.676263674  5.400154e-01     0.933569     0.734753
## 12263    1.759961  1.067405658  1.729846e+00     0.544136     0.457395
## 12264    1.727091  0.788558636  2.084385e+00     0.945535     0.744697
## 12265    1.790487  0.833785648  1.583018e+00     0.929580     0.665285
## 12266    1.638585  0.483648622  3.293366e-01     0.955524     0.737930
## 12267    1.678031  0.436607849  1.877836e+00     0.820719     0.781317
## 12268    1.626696  0.545704110  7.039635e-01     0.884233     0.699370
## 12269    1.461922  0.405395884  2.106562e+00     0.907198     0.768377
## 12270    1.659855  0.458476186  1.996198e+00     0.955669     0.731939
## 12271    1.591234  0.783530554  3.479892e-01     0.850021     0.680620
## 12272    1.888628  0.675129164  2.901952e+00     0.899735     0.793422
## 12273    1.707777  0.774157703  2.451546e+00     0.899671     0.845256
## 12274    1.882860  0.583274741  2.784365e+00     0.861142     0.713794
## 12275    1.807174  0.596403544  1.765779e+00     0.957887     0.674101
## 12276    1.741553  0.870383419  1.439224e+00     0.973431     0.786100
## 12277    1.907982  1.589315001  2.119637e+00     0.839887     0.663213
## 12278    1.819351  0.612127683  2.917019e+00     0.873255     0.812122
## 12279    1.435303  0.403199477  2.086572e+00     0.679345     0.552015
## 12280    1.903425  1.362124185  5.438855e-01     0.827226     0.771642
## 12281    1.754402  0.720662793  1.731749e+00     0.815131     0.584990
## 12282    1.590720  0.436393255  2.076133e+00     0.880882     0.763940
## 12283    1.532139  0.280063650 -1.655188e-01     0.913357     0.860644
## 12284    1.655386  0.649211174  2.681354e-01     0.920689     0.801292
## 12285    1.695691  0.610841081  2.863734e+00     0.846417     0.664837
## 12286    1.648756  0.638750753  2.289650e+00     0.825390     0.803849
## 12287    1.723594  0.681361556  6.463267e-01     0.872011     0.750699
## 12288    2.076953  0.589897126  2.541360e+00     0.614693     0.457263
## 12289    1.560439  0.389922339  2.956118e+00     0.940781     0.800083
## 12290    1.622337  0.550801732  1.009819e+00     0.761557     0.634864
## 12291    1.751487  1.036013742  1.032369e+00     0.788637     0.644898
## 12292    1.981816  0.512095779  1.621232e+00     0.847668     0.771407
## 12293    1.534421  0.513811351  3.182185e+00     0.864517     0.794903
## 12294    1.602806  0.637349612  1.411675e+00     0.983042     0.775192
## 12295    1.681190  0.467319467  1.101210e+00     0.783910     0.617386
## 12296    1.797458  1.351954695  4.987057e-01     0.720883     0.591406
## 12297    1.661960  0.590961032  2.034581e+00     0.864245     0.801720
## 12298    1.829068  0.493166565  2.077715e+00     0.835483     0.781442
## 12299    1.585287  0.381366014  3.097837e-01     0.948997     0.818678
## 12300    1.586181  0.391102790  1.868060e+00     0.986770     0.791883
## 12301    1.779626  1.044857134  7.510594e-01     0.898777     0.726865
## 12302    1.686943  0.555406448  1.393498e-01     0.823368     0.756660
## 12303    1.804347  0.598179658  2.297706e+00     0.952227     0.893896
## 12304    1.874275  0.883132580  1.612975e+00     0.789464     0.602765
## 12305    1.590768  0.448163499  1.740972e+00     0.898117     0.771510
## 12306    1.682645  0.816320858  1.708911e+00     0.856564     0.691850
## 12307    1.518941  0.477229815  3.461499e-01     0.832488     0.792295
## 12308    2.212811  1.540276906  2.118551e+00     0.722933     0.707451
## 12309    1.817258  0.796277996  2.791913e-01     0.872821     0.778646
## 12310    1.647172  1.170918529  4.879940e-01     0.926784     0.563176
## 12311    2.099201  1.484978517  1.098195e+00     0.863767     0.601745
## 12312    1.669905  0.444118214  2.498056e+00     0.914205     0.645134
## 12313    1.511636  0.480438147  2.327182e+00     0.904262     0.739225
## 12314    1.539257  0.227848156  2.558259e+00     0.774135     0.677772
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## 12315    1.624820  0.490736420  2.191328e+00     0.861102     0.628168
## 12316    1.482888  0.493105174  2.496571e+00     0.946957     0.710508
## 12317    2.045108  1.292856135  7.483917e-01     0.951884     0.728318
## 12318    2.073993  1.507522605  1.420968e+00     0.902246     0.728260
## 12319    1.720453  0.728893271 -4.276359e-02     0.868260     0.742293
## 12320    1.485520  0.379934291  2.660720e+00     0.785097     0.630118
## 12321    1.734921  1.139485525  4.182881e-01     0.980850     0.918769
## 12322    1.733788  0.456756116  1.628560e+00     0.965055     0.944391
## 12323    1.639511  0.289580035  6.797926e-01     0.970548     0.834602
## 12324    1.629284  0.712205922  1.294994e+00     0.957197     0.835550
## 12325    1.472960  0.342779840  2.360972e+00     0.652953     0.605622
## 12326    1.692388  0.883138264  2.329582e+00     0.709620     0.612210
## 12327    1.620270  0.584074417  3.647108e-01     0.957720     0.774341
## 12328    1.621657  0.388600247  2.149466e+00     0.883059     0.619712
## 12329    1.573601  0.582562174  1.018890e+00     0.846876     0.811651
## 12330    1.961399  1.139078996  1.508914e+00     0.764553     0.586295
## 12331    1.731078  0.485749811  2.101573e+00     0.823036     0.727919
## 12332    1.995936  1.087792062  2.350110e+00     0.829776     0.675923
## 12333    1.594207  0.656071357  1.610905e-01     0.850176     0.755701
## 12334    1.664902  0.489080571  5.727084e-02     0.942720     0.877994
## 12335    1.861269  1.196203829  6.906860e-02     0.986893     0.753753
## 12336    1.586728  1.086053581  2.843932e+00     0.733865     0.593721
## 12337    1.475272  0.442564425  2.516457e+00     0.851450     0.619387
## 12338    1.804823  0.891963181  2.179338e+00     0.938265     0.748581
## 12339    1.485690  0.319399656  2.906772e+00     0.914115     0.623393
## 12340    1.731635  0.414078783  3.000344e+00     0.952158     0.880309
## 12341    1.659272  0.349423239  1.923051e+00     0.947677     0.828875
## 12342    1.649668  0.535149753  1.939733e+00     0.879852     0.659702
## 12343    1.913540  1.229487300  5.799380e-01     0.885555     0.680484
## 12344    1.762837  0.407154570  2.344418e+00     0.952183     0.944624
## 12345    1.550870  0.413014612  7.237236e-01     0.851651     0.795005
## 12346    1.802829  1.264574644  1.740129e-01     0.711473     0.593457
## 12347    1.823732  0.751154342  2.679629e+00     0.969826     0.904050
## 12348    1.634590  0.810463722  1.045038e+00     0.663052     0.552215
## 12349    1.811748  0.459806981  1.351492e+00     0.829027     0.820009
## 12350    1.817290  0.714669182  3.005406e+00     0.935296     0.763489
## 12351    1.575013  0.427841384  2.490168e+00     0.823976     0.698168
## 12352    1.818966  0.826664912  6.632817e-01     0.867910     0.801669
## 12353    1.688555  0.702924007 -3.210867e-02     0.957078     0.671435
## 12354    1.675096  0.837949989  2.573907e-01     0.752872     0.694284
## 12355    1.866164  0.806791627  2.479145e-01     0.832259     0.640212
## 12356    1.443678  0.296096726  2.238481e+00     0.842754     0.700968
## 12357    2.261724  1.671061708  1.051926e+00     0.866578     0.547130
## 12358    1.491111  0.405754334  2.161845e+00     0.965110     0.648653
## 12359    1.667772  0.424695471  2.612604e+00     0.941646     0.832913
## 12360    1.605185  0.363188760  2.895502e+00     0.924303     0.835926
## 12361    1.616883  0.552349373  1.400757e-01     0.946793     0.853771
## 12362    1.668460  0.290577697  2.316385e+00     0.777477     0.723844
## 12363    1.837460  0.647246987 -3.120784e-02     0.938074     0.853538
## 12364    1.656523  0.425376059  2.861813e+00     0.945696     0.806740
## 12365    1.947472  1.030182631  3.200016e+00     0.797003     0.686440
## 12366    1.503834  0.521039964  2.710791e+00     0.876999     0.688586
## 12367    1.623590  0.500890718  5.569907e-01     0.792302     0.695516
## 12368    1.642069  0.527357898  1.836679e+00     0.972848     0.845824
## 12369    1.762709  0.795668030  1.888190e-01     0.907952     0.655328
## 12370    1.612543  0.955336036  2.013880e-01     0.910059     0.744593
## 12371    1.980175  0.660778231  1.926695e+00     0.935270     0.887733
## 12372    1.818908  0.983512625  2.108080e+00     0.869842     0.726514
## 12373    1.595248  0.837012364  1.784778e+00     0.783262     0.681131
## 12374    1.838986  1.142917932  1.326492e+00     0.944269     0.702600
## 12375    2.053313  1.331419198  7.611672e-01     0.907316     0.610912
## 12376    1.589525  0.548729595  2.467646e+00     0.796024     0.639584
## 12377    1.647876  0.497265612  1.845005e-02     0.912851     0.807587
## 12378    1.623574  0.398994931  3.774396e-01     0.957057     0.685463
## 12379    1.462223  0.341422653  2.477482e+00     0.919605     0.748993
## 12380    1.778436  0.820915061  3.942897e-01     0.871681     0.708496
## 12381    1.483824  0.625222907  1.702597e+00     0.871658     0.730189
## 12382    1.891194  1.170528666  1.285939e+00     0.625177     0.612171
## 12383    1.860828  0.985804016 -1.130468e-01     0.942553     0.870728
## 12384    1.632646  0.501824426  1.477981e+00     0.616333     0.556541
## 12385    1.550989  0.618251069  5.400154e-01     0.883454     0.851539
## 12386    1.737154  0.541597963  1.248426e+00     0.944756     0.862654
## 12387    1.526732  0.377881529  1.904485e+00     0.912693     0.750699
## 12388    1.659356  0.777159203  2.495177e-01     0.866451     0.755196
## 12389    1.639775  0.562360680  5.235939e-01     0.927662     0.655339
## 12390    1.978342  0.978957989  1.618935e+00     0.893694     0.707697
## 12391    1.641008  0.406620219  2.405574e+00     0.793990     0.766737
## 12392    1.833869  1.169283452  9.153518e-01     0.949495     0.725111
## 12393    1.690640  0.648624411  2.374379e+00     0.982234     0.781125
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## 12394    1.482047  0.469478861  2.912911e+00     0.829305     0.678847
## 12395    1.561832  0.492338458  1.204906e+00     0.792626     0.710998
## 12396    1.498510  0.382578919  1.839953e+00     0.809052     0.674119
## 12397    1.840840  0.770846859  3.110738e-01     0.767231     0.616971
## 12398    1.772330  0.433254453  2.960567e+00     0.903745     0.839109
## 12399    1.722269  0.700454489  1.570947e+00     0.825129     0.716980
## 12400    1.751586  0.506205929  2.398273e+00     0.919185     0.800696
## 12401    1.693253  0.684969172  1.874795e+00     0.865523     0.778961
## 12402    1.430230  0.465860016  1.722619e+00     0.961743     0.757546
## 12403    1.464907  0.469661518  3.141381e+00     0.692200     0.626165
## 12404    1.604779  0.434586467  3.108666e-01     0.932782     0.806556
## 12405    1.656270  0.442949870  2.196796e+00     0.836441     0.757286
## 12406    1.619470  0.356589882  1.689444e+00     0.868154     0.817121
## 12407    1.739883  0.914686860  1.657614e+00     0.752974     0.621788
## 12408    1.805633  0.456942685  2.549101e+00     0.980173     0.732156
## 12409    1.607354  0.455208905  2.894258e-01     0.919062     0.624311
## 12410    1.527411  0.762500759  1.687251e-01     0.817757     0.623797
## 12411    1.916493  1.284053806  3.726024e-01     0.943200     0.790952
## 12412    1.669923  0.756783637  2.842739e+00     0.824162     0.661196
## 12413    1.608139  0.706294374  7.729988e-01     0.940944     0.799296
## 12414    1.999980  1.228869821  2.117621e+00     0.739418     0.631512
## 12415    1.601657  0.582475860  2.566870e-01     0.961906     0.770319
## 12416    1.723617  0.455161703  3.043253e+00     0.922255     0.785194
## 12417    1.554932  1.012660098  9.782704e-03     0.881997     0.740304
## 12418    1.905656  0.494288203  2.527658e+00     0.951074     0.813236
## 12419    1.711234  0.770448446  4.637309e-01     0.898897     0.663933
## 12420    1.769955  1.340015558  1.054917e+00     0.831861     0.685595
## 12421    1.761928  0.479683259  2.237025e+00     0.879073     0.733596
## 12422    1.636342  0.920700784  2.587912e-01     0.928939     0.819167
## 12423    1.824703  0.784682895  1.579355e+00     0.889558     0.758333
## 12424    1.727070  0.750676526  2.243259e+00     0.941948     0.896551
## 12425    1.746067  0.851425306  8.872686e-01     0.928052     0.902116
## 12426    2.043476  1.508253568  1.885569e+00     0.899205     0.812355
## 12427    1.644120  1.335481972  5.858739e-01     0.784431     0.595409
## 12428    1.485440  0.213985003  2.396968e+00     0.930951     0.707656
## 12429    1.845477  0.589489385  7.694674e-01     0.940042     0.837043
## 12430    1.514177  0.573891113  2.370792e+00     0.845184     0.676833
## 12431    1.528351  0.324397703  2.971509e+00     0.835980     0.738284
## 12432    1.942731  0.800549375  1.508661e+00     0.801853     0.636916
## 12433    1.659217  0.439687880  1.351497e+00     0.753479     0.720855
## 12434    1.715770  0.466809809  1.549630e+00     0.954793     0.768081
## 12435    1.898111  0.718665245  2.943403e+00     0.861873     0.787124
## 12436    1.609472  0.360136918  2.521566e+00     0.920286     0.818331
## 12437    1.764321  0.598391035  3.123876e+00     0.911263     0.713525
## 12438    1.637865  0.495448588  1.989863e+00     0.977606     0.780236
## 12439    1.766855  0.648876953  1.410105e+00     0.806764     0.635348
## 12440    1.720612  0.658645671  2.405440e+00     0.780041     0.692799
## 12441    1.465142  0.142764775  3.187512e+00     0.611395     0.489990
## 12442    1.654799  0.994787713  2.723069e-01     0.867859     0.718245
## 12443    1.688502  0.631573632 -6.142295e-02     0.888833     0.624276
## 12444    1.716259  0.494402294  2.954285e+00     0.921062     0.800157
## 12445    1.647052  0.525148507  1.736937e+00     0.929222     0.800040
## 12446    1.727217  0.670130768  4.679412e-01     0.936565     0.833590
## 12447    1.675502  0.591259439  2.140605e+00     0.887687     0.821220
## 12448    1.568343  0.261315219  3.087194e+00     0.879520     0.717620
## 12449    1.762969  0.909316888  1.223898e+00     0.859980     0.702506
## 12450    1.738593  0.812951439  2.129785e-01     0.939097     0.787295
## 12451    1.707662  0.579369677  8.546396e-01     0.907701     0.817947
## 12452    1.757321  0.848639195  1.861848e-01     0.937371     0.631454
## 12453    1.675935  0.756525809  4.196814e-01     0.917316     0.885533
## 12454    1.634643  0.482835010  9.502754e-01     0.823168     0.737273
## 12455    1.636279  0.893260620  1.533987e+00     0.899294     0.784210
## 12456    1.656841  0.287436680  1.621531e+00     0.867824     0.617211
## 12457    1.755729  0.353023270  1.966699e+00     0.954511     0.778968
## 12458    1.552424  0.556589523 -2.766898e-01     0.895500     0.715544
## 12459    1.739933  0.708235584  4.485209e-01     0.887235     0.755015
## 12460    1.639281  0.462484848  3.586327e-01     0.941839     0.825480
## 12461    1.693606  0.797644874  2.919540e-02     0.760514     0.583818
## 12462    1.576326  0.496389902  8.404169e-01     0.949672     0.831666
## 12463    1.661378  1.072599105  1.613168e+00     0.872881     0.779828
## 12464    1.548840  0.601186181  3.273072e-01     0.904704     0.875038
## 12465    1.581164  0.441421750  2.188157e+00     0.787175     0.718131
## 12466    1.676147  0.916023125  4.810779e-01     0.905015     0.752916
## 12467    1.721533  0.648217500  2.303782e+00     0.920432     0.856533
## 12468    1.660234  0.547702112  6.848917e-01     0.892165     0.638347
## 12469    1.677593  1.144156835  1.184413e+00     0.882513     0.768027
## 12470    1.675310  0.426182570  2.107341e+00     0.655821     0.581286
## 12471    1.622706  0.495307006  2.644248e+00     0.895827     0.825634
## 12472    1.684101  0.377950656  3.895278e-01     0.858070     0.764093
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## 12473    1.536306  0.562297624  1.899402e+00     0.853566     0.793546
## 12474    1.698205  0.752128381  6.570171e-01     0.789992     0.661848
## 12475    1.583791  0.586352092  2.683651e+00     0.921127     0.748698
## 12476    1.614734  0.839039761  2.397660e+00     0.917303     0.813518
## 12477    1.720557  0.697436848  9.985254e-01     0.950283     0.888506
## 12478    1.731645  0.447283648  2.151745e+00     0.917631     0.738825
## 12479    2.117934  0.849377641  4.994075e+00     0.959867     0.817810
## 12480    1.627681  0.520309256  2.312266e+00     0.909046     0.763312
## 12481    1.614153  0.469838210  2.172621e+00     0.776624     0.599585
## 12482    1.726875  0.564884931  5.253936e-01     0.803636     0.586409
## 12483    1.620176  0.517644481  2.037480e+00     0.962643     0.810986
## 12484    1.618633  0.808434479  4.552213e-01     0.936924     0.682906
## 12485    1.639978  0.882039314  1.095687e-01     0.854691     0.673031
## 12486    1.623358  0.403398518  2.518833e+00     0.858528     0.769580
## 12487    1.511629  0.642225048  2.100638e+00     0.916915     0.727226
## 12488    1.682458  0.922000510  3.569540e-01     0.788152     0.647564
## 12489    1.685821  0.394302804  1.344758e+00     0.455102     0.416566
## 12490    1.739662  0.389066806  1.447058e+00     0.985092     0.827154
## 12491    1.696539  0.760809105  2.831520e-01     0.949580     0.756621
## 12492    1.951505  1.016903867  7.313106e-01     0.883388     0.871331
## 12493    1.613977  0.564629378  2.041200e-01     0.961774     0.858287
## 12494    1.559334  0.356500070  2.735436e+00     0.834002     0.653829
## 12495    1.495759  0.508988684  2.675959e+00     0.862555     0.739558
## 12496    1.924108  0.730564266  1.026085e+00     0.893356     0.672630
## 12497    2.039878  1.389018931  2.004638e+00     0.831523     0.759785
## 12498    1.462328  0.706184185  1.771708e+00     0.674178     0.531106
## 12499    1.984023  0.926237977  2.157185e+00     0.607482     0.578209
## 12500    1.595482  0.609834432  3.751999e-01     0.877847     0.664903
## 12501    1.604483  0.897164514  1.058387e+00     0.861199     0.702385
## 12502    1.635184  0.624725448  3.278315e-01     0.922373     0.685054
## 12503    1.676083  0.393109952  4.839979e-01     0.857295     0.826219
## 12504    1.720595  0.363438980  2.785442e+00     0.861663     0.852327
## 12505    1.646701  0.723485226  9.050736e-01     0.774451     0.659112
## 12506    1.687242  0.670834721  7.449202e-01     0.876826     0.732486
## 12507    1.730271  0.874051369  6.133128e-01     0.942662     0.827903
## 12508    1.789615  0.465665348  2.131372e+00     0.884413     0.809390
## 12509    1.447344  0.533608119  1.445621e+00     0.797152     0.765676
## 12510    1.693141  0.473510326  5.860240e-01     0.886866     0.834896
## 12511    1.731607  0.782406687  2.137934e+00     0.751661     0.709772
## 12512    1.696388  0.756740296  1.167089e-01     0.958997     0.885744
## 12513    1.679986  0.449069368  3.317704e+00     0.944856     0.778481
## 12514    1.695352  0.419021755  2.637378e+00     0.908684     0.804465
## 12515    1.753199  0.485349420  4.537309e-01     0.889515     0.710383
## 12516    1.566521  0.342128445 -9.306900e-02     0.785234     0.680829
## 12517    1.418358  0.596891656  2.218391e+00     0.569612     0.447612
## 12518    1.718198  0.450944654  2.214510e+00     0.768875     0.748432
## 12519    2.260303  1.066728347  2.799245e+00     0.875206     0.712383
## 12520    1.638978  0.791474500  2.167316e+00     0.910530     0.746304
## 12521    1.883706  1.064809775  4.163055e-01     0.954278     0.878244
## 12522    1.587658  0.413323239  2.665604e+00     0.848134     0.793522
## 12523    1.603631  0.520786058  2.978778e+00     0.831889     0.658523
## 12524    1.603049  0.483461768  1.755215e+00     0.778429     0.669126
## 12525    1.666526  0.309719572  3.161427e+00     0.871730     0.774512
## 12526    1.675692  0.498974585  6.355552e-01     0.984415     0.940380
## 12527    1.744689  0.537453882  1.036484e+00     0.961890     0.755868
## 12528    1.744682  1.281642317  4.653196e-01     0.768979     0.618303
## 12529    1.771853  1.217605003  8.042324e-01     0.832049     0.750478
## 12530    1.683974  0.642460563  1.536450e+00     0.610195     0.467763
## 12531    1.695444  0.928409168  8.664808e-01     0.900567     0.762642
## 12532    1.969841  0.843496888  1.224511e+00     0.722384     0.607818
## 12533    1.725030  0.383976850  1.908378e+00     0.904765     0.852654
## 12534    1.616455  0.580071507  2.283067e+00     0.838528     0.714815
## 12535    2.069738  1.590679139  1.717146e+00     0.722151     0.561451
## 12536    1.545209  0.480924893  2.085959e-01     0.959336     0.836848
## 12537    1.583104  0.535909041  3.830404e-01     0.921320     0.845559
## 12538    1.971114  1.241750631  3.931823e-01     0.850023     0.680411
## 12539    1.543225  0.437431858  1.719415e+00     0.842065     0.750657
## 12540    1.665772  0.879493848  1.769116e+00     0.865448     0.779400
## 12541    1.816172  0.506751198  3.007298e+00     0.986909     0.872175
## 12542    1.687853  0.582238410  2.716493e+00     0.745242     0.712975
## 12543    1.583951  0.573798423  2.663317e-01     0.972054     0.883934
## 12544    1.713202  0.537474040  3.110826e+00     0.930479     0.854050
## 12545    1.678284  0.546041455  2.312457e-01     0.891503     0.757855
## 12546    1.943785  2.021387788  1.848327e+00     0.618662     0.566112
## 12547    1.397217  0.438888697  2.230429e+00     0.858419     0.804938
## 12548    1.510511  0.327050220  1.978210e+00     0.955328     0.867220
## 12549    1.652704  0.792907633  2.458394e-01     0.927288     0.853492
## 12550    1.874354  0.552200824  2.555968e+00     0.794778     0.680215
## 12551    2.056947  1.137122975  7.249838e-01     0.956816     0.820083
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## 12552    1.625477  0.420424467  1.843287e+00     0.652837     0.543206
## 12553    1.682047  0.731475141  2.513594e+00     0.844068     0.808135
## 12554    1.714319  0.473057573  1.200866e+00     0.965229     0.810413
## 12555    1.985219  1.657520510  9.477128e-01     0.639657     0.599160
## 12556    1.687799  0.892291661  2.761985e-01     0.962133     0.799062
## 12557    1.529451  0.684639831  1.872085e+00     0.759426     0.659931
## 12558    1.733485  0.574074116  1.970088e+00     0.916761     0.746993
## 12559    1.569497  0.546662325  1.619006e+00     0.919495     0.751598
## 12560    1.565496  0.520911721  2.590835e+00     0.876752     0.772212
## 12561    1.973792  1.324735038  2.010426e+00     0.910382     0.755251
## 12562    1.719065  1.116448341  8.064491e-01     0.867142     0.638417
## 12563    1.700698  0.633724917  1.945994e+00     0.948296     0.847341
## 12564    1.689329  0.624441961 -1.088904e-01     0.900985     0.834158
## 12565    1.683896  0.460224089  2.550419e+00     0.889393     0.756498
## 12566    2.047831  0.511968875  3.239248e+00     0.618155     0.588304
## 12567    1.818891  0.347201172  3.029462e+00     0.962875     0.866527
## 12568    1.538897  0.448564108  2.415509e+00     0.916431     0.757501
## 12569    2.038755  1.254666483  8.523479e-01     0.945835     0.719627
## 12570    1.857567  0.758475866  2.475467e+00     0.921650     0.824252
## 12571    2.166738  1.416602234  1.249113e+00     0.830005     0.614046
## 12572    1.935368  0.855665713  6.009435e-01     0.730404     0.541450
## 12573    1.705608  0.737585398  2.480183e+00     0.884449     0.806043
## 12574    1.776214  0.711406481  5.796291e-01     0.891387     0.808219
## 12575    1.873923  1.282139295  2.503037e+00     0.888644     0.707237
## 12576    1.527590  0.405670722  3.228340e+00     0.915079     0.826717
## 12577    1.859868  0.690524779  1.577313e-01     0.949917     0.649981
## 12578    1.801325  0.890693695  6.484441e-01     0.978730     0.826887
## 12579    1.572887  0.561746381  1.274182e-01     0.897358     0.811094
## 12580    1.655997  0.300045203  7.918125e-02     0.942294     0.805980
## 12581    1.604598  0.701688845  9.699500e-01     0.892018     0.845859
## 12582    1.683269  0.523399152  1.261092e-01     0.699527     0.626891
## 12583    1.619711  0.529860073  6.405640e-01     0.824321     0.747284
## 12584    1.583047  0.370646300  2.792309e+00     0.983514     0.815104
## 12585    1.690316  0.537568517  2.532635e+00     0.971696     0.755843
## 12586    1.680229  0.687563739  1.068646e-01     0.953808     0.766365
## 12587    1.639991  0.587003398  2.511104e+00     0.987621     0.967023
## 12588    1.649689  0.789105266  1.734872e+00     0.736143     0.685635
## 12589    1.653684  0.543094134  2.647900e+00     0.830682     0.759269
## 12590    1.610125  0.545786926  2.865271e+00     0.886866     0.701528
## 12591    1.689730  0.707567621  1.086198e+00     0.793960     0.710288
## 12592    1.752059  0.548498746  2.832371e+00     0.899397     0.727093
## 12593    1.621867  0.701695751  2.283307e-01     0.877977     0.784850
## 12594    1.575522  0.479565234  3.211390e+00     0.699475     0.605963
## 12595    1.967412  1.118019891  4.468706e-01     0.913200     0.875791
## 12596    1.724195  1.113933330  5.858739e-01     0.889969     0.725851
## 12597    1.570209  0.707942148  1.891205e-01     0.828298     0.706657
## 12598    1.758056  1.099197055  6.417340e-01     0.976980     0.610267
## 12599    1.662423  0.768016179  4.803416e-01     0.932116     0.748542
## 12600    1.533855  0.424118502  1.881569e+00     0.635055     0.616118
## 12601    1.592177  0.524402614  2.145699e+00     0.830858     0.698423
## 12602    1.568778  0.424231341  2.765242e+00     0.927708     0.825782
## 12603    1.617082  0.543060554  9.431537e-03     0.903976     0.758358
## 12604    1.518186  0.458723944  2.289499e+00     0.739098     0.700595
## 12605    1.677233  0.437098632  2.314921e+00     0.737243     0.576268
## 12606    1.894271  1.497059640  7.718018e-01     0.928004     0.797323
## 12607    1.570154  0.774944481  4.139688e-01     0.895524     0.766832
## 12608    1.706737  0.426464088  3.271584e+00     0.992725     0.858480
## 12609    1.595324  0.576190415  1.919019e+00     0.903660     0.848804
## 12610    1.950079  0.705495090  3.091962e+00     0.879789     0.812820
## 12611    1.654438  0.736669743  1.453944e+00     0.723295     0.692501
## 12612    1.753047  0.359262367  1.861351e+00     0.900165     0.814095
## 12613    1.746873  0.634863026  7.161670e-01     0.957254     0.659447
## 12614    1.539617  0.459906400  2.731083e+00     0.826294     0.740958
## 12615    1.787903  1.229197886  1.036244e+00     0.684669     0.488338
## 12616    1.620317  0.446282356  3.211827e-01     0.955489     0.652536
## 12617    1.682612  0.401955118  6.243305e-01     0.909414     0.788088
## 12618    1.601516  0.478650172  2.260035e+00     0.923706     0.843148
## 12619    1.665875  1.198871433  5.128400e-01     0.860057     0.795530
## 12620    1.623866  0.970811146  3.247887e-01     0.797276     0.711296
## 12621    1.705361  0.827608974  5.897359e-01     0.895030     0.761056
## 12622    1.794763  0.822438775  1.723711e+00     0.763762     0.661988
## 12623    1.654980  0.498730858  3.148759e-01     0.922740     0.750465
## 12624    1.790496  0.290281755  2.699655e+00     0.929253     0.837259
## 12625    1.559926  0.903117672  2.504586e+00     0.756918     0.682341
## 12626    1.594957  0.304634838  2.740836e+00     0.866359     0.806903
## 12627    1.570699  0.418108966  2.054939e+00     0.833970     0.749349
## 12628    1.809220  0.547464560  2.687872e+00     0.889412     0.799171
## 12629    1.825556  0.933541445  3.178481e+00     0.736337     0.678358
## 12630    2.020684  0.507280928  2.836219e+00     0.958099     0.752385
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## 12631    1.700088  0.469711588  2.438100e+00     0.903187     0.795815
## 12632    1.657419  1.192974240  4.578732e-02     0.901899     0.799068
## 12633    1.585395  0.654768358  1.943221e+00     0.800763     0.750262
## 12634    1.773114  1.051059863  1.599941e+00     0.818625     0.586164
## 12635    1.918023  0.508399074  1.431985e+00     0.885792     0.863618
## 12636    1.923460  0.931705460  7.912980e-01     0.803012     0.723518
## 12637    1.701572  0.708335903  2.814992e+00     0.890911     0.681520
## 12638    1.616873  0.565736871  1.068282e+00     0.743197     0.658905
## 12639    1.628647  0.433366545  1.099043e+00     0.665090     0.539485
## 12640    1.404297  1.142358176  1.469872e+00     0.914453     0.725704
## 12641    2.005867  1.468375396  7.424726e-01     0.791052     0.656741
## 12642    1.525426  0.327620454  2.155169e+00     0.815993     0.728279
## 12643    1.526806  0.296439211  2.847443e+00     0.797983     0.666473
## 12644    1.578803  0.458769250  7.249451e-02     0.943217     0.901421
## 12645    1.664126  0.568101942  2.455652e+00     0.850098     0.820161
## 12646    1.569170  0.546255095  5.917960e-01     0.745103     0.715431
## 12647    1.924491  0.900380786  2.296984e+00     0.932957     0.755942
## 12648    1.577491  0.429853980  1.929427e+00     0.777668     0.610711
## 12649    1.627771  0.851883649  1.716605e-01     0.908935     0.781735
## 12650    1.795077  0.620724089  2.395555e+00     0.823478     0.709093
## 12651    1.612888  0.594842083  1.984835e+00     0.797442     0.734545
## 12652    1.957317  1.399381210  1.155998e+00     0.895047     0.643725
## 12653    1.706597  0.525845245  6.340688e-01     0.940326     0.832862
## 12654    1.688841  0.533852099  3.726024e-01     0.923978     0.623254
## 12655    1.954896  0.960013886  3.986626e-01     0.828212     0.773015
## 12656    1.871176  0.907352233  1.261092e-01     0.926497     0.840481
## 12657    1.669796  0.483902385  2.519559e+00     0.781785     0.739080
## 12658    1.932460  0.919532556  1.569776e+00     0.866076     0.728553
## 12659    2.165829  1.939799706  1.511755e+00     0.889102     0.514383
## 12660    1.756574  0.561616504  2.494992e+00     0.903107     0.798477
## 12661    1.720187  0.723281591  2.050562e+00     0.871994     0.799240
## 12662    1.898127  0.506835025  6.594810e-01     0.929276     0.639415
## 12663    1.634863  0.422548805 -1.497973e-01     0.945239     0.862279
## 12664    1.617457  0.592765044  1.911419e+00     0.858436     0.743624
## 12665    1.738137  0.527540971  1.697508e-01     0.973088     0.857081
## 12666    1.540186  0.493718689  1.783390e+00     0.880370     0.833934
## 12667    1.604528  0.987720772  2.202753e+00     0.825351     0.650761
## 12668    1.631885  0.376701023  2.162709e+00     0.838142     0.811238
## 12669    1.648302  0.156824662  2.366733e+00     0.965477     0.845485
## 12670    1.468706  0.634436963  1.666543e+00     0.857781     0.666400
## 12671    1.894654  1.145084476  7.976102e-01     0.923505     0.730701
## 12672    1.513275  0.261222412  3.314199e+00     0.831689     0.631025
## 12673    1.572956  0.514561034  2.497166e+00     0.850595     0.705940
## 12674    1.604501  0.383406003  1.376211e+00     0.681473     0.611795
## 12675    1.681290  0.423873099  2.115229e+00     0.766534     0.639259
## 12676    1.463391  0.247116100  2.670019e+00     0.890487     0.751272
## 12677    2.259923  1.622122801  1.832965e+00     0.854174     0.792985
## 12678    1.591921  0.760943927 -7.839315e-02     0.897004     0.741483
## 12679    1.714404  0.846598105  3.195651e+00     0.796423     0.709003
## 12680    1.623417  0.700644884  3.106865e-01     0.939818     0.693686
## 12681    1.465777  0.487402833  2.020278e+00     0.898258     0.634615
## 12682    2.028791  1.271216423  9.230925e-01     0.902552     0.710494
## 12683    1.591475  0.462887426  2.573807e+00     0.872963     0.721476
## 12684    1.692292  0.778206981  1.133172e+00     0.893393     0.704764
## 12685    1.692701  0.523231249  2.349609e+00     0.808649     0.791978
## 12686    1.584171  0.554231051 -3.421285e-01     0.960452     0.854656
## 12687    1.697401  0.649882737  2.221351e+00     0.769092     0.634749
## 12688    1.674403  0.551601243  7.562147e-01     0.903186     0.738435
## 12689    1.371744  0.324967318  2.592080e+00     0.795888     0.661365
## 12690    1.461878  0.416157690  2.037012e+00     0.860843     0.610303
## 12691    1.550790  0.464608761  1.765857e+00     0.873304     0.777994
## 12692    1.609657  0.396711826  1.647299e+00     0.798525     0.620766
## 12693    1.691682  1.019095510  1.549073e+00     0.827885     0.553945
## 12694    1.759687  0.388857537  2.663846e+00     0.904608     0.842536
## 12695    1.627655  0.981242638  5.455229e-01     0.901511     0.763581
## 12696    1.544714  0.428808400  2.609033e+00     0.667237     0.577985
## 12697    1.488043  0.324047749  1.832074e-01     0.708098     0.620832
## 12698    1.860454  0.685144061  2.670040e-01     0.929187     0.713527
## 12699    2.171419  1.430653837  1.623152e+00     0.831258     0.818756
## 12700    1.562689  0.490101815  2.396491e+00     0.906474     0.779436
## 12701    1.580983  0.452880767  7.224560e-01     0.938301     0.920907
## 12702    1.766744  1.321030598  8.165366e-01     0.876300     0.525287
## 12703    1.754928  0.530452003  2.107618e+00     0.906698     0.710118
## 12704    1.790443  0.518704724  3.077618e+00     0.964461     0.787674
## 12705    1.688434  0.654497089  1.838959e-01     0.988815     0.682076
## 12706    2.083929  1.939075247  1.342796e+00     0.795916     0.649494
## 12707    1.591893  0.410162884  1.861848e-01     0.896960     0.803926
## 12708    1.690320  0.820902597  8.628679e-01     0.916201     0.818593
## 12709    1.685384  0.454346278  2.963641e+00     0.891918     0.837627
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## 12710    1.716678  0.889942864  6.717963e-01     0.879350     0.777077
## 12711    1.701684  0.765553075  2.969916e-01     0.826571     0.637569
## 12712    1.813989  0.610830441  2.484622e+00     0.833980     0.748670
## 12713    1.716747  0.469397820  2.382847e-01     0.931667     0.806266
## 12714    1.805183  0.831924777 -5.934937e-02     0.947785     0.659543
## 12715    1.749149  0.539867400  2.970825e+00     0.887608     0.763168
## 12716    1.782507  0.672550397  1.987250e+00     0.807668     0.738793
## 12717    1.475710  0.544422780  2.021421e+00     0.816430     0.648617
## 12718    1.606429  0.413918068  2.444237e+00     0.758823     0.691689
## 12719    1.549277  0.437477854  2.767018e+00     0.875101     0.805590
## 12720    1.603445  0.477853148  2.568049e+00     0.804163     0.743799
## 12721    1.632995  0.484312654  2.011781e+00     0.904096     0.822036
## 12722    1.799522  0.395329888  2.046056e+00     0.896484     0.781846
## 12723    1.675350  1.311986835  6.961149e-01     0.730407     0.599986
## 12724    1.756944  0.479196559  1.647076e+00     0.977690     0.917099
## 12725    1.880970  1.162645045  1.701151e+00     0.807440     0.714318
## 12726    1.723700  0.906060153  2.320396e-01     0.812453     0.591912
## 12727    1.676741  0.384215379  2.746593e+00     0.937294     0.722047
## 12728    1.644304  0.545019967  2.430472e+00     0.983943     0.841885
## 12729    1.829201  0.779380733  2.563105e+00     0.839351     0.691412
## 12730    1.788465  1.160099209  7.613821e-01     0.936003     0.812096
## 12731    1.898777  1.008664034  7.306416e-01     0.865096     0.643832
## 12732    1.718328  0.795616581  7.801053e-01     0.925806     0.765266
## 12733    1.499555  0.509683610  2.158787e+00     0.932916     0.751864
## 12734    1.612166  0.747414139  2.156743e+00     0.810127     0.732783
## 12735    1.822539  1.167642195  4.301229e-01     0.908582     0.731823
## 12736    1.634468  0.789374091  2.413392e-01     0.873304     0.852068
## 12737    1.725411  1.164682913  5.735150e-01     0.912828     0.606695
## 12738    1.596869  0.306883743  2.086771e+00     0.814919     0.762928
## 12739    1.960796  0.609037045  3.061031e+00     0.903704     0.830656
## 12740    1.955428  0.544238006  2.315079e+00     0.787760     0.748985
## 12741    1.697090  0.911666208  7.036073e-01     0.979959     0.707034
## 12742    1.739310  0.434854614  2.344789e+00     0.859230     0.821580
## 12743    1.863511  0.655443871  2.455990e+00     0.918655     0.888159
## 12744    2.056283  1.121766602  8.887791e-01     0.915421     0.879027
## 12745    1.806800  0.764478762  2.852206e+00     0.907284     0.634579
## 12746    1.558775  0.366930738  2.233644e+00     0.911172     0.773577
## 12747    1.682492  0.418528325 -8.559852e-02     0.924271     0.695011
## 12748    1.705321  0.782384466  4.914198e-02     0.933014     0.833380
## 12749    1.795774  1.404613094  6.191756e-01     0.726631     0.646164
## 12750    1.522887  0.474939971  2.412607e+00     0.898509     0.832898
## 12751    1.594667  0.392872745  2.806343e+00     0.894741     0.804284
## 12752    1.806391  1.475929655  1.178411e+00     0.842251     0.725406
## 12753    1.781391  0.528134781  1.465919e+00     0.530101     0.475581
## 12754    1.774231  1.063213226  5.325311e-01     0.910883     0.770432
## 12755    1.779509  0.717429994  8.983659e-01     0.874048     0.793356
## 12756    1.652472  0.775921223  5.476930e-02     0.932075     0.848048
## 12757    1.555560  1.023380053  9.431537e-03     0.902711     0.857388
## 12758    2.086908  1.023458238  6.372819e-01     0.826342     0.776453
## 12759    1.659889  0.641893329  2.573243e+00     0.918341     0.858850
## 12760    1.724028  0.641163648  1.558704e+00     0.613674     0.482259
## 12761    1.531035  0.486468735  2.259962e+00     0.864531     0.780771
## 12762    1.597715  0.634388588  5.695020e-01     0.857719     0.656744
## 12763    1.564731  0.580190272  2.370039e+00     0.978296     0.753872
## 12764    1.687547  1.254671315  9.413230e-01     0.712230     0.609207
## 12765    1.523213  0.445372206  2.265675e+00     0.916837     0.818619
## 12766    1.624920  0.242829537  1.167089e-01     0.961387     0.706278
## 12767    1.709466  0.596227513  1.897014e+00     0.968262     0.894717
## 12768    1.664048  0.651614268  2.297626e+00     0.844779     0.689078
## 12769    1.629817  0.369748191  1.082998e-01     0.944962     0.855609
## 12770    1.548662  0.312860431  2.974000e+00     0.879155     0.738437
## 12771    1.631416  0.469858819  2.181617e+00     0.905783     0.822380
## 12772    1.600544  0.759073777  1.698038e+00     0.819630     0.655107
## 12773    2.046651  0.617713090  2.742337e+00     0.915750     0.865299
## 12774    1.687480  0.410433035  2.387326e+00     0.777292     0.730952
## 12775    1.812752  1.206815086  1.051840e+00     0.865565     0.629329
## 12776    1.811911  0.851592199  7.385270e-01     0.890854     0.844201
## 12777    1.544093  0.437579347  2.317788e+00     0.768115     0.624872
## 12778    1.746940  0.484346826  2.623648e+00     0.906762     0.783473
## 12779    1.649752  0.442504854  2.315394e+00     0.977395     0.918959
## 12780    1.821192  1.067149000  2.564001e+00     0.942040     0.791127
## 12781    2.143580  1.388472432  3.693153e-01     0.758739     0.628323
## 12782    1.603252  0.854985803  7.104462e-01     0.853086     0.605831
## 12783    1.629938  0.648999758  2.992418e+00     0.814379     0.776073
## 12784    1.660991  0.682950618  2.670644e-01     0.870012     0.625688
## 12785    1.594320  0.528437170  7.571635e-01     0.823644     0.679304
## 12786    1.810525  0.655278693  2.684882e+00     0.850379     0.717112
## 12787    1.747606  0.717623910  5.015051e-01     0.710044     0.690698
## 12788    2.062021  1.045131221  2.448681e+00     0.928086     0.682688
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## 12789    1.621923  0.592586423  2.218212e+00     0.855194     0.763272
## 12790    1.609513  0.372459070  1.458669e+00     0.885042     0.633135
## 12791    1.560389  0.579079011  1.213352e+00     0.843492     0.604150
## 12792    1.672641  0.875403353  6.943295e-01     0.937528     0.619843
## 12793    1.800696  1.053393481  1.968630e+00     0.860313     0.777191
## 12794    1.642774  0.680293805  2.409838e+00     0.883579     0.759781
## 12795    1.965966  1.382620311  1.316199e+00     0.977377     0.733571
## 12796    1.506416  0.415330659  2.121464e+00     0.945915     0.809379
## 12797    1.688487  0.503064437  1.910551e-01     0.818338     0.688746
## 12798    1.492788  0.392065273  1.837239e+00     0.876466     0.643730
## 12799    1.586727  0.426826702  2.495177e-01     0.730768     0.694613
## 12800    1.654281  0.518261186  6.293410e-01     0.797738     0.745517
## 12801    1.596488  0.435262901  2.708728e+00     0.964838     0.833616
## 12802    1.720585  0.460706952  3.191085e+00     0.832637     0.741536
## 12803    1.623760  0.628283665 -1.130468e-01     0.923104     0.749806
## 12804    1.631947  0.684386598  1.969493e+00     0.861355     0.653012
## 12805    1.675100  0.635695816  2.601577e+00     0.867887     0.792423
## 12806    2.223465  0.590273248  1.994582e+00     0.936616     0.929560
## 12807    1.729648  0.577199874 -9.884816e-03     0.943070     0.732426
## 12808    1.718845  0.868895892  5.677121e-01     0.943184     0.743542
## 12809    1.615792  0.426322538  1.398876e+00     0.657619     0.613210
## 12810    1.452207  0.562073877  3.303889e+00     0.879344     0.763344
## 12811    1.587701  0.561802370  2.436013e-01     0.942165     0.716995
## 12812    1.564621  0.637535758  2.696062e+00     0.932566     0.820674
## 12813    1.710283  0.719011250  1.478944e+00     0.726284     0.592401
## 12814    1.637751  0.421577605 -4.074058e-01     0.962194     0.896386
## 12815    1.738168  1.074710413  1.149318e+00     0.753918     0.679989
## 12816    1.769109  0.498667494  2.828824e+00     0.901343     0.803122
## 12817    1.593974  0.212065025  1.830947e+00     0.820625     0.744760
## 12818    1.491849  0.579669294  2.658029e+00     0.711869     0.670046
## 12819    1.896564  1.547889108  7.086371e-01     0.770233     0.626729
## 12820    1.614710  0.536030403  5.232402e-01     0.920786     0.742521
## 12821    1.541387  0.373908265  2.238481e+00     0.887883     0.774565
## 12822    1.627514  0.661197236  4.586208e-01     0.856536     0.842928
## 12823    1.795230  1.159302446  2.464619e-01     0.933939     0.701905
## 12824    1.670353  0.715676665  3.997419e-01     0.915047     0.791476
## 12825    1.819474  0.523846577  1.401862e-01     0.914269     0.786987
## 12826    1.778590  1.126085929  1.069157e+00     0.976252     0.691723
## 12827    1.641636  0.639418750  2.017580e+00     0.817927     0.604168
## 12828    1.700497  0.751336082  3.535249e-01     0.953294     0.759870
## 12829    1.874225  0.872369578  6.668105e-01     0.823339     0.631553
## 12830    1.581558  0.312746307  3.057703e+00     0.841262     0.752289
## 12831    1.720466  0.568685048  1.097250e-01     0.921041     0.723934
## 12832    1.914179  1.179520195  4.631988e-01     0.923996     0.761637
## 12833    1.684346  0.833614954  1.000788e+00     0.847833     0.806741
## 12834    1.667269  0.779603705  1.016526e+00     0.897274     0.792689
## 12835    2.166569  1.299851460  1.962855e+00     0.936966     0.686251
## 12836    1.464790  0.363407005  1.606207e+00     0.918559     0.831404
## 12837    1.569990  0.537346779  1.183644e-01     0.969400     0.900598
## 12838    1.567835  0.604179596  2.512346e+00     0.746662     0.677748
## 12839    1.639222  0.984044596  3.502661e-01     0.840502     0.560150
## 12840    1.694218  0.407861489  2.688169e+00     0.796211     0.784078
## 12841    1.659672  0.673997202  4.335739e-02     0.972543     0.751097
## 12842    1.875553  1.492458652  7.865722e-01     0.823720     0.694662
## 12843    2.249431  0.864673614  2.917302e+00     0.876253     0.824946
## 12844    2.019166  1.245872785  5.325619e-01     0.899376     0.804740
## 12845    1.732124  0.474977797  4.153072e-01     0.887667     0.731240
## 12846    1.620205  0.472308764  1.274182e-01     0.895964     0.830878
## 12847    1.654493  0.386404427  2.426929e+00     0.784981     0.641183
## 12848    1.533387  0.581804073  2.192785e+00     0.861140     0.766409
## 12849    1.983027  1.431432924  5.664009e-01     0.744296     0.646110
## 12850    1.766845  0.643293735  2.995386e+00     0.880887     0.737690
## 12851    1.527033  0.425635283  2.892084e+00     0.906513     0.784344
## 12852    1.660487  0.877580379  2.842746e-01     0.954593     0.773184
## 12853    1.692292  0.453943335  1.995330e+00     0.717384     0.591551
## 12854    1.919169  1.077687603  2.420643e+00     0.870620     0.846453
## 12855    1.652600  1.087632370  7.642802e-01     0.790717     0.592590
## 12856    1.794795  0.763898723  9.729539e-01     0.845500     0.721190
## 12857    1.758464  0.399976411  6.928570e-01     0.880405     0.825578
## 12858    1.601069  0.550335996  2.018484e+00     0.827109     0.556774
## 12859    1.567962  0.744222551  2.237018e+00     0.935471     0.829095
## 12860    1.714258  0.843004667  5.525753e-01     0.879989     0.759935
## 12861    1.875870  1.125975462  1.188670e+00     0.765943     0.640738
## 12862    1.655926  0.582415658  2.097714e+00     0.819688     0.667594
## 12863    2.057940  1.479595463  4.637309e-01     0.855664     0.614780
## 12864    1.595548  0.545033586  1.841755e+00     0.940547     0.752266
## 12865    1.531995  0.651113183  2.693747e+00     0.870720     0.696277
## 12866    1.679670  1.027170144  3.841091e-01     0.851211     0.742054
## 12867    1.829438  0.826939937  1.687251e-01     0.824033     0.612715
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## 12868    1.802508  0.632569648  1.786014e+00     0.845116     0.756101
## 12869    1.632632  0.644377528  3.758755e-01     0.848719     0.795083
## 12870    1.487606  0.696435026  2.286171e+00     0.824513     0.819608
## 12871    1.413977  0.400550077  2.660226e+00     0.759356     0.623718
## 12872    1.683677  0.629540072  9.370088e-01     0.881591     0.730430
## 12873    1.637345  0.581744915  2.608745e-01     0.962991     0.787788
## 12874    1.954611  1.279623604 -2.218487e-01     0.913873     0.690492
## 12875    2.345117  0.676038474  1.985835e+00     0.949455     0.876689
## 12876    1.711453  1.133506974  6.303193e-01     0.911205     0.812833
## 12877    1.618126  0.767788658  2.777522e+00     0.861935     0.741279
## 12878    1.851215  0.636031296  2.202541e+00     0.876660     0.822707
## 12879    1.469785  0.528359984  2.818065e+00     0.901751     0.734157
## 12880    1.589611  0.424527199  2.198239e+00     0.815911     0.710284
## 12881    1.526893  0.565152155  2.564139e+00     0.949736     0.860267
## 12882    1.795651  0.821749935  2.077141e+00     0.925012     0.718753
## 12883    1.621640  0.449925577  2.577539e+00     0.843393     0.708655
## 12884    1.616785  0.509744044  2.880692e-01     0.938140     0.735070
## 12885    1.583863  0.755092421  2.288462e-01     0.847024     0.787812
## 12886    1.629112  0.602884368  1.966129e+00     0.899761     0.761363
## 12887    1.552584  0.662410257  1.013447e+00     0.955015     0.875135
## 12888    1.550380  0.575258297  2.183364e+00     0.803227     0.711008
## 12889    1.933413  1.070698969  1.129458e+00     0.950351     0.865391
## 12890    1.772839  1.006097913  1.752513e+00     0.885770     0.637004
## 12891    1.761784  1.324712420  1.944225e+00     0.935537     0.665765
## 12892    1.566229  0.516282788  1.707192e+00     0.496176     0.452999
## 12893    1.604983  0.527667272  2.271524e+00     0.935447     0.849269
## 12894    1.902908  1.182337603  2.219293e+00     0.908912     0.625921
## 12895    1.563309  0.510436423  2.702429e+00     0.919077     0.681391
## 12896    1.765166  1.079163150  9.624610e-01     0.647193     0.603090
## 12897    1.692911  0.683409100  4.451379e-01     0.893343     0.762176
## 12898    2.081192  1.148682844  1.434489e+00     0.599021     0.501094
## 12899    1.935673  1.204651668  7.634937e-01     0.913607     0.703186
## 12900    1.733677  0.524374050  1.990423e+00     0.858409     0.756321
## 12901    1.646719  0.641392797  2.651858e+00     0.891544     0.788570
## 12902    1.655822  0.742893162  2.888273e-01     0.914438     0.717846
## 12903    1.700590  0.527444287  2.163518e+00     0.824949     0.599643
## 12904    1.648286  0.986305849  3.711930e-01     0.956334     0.888024
## 12905    1.722011  0.523794575  9.653202e-02     0.962608     0.909125
## 12906    1.849156  0.549260818  2.566870e-01     0.909778     0.640854
## 12907    1.460874  0.430028268  2.066297e+00     0.928276     0.812461
## 12908    1.799828  1.160798554  8.407383e-01     0.722234     0.495646
## 12909    1.645928  0.600188498  9.517339e-01     0.703297     0.619994
## 12910    1.716270  0.506367010  5.277698e-01     0.898856     0.685106
## 12911    1.727191  0.574974110  1.788334e+00     0.761798     0.745231
## 12912    1.796112  0.872114882  1.215428e+00     0.692065     0.450626
## 12913    1.645464  0.871484200  4.692401e-01     0.848701     0.795162
## 12914    2.001180  1.045444251  1.844296e+00     0.923122     0.819723
## 12915    1.650276  1.017796859  2.688810e+00     0.957991     0.892731
## 12916    1.669582  0.596212107  2.787218e+00     0.812734     0.778459
## 12917    1.611649  0.964734218  5.293394e-01     0.877652     0.636805
## 12918    1.770924  0.757575176  2.463497e+00     0.902016     0.694081
## 12919    1.702436  0.821557414  3.476960e-01     0.895051     0.858167
## 12920    2.189162  1.526527948  2.480484e+00     0.817762     0.690552
## 12921    1.806116  1.254318423  4.094262e-01     0.851182     0.745704
## 12922    1.619117  0.557386882  3.201337e+00     0.898280     0.731824
## 12923    1.794616  0.452451946  3.231622e+00     0.960985     0.879410
## 12924    1.656274  1.132912562  7.613821e-01     0.826200     0.788695
## 12925    1.600431  0.495946533  2.167840e+00     0.855537     0.769860
## 12926    2.023775  1.353506544  5.405726e-01     0.783556     0.668535
## 12927    1.578103  0.331773379  1.967335e+00     0.850761     0.797902
## 12928    1.516603  0.287165493  2.179879e+00     0.799466     0.648619
## 12929    1.409494  0.521830832  2.549877e+00     0.870577     0.499424
## 12930    1.686174  0.427322163  7.201714e-01     0.942318     0.855474
## 12931    1.634994  0.913828152  7.645417e-01     0.848960     0.702327
## 12932    1.600384  0.404640464  3.149061e+00     0.876407     0.771031
## 12933    1.542978  0.403250962  2.392955e+00     0.791995     0.726656
## 12934    1.577880  0.547214560  1.187299e+00     0.953595     0.856434
## 12935    1.603644  0.734149100  2.762779e+00     0.904275     0.721938
## 12936    1.433511  0.617459569  2.816792e+00     0.882143     0.749552
## 12937    1.552511  0.492627706  2.872029e+00     0.836580     0.667176
## 12938    1.689058  0.448477521  1.147984e+00     0.922312     0.757735
## 12939    1.676716  0.737194234  8.554125e-01     0.797103     0.678969
## 12940    1.629303  0.481819427  2.024198e+00     0.775786     0.676230
## 12941    1.699634  0.522009722  2.809266e-01     0.930901     0.816195
## 12942    1.613759  0.458677123  7.704074e-01     0.979445     0.879366
## 12943    1.537799  0.457989322  1.565081e+00     0.715515     0.699286
## 12944    2.252562  1.180819504  2.050863e+00     0.664697     0.593992
## 12945    1.652509  0.571001509  1.904526e+00     0.912426     0.760977
## 12946    1.784029  0.629773398  8.900969e-01     0.965186     0.821781
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## 12947    1.595597  0.423827275  5.036122e-01     0.846680     0.745132
## 12948    2.158335  1.644591206  9.740304e-01     0.891151     0.601826
## 12949    1.696306  0.523516256  1.470257e+00     0.874162     0.564348
## 12950    1.885587  0.812984174  7.686195e-01     0.927877     0.902669
## 12951    1.538858  0.454631470  2.914980e+00     0.859253     0.687823
## 12952    1.604306  1.233795391  4.658465e-01     0.886697     0.667031
## 12953    1.597208  0.485968308  2.557880e+00     0.925654     0.727458
## 12954    1.808098  0.972018062  3.505784e-01     0.900814     0.730697
## 12955    1.646257  0.458986655  1.602902e+00     0.649778     0.608292
## 12956    1.560740  0.678332603  4.986358e-01     0.911641     0.694407
## 12957    1.602855  0.438517034  1.888247e+00     0.939805     0.804955
## 12958    1.583099  0.673047646  1.460025e+00     0.804239     0.752290
## 12959    1.958769  0.837335868  3.071311e+00     0.850476     0.788322
## 12960    1.515079  0.463639203 -7.368693e-03     0.799086     0.732253
## 12961    2.043508  1.419255028  1.156254e+00     0.787319     0.678226
## 12962    1.865949  1.092408317  1.842363e+00     0.883548     0.666311
## 12963    2.311095  1.499574371  1.602699e+00     0.866727     0.639349
## 12964    1.681528  0.865239633  1.986199e-01     0.769046     0.641690
## 12965    1.824594  1.176126001  5.805544e-01     0.933032     0.711766
## 12966    2.019918  1.202760687  7.564862e-01     0.875846     0.802170
## 12967    1.624345  0.344755671  2.354547e+00     0.876427     0.755995
## 12968    1.562975  0.919523147  2.544685e+00     0.969543     0.852086
## 12969    1.717044  0.720602471  1.634512e+00     0.834962     0.740778
## 12970    2.339346  1.695584109  1.230819e+00     0.850334     0.624735
## 12971    2.007530  1.324401818  1.091177e+00     0.909271     0.696148
## 12972    1.772052  0.456315919  1.633003e-01     0.863584     0.763295
## 12973    1.657688  0.661066459  2.114402e+00     0.826614     0.724638
## 12974    1.996053  0.853771804  1.595628e+00     0.904692     0.793931
## 12975    1.649690  0.836148716  2.969916e-01     0.770527     0.685479
## 12976    1.630634  0.423327809  1.191511e+00     0.879252     0.779676
## 12977    1.476976  0.343237206  2.326299e+00     0.840219     0.730946
## 12978    1.960448  1.185287113  9.607579e-01     0.874206     0.723524
## 12979    1.597487  0.667719985  8.407477e-02     0.876764     0.856674
## 12980    1.550533  0.417225828  1.889976e+00     0.955290     0.825304
## 12981    1.718055  0.743972817  1.577371e+00     0.678395     0.630012
## 12982    1.645760  0.982584626  5.150416e-01     0.831628     0.618865
## 12983    1.726923  0.828886650  4.450475e-01     0.915143     0.674461
## 12984    1.654297  0.926864932  8.167931e-01     0.933082     0.730844
## 12985    2.071911  0.311995304  2.406567e+00     0.846455     0.767358
## 12986    1.610530  0.454597928  2.029062e+00     0.794302     0.759608
## 12987    1.610118  0.904551640  1.839734e+00     0.803568     0.788696
## 12988    1.617444  0.424857146  5.053688e-01     0.923275     0.593635
## 12989    1.565367  0.528416588  2.934274e+00     0.777613     0.749947
## 12990    1.708883  0.712481338  2.648715e+00     0.879073     0.794423
## 12991    1.659012  0.891328344  6.252575e-01     0.824894     0.716228
## 12992    1.670346  1.143308397  1.704201e+00     0.721072     0.659310
## 12993    2.065811  1.080835648  1.228764e+00     0.905111     0.764078
## 12994    1.977745  1.432046838  1.704772e+00     0.774528     0.681643
## 12995    1.591048  0.533822880  1.900900e-01     0.972848     0.754510
## 12996    1.721980  0.672309409  4.192726e-01     0.848057     0.723660
## 12997    1.559064  0.383573027  2.294310e+00     0.927964     0.720549
## 12998    1.802575  1.020448299  5.842163e-01     0.949144     0.831691
## 12999    1.661936  0.508192926  3.313270e-01     0.883040     0.643309
## 13000    1.652641  0.658293835  2.398251e-01     0.848364     0.676558
## 13001    1.663738  0.358216666  2.882059e+00     0.870267     0.837785
## 13002    1.635814  0.314680234  1.706527e+00     0.807936     0.739305
## 13003    1.496499  0.362369363  1.234143e+00     0.756038     0.680424
## 13004    1.939221  0.862136152  5.650171e-01     0.866466     0.820825
## 13005    1.597411  0.499097086  2.456323e+00     0.811261     0.726568
## 13006    1.760774  1.056893422  2.313680e+00     0.779271     0.698422
## 13007    1.751305  0.496069890  2.270916e+00     0.923439     0.753977
## 13008    1.714206  1.177853809  3.972150e-01     0.981635     0.799957
## 13009    1.674736  0.960451274  4.476773e-01     0.633391     0.594765
## 13010    1.876633  1.249973279  2.821812e+00     0.828542     0.624111
## 13011    1.599800  0.571563266  2.193785e+00     0.777520     0.660130
## 13012    1.679166  0.660413880  1.851970e-01     0.665225     0.558122
## 13013    1.664988  0.576092452  9.953690e-02     0.929994     0.870840
## 13014    1.555903  0.391846874  1.969045e+00     0.624762     0.589364
## 13015    1.647126  1.230913623  8.247448e-01     0.899146     0.656639
## 13016    1.429751  0.549208093  2.355640e+00     0.967846     0.774320
## 13017    1.839330  0.448380090  3.139929e+00     0.900359     0.801611
## 13018    1.610598  0.532533992  1.564999e+00     0.975159     0.699953
## 13019    1.740725  0.442313545  2.434791e+00     0.977337     0.900856
## 13020    1.771418  0.651680132  3.065829e+00     0.863505     0.735497
## 13021    1.617661  1.050379756  4.179590e-01     0.742082     0.642663
## 13022    1.567685  0.350995757  1.009358e+00     0.920256     0.755117
## 13023    1.763356  1.014327289  4.528266e-01     0.783877     0.697984
## 13024    2.001989  1.178193937  1.586331e+00     0.807688     0.693238
## 13025    1.693832  1.073740339  1.744719e-01     0.924254     0.859256
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## 13026    1.692597  0.571429303  3.223108e+00     0.865883     0.744832
## 13027    1.796639  1.104367596  7.337551e-01     0.892034     0.808517
## 13028    1.669003  0.579288447  3.270826e+00     0.953020     0.861919
## 13029    1.699349  0.890344438 -1.710462e-01     0.986336     0.825620
## 13030    2.014004  1.202801528  9.549527e-01     0.867865     0.683208
## 13031    1.895336  1.680347300  1.115723e+00     0.841555     0.558028
## 13032    1.774737  0.982289328  8.877118e-01     0.897629     0.685604
## 13033    1.579229  0.548620325  2.034280e+00     0.820757     0.682186
## 13034    1.597954  0.363875109  1.330352e+00     0.841136     0.780681
## 13035    1.765981  0.487791448  2.761762e+00     0.904164     0.815581
## 13036    1.749044  0.688808555  1.099473e+00     0.969684     0.704685
## 13037    1.777137  0.853056028  7.788011e-01     0.940396     0.754168
## 13038    1.780966  0.346890619  2.862372e+00     0.916479     0.728489
## 13039    1.839552  0.952680587  3.986626e-01     0.997435     0.682336
## 13040    1.824363  0.481729197  2.037369e+00     0.785742     0.587857
## 13041    1.599441  0.756095756  1.058165e+00     0.964297     0.644451
## 13042    1.622772  0.614920406  6.722986e-01     0.986379     0.757832
## 13043    1.679374  0.620263096  2.728940e+00     0.708936     0.688057
## 13044    1.690986  0.964417098  7.214692e-01     0.907438     0.654266
## 13045    1.561367  0.363689056  3.276156e+00     0.928014     0.803395
## 13046    1.706426  0.639949423  3.332989e-01     0.911646     0.828271
## 13047    1.568589  0.734977350  3.097345e+00     0.756177     0.652915
## 13048    1.607582  0.704480833  2.248030e+00     0.698020     0.633078
## 13049    1.779165  0.611719061  1.522876e+00     0.790382     0.598455
## 13050    1.807875  0.535740846  9.352398e-01     0.710323     0.684183
## 13051    1.693839  1.150787131  1.068646e-01     0.860917     0.824249
## 13052    1.699189  0.636093542  3.100687e-01     0.910430     0.835260
## 13053    1.780653  1.016159696  1.304682e+00     0.673542     0.567909
## 13054    1.804727  0.457706328  9.988785e-01     0.963507     0.829617
## 13055    1.620572  0.387541091  1.347931e+00     0.817213     0.776340
## 13056    1.873534  0.833044425  2.585529e+00     0.860172     0.827514
## 13057    1.674074  0.675769179  3.395837e-01     0.961858     0.656110
## 13058    1.775562  0.829953120 -2.804499e-01     0.923558     0.873944
## 13059    1.605427  0.322760791  1.912343e+00     0.925442     0.868317
## 13060    1.630093  0.339212862  3.107170e+00     0.911759     0.720999
## 13061    1.485382  0.347532964  3.235675e+00     0.939637     0.789477
## 13062    1.736996  0.485656135  5.368304e-01     0.822009     0.693583
## 13063    1.702477  0.542646197  4.168227e-01     0.940618     0.796164
## 13064    1.544518  0.519354079 -2.531654e-01     0.895923     0.832957
## 13065    2.290591  0.910090546  1.313579e+00     0.952840     0.861405
## 13066    1.611970  0.714073971  2.767376e-01     0.895978     0.712084
## 13067    1.641268  0.852696477  1.485008e-01     0.921820     0.623573
## 13068    1.625743  0.612994597  2.559809e-01     0.871021     0.750089
## 13069    1.550791  0.299003635  2.812838e+00     0.779311     0.675235
## 13070    1.749753  0.465770866  2.220849e+00     0.966853     0.937304
## 13071    1.747678  0.550157392  1.337500e+00     0.981444     0.856588
## 13072    1.758928  0.979164442  4.401505e-01     0.925847     0.864124
## 13073    1.745632  0.830026994  6.384411e-01     0.903282     0.802306
## 13074    1.666571  0.684618285  1.261092e-01     0.965259     0.895420
## 13075    1.878761  0.939412912  5.103479e-02     0.844391     0.804167
## 13076    2.053624  0.647798481  1.727584e+00     0.832085     0.657351
## 13077    1.703636  1.244937340  1.240152e+00     0.715619     0.589751
## 13078    1.576790  0.471916294  2.192101e+00     0.851007     0.763470
## 13079    1.463836  0.643526698  6.623378e-01     0.864810     0.723386
## 13080    1.598302  0.483009279  2.047567e+00     0.727342     0.613821
## 13081    1.741019  1.089742662  6.705860e-01     0.891290     0.793361
## 13082    1.621670  0.532574766  2.048295e+00     0.881496     0.831189
## 13083    1.709183  0.608263880  8.380144e-01     0.833063     0.760966
## 13084    1.600264  0.453660747  5.527383e-01     0.752057     0.563525
## 13085    1.623645  0.452530084  9.910433e-01     0.826174     0.683980
## 13086    1.653972  0.697521390  3.913237e-01     0.808022     0.731597
## 13087    1.663217  1.133238630  1.592980e+00     0.812105     0.750102
## 13088    2.014453  1.566458706  1.916301e+00     0.758118     0.607574
## 13089    1.773206  1.089947480  6.610728e-01     0.767488     0.735702
## 13090    1.747576  0.812000379  1.049916e+00     0.936897     0.746642
## 13091    1.715924  1.102845164  5.285560e-01     0.930003     0.802447
## 13092    1.670383  0.714690963  2.321778e+00     0.982719     0.874013
## 13093    1.475957  0.427383853  2.412480e+00     0.840452     0.807986
## 13094    1.746035  0.890712128  4.112665e-01     0.835696     0.694044
## 13095    1.752345  0.853569851  1.323698e-01     0.646114     0.510126
## 13096    1.663645  0.930904734  1.261092e-01     0.861673     0.829581
## 13097    1.657150  0.726195627  7.077404e-01     0.892588     0.857000
## 13098    1.835332  0.907844901  1.167089e-01     0.980801     0.828237
## 13099    1.534182  0.592560899  3.044762e+00     0.937685     0.863434
## 13100    1.646080  0.875610443  5.158905e-01     0.827952     0.727416
## 13101    1.879810  1.191666152 -8.468375e-02     0.888595     0.767274
## 13102    1.682834  0.727915207  2.223103e-01     0.987840     0.579646
## 13103    1.652179  0.837761364  2.843921e-01     0.959901     0.842191
## 13104    1.483986  0.154597413  2.217621e+00     0.793072     0.726254
```

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## 13105    1.572101  0.792685789  2.043717e+00     0.904741     0.720425
## 13106    1.770804  0.505936425  1.265494e+00     0.927644     0.826873
## 13107    1.746017  0.744351668  3.206625e-01     0.919688     0.714171
## 13108    1.714432  1.134811186  1.891205e-01     0.945896     0.862386
## 13109    1.863599  0.911864693  5.277698e-01     0.922964     0.670181
## 13110    1.557731  0.487210516  1.274182e-01     0.909091     0.777552
## 13111    1.574475  0.407542159  1.424314e+00     0.828722     0.714544
## 13112    1.517387  0.327181093  2.557361e+00     0.770443     0.711580
## 13113    1.935663  1.451296619  5.852726e-01     0.981047     0.756905
## 13114    1.607645  0.439057817  3.004250e+00     0.862071     0.753913
## 13115    2.055466  1.628795444  6.163294e-01     0.838456     0.632992
## 13116    1.765250  0.701508406  2.973908e+00     0.978440     0.969552
## 13117    1.705395  0.815254231  2.632300e+00     0.834517     0.746094
## 13118    1.455983  0.168028758  2.875190e+00     0.748954     0.595145
## 13119    1.618431  0.389104038  1.958150e-01     0.897758     0.774510
## 13120    1.773630  1.072187378  1.576338e+00     0.877901     0.768075
## 13121    1.621165  1.072187378  1.941875e+00     0.859917     0.675091
## 13122    1.524256  0.211603712  2.480695e+00     0.821894     0.760821
## 13123    1.638748  0.351125414  3.432062e+00     0.704533     0.649630
## 13124    1.658022  0.479218170  6.098693e-01     0.890510     0.641271
## 13125    1.641326  0.726286172  5.852726e-01     0.868514     0.525073
## 13126    1.536010  0.343146559  1.750899e+00     0.728456     0.691200
## 13127    1.916219  0.953869821 -1.123538e-12     0.917982     0.877021
## 13128    1.666285  1.544927097  7.647377e-01     0.581852     0.563494
## 13129    1.510461  0.350635608  2.052862e+00     0.763409     0.734176
## 13130    1.775160  1.164326083  4.955237e-01     0.953287     0.795430
## 13131    1.595934  0.262638532  1.701910e+00     0.935193     0.747502
## 13132    1.669009  0.942387089  2.651580e+00     0.891688     0.744601
## 13133    1.763388  0.642839296  7.161670e-01     0.831169     0.707971
## 13134    1.749235  0.896985621  3.742270e-01     0.694327     0.655059
## 13135    1.637908  0.645850457  1.021686e+00     0.859519     0.740774
## 13136    1.636139  0.485640521  2.008342e+00     0.946135     0.740268
## 13137    1.542835  0.483926613  1.917792e+00     0.781844     0.709252
## 13138    1.889343  1.083760540  1.055501e+00     0.874416     0.709506
## 13139    1.521835  0.665384905  2.736234e+00     0.939786     0.737690
## 13140    1.843116  0.376531335  2.185571e+00     0.662004     0.611210
## 13141    1.673240  0.583127331  2.214342e+00     0.901959     0.814184
## 13142    1.635838  0.567309918  2.455223e+00     0.959443     0.862620
## 13143    1.684383  0.460864781  7.829009e-01     0.951614     0.881990
## 13144    1.739378  0.853836872  2.800197e-01     0.916761     0.787479
## 13145    1.679103  0.496594808  2.484007e+00     0.810626     0.740642
## 13146    1.821126  0.759001163  2.532344e+00     0.720089     0.659153
## 13147    1.980208  1.340515500  9.132901e-01     0.925970     0.806750
## 13148    1.663581  0.457830444 -2.904667e-01     0.911930     0.787666
## 13149    2.096670  1.071565372  2.339705e+00     0.911293     0.709396
## 13150    1.637295  0.595761788  1.549663e+00     0.952316     0.696660
## 13151    1.647055  0.640963167  2.189646e-01     0.926587     0.892959
## 13152    1.692869  0.461123197  2.381265e+00     0.924328     0.778330
## 13153    1.638164  0.354598185  3.347659e-01     0.867893     0.691129
## 13154    1.613257  0.532598973  1.492160e+00     0.882871     0.758275
## 13155    1.922528  1.118258111  6.983487e-01     0.900862     0.872163
## 13156    1.773413  0.760527274  5.723989e-01     0.920468     0.878923
## 13157    1.572107  0.697580648  1.989913e+00     0.978558     0.764227
## 13158    1.548472  0.608025130  8.887791e-01     0.839267     0.731546
## 13159    1.677338  0.270415618  6.045510e-01     0.846086     0.771993
## 13160    1.672934  0.766162907 -1.744376e-01     0.831639     0.799506
## 13161    1.715598  0.586523168  1.401342e+00     0.823341     0.660643
## 13162    1.722623  0.756455812  2.320396e-01     0.969305     0.797241
## 13163    1.636325  0.472108180  9.153774e-01     0.930589     0.758117
## 13164    1.617547  0.911057949  5.762016e-01     0.920481     0.742278
## 13165    1.711833  0.683301954  3.568029e+00     0.817053     0.678777
## 13166    1.599064  0.497336090  6.831577e-01     0.907053     0.727793
## 13167    1.730125  0.904474805  2.021084e+00     0.888097     0.673726
## 13168    1.719685  0.693287157  2.946489e-01     0.902128     0.689117
## 13169    1.714123  0.526162163  2.756542e+00     0.931289     0.919608
## 13170    1.495261  0.575126624  1.635530e+00     0.890152     0.744296
## 13171    1.680598  0.493173540  2.784870e+00     0.862335     0.751913
## 13172    1.654395  1.088206988  3.008885e+00     0.861927     0.716569
## 13173    1.780405  0.763983236  1.020880e+00     0.849035     0.736845
## 13174    1.884152  1.277858948  1.286592e+00     0.884931     0.576801
## 13175    1.610797  0.508975231  2.064046e+00     0.831595     0.704980
## 13176    1.838806  0.508035217  3.081530e+00     0.878373     0.819220
## 13177    1.589918  0.675177794  6.619433e-01     0.974816     0.777210
## 13178    1.658092  0.572719456  1.236941e+00     0.925942     0.823160
## 13179    1.547175  0.350658853  1.800730e+00     0.853758     0.830328
## 13180    1.632455  0.368913231  6.139722e-01     0.895104     0.725552
## 13181    1.557939  0.450310706  2.300070e+00     0.830983     0.692593
## 13182    1.513007  0.435457340  2.318170e+00     0.888597     0.809519
## 13183    1.564355  0.620805207  2.427564e+00     0.807056     0.691536
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## 13184    1.608245  0.503892778  4.728354e-01     0.937395     0.683295
## 13185    1.618895  0.370757277  2.253408e+00     0.862821     0.758476
## 13186    1.674010  0.811719077  2.463417e+00     0.866630     0.733822
## 13187    1.635324  0.587848975  3.359198e+00     0.909490     0.820943
## 13188    1.719569  0.646042808  4.382160e-01     0.776502     0.709705
## 13189    1.670704  0.305061026  2.951831e+00     0.846329     0.757769
## 13190    1.658132  0.510035354  1.912608e+00     0.895420     0.870116
## 13191    1.586385  0.538025493  1.007353e+00     0.843984     0.783571
## 13192    1.677816  0.425204788  2.177033e+00     0.852377     0.804409
## 13193    1.522994  0.360040254  2.702753e+00     0.927068     0.810152
## 13194    1.692983  0.474063214  1.674504e+00     0.952191     0.783001
## 13195    2.016511  1.364912913  2.419805e+00     0.827158     0.565733
## 13196    1.705076  0.857479046  2.330250e+00     0.811391     0.739978
## 13197    1.709509  0.718437744  5.900365e-01     0.905291     0.712172
## 13198    1.812579  0.933895070  2.910361e+00     0.874444     0.833336
## 13199    1.676212  0.919114195  2.004693e-01     0.873068     0.825890
## 13200    1.634319  0.454599452  2.552584e+00     0.957395     0.873095
## 13201    1.717248  0.264189530  2.618987e+00     0.917395     0.773909
## 13202    1.694358  0.524264970  2.683264e+00     0.944785     0.793519
## 13203    1.579359  0.462618084  1.220076e+00     0.836043     0.693900
## 13204    1.648632  0.718095438  4.530361e-02     0.858853     0.635161
## 13205    1.425148  0.411102621  2.180049e+00     0.961441     0.718634
## 13206    1.674573  0.461013539  2.468528e+00     0.828141     0.553961
## 13207    2.217508  1.776529030  1.049094e+00     0.807277     0.618077
## 13208    1.550963  0.456960882  1.905186e+00     0.947829     0.857892
## 13209    1.866946  1.085265598  9.756222e-01     0.882143     0.738551
## 13210    1.616665  1.236892311  6.761768e-01     0.916084     0.696015
## 13211    1.756500  0.576959520  2.278343e+00     0.871968     0.808983
## 13212    2.238901  1.007444775  1.330013e+00     0.859893     0.723456
## 13213    1.637079  0.686813168 -1.710462e-01     0.962701     0.708479
## 13214    1.605543  0.565897382  2.572509e+00     0.929158     0.820014
## 13215    1.501755  0.428568872  1.584216e+00     0.902676     0.703022
## 13216    1.944299  1.041956901  3.867957e-01     0.981869     0.594745
## 13217    1.572207  0.604684953  2.028474e+00     0.970802     0.771440
## 13218    2.106208  0.970318976  1.865595e+00     0.893474     0.678612
## 13219    1.681961  0.898261577  4.707884e-01     0.903666     0.766880
## 13220    1.617555  0.656529406  2.373388e+00     0.713415     0.675603
## 13221    1.858774  0.527397872  1.540472e+00     0.871975     0.760089
## 13222    1.533364  0.419694763  2.483862e+00     0.815887     0.745502
## 13223    1.466546  0.376241070  2.220400e+00     0.686574     0.514800
## 13224    1.715156  0.515842065  2.745209e+00     0.964653     0.795120
## 13225    1.783632  1.092703104  4.332117e-01     0.969070     0.779686
## 13226    1.642634  0.440534420  1.903741e+00     0.700299     0.602272
## 13227    1.709485  1.030502572 -7.839315e-02     0.904663     0.669324
## 13228    1.553402  0.298412011  1.775476e+00     0.898167     0.840458
## 13229    1.643665  1.084258036  1.160200e+00     0.983247     0.730508
## 13230    1.706624  1.000290880  9.684068e-01     0.938194     0.565453
## 13231    1.646593  0.546647523  2.351853e-01     0.974706     0.844571
## 13232    1.621768  0.828213775  5.931062e-01     0.924553     0.781535
## 13233    1.620249  0.879117680  1.096616e+00     0.848488     0.673590
## 13234    1.517039  0.460385103  2.234598e+00     0.859855     0.744395
## 13235    1.649341  0.778592559  5.449858e-01     0.685818     0.672757
## 13236    1.786525  0.443090801  1.564380e+00     0.922616     0.874690
## 13237    1.668163  1.041972673  2.501075e-01     0.974390     0.756625
## 13238    1.659659  0.303653878  2.048930e+00     0.865500     0.845881
## 13239    1.676869  0.700663919  4.769780e-03     0.848700     0.783115
## 13240    1.495239  0.455852472  2.149265e+00     0.769959     0.522643
## 13241    1.731282  0.971614429  1.336299e+00     0.776877     0.683431
## 13242    1.641497  0.697942987  6.497855e-01     0.768323     0.575893
## 13243    1.680258  1.330316351  9.291146e-01     0.908273     0.593547
## 13244    1.652704  1.127652183  3.196183e-01     0.867478     0.715163
## 13245    1.482379  0.195154905  1.973566e+00     0.758922     0.733697
## 13246    1.409996  0.426296501  3.056068e+00     0.736070     0.697662
## 13247    1.995563  0.857744278  2.918820e+00     0.921226     0.816840
## 13248    1.654402  0.287205845  2.807184e+00     0.867223     0.713511
## 13249    1.650644  0.305770412  1.214169e+00     0.914177     0.707935
## 13250    2.105347  1.286638323  7.806517e-01     0.952127     0.871866
## 13251    1.699576  0.814429402  3.676524e-01     0.906154     0.735836
## 13252    1.545532  0.551934040  1.915562e+00     0.831884     0.692291
## 13253    1.587736  0.797820620  6.024777e-02     0.930540     0.720398
## 13254    1.618972  0.893231188  3.227718e+00     0.803614     0.721650
## 13255    1.560559  0.874029893  2.539186e+00     0.691184     0.614461
## 13256    1.531078  0.568010358  2.730571e+00     0.903291     0.742938
## 13257    1.490543  0.554344977  2.278525e+00     0.964007     0.816419
## 13258    1.862621  1.068122755  1.840341e+00     0.724453     0.607265
## 13259    1.632309  0.540432091  2.431208e-01     0.937053     0.802665
## 13260    1.446887  0.312115975  2.529687e+00     0.758143     0.734490
## 13261    1.763203  1.520338089  1.083515e+00     0.857715     0.666646
## 13262    1.698066  0.746616298  6.026383e-01     0.789675     0.535002
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## 13263    1.491321  0.366320209  9.050736e-01     0.601634     0.562733
## 13264    1.444251  0.598684382  2.803812e+00     0.882525     0.742092
## 13265    1.720763  0.771184598  2.263002e+00     0.758720     0.701757
## 13266    1.625496  0.624571873  3.051431e+00     0.875487     0.781584
## 13267    1.781905  0.767451976  2.524147e-01     0.915374     0.745000
## 13268    1.844340  1.095929138  4.081848e-01     0.768041     0.669017
## 13269    1.661921  0.524887914  6.757823e-01     0.900988     0.763008
## 13270    1.688380  0.691154900  9.393450e-01     0.832982     0.724658
## 13271    1.709950  0.575896460  2.256308e+00     0.711178     0.610948
## 13272    1.555675  0.640342281  2.820557e+00     0.913034     0.810498
## 13273    1.691082  1.096979495  2.112364e-01     0.887574     0.758516
## 13274    1.812632  0.822329602  2.654686e+00     0.893340     0.740600
## 13275    1.636912  0.915775920  1.433506e+00     0.851295     0.702791
## 13276    1.695440  0.640201092  4.225506e-01     0.866565     0.837774
## 13277    1.660762  0.374631052  1.767761e+00     0.920498     0.839067
## 13278    1.717283  0.966934945  1.647898e-01     0.899398     0.770924
## 13279    1.493728  0.328887003  2.299957e+00     0.779499     0.739988
## 13280    1.738000  1.403352198  1.272278e+00     0.802502     0.626095
## 13281    1.687599  0.384917648  1.997246e+00     0.934367     0.861751
## 13282    1.572529  0.385168184  2.164987e+00     0.970877     0.858681
## 13283    1.509084  0.490652234  1.775021e+00     0.924261     0.844546
## 13284    1.499189  0.576335590  2.085959e-01     0.847437     0.773687
## 13285    1.747223  1.083438116  4.360870e-01     0.960943     0.769688
## 13286    1.938021  1.210192735  8.016079e-01     0.905616     0.789671
## 13287    1.516672  0.152756029 -1.117124e-01     0.893084     0.705735
## 13288    1.526226  0.364854801  2.871455e+00     0.727031     0.599232
## 13289    1.760410  0.937644752  1.031214e+00     0.825558     0.629194
## 13290    1.841011  0.742568034  2.064435e-02     0.956932     0.746335
## 13291    1.544834  0.304167272  1.941995e+00     0.820750     0.614519
## 13292    1.603935  0.539909997  2.448985e+00     0.786725     0.725646
## 13293    1.574218  0.173783377  3.293366e-01     0.983935     0.815831
## 13294    1.561377  0.746415440  1.837048e+00     0.926799     0.751206
## 13295    1.492894  0.333590336  2.152432e+00     0.761913     0.585868
## 13296    1.736062  0.650733836  3.321501e+00     0.963693     0.865884
## 13297    1.569026  0.231895011  3.353038e+00     0.966135     0.907897
## 13298    1.901445  1.061889569  6.558516e-02     0.964358     0.720442
## 13299    1.789985  0.564332227  1.889464e+00     0.899616     0.794788
## 13300    1.496149  0.454097536  1.560768e+00     0.904303     0.850529
## 13301    1.663282  0.893085667 -1.260554e-01     0.786200     0.673814
## 13302    1.672959  0.530544179  1.967375e+00     0.922707     0.708146
## 13303    1.600836  0.529082420  6.312932e-01     0.955934     0.855442
## 13304    1.995425  1.042571575  1.036502e+00     0.862004     0.750258
## 13305    1.949642  0.943754619  8.338867e-01     0.928999     0.813958
## 13306    1.613485  1.474912326  9.810296e-01     0.763661     0.578625
## 13307    1.637674  0.398254324  2.609503e+00     0.833801     0.675856
## 13308    1.579521  0.397776683  2.695851e+00     0.772757     0.647159
## 13309    1.559987  0.364447803  1.746499e+00     0.882493     0.673578
## 13310    1.727927  0.649980951  5.842163e-01     0.902871     0.760730
## 13311    1.858001  0.550289517  7.395305e-01     0.901175     0.594082
## 13312    1.521384  0.454340176  3.176188e+00     0.771959     0.686434
## 13313    1.947496  1.064326932  2.353460e+00     0.657429     0.606161
## 13314    1.664340  0.907239867  2.910914e-01     0.865000     0.672275
## 13315    1.469239  0.688786326  1.894497e+00     0.849969     0.668130
## 13316    1.745836  0.498179556  2.459722e+00     0.906376     0.873500
## 13317    1.770298  1.015829009  2.237033e+00     0.867613     0.781294
## 13318    2.126209  1.210235560  1.071917e+00     0.882614     0.609116
## 13319    1.468176  0.336011198  2.458457e+00     0.907403     0.708189
## 13320    1.597523  0.834218452  2.825293e-01     0.957871     0.794120
## 13321    1.843072  0.945126234  1.687251e-01     0.852074     0.688634
## 13322    1.454816  0.399789633  2.113194e+00     0.937943     0.578491
## 13323    1.606419  0.389384063  2.482575e+00     0.811429     0.654980
## 13324    1.608798  0.790069723  4.163055e-01     0.909746     0.834407
## 13325    1.824630  0.821284202  1.895896e+00     0.858290     0.779208
## 13326    1.547323  0.670385955  2.052407e+00     0.824659     0.756850
## 13327    1.553798  0.504882533  1.843549e+00     0.691989     0.489416
## 13328    1.660842  0.829961472  3.556332e-01     0.942053     0.869080
## 13329    1.797186  0.772154412  2.002054e+00     0.837828     0.686635
## 13330    1.551734  0.586255269  2.145073e+00     0.913595     0.883705
## 13331    1.757700  0.831273249  8.264202e-01     0.857751     0.736171
## 13332    1.611196  0.941621731 -1.260554e-01     0.822005     0.676373
## 13333    1.911007  0.881545561 -1.841910e-03     0.875546     0.679676
## 13334    1.764984  0.801546393  2.384769e-01     0.706881     0.632567
## 13335    1.932517  0.598352710  2.584493e+00     0.670527     0.582710
## 13336    1.715019  0.798296299  3.169850e-01     0.914633     0.686703
## 13337    1.591585  0.481494225  2.224794e+00     0.862776     0.748400
## 13338    1.631888  0.382631108  3.721942e-01     0.974766     0.897322
## 13339    1.575089  0.407613519 -8.766269e-02     0.954068     0.805932
## 13340    1.962501  1.127059422  6.511186e-01     0.905847     0.839734
## 13341    1.614304  0.554191048  6.069784e-02     0.988111     0.760332
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## 13342    1.743049  0.338370822  2.031348e+00     0.910155     0.702817
## 13343    1.861395  0.379771296  1.462009e+00     0.720135     0.639824
## 13344    1.920800  0.997653258  9.113478e-01     0.908158     0.863091
## 13345    1.725498  0.659090541  4.573541e-01     0.852245     0.707433
## 13346    1.630467  0.394628515  2.973324e+00     0.916577     0.714522
## 13347    1.655175  0.633053152  7.061176e-01     0.890992     0.808608
## 13348    1.647134  0.518212461  3.470715e-01     0.806009     0.702757
## 13349    1.773291  0.995581672  8.846214e-01     0.827970     0.704069
## 13350    1.790146  1.251628488  7.756835e-01     0.943088     0.716470
## 13351    1.478016  0.382767849  2.514881e+00     0.687048     0.514532
## 13352    1.584528  0.493792531 -1.088904e-01     0.832719     0.760386
## 13353    1.741617  0.529010487  9.902299e-01     0.860976     0.804999
## 13354    1.739863  0.628979169  5.385225e-01     0.762128     0.744005
## 13355    1.830686  1.590182874  8.764656e-01     0.672433     0.581264
## 13356    1.781015  1.111779863  6.165897e-01     0.749882     0.687190
## 13357    1.692899  0.931017250  4.914198e-02     0.934054     0.768668
## 13358    1.647602  0.367722959  6.733419e-02     0.908447     0.758593
## 13359    1.611281  0.940431809  9.396240e-01     0.825334     0.622330
## 13360    1.629566  0.377841502  2.062395e+00     0.985498     0.807570
## 13361    1.617993  0.612999891  1.940713e+00     0.686416     0.570706
## 13362    1.676482  0.301780676  1.912003e+00     0.922052     0.659174
## 13363    1.663624  0.639773268  8.307002e-01     0.884238     0.843031
## 13364    1.574017  0.700247555  2.231220e+00     0.929590     0.803648
## 13365    2.030927  1.678233308  1.322955e+00     0.695463     0.564165
## 13366    1.636465  0.608627642  4.070124e-01     0.912281     0.652983
## 13367    1.534913  0.450292228  2.975137e+00     0.964947     0.887760
## 13368    1.506863  0.433313705  1.462918e+00     0.830751     0.685155
## 13369    1.681266  0.743492518  9.348312e-02     0.833073     0.767288
## 13370    1.593990  0.530769416  4.591645e-01     0.841373     0.724470
## 13371    1.842054  0.860089339  2.337584e+00     0.898253     0.764497
## 13372    1.554333  0.575538835  1.199766e+00     0.924244     0.774026
## 13373    1.766900  0.878590151  9.278929e-01     0.733497     0.542428
## 13374    1.610648  0.386762851  2.447740e+00     0.718177     0.654382
## 13375    1.473166  0.600549279  2.948743e+00     0.846207     0.681410
## 13376    1.745407  0.619290597  6.384599e-01     0.967292     0.734152
## 13377    1.891825  0.626081562  3.025893e+00     0.931241     0.858211
## 13378    2.033882  1.165152292  6.203292e-01     0.673557     0.604309
## 13379    1.649330  1.202575494  2.750679e+00     0.881319     0.783285
## 13380    1.695852  0.512234663  6.504277e-02     0.913640     0.861980
## 13381    1.613430  0.241040671  2.642158e+00     0.943488     0.755952
## 13382    1.633488  0.358349895  2.654150e+00     0.857967     0.644144
## 13383    1.710601  0.616197098  1.998913e+00     0.734334     0.711908
## 13384    1.652483  0.736470605  2.222055e+00     0.852429     0.731179
## 13385    2.628025  2.361391600  1.765795e+00     0.725536     0.589292
## 13386    1.725961  0.568778835  2.359587e+00     0.866084     0.789669
## 13387    1.637747  0.455310905  2.655199e+00     0.923872     0.850252
## 13388    1.625861  1.067137837  1.693681e+00     0.960074     0.684326
## 13389    1.718074  0.566363237  2.247476e+00     0.857450     0.789737
## 13390    1.602788  0.431874966  2.567941e+00     0.884931     0.766885
## 13391    1.745164  0.798158765  2.525487e+00     0.813855     0.731066
## 13392    1.668265  0.678203242  2.876829e+00     0.879506     0.724706
## 13393    1.655283  0.642829412  2.657733e+00     0.880697     0.730289
## 13394    1.596751  0.343761007  2.350047e+00     0.814853     0.634585
## 13395    2.076269  1.207324624  9.980348e-01     0.884150     0.699730
## 13396    1.559207  0.421403184  2.093494e+00     0.733194     0.618408
## 13397    1.779103  0.365493601  2.667838e+00     0.854970     0.793840
## 13398    2.049838  1.171296333  4.071476e-01     0.881679     0.772247
## 13399    1.541396  0.439253724  3.125239e+00     0.880070     0.824481
## 13400    1.816850  0.563918719  3.864140e-01     0.935369     0.821192
## 13401    1.627346  0.578564720  2.131418e+00     0.798798     0.631766
## 13402    1.635629  0.897605101  2.888515e-01     0.879978     0.849357
## 13403    1.626907  0.966631622  5.521540e-01     0.841571     0.740742
## 13404    1.526864  0.549619915 -3.010300e-01     0.829048     0.710708
## 13405    1.842793  1.184299537  3.269485e-01     0.770708     0.718565
## 13406    1.604586  0.708592544  4.868786e-01     0.770389     0.755400
## 13407    1.877755  1.159416788  1.128698e+00     0.800395     0.512877
## 13408    1.545777  0.309640812  2.241223e+00     0.907915     0.704361
## 13409    1.657716  1.602394269  1.178984e+00     0.720936     0.642949
## 13410    1.679841  0.323495484  4.310542e-01     0.915186     0.813890
## 13411    1.593530  0.415861073  2.835854e+00     0.901773     0.756246
## 13412    1.354997  0.261916793  1.403353e+00     0.940697     0.631360
## 13413    2.407619  1.957432002  1.609103e+00     0.680966     0.545847
## 13414    1.812134  0.391882107  1.963563e+00     0.937892     0.823762
## 13415    2.279069  1.607481831  1.204060e+00     0.913516     0.835233
## 13416    1.562612  0.430819751  3.742270e-01     0.803667     0.751224
## 13417    1.655283  0.629487072  1.050003e+00     0.776538     0.688711
## 13418    1.702536  1.096200665  6.140196e-01     0.950179     0.611728
## 13419    1.695010  1.116464948  9.012945e-01     0.883389     0.520066
## 13420    2.215225  0.882536491  3.093377e+00     0.672258     0.649359
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## 13421    1.787956  0.449962564 -3.806690e-01     0.912793     0.903852
## 13422    1.685950  0.345091298  2.445737e+00     0.951183     0.846538
## 13423    1.736549  0.462821603  1.161970e+00     0.800553     0.643956
## 13424    1.997764  0.471272637  1.230509e+00     0.816239     0.704686
## 13425    1.743970  1.141901080  1.091993e+00     0.763865     0.705383
## 13426    1.853610  0.965227579  5.301199e-01     0.866044     0.809801
## 13427    1.554564  0.653359184  2.046251e+00     0.875660     0.686016
## 13428    1.640008  0.862790672  1.167089e-01     0.954726     0.900545
## 13429    1.585139  0.710129217  2.741066e+00     0.907188     0.685452
## 13430    1.536522  0.497767001  1.819801e+00     0.848793     0.759153
## 13431    1.577796  0.523455106  6.627578e-01     0.949169     0.795482
## 13432    1.785222  0.534300311  2.104840e+00     0.938845     0.863674
## 13433    1.666344  0.787432135  5.156155e-01     0.774043     0.687919
## 13434    2.023726  0.834655909  2.947378e+00     0.938039     0.645246
## 13435    1.673819  0.793804349  5.969994e-01     0.884675     0.776680
## 13436    2.066046  1.390876844  1.399220e+00     0.865285     0.650620
## 13437    1.791012  0.659673802  1.172343e-02     0.921158     0.837346
## 13438    1.670368  0.473765705  2.764393e+00     0.858097     0.828200
## 13439    1.578235  0.630426858  2.976658e+00     0.947034     0.859881
## 13440    1.501746  0.367143382  2.652086e+00     0.729247     0.684027
## 13441    1.710797  0.659159089  2.672189e+00     0.869618     0.788864
## 13442    1.756212  0.962965667  3.953914e-01     0.953133     0.679396
## 13443    1.658763  0.423977821  1.569577e+00     0.892864     0.747657
## 13444    1.601757  0.486283091  9.797807e-01     0.826821     0.780165
## 13445    1.641862  0.867054800  1.833541e+00     0.783157     0.533983
## 13446    2.052047  0.681858763  1.389402e+00     0.733070     0.638755
## 13447    1.566512  0.734951766  1.546606e+00     0.897019     0.774453
## 13448    1.647545  0.657562553  1.818436e-01     0.826758     0.749619
## 13449    1.509501  0.385577677  1.877339e+00     0.629015     0.550126
## 13450    1.765376  0.686766717  9.469363e-01     0.945571     0.638623
## 13451    1.580288  0.495084825  2.334628e+00     0.787277     0.678020
## 13452    1.598829  0.455630451  2.363649e+00     0.957550     0.814782
## 13453    1.667124  0.419433621  1.361711e+00     0.848255     0.730041
## 13454    1.803759  1.154204792  4.720701e-01     0.923897     0.756598
## 13455    1.507886  0.525603197  3.802112e-01     0.875951     0.808037
## 13456    1.409903  0.315088273  2.534438e+00     0.450137     0.401119
## 13457    1.456494  0.473140856  1.709363e+00     0.800287     0.653845
## 13458    1.590259  0.493465022  1.506592e+00     0.918349     0.792687
## 13459    1.680063  0.853802819  3.726024e-01     0.928193     0.834719
## 13460    1.888144  0.869018628  1.066661e+00     0.890833     0.602781
## 13461    1.811531  1.188278664  9.506616e-01     0.843494     0.668298
## 13462    1.818455  0.558370121  2.203819e+00     0.888941     0.845273
## 13463    1.864807  1.200199115  3.038681e-01     0.785779     0.650168
## 13464    1.544067  0.532208940  1.962283e+00     0.856133     0.810686
## 13465    1.652956  0.390694943  3.428922e-01     0.915717     0.808152
## 13466    1.637571  0.396427771  2.170259e+00     0.807950     0.782722
## 13467    1.642558  0.966274583  1.210197e+00     0.947590     0.681833
## 13468    2.104262  0.960726617  2.831144e+00     0.869393     0.668618
## 13469    1.730262  0.724169331  2.934225e+00     0.901745     0.754557
## 13470    1.669454  0.481477027  1.984425e+00     0.867071     0.818639
## 13471    1.694799  0.785482167  1.919251e+00     0.945324     0.890965
## 13472    1.945882  0.915634069  2.219649e+00     0.967565     0.765141
## 13473    1.720188  1.096593731  3.352963e-01     0.719888     0.658609
## 13474    1.660373  0.489704012  2.569953e+00     0.964871     0.901238
## 13475    1.600714  0.451979753  3.447598e-01     0.843482     0.783969
## 13476    1.880816  1.128279692  9.145971e-01     0.869448     0.789764
## 13477    1.547248  0.511781791  1.845005e-02     0.833814     0.809966
## 13478    1.649594  0.910763634  1.235683e+00     0.941280     0.883645
## 13479    1.778657  0.609470612  1.815453e+00     0.910047     0.719381
## 13480    1.829492  0.784739220  8.511272e-01     0.818148     0.672296
## 13481    1.679685  0.868074604  1.660592e+00     0.783971     0.717210
## 13482    1.561911  0.399952204  1.463777e+00     0.765176     0.633592
## 13483    1.652423  0.664092650  1.730399e+00     0.755839     0.726882
## 13484    1.634761  0.451852419  1.865806e+00     0.811274     0.733713
## 13485    1.580901  0.402742710  2.832870e+00     0.851080     0.694316
## 13486    1.644874  0.754059985  6.157046e-01     0.985958     0.881002
## 13487    1.964325  1.349726164  2.381499e+00     0.843769     0.748911
## 13488    1.882367  0.546828809  3.063200e+00     0.848270     0.678871
## 13489    1.697691  0.951602678  4.880675e-01     0.865200     0.665285
## 13490    1.566434  0.718052215  2.456002e+00     0.969774     0.894929
## 13491    1.694565  0.398573616  2.788195e+00     0.880251     0.862597
## 13492    1.698039  0.407191984  2.447079e+00     0.811628     0.768249
## 13493    1.772226  0.932749170  1.738534e+00     0.779412     0.680580
## 13494    1.666700  0.956650499  3.829472e-01     0.806225     0.518131
## 13495    1.637045  0.348643597  4.815673e-01     0.893489     0.538860
## 13496    1.855751  0.502336974  1.912637e+00     0.876067     0.704722
## 13497    1.528881  0.452425897  1.516351e+00     0.906698     0.704688
## 13498    1.670397  0.347031274  2.392618e+00     0.865573     0.764092
## 13499    1.523652  0.543376345  3.740637e-02     0.894803     0.788953
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## 13500    1.653513  1.003555308  4.682016e-01     0.937374     0.689609
## 13501    1.520637  0.476334469  2.416498e-01     0.840097     0.648074
## 13502    1.586067  0.396054558  1.210470e+00     0.885204     0.782094
## 13503    1.508983  0.481800810  2.170639e+00     0.869878     0.681252
## 13504    1.598325  0.512597689  1.367103e+00     0.753297     0.672914
## 13505    1.704164  0.521121078  2.698522e+00     0.897596     0.830265
## 13506    2.006081  1.227863576  2.594998e+00     0.840341     0.792626
## 13507    1.780709  0.834409894  1.870287e+00     0.869326     0.726949
## 13508    1.484367  0.467092861  2.206858e+00     0.878104     0.702840
## 13509    1.667336  0.709623530  1.064373e+00     0.712560     0.654313
## 13510    1.530472  0.386866222  5.114056e-01     0.901842     0.806220
## 13511    1.686887  0.686603204  3.578300e-01     0.989590     0.814479
## 13512    1.612413  0.393722575 -2.618431e-01     0.886027     0.713181
## 13513    1.716916  1.050978770  4.505772e-01     0.924713     0.676381
## 13514    1.806348  0.632265917  2.381298e+00     0.759198     0.725013
## 13515    1.580040  0.651595863  3.072243e-01     0.927576     0.852353
## 13516    1.559877  0.381351576  2.393367e+00     0.898262     0.833759
## 13517    1.725924  0.900800660  3.538402e-02     0.927259     0.865858
## 13518    1.793344  0.769529450  1.740129e-01     0.908672     0.720356
## 13519    1.754934  0.489460653  2.118253e+00     0.843201     0.774809
## 13520    1.707930  1.298914179  9.689646e-01     0.855577     0.725886
## 13521    1.613396  0.581494542  1.143905e+00     0.900247     0.824914
## 13522    1.704029  0.699973801  2.603739e+00     0.841268     0.794804
## 13523    1.708964  0.550332327  2.038812e+00     0.954356     0.851614
## 13524    1.935976  1.079886402  1.768399e+00     0.982837     0.869711
## 13525    1.931432  0.948829943  9.394902e-01     0.960773     0.845666
## 13526    1.693638  0.596969659  2.454561e+00     0.885806     0.822426
## 13527    1.791053  0.715214216  2.683116e+00     0.917845     0.898815
## 13528    2.124745  1.359135116  2.663838e+00     0.808693     0.724333
## 13529    1.752241  1.219131136  1.857841e+00     0.875671     0.785428
## 13530    2.174496  1.188382813  9.337843e-01     0.953649     0.706367
## 13531    1.632493  0.524623272  1.485008e-01     0.892739     0.577110
## 13532    1.933983  0.581193904  3.075523e+00     0.927433     0.818912
## 13533    1.665831  0.528340686  2.030643e+00     0.808641     0.719896
## 13534    1.481285  0.464045189  2.046359e+00     0.842334     0.659320
## 13535    1.399707  0.456223270  2.747952e+00     0.924996     0.644884
## 13536    1.551068  0.344164258  3.121257e+00     0.853082     0.727737
## 13537    1.786022  1.156764125  5.575415e-01     0.749549     0.617749
## 13538    1.550574  0.562228608  1.202311e+00     0.689388     0.559832
## 13539    1.670624  0.351630130  1.593269e+00     0.855176     0.796766
## 13540    2.276960  1.426408775  2.751054e+00     0.880673     0.687705
## 13541    1.689923  0.628050560  7.932512e-01     0.881484     0.816386
## 13542    1.636483  0.658956271  2.189646e-01     0.937997     0.876205
## 13543    1.863516  0.754708314  4.989632e+00     0.827016     0.702461
## 13544    1.711058  0.754203037  6.311717e-01     0.969963     0.846675
## 13545    1.599298  0.339946076  2.939954e+00     0.641967     0.526942
## 13546    1.643952  0.422662052  1.935937e+00     0.771181     0.658997
## 13547    1.667265  0.813489584  6.727998e-01     0.917432     0.762090
## 13548    1.630238  0.737380319 -1.238725e-01     0.785679     0.720934
## 13549    1.650200  0.644355859  3.133990e+00     0.907631     0.832307
## 13550    1.717349  0.469182617  1.065044e+00     0.934965     0.611815
## 13551    1.798408  1.321888278  1.189744e+00     0.706099     0.546883
## 13552    1.592231  0.755488390  1.139434e-01     0.927248     0.823672
## 13553    1.785824  1.112554733  1.061656e+00     0.981665     0.788436
## 13554    1.734677  0.588374805  2.177361e+00     0.832200     0.621081
## 13555    1.644195  0.663840329  1.654871e-01     0.911317     0.692412
## 13556    1.728885  0.726534056  5.630874e-01     0.950778     0.834030
## 13557    1.828555  0.415061868  2.563996e+00     0.880683     0.735587
## 13558    1.594301  0.453082778  2.394263e+00     0.946200     0.824580
## 13559    1.723829  0.867281238  2.756997e+00     0.922117     0.748125
## 13560    1.807027  0.778068727  3.942897e-01     0.972903     0.679746
## 13561    1.497752  0.420214927  2.450545e+00     0.900778     0.722344
## 13562    1.710747  0.429615028  2.438041e+00     0.913038     0.797168
## 13563    1.725677  0.871884535  9.173483e-01     0.864297     0.567163
## 13564    1.664421  0.798917078  1.967541e-01     0.901601     0.719044
## 13565    1.637823  0.429642482  2.465084e+00     0.913488     0.863959
## 13566    1.720817  0.831305272  5.337674e-02     0.799685     0.678349
## 13567    1.573953  0.489379034  2.338710e+00     0.949116     0.696482
## 13568    1.587445  0.366587304  3.442241e+00     0.798523     0.726204
## 13569    1.613510  0.469353609  3.701418e-01     0.915026     0.767234
## 13570    2.037964  1.230681334  1.630431e+00     0.869624     0.720045
## 13571    2.001327  1.636704488  9.694958e-01     0.886264     0.698818
## 13572    1.521942  0.542542857  1.890288e+00     0.817386     0.751365
## 13573    1.635965  0.270142915  1.622369e+00     0.925706     0.880381
## 13574    1.832829  0.574386665  2.644565e+00     0.827197     0.730681
## 13575    1.633626  0.409243112  2.930182e+00     0.931721     0.881928
## 13576    1.652430  0.721200361  7.249451e-02     0.976162     0.730652
## 13577    1.611626  0.545325676  2.022873e+00     0.738547     0.713640
## 13578    1.684545  0.839041648  2.747650e+00     0.918136     0.884320
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## 13579    1.657560  0.701810535  1.388234e+00     0.964543     0.852728
## 13580    1.785060  0.365652686  4.832717e-01     0.947355     0.932221
## 13581    1.784736  1.004682419  1.126483e+00     0.952036     0.605484
## 13582    1.742523  0.508568770  2.552701e+00     0.863976     0.703576
## 13583    1.912198  0.834903691  1.700270e+00     0.776249     0.751860
## 13584    1.841612  0.803800455  1.363583e-01     0.930003     0.897818
## 13585    1.708647  0.887240223  5.760838e-01     0.991113     0.893079
## 13586    1.748416  0.760442087  2.032035e+00     0.905334     0.716244
## 13587    1.727923  1.262339535  1.668430e+00     0.707173     0.626804
## 13588    1.509198  0.406052816  5.699875e-01     0.781517     0.750342
## 13589    1.873239  0.634252507  2.572993e+00     0.927758     0.731994
## 13590    1.774547  0.579436022  2.652076e+00     0.945414     0.790393
## 13591    1.769603  0.574604158  2.426996e+00     0.961848     0.908085
## 13592    1.602894  0.369979840  2.116615e+00     0.841597     0.698316
## 13593    1.864792  0.458300857  1.540419e-01     0.954957     0.882399
## 13594    1.564717  0.355666028  1.868655e+00     0.888696     0.730412
## 13595    1.641983  0.593762200  1.950575e+00     0.946473     0.927986
## 13596    1.549070  0.318478639  1.810639e+00     0.885653     0.632425
## 13597    1.674642  0.409012864  2.504087e+00     0.909994     0.894379
## 13598    1.542011  0.540299436  3.414223e+00     0.758076     0.699716
## 13599    1.521362  0.377810570  2.339864e+00     0.908628     0.631564
## 13600    1.616676  0.286303744  9.276171e-01     0.840199     0.699446
## 13601    1.679166  0.749608017  4.436831e-01     0.827027     0.693984
## 13602    1.530691  0.428525159  4.041318e-01     0.862503     0.842573
## 13603    1.627335  0.517893640  3.049224e+00     0.961167     0.905894
## 13604    2.164403  1.418117257  1.066031e+00     0.953147     0.738521
## 13605    1.644039  0.218251835  2.041573e+00     0.841408     0.689623
## 13606    1.620907  0.848657040  7.321660e-01     0.886017     0.724156
## 13607    1.520609  0.320619804  2.387374e+00     0.967257     0.824571
## 13608    1.638070  0.539176502  2.849495e+00     0.948836     0.932443
## 13609    1.454694  0.491841954  6.470508e-02     0.872116     0.668637
## 13610    1.702770  0.664595912  2.106525e+00     0.753780     0.710209
## 13611    1.640111  0.391407983  5.816289e-01     0.648891     0.563079
## 13612    1.639526  0.948449645  1.709794e+00     0.962046     0.854778
## 13613    1.768728  0.580712906  2.659393e+00     0.871187     0.718170
## 13614    2.496380  1.752986739  2.425046e+00     0.986062     0.899135
## 13615    1.673038  0.714161207  2.356687e-01     0.966486     0.845696
## 13616    1.802950  1.111867147  4.477317e-01     0.897877     0.837041
## 13617    1.483235  0.489329773  2.139921e+00     0.929900     0.785207
## 13618    1.531870  0.222729474  2.584293e+00     0.834752     0.672704
## 13619    1.663367  0.388229125  2.794495e+00     0.921223     0.780541
## 13620    1.863679  0.927571550  1.039644e-01     0.870731     0.817310
## 13621    1.561864  0.522638514  9.723886e-01     0.856247     0.786874
## 13622    1.607982  0.582530376  1.654871e-01     0.891195     0.730676
## 13623    1.746014  0.547687346  2.038362e+00     0.948842     0.900577
## 13624    1.580981  0.572925015  2.643017e-01     0.972190     0.853178
## 13625    1.744100  0.759351261 -6.804230e-02     0.836653     0.658760
## 13626    2.198619  0.626474844  2.674145e+00     0.982128     0.858375
## 13627    2.419804  0.588185400  2.602317e+00     0.612029     0.576415
## 13628    1.589129  0.570873205  2.159512e+00     0.911591     0.832887
## 13629    1.622608  0.657822366  2.014925e+00     0.962492     0.865079
## 13630    1.767416  0.826152580  2.444042e+00     0.832335     0.625351
## 13631    1.884667  1.114407465  5.400154e-01     0.831079     0.712246
## 13632    1.674106  0.271397796  2.169780e+00     0.946219     0.680089
## 13633    1.831947  1.383472461  1.117781e+00     0.897249     0.632365
## 13634    1.836123  0.739860987  2.154371e+00     0.890742     0.844248
## 13635    1.571409  0.487114326  1.040969e+00     0.791196     0.709833
## 13636    1.716834  1.004196657  2.247851e-01     0.900412     0.858235
## 13637    1.937985  1.220121169  1.668431e+00     0.895555     0.891675
## 13638    1.912378  0.984439095  4.873550e-01     0.888728     0.827141
## 13639    1.802144  0.589212126  1.384356e+00     0.660291     0.644888
## 13640    1.673776  0.656121210  3.227357e-01     0.862455     0.763992
## 13641    1.604537  0.743559149  2.544215e+00     0.769288     0.668904
## 13642    1.587245  0.288845914  1.064021e+00     0.913426     0.838613
## 13643    1.810761  0.633214875  2.573907e-01     0.949163     0.737366
## 13644    1.568778  0.307970721 -2.417693e-01     0.868266     0.781039
## 13645    1.764960  0.483390429  1.770593e+00     0.852407     0.746091
## 13646    1.512706  0.448792861  2.935900e+00     0.916781     0.662804
## 13647    1.657172  0.455782533  2.969021e+00     0.925018     0.862394
## 13648    1.697655  0.760641084  1.633610e+00     0.613523     0.461696
## 13649    1.598208  0.758519791  2.946489e-01     0.970495     0.885682
## 13650    1.510436  0.482104316  2.322528e+00     0.927547     0.888180
## 13651    1.664595  0.629637901  3.420134e-01     0.975429     0.860596
## 13652    1.577123  0.428147758  1.765193e+00     0.898129     0.750206
## 13653    1.946406  1.006294858  5.878166e-01     0.892878     0.833603
## 13654    1.790057  0.833607309  3.227357e-01     0.884934     0.688570
## 13655    1.671159  0.504081930 -5.110474e-02     0.927286     0.860010
## 13656    1.735077  0.609405498  5.785445e-01     0.856860     0.744739
## 13657    1.702204  0.512341467  7.508791e-01     0.859644     0.718292
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## 13658    1.749497  0.568590068  1.676932e+00     0.573989     0.462167
## 13659    1.516863  0.318970647  1.838794e+00     0.932763     0.789213
## 13660    1.595304  0.618836436  3.433606e-01     0.781691     0.769431
## 13661    1.755091  0.660542007  1.774855e+00     0.960369     0.845505
## 13662    1.623336  0.827977635  2.675689e+00     0.749250     0.567744
## 13663    1.719975  1.063866047  4.661094e-01     0.915670     0.736926
## 13664    1.609338  0.423910737  2.666950e+00     0.863276     0.801619
## 13665    1.556906  0.667321244  1.731372e+00     0.938184     0.807030
## 13666    1.756972  1.046530281  3.137288e+00     0.841131     0.717897
## 13667    1.527248  0.471240356  2.377974e+00     0.858107     0.702684
## 13668    1.691380  1.044700435  1.890188e+00     0.912032     0.767365
## 13669    1.642975  0.891316073  2.087403e+00     0.929436     0.876188
## 13670    1.619950  0.415325652  5.189433e-01     0.808387     0.766105
## 13671    1.575171  0.540448358  2.042279e+00     0.966797     0.862210
## 13672    1.640094  0.400817644  2.144163e+00     0.869021     0.794343
## 13673    1.597351  0.605910266  1.958745e+00     0.929252     0.778679
## 13674    1.637739  0.510370721  4.319815e-01     0.973127     0.819040
## 13675    1.600041  0.549433663  2.574698e+00     0.858470     0.848312
## 13676    1.543133  0.499670590  2.714335e+00     0.705160     0.624415
## 13677    1.622338  0.479173506 -2.078779e-01     0.965155     0.726077
## 13678    1.863313  0.479138925  2.257508e+00     0.969384     0.834342
## 13679    1.583458  0.441275560  2.791100e+00     0.946694     0.820289
## 13680    1.672681  0.381997220 -7.839315e-02     0.954190     0.789208
## 13681    1.594956  0.600282265  2.210647e+00     0.942372     0.751754
## 13682    1.657138  0.422778551  2.239634e-01     0.893984     0.861349
## 13683    1.708114  0.667274529  7.075267e-01     0.952126     0.791748
## 13684    1.648182  1.095430896  3.681068e-01     0.936304     0.807905
## 13685    1.495927  0.382260251  3.157810e+00     0.805781     0.716201
## 13686    1.622031  0.742273324  4.122838e-01     0.788572     0.706370
## 13687    1.437849  0.393476928  3.107035e+00     0.836144     0.763569
## 13688    1.590786  0.515688435  2.940591e-01     0.930608     0.844498
## 13689    1.725392  0.807699379  1.214201e+00     0.831795     0.699801
## 13690    1.867012  0.690862078  2.337518e+00     0.887266     0.767295
## 13691    1.765048  0.706705837  1.770449e+00     0.921030     0.676997
## 13692    1.696590  0.379508564  1.227963e+00     0.805220     0.691075
## 13693    1.509420  0.441916546  2.344142e+00     0.885793     0.715178
## 13694    1.857679  1.184185879  1.077808e+00     0.838331     0.629673
## 13695    1.440063  0.313997911  2.217561e+00     0.804054     0.695527
## 13696    1.615920  0.219207170  2.671138e+00     0.854918     0.599184
## 13697    1.692500  0.507909818  2.069065e+00     0.868519     0.750644
## 13698    1.697457  0.976685087  4.501925e-01     0.960075     0.696824
## 13699    1.484422  0.454689400  2.785944e+00     0.939543     0.859810
## 13700    1.595789  0.567439279  1.918894e+00     0.889011     0.772624
## 13701    1.586702  0.582638252 -2.841801e-02     0.906406     0.810513
## 13702    1.864835  1.147654686 -5.726475e-02     0.842444     0.662413
## 13703    1.661605  0.799435670  3.913237e-01     0.927953     0.691715
## 13704    1.898871  0.854605389  2.085051e+00     0.888497     0.869839
## 13705    1.583922  0.384149034  2.233696e+00     0.779215     0.668944
## 13706    1.635514  0.590414907  5.615794e-01     0.938697     0.832884
## 13707    1.571260  0.507126940  5.349345e-01     0.957157     0.875810
## 13708    1.498397  0.464803902  4.839979e-01     0.847101     0.657877
## 13709    1.618846  0.688408253  1.058397e-01     0.920527     0.907791
## 13710    1.884448  0.999685457  2.730405e+00     0.865546     0.760997
## 13711    1.680644  0.456830449  3.977839e-01     0.931753     0.759339
## 13712    1.725024  1.117486732  7.959789e-01     0.891315     0.715186
## 13713    1.771232  0.491099637  1.065756e+00     0.884615     0.779755
## 13714    1.923726  1.209536461  6.946730e-01     0.931288     0.841174
## 13715    1.818271  0.746684008  1.269571e+00     0.938305     0.712414
## 13716    1.635177  0.762559285  4.770813e-01     0.809911     0.607950
## 13717    1.619983  0.447303806 -3.979400e-01     0.932665     0.738861
## 13718    1.453577  0.420224829  6.886850e-01     0.867732     0.744625
## 13719    1.613311  0.563892639  8.605766e-02     0.908685     0.877939
## 13720    1.543889  0.584349320  6.685534e-01     0.951038     0.816611
## 13721    1.809725  1.018330109  2.479988e+00     0.725903     0.659871
## 13722    1.682300  0.610812352  2.256690e+00     0.768853     0.685308
## 13723    1.708672  0.595844400  4.980278e-01     0.807277     0.635978
## 13724    1.603796  0.501920147  1.919350e+00     0.859576     0.798046
## 13725    1.591772  0.431017799  1.774503e+00     0.836134     0.579895
## 13726    1.650136  0.503320737  1.458090e+00     0.840740     0.657983
## 13727    1.510611  0.471911898  2.180510e+00     0.902150     0.685174
## 13728    1.636338  0.847907504  1.161725e-01     0.971264     0.715084
## 13729    1.494815  0.674664608  5.025069e-01     0.880257     0.801336
## 13730    1.848932  1.291046785  5.273756e-01     0.845385     0.655056
## 13731    1.792011  0.678031915  2.421329e+00     0.917022     0.816504
## 13732    1.856014  0.778069451  2.499328e+00     0.941682     0.733924
## 13733    2.000811  1.266297565  2.571575e+00     0.788850     0.730348
## 13734    1.697504  0.846779224  5.016542e-01     0.778288     0.667326
## 13735    1.602138  0.715159827  3.461499e-01     0.942724     0.637175
## 13736    1.797135  0.834344393  3.770406e-01     0.985445     0.816537
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## 13737    1.752981  0.578610562  2.545966e+00     0.938269     0.765799
## 13738    1.739557  0.852484873  1.811987e-01     0.913832     0.887830
## 13739    1.696763  0.601705897  5.785445e-01     0.911549     0.723582
## 13740    1.819771  0.479510528  2.059471e+00     0.924154     0.850494
## 13741    2.071823  1.397955643  2.545617e-01     0.965128     0.694988
## 13742    1.752673  0.859928079  2.890935e+00     0.860596     0.772857
## 13743    1.574642  0.460589670  4.907219e-01     0.907133     0.838388
## 13744    1.843833  0.720079882  2.495177e-01     0.833654     0.769304
## 13745    1.631078  0.885137795  8.418365e-01     0.813137     0.716756
## 13746    1.609016  0.663313562  2.410372e+00     0.959270     0.711977
## 13747    1.680688  0.668703600  1.729660e-01     0.903789     0.800025
## 13748    1.802232  0.900382971  2.136799e-01     0.912173     0.791037
## 13749    1.854426  0.511958187  2.687016e+00     0.918111     0.710424
## 13750    1.592570  0.506806634  1.387584e+00     0.773912     0.513829
## 13751    1.964578  1.344673197  2.040828e+00     0.986162     0.855933
## 13752    1.703115  0.672610392  6.059567e-01     0.894113     0.764049
## 13753    1.613370  0.746971852  5.977009e-01     0.913011     0.814331
## 13754    1.658412  0.932375834  1.935421e+00     0.941198     0.838555
## 13755    1.700355  1.763028708  1.193448e+00     0.814326     0.589645
## 13756    1.513991  0.340923755  2.679707e+00     0.880122     0.869558
## 13757    1.568581  0.411378926  3.158714e+00     0.920895     0.681802
## 13758    1.612288  0.772626779  2.189646e-01     0.928255     0.776599
## 13759    1.683916  0.536769226  4.808327e-01     0.793720     0.624524
## 13760    1.608483  0.697157827  2.645733e+00     0.758707     0.714273
## 13761    1.696120  0.827946656  9.492261e-01     0.890269     0.668046
## 13762    1.546117  0.806311600  3.055528e-01     0.941786     0.887268
## 13763    1.523238  0.369416255  2.529790e+00     0.727099     0.620254
## 13764    1.871658  1.136828335  1.130382e+00     0.818229     0.639703
## 13765    1.644019  0.675927662  2.508864e+00     0.875161     0.842179
## 13766    1.662463  1.395392799  5.910646e-01     0.726029     0.642053
## 13767    1.535116  0.360311239  2.191002e+00     0.809159     0.441214
## 13768    1.900294  1.160480536  2.698106e+00     0.934408     0.784685
## 13769    1.660189  0.441641729  2.856320e+00     0.877900     0.709242
## 13770    1.737817  0.797723761  6.507861e-01     0.862834     0.797867
## 13771    1.642071  0.449732884  3.942897e-01     0.864696     0.723572
## 13772    1.781926  0.763119385  7.200589e-01     0.790597     0.594231
## 13773    1.562001  0.386045707  2.481301e+00     0.946887     0.679295
## 13774    1.483095  0.568608831  2.645216e+00     0.849849     0.630085
## 13775    1.638247  0.972198671  4.720701e-01     0.834625     0.634408
## 13776    1.639121  0.477500373  2.319962e+00     0.953454     0.854766
## 13777    2.053151  1.100646200  2.793876e-01     0.951313     0.774302
## 13778    1.765542  0.635325884  2.000917e+00     0.819725     0.717615
## 13779    1.811397  1.189319033  1.367227e+00     0.726015     0.600499
## 13780    1.607387  0.694557819 -1.762359e-02     0.877263     0.857585
## 13781    1.660542  0.549787718  1.696693e+00     0.899270     0.745964
## 13782    1.608754  0.399019191  1.540651e+00     0.956312     0.868312
## 13783    1.609078  0.887170400  6.756835e-01     0.796688     0.701258
## 13784    1.481196  0.500697428  1.970999e+00     0.764327     0.675184
## 13785    1.799614  0.390456413  2.171910e+00     0.910790     0.866487
## 13786    1.599946  0.914504996  2.539389e+00     0.901258     0.864904
## 13787    1.668143  0.575516906  9.636321e-01     0.922963     0.705875
## 13788    1.518041  0.600828107  2.909324e+00     0.977944     0.770060
## 13789    1.681239  0.377125865  2.129785e-01     0.924953     0.800559
## 13790    1.653112  1.078743112  8.789566e-02     0.913303     0.606078
## 13791    1.528957  0.499203042  3.145084e+00     0.907192     0.830176
## 13792    1.587889  0.494253413  2.671133e+00     0.878513     0.717079
## 13793    1.920947  0.552736335  2.612318e+00     0.853355     0.841909
## 13794    1.787542  0.732712929  2.457316e+00     0.924788     0.827513
## 13795    1.727410  0.553234741  1.151691e+00     0.847998     0.785342
## 13796    1.616383  0.489208710  4.999248e+00     0.946892     0.841704
## 13797    1.586182  0.322239975  2.678815e+00     0.837547     0.714675
## 13798    1.707864  0.598594647  2.116522e+00     0.939850     0.907400
## 13799    1.764866  1.077713023  9.167363e-01     0.898269     0.716930
## 13800    1.544804  0.514165086  2.007807e+00     0.944728     0.853229
## 13801    1.850835  1.151614972  5.033916e-01     0.871920     0.722126
## 13802    1.746882  0.757577453  1.109148e-01     0.957785     0.887064
## 13803    1.685545  0.734646240  4.298863e-01     0.865878     0.814645
## 13804    1.711179  0.923694663  1.307323e-01     0.898024     0.740018
## 13805    1.888892  0.794250967  1.142607e+00     0.859731     0.793941
## 13806    1.596643  0.675580390  2.579590e-01     0.927296     0.674131
## 13807    1.612356  0.623596587  2.413088e-01     0.923031     0.910785
## 13808    1.563793  0.451995092  2.337705e+00     0.704719     0.697053
## 13809    1.794701  1.108933544  9.875864e-01     0.899971     0.669390
## 13810    1.698912  0.488956620  2.400371e+00     0.805959     0.650205
## 13811    1.668306  0.700225903  4.820557e-01     0.873920     0.736248
## 13812    1.678504  0.620781289  6.273363e-01     0.986197     0.801651
## 13813    1.529973  0.327033858  2.317290e+00     0.893726     0.704948
## 13814    1.782883  0.759892864  4.457170e-01     0.949462     0.830149
## 13815    1.898515  1.153863624  7.886269e-01     0.824569     0.790077
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## 13816    1.694057  0.508081053  2.144037e+00     0.832588     0.681067
## 13817    1.518799  0.346004617  2.403253e+00     0.819184     0.658913
## 13818    1.986016  1.228069121  7.976102e-01     0.911249     0.826590
## 13819    1.789772  0.942166852  1.913179e+00     0.884934     0.717335
## 13820    1.689614  0.482550600  2.667037e+00     0.956381     0.852386
## 13821    1.830012  1.376981866  1.755369e+00     0.912755     0.737498
## 13822    1.898244  1.151265632  1.188912e+00     0.878110     0.687689
## 13823    1.557189  0.299640203  2.741424e+00     0.898483     0.793208
## 13824    1.496794  0.436184918  2.234961e+00     0.797915     0.578567
## 13825    1.575209  0.420950349  2.696721e-01     0.874432     0.682381
## 13826    1.620282  0.453410083  2.856659e+00     0.888100     0.792075
## 13827    1.681188  0.100835612  1.091520e+00     0.750615     0.704604
## 13828    1.570326  0.524812689  3.128489e+00     0.930164     0.645156
## 13829    1.850072  0.771475770  3.758394e-01     0.962180     0.622883
## 13830    1.465943  0.460273754  2.741387e+00     0.861214     0.648565
## 13831    1.629110  0.426133733  1.996681e+00     0.924865     0.815220
## 13832    2.062676  0.746488631  1.775436e+00     0.750178     0.620049
## 13833    1.494897  0.379921616  2.522515e+00     0.775589     0.585744
## 13834    1.731516  1.039219734  9.803988e-02     0.954899     0.754983
## 13835    1.636759  0.466923942  2.140991e+00     0.784838     0.769248
## 13836    1.666395  0.535172551  1.183345e-01     0.956538     0.812869
## 13837    1.643226  0.731447738  7.798742e-01     0.732339     0.722153
## 13838    1.630787  0.539209128  2.091355e-01     0.850206     0.835076
## 13839    1.694501  0.434559324  2.770007e+00     0.815898     0.744755
## 13840    1.744072  0.443724425  2.577891e+00     0.848571     0.584361
## 13841    1.548631  0.228461956  2.946489e-01     0.819690     0.780470
## 13842    1.788173  0.541836250  2.240471e+00     0.874744     0.778225
## 13843    1.794379  0.661338393  2.644829e+00     0.733777     0.687088
## 13844    1.648267  0.788882884  2.656154e+00     0.961630     0.762868
## 13845    1.568404  0.489626659  2.095908e+00     0.867014     0.847385
## 13846    1.553680  0.559909018  2.631107e+00     0.892145     0.750620
## 13847    1.615899  0.518791536  2.198712e+00     0.810155     0.708936
## 13848    1.699896  0.610442962  3.121609e-01     0.964581     0.798591
## 13849    1.727221  1.614881404  9.743663e-01     0.648261     0.512262
## 13850    1.672413  0.324222761  3.051347e+00     0.820613     0.707991
## 13851    2.104456  1.504480377  1.208103e+00     0.808914     0.769365
## 13852    1.775404  0.693084703  6.102533e-01     0.953151     0.694873
## 13853    1.729695  0.672210575  1.794883e+00     0.854125     0.824027
## 13854    1.526043  0.335668477  2.606549e+00     0.921951     0.822598
## 13855    1.696436  0.343936123  2.210286e+00     0.715543     0.605957
## 13856    1.922728  1.412737668  2.662682e+00     0.976273     0.832417
## 13857    1.707185  0.542461911  1.667995e+00     0.864975     0.676865
## 13858    1.619623  0.502323314  2.495177e-01     0.937048     0.700330
## 13859    1.473427  0.269286398  2.025497e+00     0.712409     0.664407
## 13860    1.729264  0.829604779  2.189646e-01     0.872031     0.660058
## 13861    1.858074  0.553215301  2.549783e-02     0.939116     0.877127
## 13862    1.579710  0.877993542 -1.448193e-01     0.988968     0.787000
## 13863    2.169213  1.353606597  1.048938e+00     0.786088     0.723373
## 13864    1.758404  0.907623081  1.572300e+00     0.534084     0.512015
## 13865    1.774982  0.584925710  1.674074e+00     0.905522     0.802918
## 13866    1.511542  0.569762377  2.496568e+00     0.804502     0.680635
## 13867    1.660316  0.874757730  5.160840e-01     0.722717     0.530241
## 13868    1.898385  1.382586118  7.707885e-01     0.945725     0.894681
## 13869    1.835938  1.205263926  4.948357e-01     0.975305     0.731891
## 13870    1.652321  0.743137241  2.324182e+00     0.877997     0.673189
## 13871    1.674388  0.690405200  7.418649e-02     0.878219     0.846702
## 13872    1.648553  0.980872909  6.809523e-01     0.840384     0.671278
## 13873    1.629726  0.429942747  3.121762e+00     0.856790     0.720520
## 13874    1.701083  0.646482147  1.263284e+00     0.733325     0.683869
## 13875    1.665747  1.139665033  7.938223e-01     0.810087     0.743841
## 13876    1.640984  0.514274074  1.114931e-01     0.876352     0.829935
## 13877    1.786247  1.069357247  9.502840e-02     0.836590     0.763414
## 13878    1.756415  0.621740083 -1.088904e-01     0.943440     0.813577
## 13879    1.725370  0.477532192  2.202172e+00     0.906808     0.834582
## 13880    1.678186  1.161068385  8.337275e-01     0.807145     0.687041
## 13881    1.748266  0.614061555  2.450960e-01     0.846828     0.739742
## 13882    1.602619  0.448028849  1.097250e-01     0.824675     0.637507
## 13883    1.530327  0.381953966  2.840832e+00     0.916073     0.803590
## 13884    1.729643  0.844948493  5.277698e-01     0.955948     0.820835
## 13885    2.021007  0.959470225  5.362634e-01     0.938583     0.815906
## 13886    1.737506  1.196759092  6.839196e-01     0.863111     0.812558
## 13887    1.639798  0.452695507  1.108449e+00     0.900949     0.780219
## 13888    1.746471  0.661647073  2.335912e+00     0.889419     0.867005
## 13889    1.610892  0.325020746  4.043567e-01     0.849482     0.684290
## 13890    1.765451  0.845691377  6.470277e-01     0.918484     0.744454
## 13891    1.703162  0.920898309  2.312457e-01     0.927559     0.716481
## 13892    1.903365  0.997827009  1.473178e-01     0.937221     0.691462
## 13893    2.260675  1.700570467  1.308536e+00     0.875710     0.676666
## 13894    1.985984  1.732223226  1.553914e+00     0.786236     0.691118
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## 13895    1.640028  0.749864576  1.804083e+00     0.905953     0.824469
## 13896    1.714069  0.722239753  8.134347e-01     0.808059     0.745521
## 13897    1.422117  0.373055517  2.693125e+00     0.838593     0.493565
## 13898    1.690811  1.158666995  4.454276e-01     0.962336     0.881261
## 13899    1.947898  0.855193161  5.437028e-01     0.949033     0.844655
## 13900    1.709071  0.708197321  2.749157e-01     0.846634     0.628849
## 13901    1.813723  0.577499842  2.549475e+00     0.955874     0.713469
## 13902    1.627895  0.413413772  2.341641e+00     0.942155     0.890572
## 13903    1.747182  0.699897535  8.349732e-01     0.779712     0.687226
## 13904    1.615668  0.765014013  5.630874e-01     0.814658     0.731285
## 13905    1.630845  0.482029890  2.439377e+00     0.818332     0.665314
## 13906    1.572888  0.688921463  2.301119e+00     0.871037     0.734664
## 13907    1.695813  0.979974266  4.344348e-01     0.946059     0.756396
## 13908    1.664173  0.728253111  3.004578e-01     0.810190     0.660877
## 13909    1.611298  0.693094388  3.848802e-01     0.888610     0.751121
## 13910    1.703597  1.021131389  5.211706e-01     0.827220     0.673170
## 13911    1.763561  0.405233631  1.873802e+00     0.982892     0.927303
## 13912    1.656331  0.723843819  2.628238e+00     0.797913     0.733511
## 13913    1.555636  0.410176395  3.031423e+00     0.923869     0.762156
## 13914    1.645002  0.243821553  2.497810e+00     0.797867     0.658442
## 13915    1.558851  0.497472868  4.323174e-01     0.958154     0.757126
## 13916    1.704597  1.028766397  2.276430e+00     0.931264     0.808637
## 13917    1.548226  0.370250250  3.467264e-01     0.853193     0.796877
## 13918    1.762137  0.649043608  2.714476e-01     0.957574     0.699322
## 13919    1.639736  0.946870637  2.493351e+00     0.892706     0.750794
## 13920    1.817374  0.609532515  2.580599e+00     0.862098     0.724658
## 13921    1.843304  0.771994395  1.599468e+00     0.905487     0.643806
## 13922    1.640105  0.622479287  2.320435e+00     0.786542     0.737336
## 13923    1.740091  0.815897707  2.583694e+00     0.735569     0.490713
## 13924    1.481481  0.514733649  2.365436e+00     0.918871     0.683287
## 13925    1.741472  0.669105727  5.739916e-01     0.960280     0.781252
## 13926    1.615753  0.959837664  2.779286e+00     0.879908     0.815192
## 13927    1.615978  0.954118959  9.761127e-01     0.724519     0.705035
## 13928    1.610923  0.861077773  9.418596e-01     0.855773     0.752515
## 13929    1.587273  0.662135212  4.166372e-01     0.853016     0.711481
## 13930    1.825417  0.432669508  2.410642e+00     0.926294     0.898953
## 13931    1.526918  0.429992771  2.618661e+00     0.827345     0.728618
## 13932    1.582658  0.768941336  2.031815e+00     0.870476     0.801357
## 13933    1.541680  0.460517481  1.786459e+00     0.700240     0.642397
## 13934    1.676601  0.713625767  1.532764e+00     0.717135     0.674966
## 13935    1.678776  0.414814634  2.540273e+00     0.919560     0.728339
## 13936    1.655308  0.349995899  2.283014e+00     0.946614     0.836495
## 13937    1.880300  0.989645562  3.179397e+00     0.943231     0.756104
## 13938    1.624374  0.494613701  2.144301e+00     0.895309     0.803923
## 13939    1.558573  0.430146034  3.434168e+00     0.908815     0.817764
## 13940    1.661374  0.456066783  4.629322e-01     0.881463     0.791627
## 13941    1.871367  1.303945163  1.469860e+00     0.639890     0.496258
## 13942    1.841912  1.142867928  9.479434e-01     0.891200     0.727797
## 13943    1.495547  0.402632739  1.952764e+00     0.955948     0.798912
## 13944    1.488307  0.321438932  3.318898e+00     0.872235     0.759353
## 13945    1.726998  1.183580147  6.971900e-01     0.992760     0.872540
## 13946    1.759112  1.313563530  8.029925e-01     0.656542     0.583251
## 13947    1.596133  0.863318696 -3.979400e-01     0.933091     0.642413
## 13948    1.705017  0.520759874  1.628174e+00     0.836465     0.804297
## 13949    1.661684  0.733957618  2.336183e-01     0.909064     0.854505
## 13950    1.730904  1.441069553  1.128501e+00     0.728428     0.607772
## 13951    1.773931  0.760129085  3.182493e+00     0.863181     0.639192
## 13952    1.620867  0.612776442  5.476930e-02     0.872254     0.673401
## 13953    1.768492  0.775023226  4.485894e-01     0.950016     0.795277
## 13954    1.605777  0.969065353  3.121609e-01     0.865243     0.736141
## 13955    1.661660  0.463235827  6.736989e-01     0.905780     0.849018
## 13956    1.776595  0.548722229  2.890239e+00     0.843586     0.683171
## 13957    1.581243  0.744309416  2.241243e+00     0.892247     0.744085
## 13958    1.723268  1.149920809  2.344032e-01     0.878446     0.755043
## 13959    2.003224  1.200842293  2.793876e-01     0.913136     0.709113
## 13960    1.510259  0.557847527  3.066695e+00     0.840158     0.792758
## 13961    1.552894  0.319305976  4.392582e-01     0.895592     0.749272
## 13962    1.762892  0.697337467  9.299353e-01     0.866849     0.677917
## 13963    1.450846  0.526604168  2.946720e+00     0.732729     0.577264
## 13964    2.155145  0.710716329  9.236867e-01     0.923201     0.732718
## 13965    1.572695  0.403202909  2.598402e+00     0.811327     0.799648
## 13966    1.877896  0.735154798  5.206113e-01     0.960649     0.733112
## 13967    1.557797  0.596268227  1.155179e+00     0.920489     0.775810
## 13968    1.765646  0.613499323  4.998947e+00     0.988200     0.874572
## 13969    1.737975  1.165232452  8.251398e-01     0.976166     0.833331
## 13970    1.733833  0.073579061  1.895231e+00     0.647382     0.451123
## 13971    1.709172  0.530533938  2.481123e+00     0.871846     0.805413
## 13972    1.647008  0.250197919  1.781353e+00     0.945099     0.735068
## 13973    1.678818  0.545334336  2.298592e+00     0.745483     0.649856
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## 13974    1.577901  0.351734481  2.235674e+00     0.833326     0.691470
## 13975    1.935121  0.782582259  1.039574e+00     0.886962     0.786829
## 13976    1.797473  1.287911409  1.719843e+00     0.917575     0.617587
## 13977    1.736548  0.658432124  6.340688e-01     0.823137     0.721103
## 13978    1.636911  0.508710133  1.039644e-01     0.868061     0.809167
## 13979    1.635042  0.658930555  2.657248e+00     0.844709     0.779738
## 13980    1.760961  0.302261644  1.199688e+00     0.770455     0.609934
## 13981    1.855113  0.889150374  6.214766e-01     0.954366     0.843988
## 13982    1.559899  0.534387867  9.501316e-02     0.820561     0.717601
## 13983    1.896118  0.952544965 -1.172905e-01     0.924671     0.718618
## 13984    1.751609  1.157027399  7.492430e-01     0.858645     0.691587
## 13985    1.869945  0.942561612  2.559130e+00     0.902904     0.681571
## 13986    1.756038  0.728569658  2.252496e+00     0.855996     0.806234
## 13987    1.830566  0.927754692  2.220626e+00     0.806562     0.541810
## 13988    1.776433  0.888260952  1.079060e+00     0.942078     0.680238
## 13989    1.765293  0.547193617  8.495916e-01     0.933829     0.615868
## 13990    1.630331  0.548798335 -1.601400e-01     0.982946     0.679184
## 13991    1.677747  0.678468300  2.245073e+00     0.963825     0.785897
## 13992    1.653109  0.321279375  2.207291e+00     0.914151     0.824954
## 13993    1.717277  0.624826428  2.921633e+00     0.745602     0.687570
## 13994    1.539554  0.278993540  2.248441e+00     0.943822     0.799731
## 13995    1.674010  0.516006230  7.798620e-01     0.849187     0.736743
## 13996    1.717700  0.325622377  8.424291e-01     0.707231     0.636634
## 13997    1.725681  0.514186354  1.677849e+00     0.865633     0.757523
## 13998    1.658021  0.552714441  5.576768e-01     0.978480     0.880495
## 13999    1.869397  0.492285338  1.657156e+00     0.873234     0.823702
## 14000    1.713007  0.547659042  1.940011e+00     0.629149     0.506695
## 14001    1.854071  0.553617274  1.388712e+00     0.846909     0.683053
## 14002    1.788359  0.617341139  2.100357e+00     0.918977     0.841048
## 14003    1.616587  0.253778862  2.664830e+00     0.915365     0.745623
## 14004    1.661153  0.721639171  8.586795e-01     0.901932     0.866990
## 14005    1.549284  0.512744414  2.478963e+00     0.895746     0.737734
## 14006    2.011545  1.023445894  1.193268e+00     0.667895     0.559770
## 14007    1.641485  0.676303026 -3.240698e-01     0.781259     0.622291
## 14008    1.560791  0.755611151  1.142611e+00     0.790520     0.722823
## 14009    1.465015  0.548265316  2.141059e+00     0.886680     0.732548
## 14010    1.845117  0.550053377  4.849625e-01     0.963833     0.754005
## 14011    1.624815  0.467309102  1.345395e+00     0.667109     0.625068
## 14012    1.610619  0.558508173  1.702325e+00     0.741586     0.698909
## 14013    1.546651  1.134779345  5.111929e-01     0.956757     0.909040
## 14014    1.687835  0.731455798  3.774396e-01     0.864049     0.777994
## 14015    1.543553  0.335919031  2.037535e+00     0.691360     0.487603
## 14016    1.701060  0.577212521  7.693166e-01     0.858045     0.685101
## 14017    1.665503  0.663914723  1.172343e-02     0.853794     0.786127
## 14018    1.972047  0.824565115  3.031373e+00     0.822427     0.675202
## 14019    1.889243  1.011295487  1.285944e+00     0.856101     0.639570
## 14020    1.582158  0.889576762  3.559514e+00     0.878908     0.614194
## 14021    1.720282  1.154378320  3.742270e-01     0.964344     0.851709
## 14022    1.901277  1.251319378  7.935370e-01     0.821221     0.776895
## 14023    1.573866  0.595013159  2.613425e+00     0.855288     0.775692
## 14024    1.679186  0.553075556  2.121092e-01     0.939703     0.752118
## 14025    1.696403  0.686222331  2.085959e-01     0.844232     0.814024
## 14026    1.846550  0.610611196  2.708450e+00     0.918509     0.797075
## 14027    1.599857  0.558140737 -2.841801e-02     0.962385     0.903233
## 14028    1.655766  0.214637244  2.097940e+00     0.778102     0.638470
## 14029    1.674704  1.037876497  5.929610e-01     0.720042     0.616491
## 14030    1.692606  0.907760591  2.318254e+00     0.937987     0.795985
## 14031    2.282221  1.790126058  2.019321e+00     0.701252     0.498313
## 14032    1.690823  0.678519290  1.731863e-01     0.735068     0.695025
## 14033    1.662768  0.875111639  5.361290e-01     0.907101     0.654405
## 14034    1.966314  1.082925327  1.076811e+00     0.918514     0.700719
## 14035    1.934557  1.139183028  5.130995e-01     0.974830     0.757778
## 14036    2.046460  0.973312620  2.356608e+00     0.913192     0.843598
## 14037    1.647677  0.692028653  6.024777e-02     0.742875     0.691897
## 14038    1.649224  0.575023798  4.519859e-01     0.852162     0.664261
## 14039    1.666597  0.792257177  9.418861e-01     0.838242     0.739403
## 14040    1.537109  0.496957309  1.861010e+00     0.714106     0.488305
## 14041    1.663670  0.847945104  2.483376e+00     0.874762     0.779883
## 14042    1.825166  1.351026723  6.828713e-01     0.848835     0.723849
## 14043    1.656285  0.626615436  1.996339e+00     0.836573     0.758089
## 14044    1.969245  1.093964214  9.402725e-01     0.849066     0.718999
## 14045    1.755060  0.704302408  1.443448e+00     0.895425     0.817870
## 14046    1.619876  0.435069970  2.560727e+00     0.953367     0.828981
## 14047    1.621072  0.953181536  4.260392e-01     0.924346     0.852460
## 14048    1.522930  1.055168015  2.826734e+00     0.943822     0.849632
## 14049    1.691229  0.752212911  3.352526e-01     0.927716     0.851249
## 14050    1.572678  0.566102656  1.993876e+00     0.987327     0.748980
## 14051    1.551963  0.466109538  2.621461e+00     0.830244     0.640243
## 14052    1.919797  1.252828768  6.070896e-01     0.791411     0.742210
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## 14053    1.629804  0.693317077  5.831486e-01     0.800104     0.724621
## 14054    1.723806  0.677081102  1.564482e+00     0.914524     0.761251
## 14055    1.714585  0.851394121  1.261092e-01     0.784217     0.692225
## 14056    1.680924  0.618297091  3.435328e+00     0.960661     0.874733
## 14057    1.605958  1.183238516  2.367407e-01     0.979131     0.664210
## 14058    1.748398  0.542343578 -5.188019e-02     0.876606     0.816444
## 14059    1.638632  0.902372809  2.658776e+00     0.903602     0.837666
## 14060    1.623364  0.292309247  2.311731e+00     0.962318     0.769800
## 14061    2.363727  1.584552839  2.367484e+00     0.877872     0.636721
## 14062    1.788527  1.256469988  8.883837e-01     0.973027     0.770136
## 14063    1.525577  0.436620562  3.008319e+00     0.888331     0.779111
## 14064    1.607215  0.804445444  6.119879e-01     0.771908     0.697321
## 14065    1.670340  0.555594990 -2.019644e-01     0.923918     0.803562
## 14066    1.864688  1.166406430  8.501633e-01     0.938783     0.694036
## 14067    1.520694  0.376744803  2.626427e+00     0.847802     0.710728
## 14068    1.777558  1.100053325  1.923724e+00     0.894997     0.769787
## 14069    1.673040  1.053109189  2.320396e-01     0.960213     0.808101
## 14070    1.609981  0.380205813  2.332110e+00     0.836576     0.785209
## 14071    1.600246  0.273739524  1.453264e+00     0.778994     0.665077
## 14072    2.099028  1.790620785  1.507850e+00     0.685658     0.581020
## 14073    1.698721  1.139942023  3.569540e-01     0.925163     0.862572
## 14074    1.644758  0.319387166  2.570387e+00     0.881175     0.820871
## 14075    1.564029  0.618496810  2.235338e+00     0.872649     0.849183
## 14076    1.933963  1.304091811  2.401628e+00     0.940302     0.733691
## 14077    1.677848  0.642928245  1.858297e-01     0.816925     0.772462
## 14078    1.638334  0.432103044  1.828232e+00     0.822406     0.722191
## 14079    1.870743  0.659262842  2.378349e+00     0.973736     0.759444
## 14080    1.598445  0.513113677  2.077083e-01     0.923388     0.880282
## 14081    1.562681  0.241810364  2.096919e+00     0.792848     0.632716
## 14082    1.672255  0.856602631  8.515203e-01     0.810273     0.643578
## 14083    1.519922  0.694261137  2.281556e-02     0.812704     0.767739
## 14084    1.791432  0.916129554  6.137403e-01     0.936603     0.650163
## 14085    1.596312  0.550965416  1.996952e+00     0.859701     0.709549
## 14086    1.617768  0.753568506  2.531638e+00     0.920551     0.798177
## 14087    1.661437  0.408565564  2.406404e+00     0.853121     0.776030
## 14088    2.020394  1.452995558  7.601852e-01     0.902825     0.696436
## 14089    1.633465  0.623782525  3.016007e-01     0.944105     0.855308
## 14090    1.541387  0.368619685  2.333819e+00     0.888435     0.745000
## 14091    1.476163  0.485178929  1.865203e+00     0.859245     0.681688
## 14092    1.509197  0.521164245  8.274942e-01     0.944122     0.779838
## 14093    1.779506  0.633734001  1.155379e+00     0.809968     0.680899
## 14094    1.745744  1.051218144  1.253411e+00     0.856719     0.615136
## 14095    1.698493  0.968075548  1.960655e+00     0.959429     0.755952
## 14096    1.453470  0.309199918  2.142078e+00     0.781694     0.566737
## 14097    2.007667  1.276641000  4.497276e-01     0.960959     0.602260
## 14098    1.692352  0.525029250  1.590527e+00     0.878232     0.740963
## 14099    1.680980  0.663541686 -1.762359e-02     0.940081     0.910566
## 14100    1.475071  0.390553608  2.621882e+00     0.624552     0.529835
## 14101    1.662657  1.415694346  1.022834e+00     0.955710     0.600346
## 14102    1.629883  0.488399815 -1.601400e-01     0.946428     0.874288
## 14103    1.743163  0.510759424  2.293453e+00     0.915540     0.887629
## 14104    1.568472  0.873915532  2.264189e-01     0.946713     0.800658
## 14105    1.785247  0.491550781  2.391848e+00     0.868246     0.634198
## 14106    1.853081  0.641802186  2.304844e+00     0.884769     0.802442
## 14107    1.633333  0.420694906  1.921006e+00     0.832655     0.757029
## 14108    1.626995  0.310236479  1.869669e+00     0.804905     0.470701
## 14109    1.795788  0.660005521  3.174176e+00     0.953179     0.842057
## 14110    1.821076  0.983696634  4.461475e-01     0.878792     0.663500
## 14111    1.597695  0.250910137  1.872879e+00     0.839224     0.820208
## 14112    1.596462  0.759739592  1.355255e+00     0.888315     0.799467
## 14113    1.543560  0.289689266  2.167637e+00     0.836268     0.790380
## 14114    1.798085  1.064027225  5.748799e-01     0.973220     0.699691
## 14115    1.743198  0.790728383  1.945315e+00     0.823308     0.688263
## 14116    1.730102  0.853825927  2.690082e-01     0.802750     0.681698
## 14117    1.650648  0.385620571  1.508469e-01     0.893880     0.816012
## 14118    1.567525  0.364575383  1.424580e+00     0.907886     0.858798
## 14119    1.656828  0.379568372  2.263103e+00     0.916970     0.801820
## 14120    1.759169  0.793083907  1.794257e+00     0.804902     0.715979
## 14121    1.644643  0.473028347  2.265249e+00     0.930879     0.770417
## 14122    1.561265  0.697638155  6.783866e-02     0.928062     0.753079
## 14123    1.667909  0.531935963  1.721777e+00     0.820505     0.661490
## 14124    1.908374  0.951846812  2.050228e-01     0.974065     0.718917
## 14125    1.803748  0.823751932  2.718289e+00     0.851482     0.754969
## 14126    1.691767  0.913944651  1.832074e-01     0.841170     0.774778
## 14127    1.591196  0.571940471  1.167089e-01     0.926494     0.740136
## 14128    2.084333  1.114304001  1.710943e+00     0.754556     0.702419
## 14129    1.697690  0.597916663  2.092142e+00     0.853712     0.693233
## 14130    1.742471  0.431175529  3.065054e+00     0.890374     0.808594
## 14131    1.503407  0.401896594  1.461159e+00     0.632907     0.602929
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## 14132    1.529977  0.751749335  2.647874e+00     0.865744     0.814065
## 14133    1.686805  0.595398109  2.085959e-01     0.919774     0.751487
## 14134    1.668691  0.533611932  2.990404e+00     0.873924     0.727794
## 14135    1.539119  0.422156314  3.534233e+00     0.765192     0.623009
## 14136    1.660699  0.599351336 -5.501178e-02     0.984955     0.626964
## 14137    1.711655  0.492501970  2.295820e+00     0.796812     0.723524
## 14138    2.177259  1.335201059  1.057477e+00     0.840625     0.794601
## 14139    1.603121  0.464638559  3.083222e+00     0.838802     0.655561
## 14140    1.577739  0.676679895 -6.172243e-01     0.910112     0.893906
## 14141    1.526648  0.408890919  2.153777e+00     0.963426     0.864213
## 14142    1.688225  0.658212748  1.979354e+00     0.872263     0.693184
## 14143    1.523324  0.369902020  1.895355e+00     0.848993     0.645712
## 14144    1.828845  0.954537729  6.467555e-01     0.814059     0.727082
## 14145    1.526994  0.569346985  1.964543e+00     0.904969     0.797687
## 14146    1.634170  0.759203090  1.929048e+00     0.880540     0.764880
## 14147    1.803064  1.124422705  2.462768e+00     0.670406     0.565131
## 14148    1.540612  0.238327174  2.790756e+00     0.928348     0.803410
## 14149    1.619229  0.527640210  1.729660e-01     0.916171     0.831171
## 14150    1.593043  0.863093754  5.667311e-01     0.831392     0.691456
## 14151    1.815641  1.368240384  9.899605e-01     0.926594     0.796049
## 14152    1.677847  0.552517343  5.103479e-02     0.877326     0.756740
## 14153    1.811562  1.165413499  8.627437e-01     0.929363     0.769382
## 14154    2.096437  1.294036128  6.288501e-01     0.897946     0.803059
## 14155    1.482094  0.525107030  1.387584e+00     0.983444     0.505690
## 14156    1.623492  0.431969745  2.027144e+00     0.884566     0.813004
## 14157    1.567819  0.260157284  1.104968e+00     0.810668     0.718735
## 14158    1.562373  0.402252782  4.769780e-03     0.878446     0.689172
## 14159    1.693146  0.789676585  4.692401e-01     0.952357     0.819146
## 14160    1.640485  0.537201833 -6.142295e-02     0.906642     0.631497
## 14161    1.608709  0.479425577  2.724455e+00     0.918932     0.859729
## 14162    1.737227  1.084962146  6.656282e-01     0.942927     0.737015
## 14163    1.766690  0.856376601  2.085959e-01     0.903843     0.790846
## 14164    2.169895  1.347893744  1.452559e+00     0.946717     0.654527
## 14165    1.497686  0.409170326  2.618215e+00     0.834645     0.657739
## 14166    2.055443  0.867260604  2.087613e+00     0.975296     0.767571
## 14167    1.506773  0.477585701  2.438778e+00     0.843634     0.706052
## 14168    1.724069  0.813911754  2.163195e+00     0.790300     0.642678
## 14169    1.670639  0.705457440 -1.710462e-01     0.893750     0.705865
## 14170    1.705425  1.039984871  1.499239e+00     0.690806     0.576538
## 14171    1.726033  0.867895090  2.256036e-01     0.828762     0.709402
## 14172    1.543136  0.446732835  2.822507e+00     0.856145     0.595579
## 14173    1.543360  0.358288995  2.593452e+00     0.890522     0.656329
## 14174    1.639956  0.610384384  1.154070e+00     0.685108     0.670857
## 14175    1.856658  1.154880245  3.246573e+00     0.848001     0.643272
## 14176    1.757451  0.916809135  7.961347e-01     0.599012     0.536837
## 14177    1.898755  0.670388738  2.739968e+00     0.955873     0.936048
## 14178    1.668154  0.743215693  1.508469e-01     0.878959     0.844558
## 14179    1.664433  0.620073562  2.382641e+00     0.817062     0.802807
## 14180    1.651507  0.958820848  5.079769e-01     0.894805     0.730154
## 14181    1.638927  0.633814743  2.336601e+00     0.893452     0.795914
## 14182    1.532240  0.554870590  2.690082e-01     0.908293     0.871824
## 14183    1.641785  0.904210107  6.256319e-01     0.778683     0.568640
## 14184    1.752668  0.659749863  2.042669e+00     0.855415     0.652668
## 14185    1.868530  1.609745906  1.170102e+00     0.742122     0.621447
## 14186    1.692605  0.814551895  9.542696e-01     0.845237     0.754132
## 14187    1.891386  1.052674708  8.568222e-01     0.882354     0.708846
## 14188    1.641142  0.389996653  1.583833e+00     0.925946     0.792844
## 14189    1.648483  0.593410133  2.821969e+00     0.822911     0.706163
## 14190    1.701682  0.915254694  3.351359e-01     0.801036     0.720558
## 14191    2.218415  1.291595264  1.711078e+00     0.811593     0.632395
## 14192    1.665518  0.425054667  2.817683e+00     0.856432     0.638464
## 14193    1.672901  0.765141569 -3.981290e-02     0.900538     0.849621
## 14194    1.722873  0.933801506  4.040052e-01     0.811825     0.726784
## 14195    1.624566  0.515638096  8.045582e-01     0.902746     0.845535
## 14196    1.774131  0.605662680  2.486618e+00     0.879221     0.795300
## 14197    1.630831  0.900060009  3.569057e-01     0.928346     0.772395
## 14198    1.603090  0.626679047  3.647108e-01     0.968089     0.753429
## 14199    1.831784  0.473743821  2.411846e+00     0.884678     0.782336
## 14200    1.719326  0.613341726  3.106359e+00     0.852226     0.753890
## 14201    1.651137  0.923055334  2.427915e+00     0.875427     0.781219
## 14202    1.824974  0.703444429  1.715444e+00     0.889623     0.703005
## 14203    2.259001  0.899016807  1.617470e+00     0.851259     0.646521
## 14204    1.664368  0.952093233  1.136604e+00     0.851467     0.716637
## 14205    1.490686  0.490680298  2.388804e+00     0.888377     0.599969
## 14206    2.309415  0.518549472  3.311413e+00     0.987971     0.939866
## 14207    1.695438  0.743166270  1.976891e-01     0.879613     0.842775
## 14208    1.591241  0.833755718  4.344348e-01     0.744153     0.660261
## 14209    1.871945  0.797983847  1.153307e-01     0.940352     0.843809
## 14210    1.655670  1.067416814  6.999427e-01     0.907870     0.725975
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## 14211    1.533210  0.780377807  8.641476e-01     0.880011     0.836348
## 14212    1.736223  1.272739458  1.630674e+00     0.921036     0.738818
## 14213    1.596276  0.515374383  1.303142e+00     0.936183     0.827134
## 14214    1.588133  0.499410750  2.044328e+00     0.954872     0.839283
## 14215    1.665119  0.608925914  1.162138e-01     0.817984     0.683614
## 14216    1.585190  0.616353663  2.727613e+00     0.779643     0.697576
## 14217    1.602167  0.971028007  2.932197e+00     0.754128     0.632914
## 14218    1.597861  0.541101007  1.190904e+00     0.641512     0.527671
## 14219    1.486205  0.233422576  1.957192e+00     0.874779     0.686788
## 14220    1.534200  0.496636331  1.883703e+00     0.866370     0.786776
## 14221    1.730799  0.562259547  1.741233e+00     0.925653     0.788792
## 14222    1.724645  0.761276660  1.990467e+00     0.938146     0.840771
## 14223    1.673270  0.603663915  1.147807e+00     0.809910     0.765629
## 14224    1.641317  0.403077605  2.369489e+00     0.731356     0.672396
## 14225    1.634987  0.486525404 -2.531654e-01     0.930663     0.733532
## 14226    1.622539  0.639004115  1.458014e+00     0.978754     0.775933
## 14227    2.238054  1.638191638  1.468231e+00     0.853906     0.744292
## 14228    1.629823  0.364779807  2.615644e-01     0.895041     0.875353
## 14229    1.510845  0.277854367  2.574515e+00     0.829041     0.710707
## 14230    1.632210  0.488466105 -1.305850e-01     0.964321     0.819550
## 14231    1.714478  1.152771305  1.173155e+00     0.810931     0.656479
## 14232    1.558670  0.515202022  2.063276e+00     0.932442     0.822881
## 14233    1.659374  0.456121484  9.237457e-01     0.935077     0.768682
## 14234    1.570126  0.531317943 -6.804230e-02     0.932243     0.785794
## 14235    1.676217  0.521363021  2.498495e+00     0.806827     0.701331
## 14236    1.698581  0.629399404  2.943502e+00     0.889771     0.802989
## 14237    1.475019  0.456028793  2.610515e+00     0.817148     0.515592
## 14238    1.784992  0.366738523  2.214659e+00     0.955022     0.890774
## 14239    1.986675  0.569079988  2.384378e+00     0.952936     0.879681
## 14240    1.843025  1.107060655  6.284431e-01     0.821989     0.723652
## 14241    1.997940  1.052259045  1.034542e+00     0.893941     0.825238
## 14242    1.603063  0.325107037  2.986650e+00     0.862260     0.818160
## 14243    1.777227  0.568517353  5.170696e-01     0.756458     0.597304
## 14244    1.704580  0.894437914  1.180780e-01     0.911602     0.764215
## 14245    1.865087  0.741369874  4.011725e-01     0.971705     0.849975
## 14246    1.574961  0.693620560  2.415182e+00     0.895578     0.660166
## 14247    1.743220  0.555552696  2.726555e+00     0.871017     0.784401
## 14248    1.730895  0.634232344 -2.427009e-03     0.815418     0.628080
## 14249    1.646188  0.877220987  2.398547e+00     0.822395     0.758708
## 14250    1.507558  0.514926101  2.012072e+00     0.827757     0.702711
## 14251    1.518723  0.596208806  1.445901e+00     0.850239     0.725072
## 14252    1.720254  0.507872056  2.592573e+00     0.992743     0.886555
## 14253    1.657833  0.640957211  1.668424e-01     0.966787     0.845820
## 14254    1.638953  0.545465463  8.491950e-01     0.831772     0.602303
## 14255    1.685790  0.920925925  2.892809e-01     0.983447     0.849644
## 14256    1.729005  0.532605343  2.374493e+00     0.916590     0.894381
## 14257    1.633153  0.722999793  7.840331e-01     0.860631     0.827614
## 14258    1.556803  0.496911667  2.455756e+00     0.901665     0.843379
## 14259    1.629960  0.589026443  5.606966e-01     0.913085     0.726065
## 14260    1.808758  0.826482330  2.357632e+00     0.930935     0.785102
## 14261    1.804852  0.723322654  1.786646e+00     0.661361     0.577877
## 14262    1.488185  0.327983869  2.186345e+00     0.831344     0.702671
## 14263    1.615245  0.415367375  2.370429e+00     0.788637     0.736734
## 14264    1.651716  0.657006107  6.053146e-01     0.959324     0.671423
## 14265    1.762891  0.706527470  2.151316e+00     0.948973     0.799946
## 14266    1.742406  0.728128865  8.667743e-02     0.787779     0.514223
## 14267    2.119279  1.322981743  1.396287e+00     0.926268     0.806479
## 14268    1.734883  1.053351233  1.398977e+00     0.930476     0.687974
## 14269    1.631208  0.478254731  2.819342e+00     0.871689     0.849536
## 14270    1.885267  1.355692834  8.051002e-01     0.929561     0.680242
## 14271    1.840823  1.496955926  1.792245e+00     0.704724     0.500571
## 14272    1.511595  0.333171092  2.331602e+00     0.707957     0.682975
## 14273    1.655584  0.725170577  2.375990e+00     0.962783     0.745941
## 14274    1.717649  0.755814660 -9.884816e-03     0.946214     0.850908
## 14275    2.207015  1.475798989  4.668964e-01     0.877396     0.686616
## 14276    1.626716  0.794315131  2.147062e-01     0.787310     0.679583
## 14277    1.611611  0.457989322  2.327615e+00     0.897202     0.834389
## 14278    1.678659  0.501840837  3.019209e+00     0.972135     0.845952
## 14279    1.636737  0.722959521 -1.781197e-01     0.820720     0.744446
## 14280    1.761977  1.577478012  1.528561e+00     0.746939     0.576335
## 14281    1.644925  0.663986279  6.372819e-01     0.924449     0.864369
## 14282    1.699553  0.490887914  2.134802e+00     0.940369     0.785917
## 14283    1.626525  0.458269109  1.626186e+00     0.680835     0.635887
## 14284    1.947892  1.173995808  4.428054e-01     0.918746     0.713116
## 14285    1.665258  0.451361141  2.350884e+00     0.904031     0.814473
##         thetaTid        phiTid
## 1     1.11810042  4.547189e-01
## 2     1.14129431 -7.597771e-01
## 3     0.29383941  1.784497e+00
```

```
## 4     0.46225366  2.425547e+00
## 5     0.85548790 -1.762860e+00
## 6     1.51394136 -1.236665e+00
## 7     0.82868828 -1.674034e+00
## 8     0.87763540  2.929623e+00
## 9     0.15098261  1.993269e+00
## 10    1.17118765 -9.919319e-02
## 11    1.40532012 -5.226638e-01
## 12    1.09288659 -1.219409e+00
## 13    1.45128282 -9.559762e-01
## 14    1.27093414  9.149010e-01
## 15    1.19496935  1.506493e+00
## 16    0.82913765  2.746236e+00
## 17    1.12703734 -1.289964e+00
## 18    1.10981703 -2.426376e+00
## 19    1.03115891 -1.264724e+00
## 20    0.51088672  3.815818e-01
## 21    0.73778022  9.153170e-01
## 22    1.53769954 -1.490518e+00
## 23    1.08640719  2.431709e+00
## 24    0.78969895 -1.873214e+00
## 25    1.19290373  1.085581e-01
## 26    1.37085438 -2.650096e+00
## 27    0.34253934 -1.717737e+00
## 28    1.19670629  2.824936e+00
## 29    0.92568585  1.145096e+00
## 30    0.81663064 -6.992790e-01
## 31    0.09433873  2.654920e+00
## 32    1.02268685  2.673259e+00
## 33    0.48443236  3.778644e-01
## 34    1.36852847  2.211679e+00
## 35    0.99410208 -1.863413e+00
## 36    0.50229002  2.196427e+00
## 37    1.29287662 -2.833050e+00
## 38    0.44407947  2.091087e+00
## 39    1.35545367  2.662141e+00
## 40    0.76666975  5.409496e-01
## 41    0.23794093 -5.945124e-01
## 42    1.38651733  3.417452e-03
## 43    0.19138013  2.110142e+00
## 44    1.28788862  3.015504e+00
## 45    1.13073782 -1.430890e+00
## 46    0.64827329  1.629446e+00
## 47    0.96923932 -1.285941e-01
## 48    1.46684891  1.168261e+00
## 49    0.44513915 -1.854125e+00
## 50    0.55164052  1.366456e-01
## 51    1.02355217 -7.128935e-01
## 52    0.36356526 -1.280745e+00
## 53    1.30147412 -1.923215e-01
## 54    0.74637188  5.286763e-01
## 55    0.83837519  1.446594e+00
## 56    0.62764441 -2.932287e+00
## 57    1.01943469  5.712333e-01
## 58    1.38182879 -2.856408e+00
## 59    1.53368431  3.172155e-02
## 60    0.93260912  1.012943e+00
## 61    0.98583181  7.206378e-01
## 62    0.17432357 -3.014725e-02
## 63    1.21166795 -3.086254e+00
## 64    1.22610546  6.269561e-01
## 65    0.90355615 -2.343461e+00
## 66    1.11442941  2.573231e+00
## 67    1.17171364 -4.033486e-01
## 68    0.60645430 -2.504367e+00
## 69    0.85348297  2.750334e+00
## 70    1.09946938  3.122246e+00
## 71    0.40180466  2.519792e+00
## 72    0.80325403 -1.962103e-01
## 73    0.72590744 -1.847976e+00
## 74    1.20491103  2.180260e+00
## 75    1.28817788 -1.421806e+00
## 76    0.57130599 -9.755713e-01
## 77    0.63801977  4.355576e-02
## 78    0.98575857 -1.894297e+00
## 79    0.12470057  1.252608e+00
## 80    0.91896131 -2.628750e+00
## 81    0.93160764 -4.233660e-01
## 82    0.52944663 -2.311443e-02
```

```
## 83    0.66710037 -2.415263e+00
## 84    1.06323633 -4.141498e-01
## 85    0.63331196 -2.081360e-02
## 86    0.74751450 -8.098431e-01
## 87    0.19836588 -1.819845e+00
## 88    0.45640006 -1.377517e+00
## 89    1.27461616 -2.590462e+00
## 90    0.41091027  2.681496e+00
## 91    0.64410150 -1.249019e+00
## 92    0.59126206 -3.068239e+00
## 93    1.47009891  3.228885e-01
## 94    1.05706996 -2.133180e-01
## 95    0.23631989  4.665235e-01
## 96    1.21124380  1.003358e+00
## 97    1.17658328  1.388935e-02
## 98    1.12397228 -4.501363e-01
## 99    0.44624328  2.783478e+00
## 100   1.51207721 -2.607075e-02
## 101   1.22913801 -4.267825e-01
## 102   0.58487744  2.317395e+00
## 103   0.83422165  2.353529e+00
## 104   0.95459335  2.825312e-01
## 105   0.74141234  2.696723e+00
## 106   0.57726568 -1.340900e+00
## 107   0.67181395 -2.074619e+00
## 108   1.26546812 -2.572907e+00
## 109   1.33255927  2.903442e+00
## 110   0.31375910 -1.714902e+00
## 111   0.34165680 -2.589489e+00
## 112   0.50519479  2.833796e+00
## 113   0.66424234 -2.740056e+00
## 114   0.33865818 -3.136989e+00
## 115   1.53637936 -3.105201e+00
## 116   0.63093932  9.396694e-01
## 117   0.38644201 -2.652394e+00
## 118   0.15222825  2.736147e+00
## 119   0.90016782 -2.655258e+00
## 120   0.89074317 -1.965371e+00
## 121   1.37791270  7.772860e-01
## 122   1.30195541 -2.032519e+00
## 123   0.48030922 -5.027723e-01
## 124   1.05521108  2.873469e+00
## 125   1.38162372 -1.879080e+00
## 126   0.65970272  2.668970e+00
## 127   0.64782801 -1.110779e+00
## 128   0.08757208  1.689710e+00
## 129   1.56498720  2.195434e+00
## 130   0.70007921 -1.721107e+00
## 131   0.93266701 -2.846422e+00
## 132   0.96372402 -1.644411e+00
## 133   0.71270533 -1.095583e+00
## 134   1.02869583  1.253214e+00
## 135   0.57400381 -3.022813e+00
## 136   1.05963524 -1.304942e+00
## 137   1.54126521  1.224573e-01
## 138   1.05541454  1.403345e+00
## 139   0.87184954 -2.766407e+00
## 140   0.62228071  4.334160e-01
## 141   1.03513901 -1.411485e-01
## 142   1.36245860  2.028456e+00
## 143   0.52442463 -1.773682e+00
## 144   0.53226651  1.147970e+00
## 145   0.37730506  3.123884e+00
## 146   0.91055832  9.826722e-01
## 147   1.42619747  2.250333e+00
## 148   0.96714038  8.843028e-01
## 149   0.68866208  1.837189e+00
## 150   0.38302683 -2.893767e+00
## 151   0.61534972  4.677111e-01
## 152   1.54153187  2.319353e+00
## 153   0.16996953  3.047803e+00
## 154   1.21251796  2.936105e+00
## 155   0.85244185  4.631081e-01
## 156   0.51414606  1.493134e+00
## 157   0.42871921 -2.481957e+00
## 158   0.19791656  2.737737e+00
## 159   0.86587649 -8.015968e-02
## 160   1.53413286 -1.201645e+00
## 161   1.11048864  2.490948e-01
```

```
## 162   1.07218874  1.258570e+00
## 163   1.34575028 -1.207364e+00
## 164   0.56453996  4.699160e-01
## 165   0.41791574 -2.346248e-04
## 166   1.52172977  1.615738e-01
## 167   1.46992237 -1.854462e+00
## 168   0.31145109 -2.392778e+00
## 169   0.52512351  1.176737e+00
## 170   1.07197336 -2.443229e+00
## 171   1.38323974 -2.211276e+00
## 172   0.51146861  5.419346e-01
## 173   1.31193720 -2.416339e+00
## 174   1.05054989 -9.753720e-02
## 175   1.23054182 -2.889797e+00
## 176   1.18791003 -1.466904e+00
## 177   1.31632073 -5.701897e-01
## 178   1.55845005  3.155050e-01
## 179   1.11400583  2.078891e+00
## 180   1.54458702  2.316057e+00
## 181   0.81746992  9.852163e-01
## 182   0.37793267  1.297879e+00
## 183   1.10351618  2.942931e+00
## 184   1.39977232  1.129106e+00
## 185   0.87824120  1.634818e-01
## 186   1.51326125  1.317870e-01
## 187   0.24618031  2.089825e+00
## 188   0.69392437 -1.574316e+00
## 189   1.06837263 -2.141189e+00
## 190   1.44637767  2.978852e+00
## 191   0.57197550 -9.585614e-01
## 192   1.00740302 -5.890678e-01
## 193   0.12622061  1.944203e+00
## 194   0.61043152  2.043727e-01
## 195   0.46469646 -2.199695e+00
## 196   0.72062224  2.000625e-01
## 197   1.47079061 -1.454249e+00
## 198   1.44151095 -1.065104e+00
## 199   0.85270037 -3.726182e-01
## 200   0.75573152  2.680828e-01
## 201   0.46351556  1.759160e+00
## 202   1.09915670  2.912930e+00
## 203   0.77020022 -3.128675e+00
## 204   0.94020818 -6.528907e-02
## 205   0.56646147 -2.964189e+00
## 206   0.71874770 -8.127820e-01
## 207   1.15043435 -3.203517e-01
## 208   1.48469778 -1.945657e+00
## 209   1.46645454  1.063533e+00
## 210   0.31884699 -2.980460e+00
## 211   0.50364043 -1.390791e-01
## 212   1.52686132 -1.297786e+00
## 213   0.88674045 -1.295700e-01
## 214   1.27949657 -2.678849e+00
## 215   0.60561464 -2.164261e+00
## 216   0.87145393  9.813587e-01
## 217   0.47523644  1.031704e+00
## 218   1.48389135 -7.807496e-02
## 219   0.85780147  5.402297e-01
## 220   0.28018157 -1.725701e-01
## 221   0.95727353  2.129563e-02
## 222   0.95185985 -2.310613e+00
## 223   0.65825870  2.114509e+00
## 224   1.23982981  7.287452e-01
## 225   1.49687762 -2.439501e+00
## 226   0.66617557  2.436971e+00
## 227   1.46643779 -3.787845e-01
## 228   1.13382300  2.575831e+00
## 229   0.10011641  3.107207e+00
## 230   1.20006855  2.733665e+00
## 231   1.52012320 -2.559516e+00
## 232   1.34989959  4.984418e-01
## 233   0.41224900  2.042206e+00
## 234   0.92676712  1.016960e+00
## 235   1.09845442  1.150487e+00
## 236   1.49370245 -1.125037e+00
## 237   0.80828347 -1.697836e+00
## 238   0.30065258 -2.882548e+00
## 239   1.05527780 -6.442695e-01
## 240   0.59238693 -1.412791e+00
```

```
## 241   0.84516321  2.951607e-01
## 242   0.78372323  5.172414e-01
## 243   1.12399889  1.558381e+00
## 244   0.68295435  1.275171e-01
## 245   0.46816461 -2.869280e+00
## 246   1.40926930  4.936012e-02
## 247   0.76712304 -1.764544e+00
## 248   0.57688007 -2.049731e+00
## 249   0.95929045  3.116151e+00
## 250   0.64855975  1.032861e+00
## 251   1.55401949  1.593522e+00
## 252   1.35643194  1.008713e+00
## 253   0.33413390  2.221305e+00
## 254   0.04642701 -1.494031e+00
## 255   0.53589747  2.015823e+00
## 256   0.51584665  3.735700e-01
## 257   1.19826036 -5.072276e-01
## 258   0.72526968  1.217476e+00
## 259   1.30695845 -2.691093e+00
## 260   1.27794693 -1.905124e+00
## 261   0.76813873 -1.047333e+00
## 262   0.60413789 -2.424911e+00
## 263   0.63108306 -3.070321e+00
## 264   1.54778210 -1.992200e+00
## 265   1.53847015  1.410086e+00
## 266   0.70964564  6.046688e-01
## 267   0.73069376 -2.471648e+00
## 268   0.46257288 -8.307577e-02
## 269   1.21710174  2.804423e+00
## 270   1.27104144 -3.139914e+00
## 271   0.73851136 -3.030867e+00
## 272   1.04773203 -3.030564e+00
## 273   0.13410548  1.721807e+00
## 274   0.91447412  1.907237e-01
## 275   0.65916159  9.663637e-01
## 276   0.42870376 -2.774725e+00
## 277   1.47885267 -1.837558e+00
## 278   0.29030088 -1.116850e+00
## 279   0.69267267  7.208627e-02
## 280   0.96828552 -5.572171e-01
## 281   0.80384403  1.242818e+00
## 282   1.49301472 -2.347287e+00
## 283   1.21084012  4.464460e-01
## 284   1.47894658 -1.380852e+00
## 285   0.85268067 -1.825491e+00
## 286   1.28054316  2.855026e+00
## 287   0.89318471 -2.801236e+00
## 288   1.07985668 -2.225228e+00
## 289   0.39805074  1.318007e-01
## 290   1.40720437 -1.192715e-01
## 291   0.14129243 -1.428816e+00
## 292   0.64465906  1.865735e+00
## 293   0.51362955  2.731457e-01
## 294   1.45623298  3.090760e+00
## 295   1.48906922 -1.642750e+00
## 296   1.09383456 -2.074123e+00
## 297   0.76641632 -1.122160e+00
## 298   0.39965051  2.458539e-01
## 299   0.55321038 -4.094352e-01
## 300   0.60406075 -4.301791e-01
## 301   0.52689989 -2.626822e+00
## 302   1.17262820 -8.742159e-02
## 303   0.86240181 -7.309867e-01
## 304   0.21511311 -1.354134e+00
## 305   0.31703783 -2.689445e-03
## 306   1.10235537 -2.510941e+00
## 307   0.31718815 -1.227573e+00
## 308   1.38350071  2.690763e+00
## 309   0.36372847 -2.707295e+00
## 310   0.35432472 -7.471568e-01
## 311   0.94784528 -7.960085e-02
## 312   1.29028376 -1.471795e-01
## 313   0.90111210  3.811963e-01
## 314   0.33792813 -2.826671e+00
## 315   0.91487111  1.909816e+00
## 316   1.27765826  1.576417e+00
## 317   1.54584535 -2.117218e-01
## 318   1.42039934  9.804084e-02
## 319   0.26214378  6.352285e-01
```

```
## 320   0.83325280 -3.036836e+00
## 321   0.63501919  2.263443e+00
## 322   0.87838937 -2.044520e+00
## 323   0.58441207 -1.872031e+00
## 324   1.41801875 -1.627791e+00
## 325   0.99045396  3.780439e-02
## 326   1.55100185 -8.425286e-02
## 327   0.45010541  1.600768e+00
## 328   1.14634733 -1.970737e+00
## 329   1.42954791  2.579409e+00
## 330   1.16790000  2.754252e+00
## 331   0.84356228  1.593517e+00
## 332   0.46166664 -1.012709e-01
## 333   0.86245966  9.812321e-01
## 334   1.30265581  7.831630e-01
## 335   1.28310100 -1.326893e-01
## 336   0.98948726  2.573376e+00
## 337   0.60722053 -1.600311e+00
## 338   0.73223886  1.184526e+00
## 339   1.32931998  6.793556e-01
## 340   0.76082550  3.944483e-01
## 341   0.63828294  2.289401e+00
## 342   1.54410963 -7.951091e-01
## 343   1.30543453 -2.235299e+00
## 344   1.33157045  3.883212e-02
## 345   1.52705738 -1.798264e+00
## 346   1.40240931 -1.170335e+00
## 347   0.91781831  2.143922e-01
## 348   0.85154460 -2.892433e-01
## 349   0.59011546 -5.624983e-01
## 350   0.32199859  2.824803e-01
## 351   1.11638689 -8.612144e-01
## 352   1.13821647  1.128322e+00
## 353   0.99015904 -1.607194e+00
## 354   0.65463071 -3.051846e+00
## 355   1.31003251  1.890693e+00
## 356   1.08126138  1.211849e+00
## 357   1.41534597 -9.367611e-02
## 358   1.02927991 -2.418083e+00
## 359   0.21071034 -1.101908e+00
## 360   0.87421615 -7.695550e-01
## 361   1.25528745 -2.497549e+00
## 362   1.42871277 -2.961756e+00
## 363   0.96654301 -3.035720e+00
## 364   1.54720772 -7.942312e-01
## 365   0.78496493 -3.055807e+00
## 366   1.46113662  2.528222e+00
## 367   1.30683957  2.620075e+00
## 368   1.39429662  6.689974e-01
## 369   0.29501012  4.242267e-01
## 370   1.45017964  2.198411e+00
## 371   1.54023327  1.360878e+00
## 372   1.23811408 -4.171159e-01
## 373   1.38382554  4.877097e-01
## 374   0.76070765  9.193842e-01
## 375   1.53177890  1.754788e+00
## 376   0.44988228 -8.549895e-01
## 377   1.48661120  1.862358e+00
## 378   1.27322921 -1.022888e+00
## 379   0.91772354 -2.621221e+00
## 380   0.94155893  2.725121e+00
## 381   0.96413505 -1.593110e+00
## 382   1.40623625  2.355219e+00
## 383   1.51860013  2.717499e+00
## 384   1.44226685 -8.068370e-01
## 385   0.47674915 -2.021945e+00
## 386   1.49415549  1.122503e+00
## 387   1.46880840 -1.936797e+00
## 388   0.40287883 -1.967300e+00
## 389   1.09446124 -1.748060e+00
## 390   0.93818289 -2.707858e+00
## 391   1.43007106 -2.315735e+00
## 392   0.93534613 -7.465854e-01
## 393   0.22370295  8.803609e-01
## 394   0.91085263  1.378595e+00
## 395   0.34108107 -2.155639e+00
## 396   0.87420858  1.431535e+00
## 397   1.13472770 -2.262034e+00
## 398   1.42958841 -2.568555e+00
```

```
## 399   0.72011431 -9.401863e-02
## 400   0.24572129 -1.677131e+00
## 401   1.50138979  3.015564e+00
## 402   1.53257714 -6.680204e-01
## 403   0.94206807  5.343037e-01
## 404   1.21865718  2.864557e+00
## 405   0.42102577  2.421074e+00
## 406   1.31765960 -2.816677e+00
## 407   1.08496546 -1.304651e-01
## 408   1.36943665 -3.481198e-01
## 409   0.61664848 -1.722859e+00
## 410   1.31622915 -2.648885e+00
## 411   1.49893121  1.546057e+00
## 412   0.99743620 -1.788803e-02
## 413   1.42800296  3.005934e+00
## 414   0.76764413  3.928462e-03
## 415   0.65047539  8.805841e-01
## 416   1.25765727  3.940825e-01
## 417   0.58322899  2.187307e-01
## 418   1.16864404 -2.388658e+00
## 419   0.22289187 -5.483896e-01
## 420   0.37350925 -1.275374e+00
## 421   0.42387451 -1.039245e+00
## 422   1.02107878  2.236959e+00
## 423   1.45329382  2.485931e+00
## 424   1.16756496  4.958333e-01
## 425   1.46783944 -2.292059e-01
## 426   1.31574690 -2.852781e+00
## 427   0.87951119  9.285725e-01
## 428   0.98630747  9.289522e-01
## 429   0.51772785 -9.799425e-01
## 430   0.54771599 -2.837171e+00
## 431   1.21693486  2.569214e+00
## 432   0.75595682  2.169121e-01
## 433   0.81242145  4.501410e-01
## 434   1.29191645  1.266392e+00
## 435   1.42647171  2.575234e+00
## 436   0.91945454 -3.061613e+00
## 437   1.44920929 -2.996152e-01
## 438   1.26741939  1.387157e+00
## 439   0.69544786 -1.029485e+00
## 440   1.13416484 -7.366426e-02
## 441   1.07535725 -2.941879e+00
## 442   1.43219572 -1.875152e+00
## 443   0.47256340 -1.951077e-01
## 444   0.51034665 -9.539499e-01
## 445   1.15121100 -2.059864e-01
## 446   1.00627307 -2.150787e+00
## 447   0.71271405 -6.499896e-01
## 448   1.17661773 -1.192504e-01
## 449   0.31725210  2.084648e+00
## 450   0.28670336 -2.754250e+00
## 451   0.32200164  1.555604e-01
## 452   0.44896183 -7.520009e-01
## 453   1.42061076  3.009443e+00
## 454   0.75181208 -1.161271e+00
## 455   0.37490726  3.051520e+00
## 456   1.39115834  5.593250e-01
## 457   1.04179872 -4.105816e-01
## 458   1.40557895  1.070457e+00
## 459   0.70680295  5.348170e-02
## 460   0.21187378 -2.587728e-01
## 461   0.31556049 -3.083987e+00
## 462   0.38556484 -2.718854e+00
## 463   0.34763195 -1.714182e+00
## 464   0.48721859  1.848761e+00
## 465   1.15261710  2.467767e+00
## 466   1.09908525  2.482764e+00
## 467   1.44053876  2.801004e+00
## 468   1.53670610  1.194210e+00
## 469   0.48616695  1.017209e+00
## 470   1.46909054  3.121402e+00
## 471   1.55606721 -1.234970e+00
## 472   1.19249890 -2.190998e+00
## 473   0.74232800  1.932374e+00
## 474   1.21533847 -3.126192e+00
## 475   1.31503219 -1.159372e+00
## 476   0.95271875  1.313845e+00
## 477   0.60849630 -1.304862e+00
```

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## 478   0.64410042  6.593877e-01
## 479   1.04974100 -1.207708e+00
## 480   1.56252890  2.280525e-01
## 481   0.55810244 -1.084400e+00
## 482   1.36528843 -1.111619e+00
## 483   0.93931227  1.104158e+00
## 484   0.58678106  1.770575e+00
## 485   0.99801403  2.378177e+00
## 486   1.37634708 -2.503160e+00
## 487   1.46331707 -2.486761e+00
## 488   0.36064554 -5.925822e-02
## 489   0.31695292 -1.990361e+00
## 490   0.64674617 -1.436551e-01
## 491   1.35495292 -3.357903e-01
## 492   0.49197915  8.224617e-01
## 493   0.80899807 -6.016133e-01
## 494   1.55564327  1.815258e+00
## 495   0.61502000  6.514666e-01
## 496   0.35148883  2.465432e+00
## 497   0.41152456 -7.778139e-01
## 498   0.22448994 -3.074109e+00
## 499   1.23463360  3.096608e+00
## 500   1.22231257 -1.069904e+00
## 501   1.11856768  2.641927e+00
## 502   1.04713609 -3.138639e+00
## 503   1.04566434  1.010476e-01
## 504   0.40217859  7.396959e-01
## 505   0.58981771 -2.725554e+00
## 506   0.76808470 -1.798478e+00
## 507   0.63319598 -2.468674e+00
## 508   1.44303325 -2.902795e-01
## 509   0.66920917 -1.254729e+00
## 510   1.50779980  2.687296e+00
## 511   0.37076467  2.815220e+00
## 512   0.67184761  2.488297e+00
## 513   1.38493791 -1.280637e+00
## 514   0.57814913  1.668638e+00
## 515   0.79692816 -9.808623e-01
## 516   0.43158120 -2.050496e+00
## 517   0.60143273  8.486504e-01
## 518   0.95594328  3.050254e+00
## 519   0.89065774  4.229090e-01
## 520   1.40272779  1.583120e+00
## 521   0.71425807  4.284987e-01
## 522   0.77842104 -1.751660e+00
## 523   1.39293465 -2.571489e+00
## 524   0.62637700 -2.345829e+00
## 525   1.40174320 -4.877231e-01
## 526   1.47341476  2.666542e-01
## 527   1.18484308 -6.209347e-01
## 528   0.36576667 -1.677033e+00
## 529   1.08267769 -6.820365e-01
## 530   0.96023414 -1.735116e+00
## 531   0.71087151  1.584133e-01
## 532   1.16562570  2.915133e+00
## 533   0.59763861 -1.872803e+00
## 534   0.93980862  2.359122e-01
## 535   0.81636052 -1.307201e-01
## 536   0.63969378 -2.220756e+00
## 537   0.94873747  3.854933e-01
## 538   1.35332444 -2.039583e+00
## 539   0.13441074  1.101322e-01
## 540   1.42424137 -2.904506e+00
## 541   1.56086934 -2.889086e+00
## 542   1.18664155 -1.601511e+00
## 543   0.97432355  1.780130e-01
## 544   0.22698897 -9.801530e-01
## 545   0.70182760  1.934275e-02
## 546   0.63568602  2.439887e+00
## 547   1.02409362  4.741641e-01
## 548   1.56014060 -4.513865e-01
## 549   0.36283274 -4.609215e-01
## 550   0.52269039 -2.953976e+00
## 551   0.62254995  1.121707e-01
## 552   0.47121797 -3.019022e+00
## 553   1.38493452 -8.442366e-01
## 554   1.42368277 -5.413473e-01
## 555   1.08486194 -4.593370e-02
## 556   0.49106311  6.604331e-02
```

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## 557   0.53292767  2.983382e+00
## 558   0.41621402 -2.633406e-01
## 559   0.46403278  6.258752e-01
## 560   0.45803914  3.763248e-01
## 561   1.16569879 -2.985510e+00
## 562   1.40250353 -6.527044e-01
## 563   0.89677796  3.110922e+00
## 564   1.42513320  1.341409e+00
## 565   0.18800283 -4.227903e-01
## 566   0.58620126 -2.153177e+00
## 567   1.23353464  9.842046e-01
## 568   0.13261741  3.087891e+00
## 569   1.15177206 -2.024345e+00
## 570   0.85107964  2.446049e+00
## 571   0.81245907 -3.041178e+00
## 572   0.60149495 -2.518161e+00
## 573   0.89979698  3.003081e+00
## 574   0.76056077  4.398428e-01
## 575   0.57274408  2.921490e+00
## 576   1.26756070  4.665538e-01
## 577   0.75978362  2.288944e+00
## 578   0.15558298  1.666220e+00
## 579   1.04806594  2.368578e+00
## 580   1.34342833 -1.318270e+00
## 581   0.31888818  2.037136e+00
## 582   0.67489085  1.712337e-02
## 583   0.61878358  2.359180e-01
## 584   1.02435364 -1.147855e+00
## 585   0.54785803 -2.197422e+00
## 586   1.51478423  2.930454e+00
## 587   1.31159285 -6.120181e-01
## 588   0.52136117  1.309960e+00
## 589   0.83194624 -2.184955e+00
## 590   1.01750295  3.323141e-03
## 591   1.55217872 -3.871558e-01
## 592   0.05984494 -2.852009e+00
## 593   0.55958592  5.147969e-01
## 594   0.69993665 -2.116045e+00
## 595   1.25168205  6.169870e-01
## 596   1.14979661  6.668025e-01
## 597   1.26142512 -4.210541e-01
## 598   1.46963543 -2.648674e+00
## 599   1.50022031 -1.600509e+00
## 600   1.13684383  3.025547e+00
## 601   0.89764969  2.315806e+00
## 602   1.16692245  2.258573e+00
## 603   0.71945204 -1.124718e+00
## 604   1.34765763 -2.706788e+00
## 605   0.81530459  2.121749e+00
## 606   0.50038712 -1.149479e+00
## 607   0.28165286 -4.692771e-01
## 608   0.40091718  1.442492e+00
## 609   0.27554927  1.328802e+00
## 610   0.67836721  2.895754e+00
## 611   1.30248676  2.958687e+00
## 612   0.32479375  3.769555e-01
## 613   0.12201841  1.326819e+00
## 614   1.35559865 -7.008693e-01
## 615   0.67521737 -3.029031e+00
## 616   1.35346131 -1.241592e+00
## 617   1.47685242 -1.002312e+00
## 618   0.75380571  7.938349e-01
## 619   0.87864841 -2.282266e+00
## 620   1.03976202  1.038443e+00
## 621   1.48935478  9.105418e-01
## 622   0.30421100  6.308752e-01
## 623   1.23471461  4.407678e-01
## 624   0.86776240  3.104360e-01
## 625   1.52053520  3.249430e-01
## 626   1.11460960  1.679919e+00
## 627   1.16969557  2.690900e+00
## 628   1.08871010 -2.523312e+00
## 629   1.37241067 -8.521252e-01
## 630   0.61269518  1.617716e+00
## 631   0.76059448 -2.036237e-01
## 632   0.62056205  1.722090e+00
## 633   1.41878323  2.167119e+00
## 634   1.43713086 -2.212939e+00
## 635   0.21856215 -1.548473e+00
```

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## 636   0.92956846 -2.903569e+00
## 637   0.80910670 -2.494546e+00
## 638   0.89072802 -9.373314e-01
## 639   1.07598489  2.564946e+00
## 640   0.76258948  2.202955e+00
## 641   0.78067914  5.842767e-01
## 642   0.93790985 -1.062842e+00
## 643   0.97752050 -2.795395e+00
## 644   1.11633638 -2.164215e-01
## 645   1.53049700  1.067626e-01
## 646   0.42193483  2.714616e+00
## 647   0.78161030 -2.222573e+00
## 648   0.73740595 -2.770025e+00
## 649   0.45384860  3.246706e-01
## 650   0.56355872  3.887913e-01
## 651   0.80924585  1.760542e+00
## 652   0.82529026  1.054870e-01
## 653   1.56406244  1.185287e+00
## 654   1.39963175 -1.261960e+00
## 655   0.75985439  2.085890e+00
## 656   1.51484336  1.870103e+00
## 657   0.17221642  2.530447e+00
## 658   0.20233477 -9.839963e-01
## 659   0.80205754  1.291258e+00
## 660   1.01273256 -4.810398e-01
## 661   1.13865214  2.529398e+00
## 662   1.12105730 -2.351663e+00
## 663   0.41903916 -2.676462e+00
## 664   0.95282654 -2.258098e+00
## 665   1.29273183 -2.189341e+00
## 666   1.02105690 -1.980966e+00
## 667   1.37725535 -3.136193e+00
## 668   1.34632797 -1.161462e+00
## 669   0.71244804 -2.682296e+00
## 670   0.24835509  1.454300e+00
## 671   1.31375320 -2.179110e+00
## 672   1.52335359  1.873458e+00
## 673   1.15130598 -4.652812e-01
## 674   1.22106519 -1.370057e+00
## 675   0.74182539 -2.990097e+00
## 676   1.53257953 -1.178151e+00
## 677   0.81094734  2.296880e+00
## 678   0.65431792 -1.730657e+00
## 679   0.42609774  3.069885e+00
## 680   0.58402124 -1.536981e+00
## 681   1.12091721  1.449333e+00
## 682   0.37342822 -1.628163e+00
## 683   1.56234765  2.033288e-01
## 684   1.32629655 -7.718291e-02
## 685   1.34839268  9.046086e-01
## 686   0.81975674  2.838335e+00
## 687   0.50900284 -3.140891e+00
## 688   0.72981337  2.289937e+00
## 689   1.37074367  2.433145e+00
## 690   1.30719149 -2.762705e+00
## 691   0.48398273  2.149042e-01
## 692   0.83332065  1.076436e+00
## 693   0.55313199 -2.376907e+00
## 694   0.48037945  9.397152e-01
## 695   0.73725717  5.961683e-02
## 696   1.15653723 -2.932070e+00
## 697   0.59277122 -2.721739e+00
## 698   0.37834189  2.492852e+00
## 699   0.46513861 -1.425831e+00
## 700   0.62924618 -2.338738e+00
## 701   1.06655378 -2.216718e+00
## 702   0.37257929  5.241219e-01
## 703   1.16540237  1.497232e-01
## 704   1.51255464  2.752773e+00
## 705   0.24638088  5.166930e-01
## 706   0.04430958  2.568074e+00
## 707   0.69923042 -1.076203e+00
## 708   0.11018197  2.812503e-01
## 709   0.49856027  8.077092e-01
## 710   0.42753303 -1.515259e+00
## 711   1.35896254 -2.359359e-01
## 712   1.56843237 -2.897839e+00
## 713   0.59361887 -1.024979e+00
## 714   0.12372918 -2.208800e+00
```

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## 715   1.02879208 -3.025933e-01
## 716   0.52122628  2.916646e+00
## 717   1.34716172 -2.453163e+00
## 718   1.08412954  2.473055e+00
## 719   0.19934903  4.594770e-01
## 720   1.38575886 -2.604000e+00
## 721   1.14943788 -1.228373e+00
## 722   1.10766588 -3.979641e-01
## 723   1.45310205  8.870967e-01
## 724   0.90196255  3.048542e-01
## 725   1.36187549 -7.944146e-01
## 726   0.68655329 -1.923894e+00
## 727   1.28622519 -2.236975e+00
## 728   0.25628763  1.992888e+00
## 729   1.03498641 -1.357773e+00
## 730   0.76449705 -5.319301e-01
## 731   0.97930748  8.328829e-01
## 732   0.02858242  2.812275e+00
## 733   0.30688218  6.179981e-01
## 734   1.18556849  3.001914e+00
## 735   1.36607897  2.786641e+00
## 736   1.38438069  3.007189e+00
## 737   0.08420926 -2.361417e+00
## 738   0.43058951 -2.873639e+00
## 739   1.29971832 -3.127929e+00
## 740   0.43472706 -5.872670e-01
## 741   0.52022378  3.052049e+00
## 742   1.18691147  2.827804e+00
## 743   1.08350901 -5.642789e-01
## 744   0.60666845  2.990445e+00
## 745   1.01318694 -2.518847e+00
## 746   1.44726688 -4.733691e-01
## 747   0.36128675 -7.410447e-01
## 748   1.44818152  2.080279e+00
## 749   0.41983860 -2.849956e+00
## 750   0.98412241 -2.783020e+00
## 751   0.64141232  1.872786e+00
## 752   0.21535947  2.845774e+00
## 753   1.28108787 -3.068736e+00
## 754   1.34195691 -2.330614e+00
## 755   0.92689370 -2.154609e+00
## 756   1.01486867  2.575152e+00
## 757   0.11788456  2.188949e+00
## 758   1.21386732  3.008807e+00
## 759   0.70000679 -2.238344e+00
## 760   1.12702274 -6.573275e-01
## 761   1.55978925  2.353855e+00
## 762   0.90266639 -2.279075e+00
## 763   1.13499293  2.590039e+00
## 764   0.86847177  5.812006e-01
## 765   0.66327908 -1.647047e+00
## 766   0.52822495 -1.358896e+00
## 767   1.06393288 -3.088860e+00
## 768   1.22879325 -3.981737e-01
## 769   1.49216106 -2.347417e+00
## 770   0.67885981  2.763376e+00
## 771   0.69577770 -1.766557e+00
## 772   0.63827364  7.703648e-01
## 773   0.60661874 -1.176301e+00
## 774   0.18430820 -1.220687e+00
## 775   0.51669191 -7.252120e-01
## 776   0.92028077 -1.378212e+00
## 777   1.32446475  8.525554e-01
## 778   0.52193520 -1.997043e+00
## 779   1.09385975  9.545821e-01
## 780   1.49319839  1.822645e+00
## 781   0.67447129  9.766595e-01
## 782   0.60947570 -6.362174e-01
## 783   1.18176606 -1.775500e-01
## 784   0.88211355 -2.823176e+00
## 785   1.34697966 -8.653471e-01
## 786   0.36331629  1.409730e+00
## 787   1.29347577 -8.530240e-01
## 788   1.54949135  2.291419e+00
## 789   1.27689967 -2.782818e+00
## 790   1.52581937 -2.548181e+00
## 791   0.53982434 -2.228823e+00
## 792   1.04021662 -6.551341e-02
## 793   1.11455997  1.433265e+00
```

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## 794   0.97031803  2.696288e+00
## 795   0.79752342  4.457305e-01
## 796   0.29451104  1.819156e+00
## 797   0.40158430 -2.859675e+00
## 798   0.48903784 -5.280221e-01
## 799   1.20869138  1.018774e+00
## 800   1.35837876  6.698707e-01
## 801   0.91113832  1.564482e-01
## 802   1.14587650 -2.863101e+00
## 803   1.27141032 -5.918908e-01
## 804   0.72483123 -2.693087e+00
## 805   0.40032954 -2.782017e+00
## 806   0.46313586 -1.670589e+00
## 807   0.76914268 -1.974664e+00
## 808   0.48517127  8.100921e-01
## 809   0.44120555  2.932742e+00
## 810   0.84040447 -1.200556e+00
## 811   0.36502678  2.271012e+00
## 812   0.35356041  1.432823e-01
## 813   0.36639472 -1.813507e+00
## 814   0.81450758  3.436752e-01
## 815   0.93457737 -2.404709e-01
## 816   1.49622142 -2.716336e+00
## 817   1.47597299 -1.541850e+00
## 818   1.00417329 -2.790658e+00
## 819   0.21942429  2.395247e+00
## 820   0.69463521 -1.513452e+00
## 821   0.53350737 -3.801962e-01
## 822   0.66733764  1.832635e+00
## 823   1.32631211 -1.023893e-01
## 824   0.28184739 -1.868607e+00
## 825   0.84193590  1.466160e+00
## 826   1.13253926  1.313442e+00
## 827   0.71845878 -1.910059e+00
## 828   1.23591298  2.878445e+00
## 829   1.36951638 -2.860123e+00
## 830   1.36537130 -2.559464e+00
## 831   0.41453522 -2.495297e+00
## 832   1.10579667  7.147249e-01
## 833   0.62896547 -2.742283e+00
## 834   1.40166995 -2.542839e+00
## 835   0.58266945  6.793838e-02
## 836   0.29251938  4.192497e-03
## 837   0.74608939 -2.690829e+00
## 838   0.38726579 -2.330717e+00
## 839   0.37643239 -3.704409e-01
## 840   1.09461195  1.159399e-01
## 841   0.23177725 -2.064127e+00
## 842   0.51706051  2.558471e-01
## 843   1.10867401 -2.299202e-01
## 844   0.17770949  1.448766e+00
## 845   0.99376021 -2.694007e+00
## 846   1.45080063  2.757704e+00
## 847   1.02988441  2.863016e+00
## 848   0.65709158 -1.487556e+00
## 849   1.11014873 -1.691617e+00
## 850   0.28078057 -6.290961e-01
## 851   1.00567332 -1.993164e+00
## 852   1.30469539  2.701300e-02
## 853   0.36007359  2.505444e+00
## 854   0.90992506 -5.853132e-01
## 855   1.18437705 -2.993767e+00
## 856   0.41922290  3.724985e-01
## 857   0.43666181 -5.777367e-01
## 858   1.33379199 -2.469659e+00
## 859   0.71945988  2.950849e+00
## 860   0.41835468 -2.705570e+00
## 861   1.56208025 -2.087361e+00
## 862   0.27263973 -1.268114e+00
## 863   1.10188652 -3.117090e+00
## 864   0.97344234  2.872069e+00
## 865   0.52238873 -2.816630e+00
## 866   0.62893259 -1.591775e+00
## 867   1.42529887 -2.605619e+00
## 868   1.53686018  2.832703e+00
## 869   1.30370447 -2.545006e+00
## 870   0.30167774 -2.709362e+00
## 871   1.17528093  6.437212e-01
## 872   1.48332337  7.645938e-01
```

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## 873   0.60673118 -6.311761e-01
## 874   1.41695316  9.642157e-01
## 875   0.25402575 -1.504206e+00
## 876   0.56512653  8.820226e-01
## 877   1.52521253 -1.156925e-01
## 878   0.70432482 -1.682792e+00
## 879   1.06909630  3.004230e-01
## 880   0.20412237  2.672179e+00
## 881   0.97644340 -9.725427e-02
## 882   1.53111026  6.366352e-01
## 883   1.45339212 -8.472381e-03
## 884   1.30824839  2.966963e-01
## 885   0.09332955  9.004059e-01
## 886   0.52689104  2.985617e+00
## 887   1.50655407 -1.858613e+00
## 888   0.12010002  1.601756e+00
## 889   0.23819479  1.060431e+00
## 890   1.06846232  2.700420e+00
## 891   1.13431448 -2.644636e+00
## 892   0.34266072 -4.051407e-01
## 893   0.37930397 -8.657181e-01
## 894   1.10907257 -1.160891e+00
## 895   0.63759704 -2.864205e+00
## 896   1.30757758  1.409608e+00
## 897   0.59960184  7.982723e-01
## 898   0.28948640  2.855417e+00
## 899   0.97471910  2.389044e+00
## 900   0.64259371  2.280490e+00
## 901   1.47461291 -1.965665e+00
## 902   0.83416540 -2.497151e+00
## 903   1.47839743  2.574110e+00
## 904   0.93250048 -4.746443e-01
## 905   1.52501225  2.235270e+00
## 906   1.19698029  2.694119e+00
## 907   0.35549723 -1.870606e+00
## 908   1.07546314 -1.036403e+00
## 909   0.62639912  4.174770e-01
## 910   0.42282357  9.341577e-01
## 911   0.69222302 -8.633045e-01
## 912   1.22155338 -2.751366e-01
## 913   1.44049448 -1.250244e-01
## 914   1.23974655 -8.517652e-01
## 915   1.18446236  1.250103e+00
## 916   1.07585916 -5.564427e-01
## 917   0.23627522 -1.155497e+00
## 918   1.13765429 -2.417581e+00
## 919   0.71550046  6.863811e-02
## 920   1.46270034 -8.742446e-01
## 921   0.55855695 -1.114049e+00
## 922   0.74358344 -1.150145e-01
## 923   0.16654811  1.155683e-01
## 924   1.15609995  2.398878e+00
## 925   1.46548697 -2.876699e+00
## 926   1.04151600 -1.995623e+00
## 927   0.75983548  2.582216e+00
## 928   0.43710278  1.846524e-01
## 929   1.29684212 -2.155456e+00
## 930   1.28703551 -2.044314e+00
## 931   0.71598271 -2.556023e+00
## 932   0.38319608 -9.861676e-01
## 933   1.56417715  6.126914e-02
## 934   1.10231220  1.113608e+00
## 935   1.36796013  3.473522e-01
## 936   1.22299088 -2.603289e+00
## 937   0.96958074 -1.611633e+00
## 938   0.55782366 -1.634077e+00
## 939   1.46061028 -1.092667e+00
## 940   0.30049597  3.095400e+00
## 941   1.15932181 -5.286373e-02
## 942   0.95044174  3.136583e+00
## 943   1.15472106 -2.220495e+00
## 944   0.66299329  2.501081e+00
## 945   0.57481182 -1.418066e+00
## 946   1.31559691 -3.145651e-01
## 947   0.96960070  3.013988e+00
## 948   0.82052636 -1.848580e+00
## 949   0.34848924 -2.350361e+00
## 950   1.13310492 -7.918592e-01
## 951   0.10652162 -2.862806e+00
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## 952   0.43792969  9.810701e-01
## 953   0.15873093 -1.829734e+00
## 954   1.52142180  2.134774e+00
## 955   0.23401888 -1.734778e-01
## 956   1.30318412  2.974545e+00
## 957   0.29003376 -3.103821e+00
## 958   1.43427809  4.044990e-01
## 959   0.67336412 -2.824573e-01
## 960   1.47323838  8.398900e-01
## 961   0.95518518  2.710543e+00
## 962   0.37376311 -1.997631e-01
## 963   1.56130238  5.482091e-02
## 964   1.53887600  1.979889e+00
## 965   1.03040322  2.841871e-01
## 966   0.33858648  2.665763e+00
## 967   1.42298394  4.240769e-02
## 968   1.07851300  6.000412e-01
## 969   1.41135497  2.391266e+00
## 970   0.96131369 -7.922093e-01
## 971   0.44951271 -2.742841e+00
## 972   0.78773862 -1.477884e+00
## 973   0.79971419  1.573649e-01
## 974   0.28177768 -3.008273e+00
## 975   1.06380446 -2.729144e+00
## 976   1.15415745 -5.888409e-01
## 977   1.33625338 -4.422275e-02
## 978   1.48890894 -2.611448e+00
## 979   0.98828784 -2.157953e-01
## 980   0.81669243 -2.556276e+00
## 981   1.35211506  8.213418e-01
## 982   1.15131529  1.906141e+00
## 983   0.05726211  3.735159e-01
## 984   1.36127429  1.737026e+00
## 985   1.01478621  3.788674e-01
## 986   0.41073840 -3.526922e-01
## 987   0.53432283  1.844925e+00
## 988   1.48100991  3.023035e+00
## 989   1.17753080  5.435010e-01
## 990   0.99146395 -2.549724e+00
## 991   0.81284160  2.270836e-01
## 992   1.41134720 -2.059314e+00
## 993   1.01462288  1.383787e+00
## 994   0.37290351 -1.313482e+00
## 995   1.42358666  2.766269e+00
## 996   1.26075566 -2.160526e-01
## 997   1.34412110 -2.001670e+00
## 998   0.36109138  2.808739e-01
## 999   0.45094189  1.778792e+00
## 1000  0.09214139 -2.334134e+00
## 1001  0.71562258 -1.376041e+00
## 1002  0.58184327 -2.777426e+00
## 1003  0.53825758  1.366716e+00
## 1004  0.87384937  2.362708e+00
## 1005  0.07091585  3.734445e-01
## 1006  1.03895550  2.128730e-01
## 1007  1.14614333  2.998049e+00
## 1008  0.67912648  2.029464e+00
## 1009  0.33711183 -1.077831e+00
## 1010  1.53247685 -3.546594e-01
## 1011  0.59171631 -2.702956e+00
## 1012  0.73261630  3.936530e-02
## 1013  1.31402771 -2.053121e+00
## 1014  0.62059965  2.403201e+00
## 1015  0.66745932 -4.092231e-01
## 1016  0.85847222 -2.605274e+00
## 1017  1.51875635  3.726357e-01
## 1018  0.85255324  2.868167e+00
## 1019  0.55147474  1.167289e+00
## 1020  1.22707583 -2.966516e+00
## 1021  0.97751650  1.090339e+00
## 1022  0.31962316 -2.026115e+00
## 1023  1.25886945 -1.872898e+00
## 1024  0.36532463  3.456535e-01
## 1025  1.55550279  1.196400e+00
## 1026  0.87305885 -1.050533e+00
## 1027  1.41451275 -2.192860e+00
## 1028  1.15824111 -2.804385e+00
## 1029  1.10891029 -1.573619e+00
## 1030  1.54858108  2.293289e+00
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## 1031  0.40990058  1.531107e-01
## 1032  0.80803533 -3.063496e+00
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## 1034  0.88671475 -1.219805e+00
## 1035  1.09379878  2.314149e+00
## 1036  0.42162925  1.196973e+00
## 1037  1.39525650 -2.464914e+00
## 1038  0.51176306 -1.178259e+00
## 1039  1.02905139 -7.844534e-01
## 1040  1.06464231  1.629802e-01
## 1041  1.28568162  1.644831e+00
## 1042  0.85951604  3.390583e-01
## 1043  0.61363404  2.483050e+00
## 1044  1.19908352  2.006857e+00
## 1045  0.48939630  1.693929e+00
## 1046  1.48456458 -1.186577e+00
## 1047  0.99863344  1.250481e+00
## 1048  1.56635925 -2.750411e+00
## 1049  1.32533985 -7.367340e-02
## 1050  1.41807795 -2.333921e+00
## 1051  0.38401311 -2.305114e+00
## 1052  0.69672121 -1.529600e+00
## 1053  0.69492203  1.031344e+00
## 1054  0.99583722  2.841467e+00
## 1055  1.42483657 -5.066344e-02
## 1056  0.56243558 -2.952113e+00
## 1057  0.36303897 -2.689064e+00
## 1058  1.08161174  2.307327e+00
## 1059  0.85043932 -2.157723e-01
## 1060  1.44023504  1.441904e+00
## 1061  0.42498293 -1.820751e+00
## 1062  1.51522650 -5.775035e-01
## 1063  0.72944420  2.939282e-01
## 1064  1.05737872 -1.133861e+00
## 1065  1.33244798  2.684046e+00
## 1066  1.41207237 -1.140989e+00
## 1067  1.26152410 -4.101979e-01
## 1068  1.56641519 -8.498413e-01
## 1069  1.33586893  2.549464e+00
## 1070  1.31830875 -2.473154e+00
## 1071  0.62493679 -2.316982e+00
## 1072  1.42415345  1.483798e+00
## 1073  0.21779041 -2.943950e+00
## 1074  0.89923477 -4.970265e-02
## 1075  1.30123036 -6.808810e-01
## 1076  0.52457172 -6.851855e-01
## 1077  0.96206674 -2.648479e+00
## 1078  0.70537422 -6.565294e-02
## 1079  1.07469457  7.522358e-01
## 1080  0.60884312  1.501184e+00
## 1081  0.51252437 -2.198825e-01
## 1082  1.35596358  4.437930e-02
## 1083  1.44389108  3.027676e+00
## 1084  0.29785886 -1.413852e+00
## 1085  1.52658721  2.307507e+00
## 1086  0.77685550 -9.484199e-01
## 1087  0.28718737  2.220556e+00
## 1088  0.44064017  6.677326e-01
## 1089  0.72261993  1.777928e+00
## 1090  1.17511883  9.510199e-01
## 1091  0.66917355  1.161617e+00
## 1092  1.10375689  1.430005e+00
## 1093  0.85544787 -3.309584e-01
## 1094  0.66490646 -1.504239e+00
## 1095  1.08417414  2.299322e+00
## 1096  0.96267452 -2.925905e+00
## 1097  1.41711079  9.206911e-01
## 1098  1.38607882 -3.079455e+00
## 1099  0.88403481  2.881441e+00
## 1100  1.31879591  2.693223e+00
## 1101  1.43578020 -1.801760e+00
## 1102  0.36130877 -1.129113e+00
## 1103  0.18024302  2.274708e+00
## 1104  0.65751061  7.684818e-01
## 1105  0.55180193  2.358479e+00
## 1106  0.80150280  7.875868e-01
## 1107  0.48901914  1.107077e+00
## 1108  0.75479887 -6.401687e-01
## 1109  1.43108931 -6.041099e-01
```

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## 1110  1.26570156 -8.568627e-01
## 1111  1.23189589  2.829220e+00
## 1112  0.81698416 -1.016994e-01
## 1113  0.65335134  1.071470e+00
## 1114  0.91054465 -9.313226e-01
## 1115  0.37857784 -2.407582e+00
## 1116  0.70599327  1.651777e+00
## 1117  0.52019992 -1.652225e+00
## 1118  0.67210492  2.657934e+00
## 1119  1.26697615 -1.075179e-01
## 1120  0.81644385 -2.291351e+00
## 1121  1.08836919 -1.561497e+00
## 1122  0.41985977 -1.439262e+00
## 1123  1.42002436 -2.862492e+00
## 1124  0.67525442  2.943736e+00
## 1125  1.56456759 -4.789849e-02
## 1126  1.01094961 -2.439001e+00
## 1127  0.76650063  1.072081e+00
## 1128  1.03743664 -2.284117e+00
## 1129  0.97021685 -2.143114e+00
## 1130  1.44999771 -3.758945e-01
## 1131  0.31975423 -2.462147e+00
## 1132  0.34320178  2.664181e+00
## 1133  0.96309389  7.748677e-01
## 1134  0.39830552 -1.278956e+00
## 1135  0.97413800 -1.416225e-01
## 1136  1.18431396 -1.629574e+00
## 1137  1.43390313 -1.851492e+00
## 1138  0.28306698  2.966022e+00
## 1139  1.26949541  9.495860e-02
## 1140  1.28068350 -2.625687e+00
## 1141  0.38394639 -2.082889e+00
## 1142  1.15817553  2.617366e+00
## 1143  0.58417784  2.079117e+00
## 1144  0.92804256 -1.143932e+00
## 1145  0.67385745 -2.009723e+00
## 1146  0.91628691  6.156924e-02
## 1147  0.49090424 -6.412005e-01
## 1148  0.97306005 -1.618735e-01
## 1149  1.33156065 -1.401873e+00
## 1150  0.42839990  1.140670e+00
## 1151  1.11720628  1.777977e+00
## 1152  1.18232109 -9.358840e-01
## 1153  0.67764926  3.058095e+00
## 1154  0.39605545  2.794676e+00
## 1155  0.35614039  2.239271e+00
## 1156  1.34766984  3.074903e+00
## 1157  0.25930497 -1.877533e+00
## 1158  1.24698554  2.413632e+00
## 1159  0.69956546 -8.109248e-01
## 1160  0.31056656  4.078816e-01
## 1161  0.70114583 -2.650053e+00
## 1162  1.39545703 -2.534756e+00
## 1163  0.38067624  1.261350e-01
## 1164  1.06210723 -3.129889e+00
## 1165  1.55937513 -1.261830e+00
## 1166  1.41730329  2.979235e+00
## 1167  1.28062978  1.226892e+00
## 1168  1.30636898  2.708563e+00
## 1169  0.22564352  8.804812e-02
## 1170  1.47250881  2.851759e-01
## 1171  1.01562808  3.077808e+00
## 1172  0.81822851 -1.011489e+00
## 1173  1.02477758  2.961051e+00
## 1174  0.67402538  2.605078e+00
## 1175  1.29285341  2.316477e+00
## 1176  1.39191479  2.719513e+00
## 1177  0.45410392 -4.332846e-01
## 1178  0.26286795 -1.007312e+00
## 1179  0.61273481 -2.578872e-01
## 1180  0.29801001  3.614899e-01
## 1181  1.46197868  2.523769e+00
## 1182  1.00337874 -2.358429e+00
## 1183  1.09972311 -1.692835e+00
## 1184  0.62363056  4.211390e-01
## 1185  0.28721956  2.755308e+00
## 1186  1.45893875  2.371482e-02
## 1187  1.19945632  3.140047e+00
## 1188  0.28727012 -2.154634e-01
```

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## 1189  0.77430755  1.845826e+00
## 1190  1.02464716 -9.739682e-01
## 1191  0.91156721  6.586609e-01
## 1192  1.55650716  4.759524e-01
## 1193  0.85845337  6.942501e-02
## 1194  0.59479953 -2.014945e+00
## 1195  0.82087339 -2.679805e+00
## 1196  1.53948718 -3.792149e-01
## 1197  0.60026274  9.534294e-01
## 1198  0.24282095 -5.198404e-01
## 1199  0.95026239  2.264638e+00
## 1200  0.39680436 -1.264824e+00
## 1201  1.35285629  1.799092e+00
## 1202  0.42406174  7.961763e-01
## 1203  0.79894679  2.398534e+00
## 1204  0.43727065 -5.299053e-01
## 1205  0.85093703 -2.044825e+00
## 1206  0.83913883  8.430307e-01
## 1207  0.13842382 -1.566736e+00
## 1208  0.12424037  1.874232e+00
## 1209  0.66283277  1.624939e-01
## 1210  0.79064959  1.437955e+00
## 1211  1.36264864 -1.021461e+00
## 1212  0.95534634  2.769018e-01
## 1213  0.43984050  1.326999e+00
## 1214  1.43790604 -6.369202e-01
## 1215  0.85247366 -1.453888e+00
## 1216  1.46512260  3.874082e-01
## 1217  0.81947167 -2.406399e+00
## 1218  1.24207179  1.577890e+00
## 1219  0.30342129  3.075542e+00
## 1220  1.21328034 -1.607500e+00
## 1221  0.52975013  2.627787e+00
## 1222  1.08069982  1.324818e-01
## 1223  0.48340006 -2.551535e+00
## 1224  0.37792912  2.662242e+00
## 1225  1.11724603 -2.538961e+00
## 1226  0.40293968  2.557264e+00
## 1227  1.40961096  4.974093e-02
## 1228  1.20573868 -2.020612e+00
## 1229  1.29759128  1.015674e+00
## 1230  1.41256141  2.547853e+00
## 1231  1.38731565 -2.595110e+00
## 1232  0.26811446 -1.098491e+00
## 1233  0.57782621  4.880389e-01
## 1234  1.16238295 -6.856286e-01
## 1235  0.61489061 -4.118042e-01
## 1236  1.30464065  8.893582e-01
## 1237  0.51160931 -2.033322e+00
## 1238  0.62583496  2.066903e+00
## 1239  0.90484833  2.944149e+00
## 1240  0.09800912 -1.307638e+00
## 1241  1.41905751  2.351033e+00
## 1242  1.41813292 -3.794989e-01
## 1243  0.87204949  8.281003e-01
## 1244  1.03457674  4.821135e-01
## 1245  0.82147365 -1.956342e+00
## 1246  1.25945760  2.887627e+00
## 1247  1.29756143  6.098815e-02
## 1248  0.31475253  2.947526e+00
## 1249  0.95881047 -7.545666e-01
## 1250  1.37827586  1.255011e+00
## 1251  0.12338132  2.019503e+00
## 1252  0.31604011 -1.570291e+00
## 1253  0.37244230  9.360380e-01
## 1254  1.49786155 -6.853463e-01
## 1255  0.98117945 -6.508829e-01
## 1256  1.28205469 -1.249360e+00
## 1257  0.94192675  6.765220e-01
## 1258  0.66878079  8.062099e-01
## 1259  0.53703019 -2.209087e+00
## 1260  0.89379874 -1.849899e+00
## 1261  1.06064779  1.925698e+00
## 1262  0.91663694 -1.783261e+00
## 1263  1.50534474  5.371460e-01
## 1264  1.33536792  8.179623e-01
## 1265  1.26979643 -2.236451e+00
## 1266  0.33276615  3.098615e+00
## 1267  1.37722596 -5.921460e-01
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## 1268  1.38950594  3.111859e+00
## 1269  1.56569951 -8.372952e-01
## 1270  0.86741974  2.737969e+00
## 1271  0.47859928  2.884917e-01
## 1272  0.68057980  1.370444e+00
## 1273  0.27230106 -2.079655e+00
## 1274  1.27022145 -3.019601e+00
## 1275  0.23219545 -1.264887e+00
## 1276  0.35677758  2.002482e+00
## 1277  1.05317213  2.446582e+00
## 1278  1.33313216  2.953143e+00
## 1279  0.87305569  1.465239e+00
## 1280  1.34282488  1.470845e+00
## 1281  1.48595560  2.419861e+00
## 1282  0.61163411 -1.290886e+00
## 1283  1.02366770 -3.505870e-01
## 1284  1.25138732  2.174129e+00
## 1285  1.07805066  8.992561e-01
## 1286  1.01671422 -2.405642e+00
## 1287  1.26409706  2.724215e+00
## 1288  1.24584432 -2.349320e+00
## 1289  0.45284097  1.453513e+00
## 1290  0.49375282 -2.404963e+00
## 1291  1.01392003 -3.070503e+00
## 1292  1.28863758  9.271891e-01
## 1293  0.25511628 -3.023461e+00
## 1294  1.54174692  2.026938e+00
## 1295  0.97735537 -1.682019e+00
## 1296  0.33856805 -9.384071e-01
## 1297  0.17740731  3.022185e+00
## 1298  1.32700948 -2.339729e+00
## 1299  0.78626464 -3.101437e+00
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## 1301  0.86898320  6.055282e-01
## 1302  1.50494837 -2.864687e+00
## 1303  1.26850469 -2.379314e+00
## 1304  0.97353280 -2.493096e+00
## 1305  0.45040211 -2.725610e+00
## 1306  0.45309984  2.685856e+00
## 1307  0.38731180  2.108291e+00
## 1308  0.31527848 -5.392072e-01
## 1309  0.86072917  2.731681e+00
## 1310  0.51443816  8.229354e-01
## 1311  0.63161798  2.009692e+00
## 1312  1.43455365 -1.565536e+00
## 1313  0.24662610 -1.334991e+00
## 1314  0.74143717  2.694287e+00
## 1315  0.75565811  1.583512e-01
## 1316  1.30437380  1.383345e+00
## 1317  0.77318136  6.369213e-02
## 1318  1.04262324  2.688802e+00
## 1319  1.01633496  3.138044e+00
## 1320  0.40321892 -1.162610e+00
## 1321  1.23204461  2.127565e+00
## 1322  0.60339444  2.094013e+00
## 1323  1.32272600  2.853225e+00
## 1324  0.83492549  1.348075e+00
## 1325  1.07314368 -1.378922e+00
## 1326  1.55331163  2.138832e+00
## 1327  0.02231495 -1.683567e+00
## 1328  1.18425548 -4.321552e-02
## 1329  1.39671864  2.387839e+00
## 1330  0.45554612  2.979423e+00
## 1331  1.15622100  2.147765e-03
## 1332  0.87320395  1.788389e+00
## 1333  0.13916497 -1.894618e+00
## 1334  1.35652341  1.182595e+00
## 1335  0.71029488 -3.103669e+00
## 1336  0.58640108 -2.321605e+00
## 1337  1.38939965  1.502458e+00
## 1338  1.15513014 -3.119337e+00
## 1339  1.07925356  2.093682e-01
## 1340  0.63757315  1.011030e+00
## 1341  0.71222360 -2.544637e+00
## 1342  0.37462025  1.454017e+00
## 1343  0.50773330 -9.398236e-01
## 1344  0.14789895 -2.912511e+00
## 1345  1.12831626 -1.039933e+00
## 1346  0.46266071 -2.882299e-01
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## 1347  0.70747785 -2.724383e+00
## 1348  0.95510068  2.731625e-01
## 1349  0.70641294  7.021434e-02
## 1350  0.65218960  2.211210e+00
## 1351  1.54080628 -2.193172e+00
## 1352  0.54112108 -1.170958e+00
## 1353  1.48743702  3.141518e+00
## 1354  1.10145947  8.859358e-01
## 1355  0.75966323  2.363673e+00
## 1356  0.30668226 -2.966499e-01
## 1357  0.74018925  1.339999e+00
## 1358  1.05728332 -2.808226e+00
## 1359  0.44353291  3.132860e+00
## 1360  0.75607630  2.454475e+00
## 1361  1.33440765 -1.936975e+00
## 1362  1.21538324  1.442321e+00
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## 1364  1.46192347  1.253058e+00
## 1365  1.05045685  2.870260e+00
## 1366  1.53080366 -9.173722e-01
## 1367  0.96296654 -1.704548e+00
## 1368  0.58580294  1.766427e+00
## 1369  0.14659197  8.261018e-01
## 1370  1.41978785  1.912210e+00
## 1371  0.17451743 -1.724950e-02
## 1372  0.70317564 -2.676720e+00
## 1373  1.15327537  8.268048e-01
## 1374  0.90158103 -9.070348e-01
## 1375  1.27392690 -2.337779e+00
## 1376  0.47269939  2.630285e+00
## 1377  1.41177579 -1.079046e+00
## 1378  0.39778426  1.848263e+00
## 1379  1.05093481 -2.929273e+00
## 1380  0.32293067 -2.424791e+00
## 1381  0.87600611 -2.933383e+00
## 1382  1.17270797  2.722772e+00
## 1383  1.02874633  2.542742e+00
## 1384  1.21351402  2.572527e+00
## 1385  1.43607454 -8.707279e-02
## 1386  0.92645662  2.103290e+00
## 1387  1.08064132 -2.613406e+00
## 1388  0.71871059 -2.662198e+00
## 1389  1.50490188  7.388230e-01
## 1390  0.55799570  1.643519e+00
## 1391  1.12057156 -2.284515e+00
## 1392  0.48114557  5.731806e-02
## 1393  0.86012461  2.849611e+00
## 1394  1.33438611 -6.706412e-01
## 1395  0.82245900  4.344028e-01
## 1396  1.24025977  2.516568e+00
## 1397  1.44544593 -1.297665e+00
## 1398  0.60570836 -2.532073e-01
## 1399  1.35099118 -2.815576e+00
## 1400  0.69115480 -2.639211e+00
## 1401  0.89823867  2.180109e+00
## 1402  0.73341311  6.461559e-01
## 1403  1.42937103  1.817465e+00
## 1404  0.49779969 -2.934571e+00
## 1405  1.33263743  3.082507e+00
## 1406  0.98554261 -3.107602e+00
## 1407  1.03563087 -1.726824e+00
## 1408  0.81035958 -5.536936e-01
## 1409  1.08760710  2.729429e-01
## 1410  0.70405679  1.766518e+00
## 1411  1.24115118 -1.848884e+00
## 1412  0.71976269  2.866979e+00
## 1413  0.86057693  1.967317e+00
## 1414  0.89655473  1.154881e-01
## 1415  1.06515695  2.533978e+00
## 1416  0.93429510  7.796729e-02
## 1417  1.47738610  5.800268e-01
## 1418  0.54366145  1.753335e-01
## 1419  0.99214752 -6.734053e-01
## 1420  0.94034483  6.608011e-02
## 1421  1.37652707  7.373398e-01
## 1422  0.92350464 -2.871805e-01
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## 1424  1.56592098 -1.237832e-01
## 1425  0.73038981 -1.157657e+00
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## 1426  1.23264884 -1.279273e-01
## 1427  1.13338212  5.348190e-01
## 1428  1.03759795 -2.337111e-01
## 1429  1.29228097  1.087266e+00
## 1430  1.56123315 -2.142400e+00
## 1431  1.38740964 -3.542484e-01
## 1432  0.80055388  2.878132e+00
## 1433  0.37440249  9.246989e-01
## 1434  0.36620035  8.157712e-01
## 1435  1.25644007 -2.718955e+00
## 1436  0.69739849 -3.121735e+00
## 1437  0.92092145  1.914921e+00
## 1438  0.30449906  3.162075e-01
## 1439  0.58788795 -1.529399e+00
## 1440  1.14669422 -1.410616e-01
## 1441  1.01946431 -2.722820e-01
## 1442  0.74102959 -2.956554e+00
## 1443  1.51184521  1.095793e-01
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## 1445  0.97058963 -7.164256e-01
## 1446  0.76695331  2.260915e+00
## 1447  0.41475075 -1.413652e+00
## 1448  1.29484485  2.399854e+00
## 1449  0.99291266  2.568278e+00
## 1450  0.37651679 -2.325774e+00
## 1451  0.79969878  5.222925e-01
## 1452  1.45852563 -1.738250e+00
## 1453  0.78721017 -1.341485e+00
## 1454  0.45904315 -2.222163e+00
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## 1456  0.84499432 -1.990622e+00
## 1457  1.23747713 -5.186952e-01
## 1458  0.98136107  2.206582e+00
## 1459  0.38675803 -2.805517e+00
## 1460  1.44159179  1.209070e+00
## 1461  1.43716899  5.791401e-02
## 1462  0.25979424  1.970063e+00
## 1463  0.97466820  1.927251e+00
## 1464  1.14830017 -3.022149e+00
## 1465  0.72746440 -5.519139e-01
## 1466  0.35654611  2.182943e+00
## 1467  0.76568844 -2.689373e+00
## 1468  0.35208179 -6.767226e-02
## 1469  0.93373095 -1.931929e+00
## 1470  0.69939621 -3.013610e+00
## 1471  1.15135655 -1.445393e+00
## 1472  0.42514781  2.227427e+00
## 1473  0.32624395 -5.801394e-01
## 1474  0.14289748  1.144379e+00
## 1475  0.66710248 -2.087117e+00
## 1476  0.88375601 -3.900541e-01
## 1477  1.10429758  1.065786e-01
## 1478  0.58266081 -1.243563e+00
## 1479  0.67152742 -2.634433e+00
## 1480  0.91184706  1.819485e+00
## 1481  1.17019688 -2.364483e+00
## 1482  0.98182787 -9.195967e-01
## 1483  1.30537286  1.104576e+00
## 1484  1.50777242  6.216707e-01
## 1485  1.15059269  1.316662e+00
## 1486  0.93319320  2.811549e+00
## 1487  1.40344545  5.929777e-01
## 1488  0.57388720 -3.119943e+00
## 1489  1.52776726  2.239370e+00
## 1490  0.63683073  1.591203e+00
## 1491  0.19381110  1.837123e+00
## 1492  1.27558810  1.552351e+00
## 1493  1.18137171 -1.253208e+00
## 1494  1.42873070  2.082529e+00
## 1495  0.28512048  1.107198e+00
## 1496  1.09149969 -2.228586e-01
## 1497  0.69718667  7.072472e-01
## 1498  0.72765849 -5.911335e-01
## 1499  1.51088012 -1.769146e-01
## 1500  1.30274724 -8.848089e-01
## 1501  1.31320737 -1.521924e+00
## 1502  1.17634965 -1.939550e+00
## 1503  0.86289779  2.028882e+00
## 1504  0.54464419 -2.476691e+00
```

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## 1506  1.14493646  1.000125e+00
## 1507  0.86708131  2.144541e+00
## 1508  1.34932719 -4.896489e-01
## 1509  1.36224884 -2.382358e+00
## 1510  0.64003730 -1.641241e-02
## 1511  0.32896101 -2.471685e+00
## 1512  0.84033720 -3.047030e+00
## 1513  0.83537696 -2.227472e+00
## 1514  0.58023178 -2.339538e-01
## 1515  0.64090494  6.930650e-02
## 1516  1.18105514 -2.447915e+00
## 1517  0.65965678  9.875935e-01
## 1518  1.29226237  5.931771e-01
## 1519  1.14290956 -1.090724e-01
## 1520  1.08014355  6.836490e-01
## 1521  0.06902485  2.064647e+00
## 1522  0.73852899 -1.297583e+00
## 1523  1.36163144 -2.174757e+00
## 1524  1.02017471 -2.474495e+00
## 1525  1.22086469  9.717501e-01
## 1526  0.71150279  2.979141e+00
## 1527  1.05537872 -6.873559e-01
## 1528  0.93738711  2.032429e-01
## 1529  1.53574319  1.842451e+00
## 1530  1.41694074 -3.118682e+00
## 1531  0.44257184 -1.820502e+00
## 1532  0.21502153 -2.812159e+00
## 1533  1.42735870  3.093988e+00
## 1534  1.38266807 -1.137328e+00
## 1535  0.46829461  2.898573e+00
## 1536  1.01845378 -2.841325e+00
## 1537  0.45079834 -1.487642e+00
## 1538  1.29541196 -2.562778e+00
## 1539  0.91683428  9.409474e-01
## 1540  1.11065693 -1.306247e+00
## 1541  0.46596618 -2.507162e+00
## 1542  0.35012048 -9.746710e-01
## 1543  1.29070483  6.448932e-01
## 1544  1.40217115  1.468009e+00
## 1545  1.22167294 -5.145104e-01
## 1546  1.53379587  1.862810e+00
## 1547  0.12514313 -3.122256e+00
## 1548  0.77943332  1.663939e+00
## 1549  0.75387563  9.074802e-01
## 1550  0.31789453 -1.968108e+00
## 1551  0.06909355  9.421981e-01
## 1552  0.53264836  1.451737e+00
## 1553  0.19709987  1.981803e+00
## 1554  1.19158296 -7.738838e-03
## 1555  0.55238925  1.884462e+00
## 1556  0.67424974  2.745106e+00
## 1557  1.52856456  9.406619e-01
## 1558  1.31020146 -2.286551e+00
## 1559  0.95240857  1.199350e-01
## 1560  0.88646380  3.095771e+00
## 1561  1.13221729  6.586112e-01
## 1562  0.71942461  1.907375e+00
## 1563  0.92289052  4.377813e-02
## 1564  0.33613480 -1.354566e-01
## 1565  1.30394995 -2.715429e+00
## 1566  1.37905864  2.670985e+00
## 1567  1.36210401  1.871923e+00
## 1568  0.64643637  1.962170e+00
## 1569  0.21056724  2.670591e+00
## 1570  0.81408499 -1.047383e+00
## 1571  0.82875641 -1.764889e+00
## 1572  1.32616595 -2.572392e+00
## 1573  0.16643084 -7.412209e-01
## 1574  1.07989407  2.313562e+00
## 1575  0.62822606 -2.387927e+00
## 1576  0.51892907  4.004854e-01
## 1577  0.65385668  3.007408e+00
## 1578  1.35750717  1.784479e+00
## 1579  1.27755237 -2.705241e+00
## 1580  1.49275830 -2.887144e+00
## 1581  1.44295060 -3.079886e+00
## 1582  1.29263947  1.829891e+00
## 1583  0.59627006  8.553975e-01
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## 1585  1.11103658  3.142510e-01
## 1586  0.85047430  2.972563e+00
## 1587  0.21826376 -2.665603e+00
## 1588  1.17678188  1.449090e+00
## 1589  1.15758531  1.691986e+00
## 1590  1.36670879 -9.820014e-01
## 1591  0.69422764 -7.441999e-01
## 1592  0.87545212  3.005460e+00
## 1593  0.93391404  1.721277e+00
## 1594  0.92408356 -2.281871e-01
## 1595  0.23913339  2.984102e+00
## 1596  0.59436426  4.028518e-01
## 1597  0.60847582  1.028162e+00
## 1598  0.70919537 -2.976734e-01
## 1599  1.09670433  2.016731e+00
## 1600  1.43896406 -7.547320e-02
## 1601  0.49901740  2.787464e+00
## 1602  1.05869878 -2.374998e+00
## 1603  0.54491311  1.306337e+00
## 1604  0.95122331  6.168910e-01
## 1605  0.23775696 -2.202073e+00
## 1606  1.40514421 -2.283119e-01
## 1607  0.72027239  2.217546e+00
## 1608  0.75584421  1.690527e+00
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## 1611  0.19596834  1.104424e+00
## 1612  1.22411478  2.499603e+00
## 1613  1.25885388 -2.987689e+00
## 1614  0.39010172 -9.786260e-01
## 1615  1.01194501 -2.343727e+00
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## 1617  0.35557706 -2.589962e+00
## 1618  1.16287838 -1.595336e+00
## 1619  1.01162927  1.800398e+00
## 1620  0.45595032 -2.897723e+00
## 1621  0.62018018 -1.659474e+00
## 1622  1.37142340  1.675269e+00
## 1623  0.60863047 -2.087961e+00
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## 1627  0.60649633  1.710766e+00
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## 1629  1.16965195 -3.137704e+00
## 1630  1.36084222  3.825659e-01
## 1631  0.23630220 -2.594361e+00
## 1632  0.33868624 -1.917382e+00
## 1633  0.47363140 -9.798010e-01
## 1634  1.36556814 -9.675959e-01
## 1635  0.52931812  1.733167e+00
## 1636  0.88311959 -2.841118e+00
## 1637  1.00877909 -2.960035e-01
## 1638  0.67590733  3.204118e-01
## 1639  0.42614151  3.101482e+00
## 1640  1.43284270  1.133480e+00
## 1641  0.24496421  3.090101e+00
## 1642  0.27835330 -9.088999e-01
## 1643  1.09481536  8.624734e-01
## 1644  0.79051263 -3.071712e-01
## 1645  0.15453333  2.693533e+00
## 1646  0.59141507 -2.177870e-01
## 1647  0.39392313 -1.976136e+00
## 1648  1.26422049 -2.530668e+00
## 1649  0.47807101  2.547861e+00
## 1650  1.31154296 -2.196307e+00
## 1651  0.83031429  4.800200e-01
## 1652  1.10222896  9.701670e-01
## 1653  1.13719672 -1.112600e+00
## 1654  1.21081390 -3.134451e+00
## 1655  0.92723221  1.636049e-01
## 1656  1.45955962  4.767199e-01
## 1657  0.98295779  1.242025e+00
## 1658  1.12058222  2.993178e+00
## 1659  0.33504766  2.914959e+00
## 1660  0.48227077 -2.534999e+00
## 1661  1.27891089  5.660108e-01
## 1662  0.48393391 -2.244164e+00
```

```
## 1663  0.66450466  1.956692e+00
## 1664  1.43632149  3.402930e-01
## 1665  0.09421115 -2.547694e+00
## 1666  1.46591291  2.314098e+00
## 1667  0.84090583 -2.454422e-01
## 1668  0.99337845  2.402898e+00
## 1669  1.54430919 -7.090969e-01
## 1670  1.22535299 -2.479227e-02
## 1671  1.00627508  1.733950e-01
## 1672  0.73703426 -1.777292e-01
## 1673  1.48965125 -2.497222e+00
## 1674  1.06813737 -5.827264e-01
## 1675  1.08022887 -2.226276e+00
## 1676  0.56239710 -1.036123e+00
## 1677  1.14949493 -3.102630e+00
## 1678  0.67120039  2.581083e+00
## 1679  1.33502581  1.750541e-01
## 1680  1.32692523 -2.075551e+00
## 1681  0.70318461 -1.277484e+00
## 1682  0.92594480  4.803158e-01
## 1683  1.56796390 -4.030618e-01
## 1684  1.50724829 -1.172127e+00
## 1685  0.06761984 -2.297403e+00
## 1686  1.08014609 -1.103535e+00
## 1687  1.12047458 -1.855896e+00
## 1688  1.27705616 -1.628740e+00
## 1689  0.59627449 -7.048309e-01
## 1690  1.48235034 -1.316774e+00
## 1691  1.31204812  5.259604e-01
## 1692  0.87338511 -3.058442e+00
## 1693  0.60568428  1.015234e+00
## 1694  0.99753593  3.019515e-01
## 1695  1.52048796  5.392940e-01
## 1696  0.69128597 -2.632768e+00
## 1697  1.47089813  1.844607e+00
## 1698  0.51842748  2.602457e+00
## 1699  0.60777590  1.665796e+00
## 1700  1.32652385 -1.491992e+00
## 1701  0.87046483  8.311574e-01
## 1702  1.29704279  3.943102e-01
## 1703  1.51966899  3.121789e+00
## 1704  0.70696549  2.072310e+00
## 1705  0.79827497 -3.095496e+00
## 1706  0.79364320 -2.427713e+00
## 1707  0.31549278 -2.516117e+00
## 1708  1.31016681  1.806321e+00
## 1709  1.49310088 -5.460655e-01
## 1710  1.14004191  3.046549e+00
## 1711  0.72245173 -7.589444e-03
## 1712  0.31624997  2.030615e+00
## 1713  0.90997685 -1.572215e+00
## 1714  0.40570692  5.690100e-01
## 1715  1.06137278 -2.176519e+00
## 1716  0.41021595  3.097362e+00
## 1717  0.50969869 -1.900348e+00
## 1718  1.20819510  5.276298e-01
## 1719  0.26664834 -7.615450e-01
## 1720  0.49643584  2.984564e+00
## 1721  0.72017968  2.929597e+00
## 1722  1.46277157 -5.913003e-01
## 1723  0.78527401  8.568408e-01
## 1724  0.64555866 -3.711040e-01
## 1725  1.00874808  1.694029e+00
## 1726  0.54803249 -1.519962e+00
## 1727  0.89005073 -2.795776e+00
## 1728  1.45930501 -2.984010e+00
## 1729  0.31958107 -6.057560e-01
## 1730  0.70664288 -3.120390e+00
## 1731  0.95014875 -2.532124e+00
## 1732  0.96394896 -2.537687e+00
## 1733  1.24775033  2.984370e+00
## 1734  0.41041180  3.018926e-01
## 1735  1.43067888 -3.968975e-01
## 1736  1.17444651 -1.724634e+00
## 1737  0.20959005 -2.898197e+00
## 1738  1.30771823 -2.013705e+00
## 1739  1.47080813  3.286526e-01
## 1740  1.13771281 -1.042830e+00
## 1741  0.75812378  1.601141e+00
```

```
## 1742  1.45357384 -2.481341e-01
## 1743  0.59493720  2.365027e+00
## 1744  1.09468263  2.424160e+00
## 1745  0.07572779 -1.886925e+00
## 1746  1.19543687  2.759079e+00
## 1747  0.57901166  3.287083e-01
## 1748  1.50502878 -1.717637e+00
## 1749  1.28141828 -1.899025e+00
## 1750  1.28539828  5.625026e-01
## 1751  1.41461119  2.688614e+00
## 1752  0.13754093 -1.927945e+00
## 1753  0.56234338 -1.126344e+00
## 1754  1.49070106 -1.540979e+00
## 1755  1.46495388  1.829786e+00
## 1756  1.20000632 -3.018666e-01
## 1757  1.15666733 -6.342564e-01
## 1758  0.49952857  2.781411e+00
## 1759  1.13036798  1.906637e-01
## 1760  1.42091473  5.518331e-01
## 1761  1.19901188 -3.023403e+00
## 1762  0.58115598  2.099930e+00
## 1763  0.79941387  1.459420e+00
## 1764  0.95328378  2.839503e+00
## 1765  0.84213301  2.742046e+00
## 1766  1.53021899 -2.008742e-01
## 1767  0.45399657  1.316723e+00
## 1768  0.44024221 -1.306101e+00
## 1769  1.07977142 -1.577044e+00
## 1770  1.49056039  2.057384e+00
## 1771  0.31251562  2.464541e+00
## 1772  0.60428556 -1.196201e+00
## 1773  0.86753146 -2.950078e+00
## 1774  1.16642696  2.304055e-01
## 1775  1.31010062  5.973038e-01
## 1776  1.35697081 -6.717833e-01
## 1777  1.40583290 -5.348651e-03
## 1778  1.08023918 -8.736481e-01
## 1779  0.27562310  2.068603e+00
## 1780  1.14848596 -2.750600e+00
## 1781  1.09502911  2.241211e+00
## 1782  0.71584446 -2.305907e+00
## 1783  0.02412229 -7.238975e-01
## 1784  1.32912541 -1.035933e+00
## 1785  0.68383230 -8.205873e-01
## 1786  1.25648366  3.099797e+00
## 1787  0.43673736  1.772998e+00
## 1788  0.99628565  2.702054e+00
## 1789  0.58269481 -1.450074e+00
## 1790  0.69567020 -7.300779e-01
## 1791  0.22420945  1.882848e+00
## 1792  1.18195278 -2.981366e+00
## 1793  0.89414057 -6.455188e-01
## 1794  1.02836127 -2.287717e+00
## 1795  0.57788193  5.215525e-03
## 1796  1.43184614 -2.333646e+00
## 1797  1.35008217  2.965060e+00
## 1798  0.11884383  3.034761e-01
## 1799  1.14663068  1.075878e+00
## 1800  0.74271767  2.646749e+00
## 1801  1.07573775  8.184183e-02
## 1802  0.88600521  2.901766e+00
## 1803  0.75464294  2.734565e+00
## 1804  0.99676547 -2.127268e+00
## 1805  0.73677624 -1.877165e+00
## 1806  0.69222861 -5.968922e-01
## 1807  1.22502923 -1.594049e+00
## 1808  0.22335698  1.270783e+00
## 1809  1.52140476  2.226100e+00
## 1810  0.29536144 -3.017871e+00
## 1811  1.17075030  2.661512e-01
## 1812  0.73040393  8.346571e-01
## 1813  0.55796255 -1.221043e+00
## 1814  0.51101560 -2.970640e+00
## 1815  0.89923383 -2.459891e+00
## 1816  1.10889001 -2.867479e+00
## 1817  0.48897900  5.972221e-01
## 1818  1.05366590 -3.110882e+00
## 1819  1.34752439 -1.842413e+00
## 1820  1.04737349  2.532997e+00
```

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## 1821  0.91467652 -3.104781e+00
## 1822  0.24276541 -1.912662e-01
## 1823  0.49162886 -2.986263e+00
## 1824  0.40389506 -1.035740e+00
## 1825  0.94945453 -2.536319e+00
## 1826  1.12161916  5.246765e-01
## 1827  1.55011760  1.032968e+00
## 1828  0.45249654  5.108914e-01
## 1829  0.36509341  2.373605e+00
## 1830  0.62102581 -7.690700e-01
## 1831  0.65992899  1.761258e+00
## 1832  0.58269027 -2.607426e-02
## 1833  0.94197103 -2.918012e-01
## 1834  1.50719114  2.136097e-02
## 1835  1.14219790  9.594022e-01
## 1836  1.15469198  2.061514e+00
## 1837  0.57526760  1.055152e-01
## 1838  0.54259574 -3.091570e+00
## 1839  1.25332644 -2.605862e+00
## 1840  0.89680049  1.680410e+00
## 1841  1.06899081  8.413266e-01
## 1842  1.46558560  3.117508e+00
## 1843  0.69533304  1.639080e+00
## 1844  1.38965634  1.107917e+00
## 1845  0.59861716 -2.384597e-01
## 1846  0.28223675  9.609971e-01
## 1847  1.40708661 -2.979376e-01
## 1848  1.15357254  3.097581e+00
## 1849  0.96647534 -1.777531e+00
## 1850  0.28040176 -2.627627e+00
## 1851  0.79082126 -2.777504e-01
## 1852  0.23188986 -1.299965e+00
## 1853  1.16570675 -2.764926e+00
## 1854  1.52823868  1.654920e+00
## 1855  1.01288444  3.618610e-01
## 1856  1.55431919 -3.890476e-01
## 1857  1.14020318  2.174021e+00
## 1858  1.38213359  2.654302e-01
## 1859  1.12563677  1.049043e+00
## 1860  0.77062825  2.620296e+00
## 1861  1.12306385 -2.110081e+00
## 1862  1.38667539 -2.227974e+00
## 1863  0.56457424 -3.118352e+00
## 1864  0.36242342 -8.244443e-01
## 1865  0.85653397 -1.210911e-01
## 1866  1.43972265  1.246379e+00
## 1867  0.29608425  1.079547e-01
## 1868  0.90831044 -2.878712e+00
## 1869  0.99850747  1.994739e+00
## 1870  0.25501687 -2.508339e+00
## 1871  1.13378841  2.401621e+00
## 1872  0.98415265 -2.293309e+00
## 1873  0.30702989 -5.920476e-01
## 1874  1.28838535  9.627660e-01
## 1875  0.04590782 -2.811672e-01
## 1876  0.62173359 -2.900617e+00
## 1877  0.58174732 -1.961525e+00
## 1878  1.09565785  8.614893e-01
## 1879  0.61961900 -1.309500e-01
## 1880  1.50327437 -4.805882e-01
## 1881  0.64267969 -2.692393e+00
## 1882  0.31330429  1.037110e+00
## 1883  1.17419446 -5.751897e-02
## 1884  1.10913215  3.280970e-01
## 1885  0.43817897 -3.052476e+00
## 1886  0.42677859  8.686277e-02
## 1887  0.65924614 -1.092215e+00
## 1888  1.46413524 -7.732753e-01
## 1889  0.53764320 -1.333211e+00
## 1890  0.09928700 -8.821143e-01
## 1891  1.39979578  2.063032e+00
## 1892  0.37686118 -7.528964e-01
## 1893  0.80401544 -1.072396e+00
## 1894  0.50515877 -1.660293e+00
## 1895  1.36362238 -2.376255e+00
## 1896  0.60116917  1.432089e+00
## 1897  1.25792658  3.126486e+00
## 1898  1.14660314 -1.253637e-02
## 1899  0.69145612 -9.478494e-02
```

```
## 1900  1.07689840  2.818031e+00
## 1901  0.82374964  1.745548e-01
## 1902  0.20994726  3.670099e-01
## 1903  1.48684038 -2.605747e+00
## 1904  1.10893111 -2.188606e+00
## 1905  0.94998616 -3.378154e-01
## 1906  1.29432184 -1.969151e+00
## 1907  0.90443249  2.088698e+00
## 1908  1.43256789  1.287654e+00
## 1909  1.24568947 -2.658099e+00
## 1910  0.30047653 -1.017512e+00
## 1911  0.21840354  2.187569e+00
## 1912  0.25829686 -9.302844e-01
## 1913  0.23245595  2.253233e+00
## 1914  0.74826159  1.340659e+00
## 1915  1.27628191  2.482689e+00
## 1916  1.02710527  4.661611e-01
## 1917  0.69813638  2.724384e+00
## 1918  1.37005176  3.001579e+00
## 1919  1.36672738 -2.777548e+00
## 1920  0.54344317 -1.296618e+00
## 1921  1.14356018 -1.833863e+00
## 1922  1.55330238 -2.574216e+00
## 1923  0.98995035  6.738122e-01
## 1924  0.19133048  1.445171e+00
## 1925  1.12595838  1.899270e+00
## 1926  1.47027860  1.887216e+00
## 1927  0.17550240 -1.857860e+00
## 1928  0.47937128  1.826928e+00
## 1929  1.37525333  2.337563e+00
## 1930  0.80076380 -2.213369e-02
## 1931  0.82418762  2.445021e+00
## 1932  1.52546370  6.170475e-01
## 1933  1.48576755  1.607377e+00
## 1934  0.33425562 -2.560899e+00
## 1935  1.54643915  3.767404e-01
## 1936  1.43420637 -8.443428e-01
## 1937  0.84527387  2.927732e+00
## 1938  1.02235029  2.675723e+00
## 1939  1.35038698  5.487330e-01
## 1940  0.52738026  1.118794e+00
## 1941  0.18676217  9.529983e-02
## 1942  1.35030904  2.767997e+00
## 1943  1.33874555 -2.457854e+00
## 1944  0.81144543 -1.375056e+00
## 1945  0.54645525  2.352742e+00
## 1946  0.21869849 -6.256905e-02
## 1947  0.43398459  1.871924e+00
## 1948  0.95719849 -1.738186e+00
## 1949  0.52452080 -8.123723e-01
## 1950  1.26693649 -7.338396e-02
## 1951  0.96457816  2.839455e+00
## 1952  0.89057682  2.688897e+00
## 1953  1.41822824  5.625787e-01
## 1954  0.99164675  3.053123e+00
## 1955  0.84574508 -5.552735e-01
## 1956  1.47423445  1.519305e+00
## 1957  1.30362074  2.507634e+00
## 1958  0.83487309  4.273650e-02
## 1959  1.54983870 -3.140776e+00
## 1960  0.17980540 -2.208880e+00
## 1961  1.05738679 -1.728566e+00
## 1962  0.69460840 -1.065757e-01
## 1963  1.20487402 -7.294041e-01
## 1964  0.27276702 -1.740502e+00
## 1965  0.42845389  2.493590e+00
## 1966  0.19710837 -5.681426e-01
## 1967  0.57919187  2.382636e+00
## 1968  0.19523182  8.153500e-01
## 1969  1.21974763  1.913800e+00
## 1970  0.52444584  1.618197e+00
## 1971  0.48780430  1.670128e+00
## 1972  1.28536706 -8.892177e-03
## 1973  0.81329760  1.190559e+00
## 1974  0.33730483 -1.067253e-01
## 1975  1.52501212  2.642440e+00
## 1976  0.33010741 -2.351841e+00
## 1977  0.46373045 -3.106130e-01
## 1978  1.09593231 -1.193183e+00
```

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## 1979  1.29879292  2.502936e+00
## 1980  1.29983639 -1.593344e-01
## 1981  1.06007735  6.883416e-01
## 1982  1.15326563 -3.014445e+00
## 1983  1.24157383 -2.164048e+00
## 1984  0.85893218 -2.490449e+00
## 1985  1.42061570  7.970530e-01
## 1986  0.85509611 -7.928121e-01
## 1987  1.28641644 -2.707559e+00
## 1988  0.97653472 -2.597539e-03
## 1989  0.73097787 -1.869498e+00
## 1990  0.25376962  1.881698e+00
## 1991  0.19343722 -1.422634e+00
## 1992  0.91489103  2.554442e+00
## 1993  0.30620120  7.943133e-01
## 1994  0.98471956 -1.353746e+00
## 1995  1.20306387 -1.272126e+00
## 1996  0.50284672  7.372305e-01
## 1997  1.21001347  1.997652e-01
## 1998  0.50717340  1.702435e+00
## 1999  1.35741066  2.444954e+00
## 2000  0.48148694  1.652982e+00
## 2001  0.29233557  2.715945e+00
## 2002  1.43065369  2.253227e+00
## 2003  1.34905119  2.950182e+00
## 2004  1.09833775 -2.689329e-01
## 2005  0.93315584 -8.318099e-01
## 2006  1.52082871 -1.722400e+00
## 2007  1.29968766  2.442068e+00
## 2008  0.40434016  2.077271e+00
## 2009  1.53545571 -3.291650e-01
## 2010  0.27899097  1.742618e+00
## 2011  1.48320615 -2.636546e-01
## 2012  0.09774052  3.138704e+00
## 2013  1.42172246  2.785538e+00
## 2014  1.44215993 -2.072671e+00
## 2015  0.53276241 -8.842715e-01
## 2016  0.26205234 -2.253149e+00
## 2017  0.49052354  1.208719e+00
## 2018  0.75553871 -1.524067e+00
## 2019  0.70327824  6.454375e-01
## 2020  0.16074854  1.024603e+00
## 2021  0.70144207 -2.207336e+00
## 2022  1.25967075 -2.692631e+00
## 2023  1.48707730  2.996615e+00
## 2024  0.61157510  6.008572e-01
## 2025  1.41940808 -1.844684e+00
## 2026  0.63033164 -1.846063e+00
## 2027  0.84059786  3.630732e-01
## 2028  0.42091193 -1.892893e+00
## 2029  0.84397206 -3.011723e+00
## 2030  0.53565424 -5.579984e-01
## 2031  1.16939302 -2.946106e+00
## 2032  1.32902615  7.071898e-02
## 2033  1.48406942  2.875912e+00
## 2034  0.28825665 -5.369445e-01
## 2035  0.40377074 -2.392943e+00
## 2036  1.56417620  2.123903e+00
## 2037  0.62502165  5.827584e-01
## 2038  0.83626267 -2.911288e+00
## 2039  1.54775334  6.473391e-01
## 2040  0.77372992 -2.416690e+00
## 2041  0.73211579 -2.369594e+00
## 2042  1.12946193  1.536211e+00
## 2043  0.86123576  2.733345e+00
## 2044  1.31410714  2.813137e+00
## 2045  0.68108725 -6.624664e-01
## 2046  0.90688504  1.139438e+00
## 2047  0.51118150 -1.222186e+00
## 2048  0.28785715  7.029421e-01
## 2049  1.08116110 -1.677027e+00
## 2050  1.23692472  1.259107e+00
## 2051  0.76954407 -5.383145e-01
## 2052  1.53365978  2.850306e+00
## 2053  0.45171334 -1.591239e+00
## 2054  1.41290249  2.745828e+00
## 2055  0.83368503 -1.386570e-01
## 2056  0.45597714 -5.803817e-01
## 2057  1.29028153  1.742063e+00
```

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## 2058  0.63156074 -2.689841e+00
## 2059  1.11565420 -2.841467e+00
## 2060  1.55620010 -1.313268e-01
## 2061  0.89988050 -2.001456e+00
## 2062  0.96967736 -6.194682e-01
## 2063  1.26972610  4.785530e-01
## 2064  0.27386442 -1.689568e+00
## 2065  1.45107742  2.167352e+00
## 2066  1.17686538 -1.024667e-01
## 2067  0.71244163  2.593667e+00
## 2068  0.51612352 -2.751075e+00
## 2069  1.40589443 -3.546651e-01
## 2070  1.36374002  3.121904e+00
## 2071  1.10321130 -2.487951e-01
## 2072  0.98845212 -7.725339e-01
## 2073  0.63517876  2.567577e+00
## 2074  0.29798007  3.107169e+00
## 2075  0.76998488  3.112818e-01
## 2076  0.37789632 -2.715285e+00
## 2077  0.92597589  3.608538e-01
## 2078  0.38402060 -7.003280e-01
## 2079  0.35935679  1.271377e-01
## 2080  0.30940810  2.322364e+00
## 2081  1.32649037  7.702704e-01
## 2082  1.31379194  7.288665e-01
## 2083  0.37692278 -2.743314e+00
## 2084  0.58107913 -1.558081e+00
## 2085  0.32837524  1.545875e+00
## 2086  1.22403190  2.956232e+00
## 2087  0.03878306 -2.752904e+00
## 2088  0.18140170  3.066015e+00
## 2089  1.34877086  9.774988e-01
## 2090  0.81764107 -2.516861e+00
## 2091  1.55373152 -3.709694e-01
## 2092  0.81798357 -7.572702e-01
## 2093  0.72369319 -9.963833e-01
## 2094  0.89127026 -2.828733e+00
## 2095  0.95000641 -2.113554e+00
## 2096  0.57565449  2.987552e-01
## 2097  1.15796117 -1.492341e+00
## 2098  1.14733406  1.694121e+00
## 2099  1.39876383 -2.583150e+00
## 2100  0.94112668 -2.419870e+00
## 2101  1.37256925  5.983281e-01
## 2102  0.24436720 -4.515771e-02
## 2103  0.59846363 -2.027414e+00
## 2104  0.84664052  2.103969e+00
## 2105  1.43581817 -2.637445e+00
## 2106  0.63911885  5.368376e-02
## 2107  0.61334262  1.037087e+00
## 2108  0.60815557  9.942367e-01
## 2109  0.99450609 -3.373364e-01
## 2110  0.97291233 -1.857454e+00
## 2111  1.15139348 -1.204882e+00
## 2112  1.12269677  2.347487e+00
## 2113  0.13471084 -2.864871e+00
## 2114  0.58875670  2.163911e+00
## 2115  0.49050047 -2.980169e+00
## 2116  0.90625486  2.389923e+00
## 2117  0.56532637  2.008962e+00
## 2118  0.49829184  1.770218e+00
## 2119  1.16822151  9.673387e-01
## 2120  1.41206528  7.323191e-01
## 2121  1.37372376 -6.277085e-01
## 2122  1.27880496  9.813134e-01
## 2123  0.88751970 -2.577922e+00
## 2124  0.59828301 -1.344660e+00
## 2125  0.84543954 -2.569177e+00
## 2126  0.32540617 -2.157122e+00
## 2127  0.52064433 -1.363115e+00
## 2128  0.79954723  2.762493e+00
## 2129  1.12060991  5.197227e-01
## 2130  0.71195158 -1.407172e+00
## 2131  0.78647629 -5.077034e-01
## 2132  1.52853737 -1.972700e+00
## 2133  0.58439589 -2.729637e+00
## 2134  0.61481400  9.485544e-02
## 2135  1.03726180 -2.341575e-02
## 2136  1.23506955  1.295953e+00
```

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## 2137  0.83818317  9.165640e-01
## 2138  0.95367818 -2.544416e+00
## 2139  0.93104482  1.183530e+00
## 2140  1.38049669  3.200787e-01
## 2141  0.81727545 -4.002902e-01
## 2142  1.39668789 -1.262867e-01
## 2143  0.99856458  2.110468e+00
## 2144  1.35086133  2.865794e-01
## 2145  1.20678632  1.119496e-01
## 2146  0.92468018  2.619689e+00
## 2147  0.32445245  6.399564e-01
## 2148  1.06461526 -7.980305e-01
## 2149  0.69901279 -9.026310e-01
## 2150  0.48666171 -1.732507e+00
## 2151  1.55572516 -2.177627e+00
## 2152  0.62834123  1.208123e-01
## 2153  0.73675929  2.927060e-01
## 2154  0.53801982  2.326500e+00
## 2155  1.43253435 -9.763927e-02
## 2156  1.14002893 -2.412134e+00
## 2157  1.53039538 -3.105387e+00
## 2158  1.27272809  4.036258e-01
## 2159  0.80112942  1.023216e+00
## 2160  0.97812359  3.022306e+00
## 2161  0.52879968 -3.101939e+00
## 2162  1.52590958  9.207448e-02
## 2163  0.41269553 -2.073575e+00
## 2164  0.43080330  2.651718e+00
## 2165  1.55135027 -2.869257e+00
## 2166  1.53616133 -1.852911e+00
## 2167  0.90212762 -3.010424e+00
## 2168  1.02345384  2.415748e+00
## 2169  1.38242837  1.473587e+00
## 2170  1.49562375 -8.198771e-02
## 2171  0.54628975 -3.027601e-01
## 2172  0.78309119  5.838192e-01
## 2173  0.86465278 -1.962053e-01
## 2174  0.64277300  1.393576e+00
## 2175  0.48294797  2.608974e+00
## 2176  1.17906337 -5.869599e-01
## 2177  0.99832217 -6.126319e-01
## 2178  1.23671169 -1.841795e+00
## 2179  0.82038814  5.016054e-01
## 2180  0.77929185 -1.488697e+00
## 2181  0.57553909  2.278700e+00
## 2182  0.97150899  1.005344e+00
## 2183  1.32518086  1.811444e+00
## 2184  1.52712943  4.652122e-01
## 2185  1.24803959 -4.252134e-01
## 2186  1.21929097  2.000263e+00
## 2187  1.34603068  1.142494e-01
## 2188  0.59156672 -2.801557e+00
## 2189  0.90733533 -1.225697e+00
## 2190  1.22264732 -7.728273e-01
## 2191  0.38428643 -2.578355e+00
## 2192  0.58707030 -5.909881e-01
## 2193  0.50282011 -8.987734e-01
## 2194  0.99508737 -1.264691e+00
## 2195  0.59244862  1.050482e+00
## 2196  0.41338363  2.041686e+00
## 2197  1.18651323  2.699140e+00
## 2198  1.26173113 -3.441430e-01
## 2199  1.17727395  2.406500e+00
## 2200  0.87762731  1.170925e+00
## 2201  0.29840310 -1.095462e+00
## 2202  1.20822687 -3.023713e+00
## 2203  0.43765164 -2.661174e+00
## 2204  0.85376674 -2.315043e+00
## 2205  1.39123275  1.102266e+00
## 2206  0.92199172 -3.031673e+00
## 2207  1.07606028  1.902066e+00
## 2208  1.34664409  5.362441e-01
## 2209  0.84049678 -5.828809e-01
## 2210  0.34127904  2.251507e+00
## 2211  0.52356554 -3.082518e+00
## 2212  1.21505951 -2.137506e+00
## 2213  0.72570944 -8.354341e-01
## 2214  1.24665849  7.165442e-01
## 2215  0.39092503  1.877530e+00
```

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## 2216  0.79421283 -1.528117e+00
## 2217  1.40320688  2.796050e+00
## 2218  0.87509125  1.405540e+00
## 2219  0.88858444 -2.772458e+00
## 2220  0.75909026 -1.939286e+00
## 2221  0.23672365  1.746860e+00
## 2222  1.20037010 -6.867515e-01
## 2223  1.01408338 -2.033323e+00
## 2224  1.12808776 -1.101044e+00
## 2225  0.17336731 -1.478589e+00
## 2226  1.45620043  2.732130e+00
## 2227  0.51034410  2.920925e+00
## 2228  0.18639624  1.195222e+00
## 2229  0.70033818  1.617618e-01
## 2230  0.26796979  1.014972e+00
## 2231  0.74581514  1.027281e-01
## 2232  0.75689460 -1.327886e-01
## 2233  0.29754653 -1.603660e+00
## 2234  0.58340349  2.774650e+00
## 2235  0.92795923 -1.803008e+00
## 2236  0.76766321 -3.552017e-01
## 2237  1.30179405 -2.517940e+00
## 2238  1.39913733 -1.301045e+00
## 2239  1.37000756  3.045973e+00
## 2240  0.68834845 -4.563622e-01
## 2241  0.82501746 -2.330080e+00
## 2242  1.19834187  9.689061e-01
## 2243  1.47582751  5.157116e-01
## 2244  1.12436333 -2.439089e+00
## 2245  1.24287101 -8.590929e-01
## 2246  0.39766323 -2.894659e+00
## 2247  1.17191015  1.023214e+00
## 2248  1.23009714  2.315680e+00
## 2249  0.66969179 -2.518492e+00
## 2250  0.18325278 -1.106175e+00
## 2251  0.54993037  1.410933e+00
## 2252  0.46230707  1.923474e+00
## 2253  0.54142146  5.794395e-01
## 2254  0.54799719  2.448717e+00
## 2255  0.63256536 -2.960561e+00
## 2256  0.64381567  1.292700e+00
## 2257  0.94265802  2.481760e-01
## 2258  1.08855400  2.572288e-01
## 2259  0.46250129  1.575895e+00
## 2260  1.40014506 -1.393094e+00
## 2261  0.50247658 -2.639231e+00
## 2262  1.28073674 -2.292343e+00
## 2263  0.96966093  5.191388e-01
## 2264  0.94040535 -1.557759e+00
## 2265  1.16431642 -3.673297e-01
## 2266  0.93567486 -1.814097e+00
## 2267  1.02459876  1.184454e+00
## 2268  1.40797521  9.623250e-01
## 2269  0.67882898 -2.627696e+00
## 2270  1.37743611 -5.045959e-01
## 2271  1.31614310 -2.622143e+00
## 2272  1.07920656  2.782401e+00
## 2273  1.49664860  8.807353e-01
## 2274  0.57586456 -2.239038e-01
## 2275  1.12024240 -7.521166e-01
## 2276  0.43293118  2.852604e+00
## 2277  0.83557695 -1.172055e+00
## 2278  1.04846415 -2.210359e+00
## 2279  1.11694092 -1.784345e+00
## 2280  0.56085142 -1.396097e+00
## 2281  0.54621347  9.152313e-01
## 2282  1.35579539  2.928493e+00
## 2283  1.51227092 -2.954867e+00
## 2284  1.18279892 -2.947716e-01
## 2285  1.48751496  1.350374e+00
## 2286  1.46466501  2.367830e+00
## 2287  1.55097693 -2.351453e+00
## 2288  0.62368999 -1.031550e+00
## 2289  0.03499785 -2.053547e+00
## 2290  0.81401491  2.891166e+00
## 2291  0.12995265  1.171701e+00
## 2292  0.44099608 -3.045023e+00
## 2293  0.82944059  1.521744e+00
## 2294  0.54074012 -1.707999e-02
```

```
## 2295  0.91613757  7.840960e-01
## 2296  0.91830566 -1.549022e+00
## 2297  0.55834292  2.305461e+00
## 2298  1.37691011 -9.111513e-02
## 2299  0.47131187 -2.225596e-01
## 2300  1.35282293 -2.011582e-02
## 2301  1.01207489  5.990080e-01
## 2302  0.60306623 -2.974634e+00
## 2303  0.82745437 -2.260047e+00
## 2304  1.22041154 -8.151620e-01
## 2305  0.93772441 -2.049930e+00
## 2306  1.50203311  1.203343e+00
## 2307  1.45776473  2.780088e+00
## 2308  1.35729444 -4.192181e-01
## 2309  0.93911659 -2.567273e+00
## 2310  0.25456987  2.917556e+00
## 2311  1.33406684  6.948304e-01
## 2312  1.53469427  1.125256e+00
## 2313  1.21118571  5.573450e-01
## 2314  1.10972104  2.055661e-01
## 2315  0.20657279 -1.297532e+00
## 2316  1.36880002  1.342701e+00
## 2317  0.40361613  1.757187e+00
## 2318  1.06775217 -2.986741e+00
## 2319  0.78792948  8.459753e-01
## 2320  0.91716221 -6.878521e-01
## 2321  0.87329245 -1.397014e-01
## 2322  0.66299107 -2.508242e+00
## 2323  0.13677704  1.073490e+00
## 2324  1.02168308  2.089780e+00
## 2325  0.89893591  2.242682e+00
## 2326  0.48534675 -1.339557e+00
## 2327  1.23950015  3.868349e-01
## 2328  1.23549171  4.713371e-01
## 2329  0.74666654  1.775020e+00
## 2330  0.71208228 -2.241060e+00
## 2331  0.81056905 -2.802947e+00
## 2332  1.03412555  2.911769e+00
## 2333  0.33827157 -2.032022e-01
## 2334  1.47614060 -4.873162e-01
## 2335  1.14323176 -2.121482e+00
## 2336  0.33569009  2.043949e+00
## 2337  0.85735247  4.033700e-01
## 2338  0.91298496 -2.752614e+00
## 2339  1.54334935  9.580960e-01
## 2340  1.38535981 -4.544934e-02
## 2341  1.11689041  1.096506e+00
## 2342  1.09762935 -3.742483e-02
## 2343  0.46218731 -1.228527e-01
## 2344  0.73024948  3.011123e+00
## 2345  1.35957734 -3.780033e-01
## 2346  1.34415096 -2.000986e-01
## 2347  0.04486803 -2.944694e+00
## 2348  0.27116228 -1.197641e+00
## 2349  0.25753549  1.391538e+00
## 2350  1.24761618 -1.621472e+00
## 2351  0.97988756 -7.631128e-01
## 2352  1.53100312 -3.032810e+00
## 2353  0.78602941 -2.347422e+00
## 2354  0.20656802 -4.090624e-01
## 2355  1.21572182  8.935021e-02
## 2356  1.29973396  4.024228e-01
## 2357  1.27811989 -1.144717e+00
## 2358  1.26724555 -1.164216e+00
## 2359  0.43810720 -9.976529e-02
## 2360  0.94508663 -1.942862e+00
## 2361  1.45226518 -2.689782e+00
## 2362  1.48739320  2.925790e+00
## 2363  1.36448965  4.731897e-02
## 2364  0.53558023  1.544003e+00
## 2365  0.30534561  2.982149e+00
## 2366  0.07194540 -2.667497e-01
## 2367  0.78056981  2.871281e+00
## 2368  1.04777558  1.800326e+00
## 2369  0.76984341 -2.928907e-01
## 2370  0.12881905 -3.075482e+00
## 2371  0.81177343  1.110472e+00
## 2372  1.17010147  5.370328e-01
## 2373  1.38884378 -2.769171e+00
```

```
## 2374  0.80514284  2.590209e+00
## 2375  0.52909150 -1.158377e+00
## 2376  1.48180787  2.462811e+00
## 2377  0.39665818  3.128156e+00
## 2378  1.01608496  2.960857e+00
## 2379  0.36671841 -2.200089e+00
## 2380  1.27442615 -4.339628e-01
## 2381  1.05363052 -2.603019e+00
## 2382  0.76588113 -1.097384e+00
## 2383  1.04120136 -3.624648e-01
## 2384  1.36226616  6.518997e-02
## 2385  1.40979766  2.090544e+00
## 2386  0.55866846 -2.751095e+00
## 2387  0.02868108  1.014086e+00
## 2388  0.64337208  1.526871e-01
## 2389  1.43474980  1.303502e-01
## 2390  0.75888411  2.799989e+00
## 2391  0.33205740 -1.381262e+00
## 2392  0.46199643  2.891184e+00
## 2393  0.36262509  2.373941e+00
## 2394  1.02014250  8.432824e-01
## 2395  1.40680978 -1.303605e+00
## 2396  0.09666344  2.202044e+00
## 2397  0.78197241  5.023971e-01
## 2398  1.48854018  1.386722e+00
## 2399  1.03531234  3.685996e-01
## 2400  1.53613288  2.425024e-01
## 2401  0.88793591  1.044220e+00
## 2402  1.03286242  2.343485e+00
## 2403  1.36208594  1.975810e+00
## 2404  0.28111910  2.053377e-01
## 2405  0.70856789 -4.296147e-01
## 2406  0.09636888  2.766393e+00
## 2407  1.19389291 -5.134802e-01
## 2408  0.60329535 -1.811858e+00
## 2409  1.23136391  1.903446e+00
## 2410  0.97612562 -9.712853e-01
## 2411  0.60744343 -2.561766e+00
## 2412  0.78144593  1.793498e-01
## 2413  0.79048625  4.015453e-01
## 2414  0.22422648  2.789915e+00
## 2415  1.53786090 -2.753476e+00
## 2416  0.64769110 -1.434317e+00
## 2417  0.90072912  1.988976e+00
## 2418  0.94930593  2.085641e-01
## 2419  0.88670390 -1.331537e-01
## 2420  0.55142523 -2.978452e+00
## 2421  1.39541016  2.256405e+00
## 2422  1.43344255 -2.321054e-01
## 2423  0.39218582  1.199443e+00
## 2424  0.18506289 -2.988995e+00
## 2425  0.75484995  1.966186e+00
## 2426  0.17750782  6.163651e-01
## 2427  1.40283780  8.543738e-02
## 2428  1.30912113 -1.798841e+00
## 2429  1.36971993 -3.069519e+00
## 2430  1.48073802 -2.472741e+00
## 2431  0.58327392  2.076835e+00
## 2432  1.33458936 -2.827214e+00
## 2433  1.10641384  1.533189e+00
## 2434  1.05801121  6.424769e-02
## 2435  0.29783172  2.323851e+00
## 2436  0.22034632  2.377137e+00
## 2437  1.31036014 -2.494889e+00
## 2438  0.66867213 -1.450814e+00
## 2439  0.67642765 -6.592528e-01
## 2440  0.76839562  6.451225e-01
## 2441  1.14658999  6.448018e-01
## 2442  1.04279504 -1.721505e-01
## 2443  0.76280082 -1.190214e-01
## 2444  1.51176057  3.033523e+00
## 2445  0.39296872  1.878921e+00
## 2446  1.54314328  2.318992e+00
## 2447  0.75583294 -3.096096e+00
## 2448  0.74982870  7.623774e-01
## 2449  0.74265679  5.348895e-02
## 2450  1.40157093  4.489502e-01
## 2451  1.49310092 -2.501594e-01
## 2452  1.47848737  1.435914e-01
```

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## 2453  0.81766999  1.818972e+00
## 2454  1.07451097  1.445635e+00
## 2455  1.14876471 -1.362215e+00
## 2456  0.29494983 -1.637003e-01
## 2457  0.77535095 -2.966304e-02
## 2458  0.69284379 -2.386143e-01
## 2459  0.80661314  6.402210e-01
## 2460  0.78659466 -2.510695e+00
## 2461  1.17187548  2.519691e+00
## 2462  1.56132093  1.033216e+00
## 2463  1.23283406  2.536021e+00
## 2464  0.61122160 -1.262219e+00
## 2465  1.34183759  2.389266e+00
## 2466  0.39476640  2.813643e+00
## 2467  0.08407690  8.253898e-01
## 2468  0.20520120  1.465445e+00
## 2469  0.30869958  6.497300e-01
## 2470  1.56455230  1.013157e+00
## 2471  0.58230126  2.669656e+00
## 2472  0.51465059  1.957676e+00
## 2473  0.80060681 -2.361871e+00
## 2474  0.29794586 -1.236806e+00
## 2475  0.98862432 -2.681892e+00
## 2476  0.83329082 -8.499447e-01
## 2477  0.84881573 -5.844882e-03
## 2478  1.48312456  1.127725e+00
## 2479  0.67603076  3.563416e-01
## 2480  1.29666919  8.408031e-01
## 2481  1.52523021 -1.031871e+00
## 2482  0.53271572  2.189612e-01
## 2483  0.44344441 -2.841510e+00
## 2484  0.81753366  5.745389e-02
## 2485  0.24462036  1.925576e+00
## 2486  1.14524247  1.453388e+00
## 2487  1.12688411 -1.026412e+00
## 2488  0.80163203 -2.279182e-01
## 2489  0.10765313  2.178167e+00
## 2490  0.21987938 -7.397759e-01
## 2491  1.27066696 -2.509170e+00
## 2492  0.49900180  2.138074e+00
## 2493  0.70189229 -1.156677e+00
## 2494  1.14781559 -9.052483e-01
## 2495  0.93860435  1.681018e+00
## 2496  0.99960636 -4.117530e-01
## 2497  0.96033646 -2.937868e+00
## 2498  0.79017368  2.424124e+00
## 2499  0.20319123 -2.339414e+00
## 2500  1.19352810  1.480337e+00
## 2501  0.32551360 -1.332446e+00
## 2502  0.94908625 -8.643520e-01
## 2503  0.76962872  2.921304e+00
## 2504  1.07685530 -2.233894e+00
## 2505  1.25988135 -2.087587e+00
## 2506  0.97179771 -7.728351e-01
## 2507  1.36923833  5.575030e-01
## 2508  0.47839521 -2.424181e+00
## 2509  1.44897452  2.720285e+00
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## 2511  0.56041122  1.199635e+00
## 2512  0.55629952 -1.851080e+00
## 2513  1.15868640 -3.095649e+00
## 2514  0.29413646  2.509023e+00
## 2515  1.42461233 -2.589445e+00
## 2516  1.28207907  5.618781e-01
## 2517  0.41906035 -1.376772e+00
## 2518  0.24426070  1.065816e+00
## 2519  0.95457792 -3.995832e-01
## 2520  0.21469719  1.842096e+00
## 2521  0.75877891  3.104708e+00
## 2522  0.26810821  1.634224e+00
## 2523  1.21437271  2.199711e+00
## 2524  0.23337054  2.148662e+00
## 2525  0.50643711  2.802048e+00
## 2526  0.84010855  2.214396e+00
## 2527  1.53704551 -1.185544e+00
## 2528  1.38477676 -4.325271e-01
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## 2530  0.61749743 -2.730315e+00
## 2531  1.11112131  2.993217e+00
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## 2532  0.94071517  1.194673e+00
## 2533  1.05056102 -6.027032e-01
## 2534  0.52278707  1.514443e+00
## 2535  0.98001609 -8.382589e-01
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## 2537  1.00424783  4.452399e-01
## 2538  0.78097806 -1.047516e+00
## 2539  0.31975700  8.767280e-01
## 2540  1.30813054 -4.270656e-01
## 2541  1.36432309  2.626956e+00
## 2542  0.89467216 -2.832642e+00
## 2543  1.03171569  2.398007e+00
## 2544  0.26168874 -1.892413e+00
## 2545  1.44817016 -2.994332e-01
## 2546  1.17275618  2.263202e+00
## 2547  1.07465735 -2.174252e+00
## 2548  0.42554429 -1.639379e+00
## 2549  1.10891987 -6.204628e-01
## 2550  0.25164149  1.403602e+00
## 2551  1.26271106  2.897498e+00
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## 2553  1.13378787  3.019777e-01
## 2554  1.33512440  2.680850e+00
## 2555  0.22698042 -1.825552e+00
## 2556  1.50402125 -1.120364e+00
## 2557  0.52648455 -2.989830e+00
## 2558  0.25177343  1.256071e+00
## 2559  1.47406589 -2.322780e-01
## 2560  1.12491209  7.610725e-01
## 2561  1.18957803 -2.731089e+00
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## 2563  1.25378649  1.070733e+00
## 2564  1.09596709 -2.096329e+00
## 2565  0.19456794 -6.429267e-01
## 2566  1.19644143  2.186084e+00
## 2567  1.41924636 -6.866782e-02
## 2568  0.04204847  1.790078e-01
## 2569  1.45691592  2.326174e+00
## 2570  1.41948828  1.950991e+00
## 2571  0.48097814 -3.118639e+00
## 2572  1.14941541 -1.842091e+00
## 2573  0.84073783 -3.147797e-01
## 2574  0.80791761  1.248532e+00
## 2575  1.46154278 -1.993980e-01
## 2576  0.61707019  1.009689e+00
## 2577  1.16311236  3.728629e-01
## 2578  0.53575947 -2.737016e+00
## 2579  0.93114876 -1.154789e-01
## 2580  0.43779959 -2.472518e+00
## 2581  0.97059921 -1.097863e+00
## 2582  1.10142398  3.614331e-01
## 2583  0.34200392 -8.002811e-01
## 2584  1.30959548 -8.906528e-01
## 2585  0.78587367 -2.617227e+00
## 2586  1.32706289 -1.943935e+00
## 2587  0.34672599 -1.766506e+00
## 2588  0.95133526  6.221741e-01
## 2589  0.20748039 -1.450765e+00
## 2590  0.43069620  6.167713e-02
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## 2592  0.70677892 -7.190267e-01
## 2593  0.80731467  1.349833e+00
## 2594  1.26074232  1.213725e+00
## 2595  0.20332216  2.337270e+00
## 2596  1.23088007 -2.947075e+00
## 2597  0.79827636  2.874501e+00
## 2598  1.04783739 -2.525733e+00
## 2599  1.02601678 -2.734295e+00
## 2600  1.28456700  1.616300e+00
## 2601  1.27283550 -1.065139e+00
## 2602  0.76799829  8.353581e-01
## 2603  1.23316001  2.028400e+00
## 2604  0.29923854  1.437256e+00
## 2605  0.60766663  2.372283e+00
## 2606  0.53933545 -1.683152e-01
## 2607  0.16956482  2.546901e+00
## 2608  1.31803751  1.840216e+00
## 2609  1.42892879 -1.942937e+00
## 2610  0.61950428 -4.469028e-01
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## 2611  1.33550954 -1.008671e+00
## 2612  0.82606025  2.533685e+00
## 2613  1.12746938 -1.902249e-01
## 2614  0.50775913  2.503347e-01
## 2615  0.40617936  2.682445e+00
## 2616  1.04067385  6.601727e-01
## 2617  0.81863167 -3.037231e+00
## 2618  0.61585913  2.074956e+00
## 2619  1.53200839  6.450764e-01
## 2620  0.52142841 -2.665798e+00
## 2621  1.41784624 -1.773579e+00
## 2622  0.28788156  1.695880e+00
## 2623  0.98336144 -2.506734e+00
## 2624  1.51913845  3.081392e+00
## 2625  0.81146309  2.985689e+00
## 2626  0.99641422  1.610165e+00
## 2627  1.22968969 -2.449446e+00
## 2628  1.53341158  1.335592e-01
## 2629  1.47919284  1.082744e-01
## 2630  0.24541094 -5.807826e-01
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## 2632  1.14283785  2.911793e+00
## 2633  1.54872276  1.710500e+00
## 2634  0.87502816  9.339989e-02
## 2635  0.43104640  2.161238e+00
## 2636  1.24569235  1.161684e+00
## 2637  0.44135670 -1.253321e-01
## 2638  1.22163226  2.300095e+00
## 2639  0.16853910 -2.587408e+00
## 2640  1.40777732  2.278824e+00
## 2641  0.28654666  3.239437e-01
## 2642  0.63348065  2.365990e+00
## 2643  0.18288554 -2.645706e+00
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## 2645  1.50387485  3.036825e+00
## 2646  1.00904106 -1.952742e+00
## 2647  0.83945160  2.738855e+00
## 2648  0.52190959 -2.296628e+00
## 2649  1.24792971  6.245390e-01
## 2650  0.87989679 -2.372143e+00
## 2651  1.25036314 -2.951194e+00
## 2652  0.47428008  2.968225e+00
## 2653  0.50234713  3.302948e-01
## 2654  1.10268744  1.656775e+00
## 2655  0.93787079 -2.715970e+00
## 2656  0.68746143  1.922289e+00
## 2657  1.20657185 -2.763087e+00
## 2658  0.58459256  2.770101e+00
## 2659  0.38311419 -1.888921e+00
## 2660  1.27804494  2.853546e+00
## 2661  1.54206014 -2.609513e+00
## 2662  1.00393305 -9.862294e-03
## 2663  1.10453351  2.476894e-01
## 2664  1.23367828 -2.855296e+00
## 2665  0.69168202  2.804131e+00
## 2666  0.14111393  7.160161e-01
## 2667  1.52396597 -1.198947e+00
## 2668  1.29159242  2.419300e+00
## 2669  0.22265014 -2.958904e+00
## 2670  0.44633964 -2.327622e+00
## 2671  0.87127853 -3.956179e-01
## 2672  1.45017818  9.607341e-02
## 2673  1.17574143 -2.781703e+00
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## 2675  0.71087322  3.110068e-02
## 2676  0.59653791  1.766158e+00
## 2677  0.79840369  1.288460e+00
## 2678  1.03620777  6.977509e-01
## 2679  1.51323710 -1.841512e+00
## 2680  1.41564361 -2.678946e+00
## 2681  1.06841077 -2.692066e+00
## 2682  1.44556822  1.168167e+00
## 2683  0.21743912  1.419988e+00
## 2684  0.74466568  1.817897e+00
## 2685  1.21233999 -2.492938e+00
## 2686  1.31702750  1.037535e+00
## 2687  0.75414898  2.598311e+00
## 2688  0.74765971  1.893428e+00
## 2689  0.41623640  2.373097e+00
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## 2691  0.99044888 -1.467589e+00
## 2692  0.88868074 -8.640634e-01
## 2693  0.15747282  6.604408e-01
## 2694  0.80308928  2.917198e+00
## 2695  1.30376864  3.731660e-01
## 2696  1.47592790 -2.919575e+00
## 2697  1.53939955  2.957668e+00
## 2698  0.60128124 -3.593180e-01
## 2699  1.29475633  2.220961e+00
## 2700  0.72723037  1.772239e+00
## 2701  1.42386960 -2.986262e+00
## 2702  0.70255984  3.935575e-01
## 2703  1.34321018 -2.946056e+00
## 2704  1.18332948  3.134959e+00
## 2705  0.42172726 -4.525216e-01
## 2706  1.40347525  1.681835e-01
## 2707  0.35234652 -1.323046e+00
## 2708  0.96613172  2.453679e-01
## 2709  1.07762429  2.051408e+00
## 2710  0.61480038 -1.866447e+00
## 2711  0.67465150  2.272894e+00
## 2712  1.11480810  9.023175e-02
## 2713  1.04885395 -2.354069e+00
## 2714  1.56877760  6.350106e-02
## 2715  0.83931399 -5.280126e-01
## 2716  0.68745128 -1.030924e+00
## 2717  1.17881789 -1.338552e+00
## 2718  1.37532450 -2.129253e+00
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## 2721  0.71325281  2.687885e-01
## 2722  1.21638909 -1.628688e+00
## 2723  0.39444977  1.360924e+00
## 2724  1.08721418  3.057159e+00
## 2725  1.44395553  7.544914e-01
## 2726  1.08575048  3.018219e+00
## 2727  0.52331588  1.992791e+00
## 2728  0.55287491 -2.997624e+00
## 2729  0.55085246  1.816107e+00
## 2730  0.29873570  1.789178e+00
## 2731  1.14061177  2.643037e-01
## 2732  0.59571094  1.784778e-01
## 2733  0.35293859 -1.258268e+00
## 2734  1.04408830 -5.114121e-01
## 2735  1.26615227  2.843093e+00
## 2736  1.52704178  9.181462e-02
## 2737  1.53810025 -8.578679e-01
## 2738  1.20412518  9.136403e-01
## 2739  1.39715609 -1.673528e+00
## 2740  1.17685400  3.017651e-01
## 2741  0.48368502 -2.265503e+00
## 2742  0.84400533 -1.262753e+00
## 2743  0.37390424  1.637033e+00
## 2744  1.33657009  3.185678e-01
## 2745  0.51600594 -1.039050e+00
## 2746  0.98390500  9.776507e-01
## 2747  1.03721622  2.240403e+00
## 2748  1.37523562  9.190891e-01
## 2749  0.62364141 -2.882692e+00
## 2750  1.34244968 -2.863768e+00
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## 2752  1.19436540 -1.715281e+00
## 2753  1.45307417 -1.073405e+00
## 2754  0.57468899 -2.433451e-01
## 2755  0.50408981 -2.969166e+00
## 2756  0.99700130 -2.461984e+00
## 2757  0.98684699  1.763296e+00
## 2758  0.72444477 -7.683685e-01
## 2759  1.22561987  1.493500e+00
## 2760  1.46031472 -6.750448e-01
## 2761  1.14783398  2.485514e+00
## 2762  0.88322998  2.698254e+00
## 2763  0.89327043  6.955823e-02
## 2764  0.68739066  3.033691e+00
## 2765  0.39994795 -2.516604e+00
## 2766  0.85453202 -2.121755e+00
## 2767  0.77978701  5.686128e-01
## 2768  1.42257481 -2.370797e+00
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## 2770  1.18390786  2.748067e+00
## 2771  0.63818691 -1.424464e+00
## 2772  0.57183422  2.004553e+00
## 2773  1.47791106 -1.530690e+00
## 2774  1.39041689 -7.649427e-01
## 2775  1.54529001 -2.597427e+00
## 2776  1.11272118 -2.483715e+00
## 2777  0.34182527 -2.006759e+00
## 2778  1.31941398  7.678744e-01
## 2779  0.11758213 -2.402357e+00
## 2780  0.54267621  2.978751e+00
## 2781  0.41483342 -2.765716e+00
## 2782  0.87905838 -1.549316e+00
## 2783  0.98635986  9.459635e-01
## 2784  1.56630935  1.992838e+00
## 2785  0.10830548  2.087052e-01
## 2786  1.50177675  3.965249e-01
## 2787  1.43603251 -6.697959e-01
## 2788  1.12119400 -1.959921e+00
## 2789  0.68804952  1.782889e+00
## 2790  0.54963643 -2.261866e+00
## 2791  1.43088641  7.524488e-01
## 2792  1.23515438  3.088300e+00
## 2793  0.87350503  2.374806e+00
## 2794  1.56887961 -1.113124e+00
## 2795  0.27645777  2.376092e+00
## 2796  1.37416343 -2.933542e+00
## 2797  1.27836411 -1.756315e+00
## 2798  0.45513212 -1.026544e+00
## 2799  0.46653409 -2.645972e+00
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## 2801  1.08245784  2.948255e+00
## 2802  1.52441934  6.164402e-01
## 2803  0.11652239 -2.629728e+00
## 2804  0.97056728  1.060379e+00
## 2805  0.40163302  1.592967e+00
## 2806  1.28690121  1.616893e+00
## 2807  0.82587442  9.335777e-01
## 2808  0.94952409 -3.878091e-01
## 2809  1.17924951  1.105886e+00
## 2810  0.53295885 -1.552477e+00
## 2811  1.09064614  6.747603e-01
## 2812  1.07412104  1.389136e-01
## 2813  0.96220252 -8.504346e-01
## 2814  1.17498154  8.898970e-01
## 2815  0.17957307 -6.409731e-01
## 2816  1.05553376 -2.076042e+00
## 2817  1.00771518 -1.996801e+00
## 2818  0.72809188 -2.555283e+00
## 2819  0.55395639 -7.465127e-01
## 2820  0.80696955 -1.760105e+00
## 2821  0.90869846 -1.073993e+00
## 2822  1.36753273 -2.244928e+00
## 2823  1.24892077 -2.843879e+00
## 2824  0.83250082  3.132148e+00
## 2825  1.38521471  2.789108e+00
## 2826  1.53847870  2.952177e-01
## 2827  0.62285863 -7.526376e-01
## 2828  1.03478666  2.066976e+00
## 2829  1.27065961  1.781770e+00
## 2830  1.26621197  1.655637e+00
## 2831  0.63596429  1.400680e-02
## 2832  0.40517526 -1.999006e+00
## 2833  0.50079116 -1.765558e-01
## 2834  1.27608546 -3.180196e-01
## 2835  0.47062624  1.404972e+00
## 2836  0.74799303 -1.847977e+00
## 2837  1.46708486 -2.041755e+00
## 2838  0.83507264  1.475595e+00
## 2839  1.45338366  2.311786e-01
## 2840  0.49126416 -2.372663e+00
## 2841  1.36257337 -7.336311e-01
## 2842  0.75969143 -2.757285e+00
## 2843  1.52222080 -2.139135e+00
## 2844  0.55014335  6.516189e-01
## 2845  0.96902034 -3.779930e-02
## 2846  1.23127529  1.178284e+00
## 2847  0.78216148  6.728101e-01
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## 2848  0.81299195 -2.175445e+00
## 2849  1.27939203 -2.172333e+00
## 2850  1.06108086  2.833483e+00
## 2851  0.26287339 -2.937727e+00
## 2852  1.38684197  1.099969e+00
## 2853  0.37922447 -2.831279e+00
## 2854  0.71268994 -3.048601e+00
## 2855  0.70158266 -3.037806e+00
## 2856  0.14704976 -8.592104e-01
## 2857  0.49974981  1.609117e+00
## 2858  0.63206051 -1.639242e+00
## 2859  0.34312691 -1.543897e+00
## 2860  0.99858100  2.631037e+00
## 2861  0.85327798 -1.043896e+00
## 2862  1.56769536  2.707448e+00
## 2863  0.25587653  1.024780e+00
## 2864  0.55731879 -2.490130e+00
## 2865  1.36521711 -2.454270e+00
## 2866  1.16625277  1.538705e-01
## 2867  0.49576081 -3.009213e+00
## 2868  1.26268039  1.997503e+00
## 2869  1.17251706  2.261750e+00
## 2870  0.55227854  2.436974e+00
## 2871  1.12105526  2.672039e+00
## 2872  1.23842821  1.657198e+00
## 2873  0.98242866  2.035611e+00
## 2874  0.68482299  1.482044e+00
## 2875  0.49295013  3.079642e+00
## 2876  0.63436066  1.172169e+00
## 2877  1.02389810 -8.151906e-02
## 2878  0.88717839  2.545334e+00
## 2879  0.22462654 -2.613544e+00
## 2880  0.93148400 -1.064133e+00
## 2881  1.51128980 -2.641143e+00
## 2882  1.06257544  9.529875e-01
## 2883  0.62261793  2.415406e+00
## 2884  0.93583166 -1.284991e+00
## 2885  0.18803342  2.944042e+00
## 2886  1.47349458 -1.923933e+00
## 2887  1.02305817  1.998883e+00
## 2888  0.32802966  6.571478e-01
## 2889  1.43174765  2.729979e+00
## 2890  0.80335904  2.423494e-01
## 2891  1.49382175 -1.099883e+00
## 2892  1.49511265  5.330729e-01
## 2893  0.32876869  2.784039e+00
## 2894  1.37733035 -9.933864e-01
## 2895  1.46864302  1.844925e+00
## 2896  0.72453325  2.831335e+00
## 2897  0.53541049 -3.083517e+00
## 2898  1.13632859 -2.831557e-01
## 2899  0.47545012 -2.779914e+00
## 2900  0.85597500  8.635565e-01
## 2901  0.51839994 -2.120914e+00
## 2902  1.55137243  1.576830e+00
## 2903  1.40576111 -1.308358e-01
## 2904  0.48380117  1.229260e+00
## 2905  1.33291674 -3.270729e-01
## 2906  1.13385372  2.197490e+00
## 2907  0.91415188  1.713965e+00
## 2908  1.14571254 -2.806720e+00
## 2909  0.43032354  5.435723e-01
## 2910  0.54448108  2.733780e-01
## 2911  0.91160528  2.174579e+00
## 2912  1.12316855 -2.488395e+00
## 2913  1.14136232  8.461741e-01
## 2914  0.52561133  1.893071e+00
## 2915  0.82760524 -2.957666e+00
## 2916  0.33103839 -2.845984e+00
## 2917  0.46426455 -3.003209e+00
## 2918  0.56433644  1.695875e+00
## 2919  1.27959574 -2.199360e+00
## 2920  0.70829326 -1.395438e+00
## 2921  0.65886723  2.661383e-03
## 2922  0.79508445 -2.058370e+00
## 2923  0.64010234  2.693520e+00
## 2924  0.82054293 -7.882613e-01
## 2925  0.72717630 -1.717418e+00
## 2926  0.90086256 -1.591423e+00
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## 2927  0.70967660  1.205266e+00
## 2928  1.16155063  2.398140e+00
## 2929  1.35159678 -2.414748e-01
## 2930  1.35368228  2.825748e+00
## 2931  1.50896710  1.947761e+00
## 2932  1.41944297 -1.920117e+00
## 2933  1.03315202 -2.820674e+00
## 2934  1.04843568 -2.421365e+00
## 2935  1.13079054  9.554980e-01
## 2936  1.22111572 -2.006272e+00
## 2937  1.31147730 -1.249143e+00
## 2938  1.43933048 -1.764625e-01
## 2939  0.99397125  1.208214e+00
## 2940  0.41962205  7.885451e-01
## 2941  1.39334857  2.719779e+00
## 2942  0.70662784  3.766172e-02
## 2943  1.04597433 -1.759784e+00
## 2944  0.78252104  1.153170e+00
## 2945  1.17810651  3.286736e-01
## 2946  0.92184738  6.781138e-01
## 2947  0.51743375  2.789718e+00
## 2948  1.31402544  5.946918e-01
## 2949  0.57468031 -1.263536e+00
## 2950  0.91309753  1.796064e+00
## 2951  1.52028856 -3.081606e+00
## 2952  1.39257389 -8.761622e-01
## 2953  0.20152051 -8.274535e-02
## 2954  0.46697590 -2.344531e+00
## 2955  1.00920583 -6.592638e-01
## 2956  1.27557197  2.208455e+00
## 2957  0.58098339 -7.078963e-01
## 2958  1.14989805  1.584451e+00
## 2959  1.03887169  1.580451e+00
## 2960  0.55333525 -1.756983e+00
## 2961  0.65917869  3.049679e+00
## 2962  1.29481986  2.286560e+00
## 2963  1.54125876 -4.148152e-01
## 2964  1.23837853  3.081346e+00
## 2965  1.35612502  1.943845e+00
## 2966  0.55072483  2.699578e-02
## 2967  0.74658889  1.639283e+00
## 2968  0.74132097  8.715366e-01
## 2969  0.64599064 -1.891790e+00
## 2970  0.10921481 -2.719443e+00
## 2971  0.66004270 -1.706106e+00
## 2972  1.37537871  3.792117e-01
## 2973  0.64433377 -7.622476e-02
## 2974  0.43514849 -2.825871e+00
## 2975  1.55561154  1.907777e+00
## 2976  0.53309933 -1.145176e+00
## 2977  0.87221406  4.720847e-01
## 2978  1.36463739  4.422929e-01
## 2979  1.25463625  2.902291e+00
## 2980  1.35958060  2.499855e+00
## 2981  0.44410481 -2.641122e+00
## 2982  1.35399778 -7.576218e-01
## 2983  0.07842752  5.757656e-01
## 2984  0.15012118 -1.112760e+00
## 2985  0.58119583 -1.801380e+00
## 2986  0.52972808  2.858701e-02
## 2987  0.68552017 -2.901558e+00
## 2988  0.74967247  9.663100e-01
## 2989  1.35842470  2.483929e+00
## 2990  0.07526688 -3.514844e-01
## 2991  1.54097144 -1.537702e+00
## 2992  1.18503282  2.840739e+00
## 2993  1.11457168  2.305531e+00
## 2994  1.36454814 -2.462571e+00
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## 2996  0.69621551  2.438538e+00
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## 2998  1.01638983 -2.457781e+00
## 2999  1.51551828 -1.963218e+00
## 3000  0.87018436 -2.238003e+00
## 3001  1.15605012  6.172195e-01
## 3002  0.42576151 -1.175636e+00
## 3003  0.64126240  1.911854e+00
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## 3005  1.16574788 -2.592778e+00
```

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## 3006  1.51097903  8.861473e-01
## 3007  1.49228776  1.162744e+00
## 3008  0.57328954 -1.913855e+00
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## 3010  1.01680744  3.187434e-01
## 3011  0.76348300  1.048164e+00
## 3012  0.90690903 -7.746077e-01
## 3013  1.03363512  1.269144e-01
## 3014  0.07896082 -2.403999e+00
## 3015  0.28774018 -2.317691e+00
## 3016  0.54094670 -1.849402e-01
## 3017  1.11392997  1.728050e-01
## 3018  0.55940238  2.834756e+00
## 3019  1.40619315 -6.365358e-01
## 3020  0.19032360 -4.371573e-01
## 3021  0.80083505  1.772722e+00
## 3022  0.65631315  1.923788e+00
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## 3025  0.55310817  1.055135e+00
## 3026  0.54750149 -3.063583e+00
## 3027  1.27326166  1.213581e-01
## 3028  1.24305461 -1.869000e+00
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## 3030  1.19589055 -2.197424e+00
## 3031  0.68709614  3.116814e-01
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## 3033  0.85518281 -1.357879e-01
## 3034  1.30034037 -2.644395e+00
## 3035  0.98302059  5.177346e-01
## 3036  1.28926448 -1.832845e+00
## 3037  1.45551578  1.151336e+00
## 3038  0.75615155 -6.174193e-03
## 3039  1.19309091  2.369755e+00
## 3040  0.53940538 -1.655499e+00
## 3041  0.06173300  1.362920e+00
## 3042  0.55999781 -2.412044e-02
## 3043  1.45423470 -8.228540e-01
## 3044  0.87420433 -1.082019e+00
## 3045  0.51489337 -1.653112e+00
## 3046  1.46585865 -2.828833e+00
## 3047  0.51605889  6.891939e-02
## 3048  0.98678627 -1.645320e-01
## 3049  0.66155640 -2.417402e+00
## 3050  1.13549465  2.460855e-01
## 3051  0.59536993  1.977071e+00
## 3052  0.61729577 -1.852898e+00
## 3053  1.15598618 -2.804382e+00
## 3054  1.12608007 -5.786246e-01
## 3055  0.72404967 -1.512220e+00
## 3056  1.05956755  1.889822e+00
## 3057  1.40990241 -1.880807e-01
## 3058  1.53196418 -6.185840e-01
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## 3060  1.04369791  5.940452e-01
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## 3062  1.22722666  3.049172e+00
## 3063  1.01500809  1.231398e+00
## 3064  1.48024071 -3.280433e-01
## 3065  0.75050766  2.145151e+00
## 3066  0.79658879  3.422603e-01
## 3067  1.43551969 -2.255825e+00
## 3068  0.69255738 -2.681745e+00
## 3069  0.60977147 -4.598053e-01
## 3070  1.43823791 -2.540320e+00
## 3071  1.37358631 -1.477067e-01
## 3072  1.51512514  1.824224e+00
## 3073  1.01068537  1.580620e+00
## 3074  0.55335112  2.386333e+00
## 3075  0.78066459  1.404537e+00
## 3076  0.83281502 -7.427008e-01
## 3077  1.06671955  2.879131e+00
## 3078  0.54908490 -3.575472e-01
## 3079  0.78100591 -1.607718e-01
## 3080  1.10033640 -1.082463e+00
## 3081  0.53346256 -1.196119e+00
## 3082  0.45202291  1.395718e+00
## 3083  0.26767110 -8.788466e-01
## 3084  0.76499345 -1.654252e+00
```

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## 3085  1.24342735 -2.033047e+00
## 3086  0.81652184 -7.664719e-01
## 3087  0.85644551 -8.531170e-01
## 3088  1.39971177 -1.852680e+00
## 3089  1.38364285  1.828828e+00
## 3090  1.10726816  2.681549e+00
## 3091  0.87040803 -1.206590e+00
## 3092  1.20083841 -1.235144e+00
## 3093  1.08906190 -1.254743e+00
## 3094  0.82921146 -2.847500e+00
## 3095  1.07941927  2.883216e+00
## 3096  0.78739944  2.057293e+00
## 3097  0.65847689 -1.733665e+00
## 3098  1.18505307 -2.152256e-01
## 3099  0.61595177 -1.234209e+00
## 3100  0.11568417 -7.043664e-01
## 3101  1.00439235 -1.399299e+00
## 3102  1.08508057 -3.078730e+00
## 3103  1.02371275  6.499229e-01
## 3104  0.81124186 -2.226018e+00
## 3105  1.46394253 -1.760133e+00
## 3106  1.02583859  2.708785e+00
## 3107  1.11048200  2.667872e+00
## 3108  1.12417035 -2.568025e+00
## 3109  0.53453654 -1.464063e+00
## 3110  0.27014809 -7.752417e-01
## 3111  1.49736246 -7.109595e-01
## 3112  0.81275285  2.874784e+00
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## 3115  0.32098148 -7.661381e-02
## 3116  0.40697255 -3.273092e-01
## 3117  1.10214268  3.119715e-01
## 3118  0.35283258  3.019837e+00
## 3119  1.12710228 -2.498765e+00
## 3120  0.12377861  2.483590e+00
## 3121  0.17837166  1.462432e-01
## 3122  1.47437495  5.848991e-01
## 3123  0.78414580  3.054606e+00
## 3124  1.20202244  2.448796e+00
## 3125  1.20107814 -1.213241e+00
## 3126  0.73473479  2.306007e+00
## 3127  1.23391845  1.876269e-01
## 3128  1.51883288 -2.868009e+00
## 3129  0.26872538  1.191544e+00
## 3130  0.53719318  2.303886e+00
## 3131  0.19843510  9.239392e-01
## 3132  0.77226895  9.069694e-01
## 3133  1.37498924 -3.990025e-01
## 3134  1.50577996  2.405120e-01
## 3135  1.14259690 -1.466727e+00
## 3136  0.24324398 -2.348888e+00
## 3137  1.46619957  1.364177e+00
## 3138  1.35381664  1.252365e+00
## 3139  0.74824019 -1.996255e+00
## 3140  0.83728361  2.137239e+00
## 3141  0.55088555 -3.089926e+00
## 3142  1.00643746  5.637210e-01
## 3143  0.48882402  3.925119e-02
## 3144  1.09908933 -9.584983e-01
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## 3146  0.97590967 -1.816807e-01
## 3147  0.54094290  2.487912e+00
## 3148  0.39118309  2.540127e+00
## 3149  0.94453717 -2.316684e+00
## 3150  0.42695427  2.327243e+00
## 3151  0.27220648  1.999258e+00
## 3152  1.15142604  2.835624e+00
## 3153  0.17054527  1.602529e+00
## 3154  0.59897053 -7.891082e-02
## 3155  1.01550296 -1.071533e+00
## 3156  0.21513485 -1.062143e+00
## 3157  0.78305885  1.164193e+00
## 3158  0.43052648 -9.324780e-01
## 3159  0.36544100 -2.059312e+00
## 3160  1.37409841  1.963417e+00
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## 3162  0.13155461 -2.907884e+00
## 3163  1.08367132  2.927055e+00
```

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## 3164  1.54314884 -3.102859e+00
## 3165  1.05495713  2.130744e+00
## 3166  0.65791363 -2.366903e+00
## 3167  0.03064931 -2.848253e+00
## 3168  1.38282733 -2.383826e+00
## 3169  0.24367927 -2.923969e+00
## 3170  0.82404254  1.736519e+00
## 3171  0.59893950  2.084543e-01
## 3172  0.46026712  2.537249e+00
## 3173  0.97609822  1.533133e+00
## 3174  1.35812768  8.377135e-01
## 3175  1.32939996 -6.454903e-01
## 3176  1.02241675 -1.692857e+00
## 3177  0.59555919 -5.665253e-01
## 3178  0.62453712 -2.864443e+00
## 3179  0.59195030 -1.064363e+00
## 3180  1.30895349  8.923350e-02
## 3181  0.83832296  2.229238e+00
## 3182  1.31261780 -1.513518e-01
## 3183  1.23228721 -5.188015e-01
## 3184  0.49468478  6.905223e-01
## 3185  1.41289687 -2.586614e+00
## 3186  0.91753568  1.104423e-01
## 3187  1.22474459  1.560298e-01
## 3188  1.48523055 -1.287564e+00
## 3189  1.20603392 -1.094170e-01
## 3190  0.82815120 -1.317405e+00
## 3191  1.40694090 -6.949878e-01
## 3192  1.09408223 -5.956048e-01
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## 3197  1.22703372  9.569490e-01
## 3198  1.11793431 -4.384608e-01
## 3199  1.49541239 -1.598074e+00
## 3200  1.20036552  1.056829e+00
## 3201  0.31030579  9.158536e-02
## 3202  0.37006803 -3.513155e-01
## 3203  0.54730702  1.963891e+00
## 3204  0.96128540 -1.222416e+00
## 3205  0.84283612 -5.083061e-01
## 3206  1.48490977  1.331486e-01
## 3207  0.33676243 -2.294480e+00
## 3208  0.84733291  3.269728e-01
## 3209  1.01287262  1.932766e+00
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## 3211  1.18227572 -5.952268e-02
## 3212  1.30259900 -3.073768e+00
## 3213  0.80273257  3.068367e+00
## 3214  0.62030839  3.083758e+00
## 3215  1.16915385 -1.446707e+00
## 3216  0.67090130 -2.622369e+00
## 3217  0.40898214  9.238861e-01
## 3218  0.58068812  9.397855e-01
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## 3220  0.53403929  1.426991e+00
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## 3222  0.73576299  2.980396e+00
## 3223  0.56224190 -1.120556e+00
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## 3225  1.40710876 -2.821501e+00
## 3226  0.51139347  1.454958e+00
## 3227  0.32305399  2.087809e+00
## 3228  0.15084553  1.069640e+00
## 3229  1.07425523  2.417593e+00
## 3230  0.69225505 -1.364724e+00
## 3231  0.98409058 -3.115284e-01
## 3232  0.16635934  2.153912e+00
## 3233  0.70600969 -9.433673e-01
## 3234  0.49315443  1.296810e+00
## 3235  1.15756494  2.861606e-02
## 3236  0.99052717  2.166183e+00
## 3237  0.43620501 -2.828300e+00
## 3238  0.48616936  2.000213e+00
## 3239  0.54422169  2.008625e+00
## 3240  1.18671892 -1.738840e+00
## 3241  1.45267758  1.226312e-02
## 3242  1.28500374 -1.782384e-01
```

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## 3243  0.23631830 -1.394313e+00
## 3244  1.05509323 -2.245458e+00
## 3245  1.25234607  2.287458e+00
## 3246  1.42586858 -1.774503e+00
## 3247  0.95735294 -1.976595e+00
## 3248  0.39316241  2.700033e+00
## 3249  0.34533894 -2.902467e+00
## 3250  1.24671158 -2.837026e+00
## 3251  0.46004984  1.729442e+00
## 3252  0.91122374 -2.254976e+00
## 3253  1.43939875 -2.725006e+00
## 3254  1.45222416 -2.386874e-01
## 3255  0.88747111 -8.675539e-01
## 3256  1.17092672 -2.178809e+00
## 3257  0.63489888  2.191511e+00
## 3258  0.55973580  6.630486e-02
## 3259  0.33882403  6.179973e-02
## 3260  0.64526071 -6.946859e-01
## 3261  1.02792481  1.476030e+00
## 3262  0.40392839  1.039951e+00
## 3263  0.97427659 -2.193488e-01
## 3264  0.20620953  2.429611e+00
## 3265  1.53356580  1.286804e+00
## 3266  1.05177146 -2.015269e+00
## 3267  0.62510374  1.521615e+00
## 3268  1.49879006  1.532441e+00
## 3269  1.55505810  1.736565e+00
## 3270  0.48591519 -1.168199e+00
## 3271  0.97449325  2.221399e+00
## 3272  1.26245055 -8.054626e-01
## 3273  1.55788019  2.265047e+00
## 3274  0.23754300 -5.807523e-01
## 3275  1.49244296 -1.313486e+00
## 3276  0.66204934 -2.232415e+00
## 3277  1.39387543 -2.418210e+00
## 3278  1.02146362  2.731960e+00
## 3279  1.44920061  8.014074e-01
## 3280  1.41884551  6.796476e-01
## 3281  0.19663460 -1.015995e+00
## 3282  0.38654784 -1.811123e+00
## 3283  1.20534727  1.596059e-01
## 3284  0.97917713  6.527359e-01
## 3285  0.94528557 -1.686709e+00
## 3286  0.41639450 -1.349690e+00
## 3287  0.60526269 -1.594445e+00
## 3288  1.23713325 -2.414892e+00
## 3289  0.10006546  1.060075e+00
## 3290  1.28394660 -1.084191e+00
## 3291  1.33090931  2.546707e+00
## 3292  0.84447358 -1.508744e+00
## 3293  0.82217467  6.928207e-01
## 3294  1.13855126 -1.090952e+00
## 3295  0.69742222  7.405529e-01
## 3296  0.11508194 -2.157624e+00
## 3297  0.98274968  1.583531e+00
## 3298  1.25411180  1.949155e+00
## 3299  1.46426467  1.518475e+00
## 3300  1.49742844 -2.527420e+00
## 3301  0.91527834  1.922495e+00
## 3302  1.45067638 -1.665933e+00
## 3303  0.65542872 -7.840434e-02
## 3304  0.84946797 -1.539288e+00
## 3305  1.27769175  1.467871e+00
## 3306  0.57290351  8.447486e-01
## 3307  1.34231380 -1.564188e+00
## 3308  0.79015702 -2.172455e+00
## 3309  0.62483903  2.801717e+00
## 3310  1.45626832  2.562001e+00
## 3311  0.54478194 -2.676478e-01
## 3312  0.91239915 -2.772257e+00
## 3313  0.26956161  1.114044e-01
## 3314  0.51866675  1.732349e-01
## 3315  1.26590364 -4.519831e-01
## 3316  0.95642844  2.440140e+00
## 3317  0.86768133 -9.922825e-01
## 3318  1.27842588 -8.787845e-01
## 3319  0.62813444  2.602680e+00
## 3320  1.26021427  6.596093e-01
## 3321  0.78471932  2.810138e+00
```

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## 3322  1.14237236 -7.649008e-01
## 3323  1.28604751  8.943675e-01
## 3324  0.88554189  2.179512e+00
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## 3326  0.86602615  2.300602e-01
## 3327  0.35642559  4.801150e-01
## 3328  1.12969225 -1.131338e+00
## 3329  0.58849421 -6.865429e-01
## 3330  0.89160569  1.772365e+00
## 3331  0.92504347 -1.726572e+00
## 3332  0.90948607 -3.761093e-03
## 3333  0.64757790  1.650219e+00
## 3334  1.45464149 -5.974452e-01
## 3335  0.55881741 -1.890951e-01
## 3336  0.39652817 -2.531199e+00
## 3337  1.25791136 -1.189112e+00
## 3338  0.24275939  6.123855e-01
## 3339  1.14941596  2.785642e+00
## 3340  0.83816492  4.611206e-01
## 3341  0.94756160  1.203686e+00
## 3342  0.71336166  2.151721e+00
## 3343  0.83186674 -1.416739e+00
## 3344  1.25933767 -1.932949e+00
## 3345  1.10975586 -5.567533e-01
## 3346  0.56781130  6.490343e-01
## 3347  0.61869378  2.494929e+00
## 3348  0.78097042  1.293656e+00
## 3349  0.82277433 -3.050981e+00
## 3350  1.29731930 -2.330961e+00
## 3351  1.41190021  2.479687e+00
## 3352  1.40480179  2.414712e+00
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## 3354  0.07045172  2.213338e+00
## 3355  1.32854591 -4.548313e-01
## 3356  1.11031504 -3.147521e-01
## 3357  0.52000830 -8.678631e-01
## 3358  0.45716823 -2.642835e+00
## 3359  1.03659930 -1.055444e+00
## 3360  1.19625660 -1.109218e+00
## 3361  1.32643977  2.917304e+00
## 3362  1.38133155 -1.633304e+00
## 3363  1.48407645  1.597831e+00
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## 3365  1.30832725 -6.217584e-01
## 3366  1.27526071 -2.802291e+00
## 3367  0.75205422  2.816849e+00
## 3368  0.89384853  3.627375e-01
## 3369  1.52402781 -4.914413e-01
## 3370  1.31886770 -1.598918e-01
## 3371  1.38320062 -2.035962e+00
## 3372  1.25066106 -2.751320e+00
## 3373  0.81862980  2.078326e+00
## 3374  1.38242657  3.032745e+00
## 3375  1.00261870 -2.296467e+00
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## 3377  1.27864878 -1.175792e-01
## 3378  1.35003775  2.550623e+00
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## 3381  1.49235037 -1.125466e+00
## 3382  0.21355555 -2.666356e+00
## 3383  0.37887338 -6.374225e-01
## 3384  1.27287810 -1.326857e+00
## 3385  0.40462386  6.593680e-01
## 3386  1.27188833  4.333811e-01
## 3387  0.47811810 -2.994973e+00
## 3388  1.53325079 -3.097098e+00
## 3389  0.62223518 -1.918624e+00
## 3390  0.45138375 -1.558707e+00
## 3391  1.44168404 -2.245627e+00
## 3392  1.04200080  3.898540e-01
## 3393  0.93118656  3.009425e+00
## 3394  0.54559252 -1.411893e+00
## 3395  0.68753964  6.436007e-02
## 3396  0.62531671 -2.239216e+00
## 3397  0.82861148 -1.389910e+00
## 3398  0.89631011  2.984203e+00
## 3399  1.44893528 -1.785338e+00
## 3400  0.12092761  3.348281e-01
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## 3402  1.37831565  2.042075e+00
## 3403  1.43531640  1.521413e+00
## 3404  0.48242740 -2.163575e+00
## 3405  0.94980114  2.055284e-01
## 3406  1.47447740  1.318588e+00
## 3407  1.50850273  2.064611e-01
## 3408  1.30476451  1.247048e+00
## 3409  0.30350817  7.630450e-01
## 3410  0.88825962  2.498751e+00
## 3411  0.56460461 -2.649619e+00
## 3412  0.95315259 -2.561669e+00
## 3413  1.17186799 -7.709995e-01
## 3414  0.67803814 -2.410002e+00
## 3415  1.26955394 -2.232205e-01
## 3416  1.22795967  4.051415e-02
## 3417  0.25500241 -1.217032e+00
## 3418  1.25151850  6.320153e-01
## 3419  1.11788760 -2.845247e+00
## 3420  0.78954677 -1.672509e+00
## 3421  0.33315743 -2.665098e+00
## 3422  1.50494140  1.436720e+00
## 3423  0.43608198 -1.987609e+00
## 3424  0.38962832 -2.123887e+00
## 3425  1.31785807  6.415070e-01
## 3426  1.16578986  1.102754e-01
## 3427  1.43869189  1.991591e+00
## 3428  0.85997623 -2.168648e+00
## 3429  0.88385173  2.076907e-01
## 3430  1.01327853  2.270578e+00
## 3431  1.30974809  2.945372e+00
## 3432  0.04257310  4.439537e-01
## 3433  0.62922822 -2.317893e+00
## 3434  0.55974484  1.786489e+00
## 3435  1.26160657  1.688612e-02
## 3436  0.53575734  1.051587e+00
## 3437  0.35264235  1.962822e+00
## 3438  1.30097750 -2.658044e+00
## 3439  1.50627372 -2.305531e+00
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## 3441  1.16895048  3.073380e+00
## 3442  0.36737012 -4.649099e-01
## 3443  0.35512052 -1.231065e+00
## 3444  0.56261083  2.817499e+00
## 3445  0.74069755  1.566534e+00
## 3446  0.20009077 -1.281371e+00
## 3447  1.35517363  2.416367e+00
## 3448  0.77425541 -1.263701e-01
## 3449  0.70657029  2.866400e+00
## 3450  0.80848462  2.982366e+00
## 3451  1.50338911  5.925427e-01
## 3452  1.15468896  2.729219e-01
## 3453  1.36647537  2.956988e+00
## 3454  0.83886503 -2.250818e+00
## 3455  0.33328063  6.728283e-01
## 3456  0.14793381 -4.469039e-01
## 3457  0.49784873 -2.786250e+00
## 3458  0.34880252  1.828270e+00
## 3459  1.13048300  1.494867e+00
## 3460  0.76332652 -4.086641e-01
## 3461  1.54423737 -2.524997e+00
## 3462  1.41341618 -2.388216e+00
## 3463  1.35730936 -2.894149e+00
## 3464  1.34062201 -1.532587e+00
## 3465  1.50003033  3.741838e-01
## 3466  0.63974338 -1.792482e+00
## 3467  0.87589644 -3.913429e-01
## 3468  1.28422602  5.969207e-01
## 3469  0.65128132  2.239519e+00
## 3470  0.58872807 -1.716811e+00
## 3471  0.49581838  1.935817e+00
## 3472  1.12033491  3.241491e-01
## 3473  1.28940673  2.002331e+00
## 3474  1.46929640  1.426772e+00
## 3475  1.38309446 -1.569101e-01
## 3476  1.01720481 -2.340733e+00
## 3477  1.41609214 -1.986364e+00
## 3478  0.56199597  1.045745e+00
## 3479  1.09972448  1.930634e+00
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## 3480  0.70948431  4.841182e-01
## 3481  1.10511942  8.324064e-02
## 3482  1.29677169 -2.886726e+00
## 3483  1.28179062 -1.110314e+00
## 3484  1.24152698  3.496973e-01
## 3485  1.25237856 -2.651857e-03
## 3486  1.22560621  2.791046e+00
## 3487  0.43847786 -2.514071e+00
## 3488  0.12296869 -2.430274e+00
## 3489  0.41139876  1.761108e+00
## 3490  0.63340019 -2.946580e+00
## 3491  1.04656299  2.238772e+00
## 3492  0.34238390  1.718567e+00
## 3493  0.61080600  3.670295e-01
## 3494  1.49174303 -8.474498e-01
## 3495  0.98371255 -3.162435e-02
## 3496  1.01930981 -2.048138e+00
## 3497  1.17932303  4.513596e-02
## 3498  0.13712471  1.860348e-01
## 3499  1.36517360  2.780443e+00
## 3500  1.15645402  7.893957e-02
## 3501  1.29184699 -1.587062e+00
## 3502  1.13171404 -5.727759e-01
## 3503  1.41881283  6.009165e-01
## 3504  0.18844486 -1.199441e+00
## 3505  0.38524961 -2.503370e+00
## 3506  0.55715956  1.488592e+00
## 3507  1.23441495 -1.363269e+00
## 3508  0.95954581  1.369965e-01
## 3509  0.89569927 -3.005735e+00
## 3510  0.06370076 -1.844668e+00
## 3511  0.59797674  2.550610e+00
## 3512  0.80103579 -1.375978e-01
## 3513  1.19659214  1.954210e+00
## 3514  1.41892068 -2.134240e+00
## 3515  1.40010487  2.238576e+00
## 3516  0.74055281  1.767090e+00
## 3517  0.81870862 -7.261544e-01
## 3518  1.53471229 -1.356125e+00
## 3519  1.53819568 -2.518049e+00
## 3520  0.62994169  2.253357e+00
## 3521  1.46617830  1.028134e+00
## 3522  0.85272366 -1.818275e+00
## 3523  0.54898700  1.545969e+00
## 3524  1.23385372  2.594045e+00
## 3525  0.34825370 -9.730181e-01
## 3526  0.56964609  5.106999e-01
## 3527  0.22515485  2.042163e+00
## 3528  0.68032241 -1.601969e+00
## 3529  0.82281588 -2.796619e+00
## 3530  1.18564586 -1.848947e+00
## 3531  1.03093893  2.243549e+00
## 3532  1.07228532  2.769267e+00
## 3533  1.04728882 -1.021479e+00
## 3534  1.01148490  2.954426e+00
## 3535  0.43073444 -1.684255e+00
## 3536  0.70039028  1.577359e+00
## 3537  0.91605229  1.184293e+00
## 3538  1.08720048  1.260418e+00
## 3539  0.73321580  2.958403e+00
## 3540  1.37610514 -3.433585e-01
## 3541  0.61441801  2.323772e+00
## 3542  0.88073690 -2.767765e+00
## 3543  0.97691982 -1.553734e+00
## 3544  0.76776173  1.092395e-01
## 3545  1.00482056  4.780639e-01
## 3546  1.16872357  2.882136e+00
## 3547  1.40792091 -8.048249e-01
## 3548  0.63416970 -2.061558e-01
## 3549  1.42353626  2.932067e+00
## 3550  0.11600452 -8.326145e-01
## 3551  1.48947044 -1.321240e+00
## 3552  0.93126718 -2.968179e+00
## 3553  1.46871649 -2.891680e-01
## 3554  0.53840600  2.960616e+00
## 3555  0.90151369 -9.568087e-01
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## 3557  0.90750080  2.021497e+00
## 3558  0.82505302  1.154199e-01
```

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## 3559  0.89324738  2.087239e+00
## 3560  1.42402891 -2.403935e+00
## 3561  0.46742970  2.996428e+00
## 3562  0.57892044 -7.556342e-01
## 3563  1.25809575  2.854384e+00
## 3564  0.04532061 -1.663416e+00
## 3565  0.53957045 -3.040232e+00
## 3566  0.95527688  4.619206e-01
## 3567  1.44372824  2.907103e+00
## 3568  0.37129642 -2.785815e+00
## 3569  0.69415677 -2.506571e+00
## 3570  0.62295808 -3.837962e-01
## 3571  0.88631122 -3.025203e+00
## 3572  1.41402487  1.263155e+00
## 3573  0.84354298 -3.105783e+00
## 3574  0.99963878  8.746774e-01
## 3575  0.33307872 -1.864251e-01
## 3576  1.28523404  3.910117e-01
## 3577  0.97163075 -5.054006e-01
## 3578  0.58190088  2.805925e+00
## 3579  0.99422714 -2.059069e+00
## 3580  0.61644042  3.030789e+00
## 3581  1.19360551  1.504139e+00
## 3582  0.46621428  1.585261e+00
## 3583  0.97190405 -2.438618e+00
## 3584  0.35909508 -2.933133e+00
## 3585  1.31715118  8.942793e-01
## 3586  1.34302889  7.862357e-01
## 3587  0.76504842 -1.964876e+00
## 3588  1.51774816 -6.989199e-01
## 3589  0.56413640  2.571737e+00
## 3590  1.46170775  2.017022e+00
## 3591  0.75993749 -3.138498e+00
## 3592  1.49953694 -2.217917e+00
## 3593  0.68956954 -6.774579e-01
## 3594  0.98509810 -4.582767e-02
## 3595  1.34994644 -9.549148e-01
## 3596  1.52242308  5.627210e-01
## 3597  1.50202058 -2.399210e+00
## 3598  1.25140849 -2.394684e+00
## 3599  1.04911386 -2.195891e+00
## 3600  0.91410678 -2.956735e+00
## 3601  0.90749893 -2.523701e+00
## 3602  0.36138711 -2.390741e+00
## 3603  0.55362113  3.742437e-01
## 3604  1.00493230  2.950674e+00
## 3605  0.62988782  2.396776e+00
## 3606  0.66867578 -1.247496e+00
## 3607  0.53148584 -8.179235e-02
## 3608  1.47143733 -3.000933e+00
## 3609  1.03575269 -1.448694e+00
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## 3611  0.87564225 -1.051169e+00
## 3612  0.58093314 -2.121199e+00
## 3613  1.46884405  1.776760e+00
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## 3615  0.26753784 -1.891168e+00
## 3616  0.93665390  2.639114e+00
## 3617  0.32522549  1.203457e+00
## 3618  1.13774470 -1.817363e+00
## 3619  1.36546689 -8.035107e-01
## 3620  0.94651338 -2.447984e-01
## 3621  0.98881162 -2.215383e+00
## 3622  0.34125238  5.721311e-01
## 3623  1.55239015 -2.063240e-01
## 3624  1.02707376 -1.234632e+00
## 3625  0.75621728 -6.589946e-01
## 3626  0.43336083 -1.029996e+00
## 3627  0.81205196 -1.659052e+00
## 3628  0.82193858 -8.740091e-01
## 3629  0.77506873  1.054526e-01
## 3630  0.79255706  9.587075e-01
## 3631  1.36259940  2.014372e+00
## 3632  1.54784356 -2.777948e+00
## 3633  1.22168687  2.062356e+00
## 3634  0.77032764  2.477020e+00
## 3635  0.91683798 -1.663751e+00
## 3636  0.71893849  2.648530e+00
## 3637  0.35958071  2.348427e+00
```

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## 3638  1.08492216 -2.376756e+00
## 3639  0.92362727 -9.190486e-01
## 3640  0.55596905  2.691127e+00
## 3641  0.78095935 -2.754935e+00
## 3642  0.69858701 -2.626970e+00
## 3643  1.13592518 -2.467671e+00
## 3644  0.66848901 -5.520753e-01
## 3645  0.51548319  2.242330e+00
## 3646  1.13116798 -1.877466e+00
## 3647  0.80097133  6.087593e-01
## 3648  1.54201444  6.482101e-01
## 3649  0.69290583  1.870221e+00
## 3650  0.24403466  1.650146e+00
## 3651  1.31677476  2.478896e-01
## 3652  0.42870068  1.598954e+00
## 3653  1.52658431  2.318395e+00
## 3654  0.94025415  7.424531e-01
## 3655  0.61032464 -1.851911e-01
## 3656  0.47291388 -1.106706e+00
## 3657  1.02885213 -1.506646e+00
## 3658  1.55954974 -2.939753e+00
## 3659  0.80780410 -1.245445e+00
## 3660  1.05427486 -2.667493e+00
## 3661  1.02059559  2.258928e+00
## 3662  1.23967049  1.527762e+00
## 3663  0.74720205  3.093065e+00
## 3664  1.02410523  3.006111e+00
## 3665  0.66776216  5.839349e-01
## 3666  1.37992283  3.057310e+00
## 3667  1.04171572  6.179121e-01
## 3668  1.25497553 -2.765313e+00
## 3669  1.24759698  6.785050e-02
## 3670  0.39952945  1.887551e+00
## 3671  1.01845295 -1.804210e+00
## 3672  1.29809674  5.411170e-01
## 3673  0.69760114 -1.666277e+00
## 3674  0.30967329  1.017763e+00
## 3675  0.18516388 -1.536018e+00
## 3676  0.19869995  1.565814e+00
## 3677  0.50142804  4.078674e-01
## 3678  0.77629952 -1.588252e+00
## 3679  0.18904263 -3.876754e-01
## 3680  0.59944262  2.387409e+00
## 3681  0.77123385  6.696960e-01
## 3682  0.34944995  2.562890e+00
## 3683  1.12212205  1.049042e+00
## 3684  1.21032907 -1.406972e+00
## 3685  0.88185512  1.014384e+00
## 3686  1.30782605 -5.922637e-01
## 3687  1.45232118  2.943747e+00
## 3688  0.39081775  1.237804e+00
## 3689  1.54791167 -1.861726e+00
## 3690  0.09814631 -2.776989e+00
## 3691  0.84616589 -1.129297e+00
## 3692  0.81150007 -1.380800e+00
## 3693  1.11065223 -3.111382e+00
## 3694  0.28108006 -1.959702e+00
## 3695  0.74639454  3.048975e+00
## 3696  0.16416241 -3.022014e+00
## 3697  0.94608269 -6.561846e-01
## 3698  1.21207029 -2.699165e+00
## 3699  1.37604298  2.586707e+00
## 3700  1.52633058 -3.130324e+00
## 3701  1.16240473  1.380696e+00
## 3702  0.05885625  1.443565e+00
## 3703  1.38728723  1.726811e+00
## 3704  1.41122708 -2.918482e+00
## 3705  0.63809848 -3.452918e-01
## 3706  0.42501589  1.917990e+00
## 3707  1.39712369 -1.143134e+00
## 3708  0.43879929  2.246205e+00
## 3709  0.78154460  1.297725e+00
## 3710  0.76036970  2.132734e+00
## 3711  0.90225023 -4.869627e-01
## 3712  1.21235458 -5.805648e-01
## 3713  1.38023931 -3.009207e-01
## 3714  0.64746879  1.433623e+00
## 3715  0.89284375  6.471976e-02
## 3716  0.74680535  3.090812e+00
```

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## 3717  0.63681994  1.635194e-01
## 3718  0.08599988 -2.100700e-01
## 3719  0.16740051 -1.525298e+00
## 3720  1.28637152 -1.026390e+00
## 3721  1.44623912  1.606163e+00
## 3722  1.24898122  3.760066e-01
## 3723  1.15855974 -1.707166e+00
## 3724  1.10251548 -2.559816e+00
## 3725  0.92206055 -1.511290e+00
## 3726  1.40942649  2.514777e+00
## 3727  1.50233799 -1.281070e+00
## 3728  0.43102065 -4.081090e-01
## 3729  0.52561524 -6.637884e-01
## 3730  0.82350291 -1.555601e+00
## 3731  0.26504870  2.473988e+00
## 3732  1.44590107 -2.900712e+00
## 3733  0.48952718 -1.468695e+00
## 3734  0.27244894 -8.059679e-01
## 3735  0.32553822  1.039888e+00
## 3736  1.12090966  2.786118e+00
## 3737  0.43089624 -1.165878e+00
## 3738  1.22037461  9.207876e-01
## 3739  0.67582788  5.136256e-01
## 3740  1.13470564  2.716908e+00
## 3741  0.69282467  1.851365e+00
## 3742  0.64637097  2.707125e+00
## 3743  0.48908575  3.062006e+00
## 3744  1.13715552  9.688311e-01
## 3745  0.68769980  2.098684e+00
## 3746  0.47287809  2.702274e+00
## 3747  0.71356289 -1.896111e+00
## 3748  0.72602304 -1.061969e-01
## 3749  0.08799365  2.260997e+00
## 3750  0.77500329 -3.059030e+00
## 3751  1.22438910 -2.945991e+00
## 3752  1.33685477  1.128006e+00
## 3753  0.72513249 -4.100812e-01
## 3754  0.86192522 -8.863702e-02
## 3755  1.14574285  2.669968e+00
## 3756  1.56670641  1.200871e+00
## 3757  0.98145989 -2.999636e+00
## 3758  0.85248402 -4.964547e-01
## 3759  0.99173345  4.028070e-01
## 3760  1.00883577  2.322032e+00
## 3761  0.28317362  1.395553e+00
## 3762  1.01352005 -5.999415e-01
## 3763  0.65139687  6.299615e-01
## 3764  0.48916191  1.370401e+00
## 3765  0.76614202 -2.917514e+00
## 3766  1.39923450  2.581915e+00
## 3767  0.43375196 -2.499532e+00
## 3768  0.90283247  2.406743e+00
## 3769  1.36847292  2.390427e+00
## 3770  1.49354658  2.806819e+00
## 3771  1.25933713  1.106511e+00
## 3772  1.53445065  3.061078e+00
## 3773  0.27115002 -1.533008e+00
## 3774  0.61618548 -1.360809e+00
## 3775  1.11858940 -1.601236e+00
## 3776  0.85849764 -6.755821e-01
## 3777  0.51139798 -1.629312e+00
## 3778  0.56665945  1.240902e-01
## 3779  0.44697090 -8.644863e-01
## 3780  1.03037214  2.970118e+00
## 3781  1.19057486 -2.343132e+00
## 3782  0.43628285  2.367464e-01
## 3783  1.14688287 -2.544216e+00
## 3784  0.55597921  2.254775e+00
## 3785  0.44510347  1.290506e+00
## 3786  0.73125656  2.670731e+00
## 3787  0.57366051  3.101413e+00
## 3788  0.62945580 -1.874219e+00
## 3789  1.38238064  1.427098e+00
## 3790  1.25868784 -6.756687e-01
## 3791  1.09599726  8.486617e-02
## 3792  1.16793936 -2.628477e+00
## 3793  1.19999922  1.167755e+00
## 3794  1.52685757 -1.880855e+00
## 3795  0.21053210  4.524520e-01
```

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## 3796  0.39907774  9.761474e-01
## 3797  0.38929034  3.646172e-01
## 3798  1.52656150  9.922160e-01
## 3799  0.52056480  1.738892e+00
## 3800  1.23796305 -1.380933e+00
## 3801  0.11668238  8.002310e-01
## 3802  1.19472984  8.030684e-01
## 3803  0.38378175 -3.141325e+00
## 3804  0.52756980 -1.712502e+00
## 3805  0.85616625  1.092080e+00
## 3806  1.15601356  1.037747e+00
## 3807  0.09816895 -3.028415e+00
## 3808  1.16748785  4.218721e-01
## 3809  0.61220106 -3.105387e+00
## 3810  1.33021798  2.917204e+00
## 3811  0.12494174 -1.377530e+00
## 3812  0.12227871 -2.963578e+00
## 3813  0.72470225 -1.501881e-01
## 3814  0.61527141  4.345630e-01
## 3815  1.42407202 -7.877696e-01
## 3816  1.13125877  2.868709e+00
## 3817  0.41506289  2.972310e+00
## 3818  1.33761114  8.352344e-01
## 3819  1.31118715 -4.570165e-02
## 3820  1.50138868  1.990884e+00
## 3821  1.46467309 -7.589018e-01
## 3822  0.53673614  2.602509e+00
## 3823  0.50987347 -1.202477e-02
## 3824  0.49952333  3.537482e-01
## 3825  0.46021157  6.024367e-01
## 3826  1.48547065  2.165025e+00
## 3827  0.54642960  1.122613e+00
## 3828  0.61470875  1.238100e+00
## 3829  1.32707066 -6.425421e-01
## 3830  1.27820300 -4.618452e-01
## 3831  1.04621233 -3.063975e+00
## 3832  1.24234747 -1.373713e+00
## 3833  1.27445567 -2.345188e+00
## 3834  1.47219359  9.443915e-01
## 3835  0.17646369 -8.715750e-01
## 3836  1.09890132  1.763017e+00
## 3837  1.33646123  2.459110e+00
## 3838  0.89219300  4.532687e-01
## 3839  0.50120842  2.901551e+00
## 3840  1.55419498 -3.080677e+00
## 3841  0.95435020  2.551419e+00
## 3842  1.10760063  2.446392e+00
## 3843  1.12419813 -2.448925e+00
## 3844  0.50124319  2.714272e+00
## 3845  0.87087633 -2.442768e+00
## 3846  0.23924109  3.029246e+00
## 3847  1.41860389 -1.059258e+00
## 3848  1.29266496  3.039418e+00
## 3849  0.58966525 -2.338237e+00
## 3850  1.34841221  1.470911e+00
## 3851  0.52023477  1.960258e+00
## 3852  0.44015992 -5.676516e-02
## 3853  1.41607632  3.822878e-01
## 3854  0.35882073  1.815119e-01
## 3855  0.33586820 -2.523008e+00
## 3856  0.76760956  2.297739e+00
## 3857  1.02794462  2.854823e+00
## 3858  0.56800239 -1.580239e+00
## 3859  1.29661032 -1.251717e-01
## 3860  1.24805076 -1.693238e-01
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## 3862  0.48208867 -1.119635e+00
## 3863  1.19999101 -1.849815e+00
## 3864  1.49159713 -1.208070e+00
## 3865  0.64413400 -3.989513e-01
## 3866  0.68536799  9.329123e-01
## 3867  0.60939113 -2.934249e+00
## 3868  1.27775770  5.759610e-01
## 3869  1.45201070  2.972593e+00
## 3870  0.83718406  1.274857e-01
## 3871  0.43126372  2.451465e+00
## 3872  0.91612447 -2.975462e+00
## 3873  1.03679972 -3.106443e+00
## 3874  0.97246439 -7.882810e-01
```

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## 3875  1.20920618 -1.557752e+00
## 3876  1.31653659  2.121625e+00
## 3877  0.60167679 -2.366999e+00
## 3878  1.46908943  3.036877e+00
## 3879  1.24787819 -1.268255e+00
## 3880  0.19727136 -2.894315e+00
## 3881  0.68865002  1.677021e+00
## 3882  1.56114796 -1.136236e+00
## 3883  0.28961043 -2.217193e+00
## 3884  1.02586880 -4.064239e-01
## 3885  0.53566492 -2.551542e+00
## 3886  1.35881974  7.546434e-01
## 3887  0.91489849  2.008385e+00
## 3888  0.87386041  1.755262e+00
## 3889  0.17690057 -3.113349e+00
## 3890  0.86487105 -1.930179e+00
## 3891  1.13035142 -2.564612e+00
## 3892  0.94999017  1.642892e+00
## 3893  1.55230708  2.349705e+00
## 3894  1.48212444 -3.293891e-02
## 3895  1.39839453 -2.146009e+00
## 3896  0.97323948 -6.988126e-01
## 3897  1.36797850 -7.300268e-01
## 3898  1.29938283 -3.737266e-01
## 3899  0.63572766  2.593172e+00
## 3900  0.39104599 -1.430322e-01
## 3901  1.15252745 -2.838323e-01
## 3902  0.89979513  1.681999e-01
## 3903  0.26415074  2.436834e+00
## 3904  1.17834672 -2.424274e+00
## 3905  1.47482673  2.549638e-02
## 3906  0.45051600  2.413360e+00
## 3907  0.35079818 -2.906282e+00
## 3908  1.47826822 -2.339760e+00
## 3909  1.52443898  4.494782e-01
## 3910  0.96438937  1.113736e+00
## 3911  0.99777397  7.926574e-01
## 3912  0.62504688  2.907226e+00
## 3913  1.24797511 -1.884768e+00
## 3914  0.19154598 -9.547094e-01
## 3915  0.97293963  3.127464e+00
## 3916  1.23523059  9.004454e-01
## 3917  0.86127235  1.378898e+00
## 3918  1.02577953 -1.856607e+00
## 3919  0.24543501 -9.279291e-01
## 3920  1.29207601  1.589511e-01
## 3921  1.25558576  1.884967e+00
## 3922  1.49895161 -1.154504e+00
## 3923  1.51667113 -2.882939e+00
## 3924  0.82462637 -2.333319e+00
## 3925  1.32075241 -2.713491e+00
## 3926  0.40442824 -1.179659e+00
## 3927  0.99436220 -5.769247e-01
## 3928  1.04715825  2.715782e+00
## 3929  0.78612607  8.339828e-01
## 3930  0.56966489  1.090583e+00
## 3931  0.75610581  2.656585e+00
## 3932  0.71235920  1.767582e+00
## 3933  0.43490757 -2.651032e+00
## 3934  1.07397929  1.724009e+00
## 3935  0.66319167  1.415295e+00
## 3936  1.52168609  2.652253e+00
## 3937  1.37401476  2.608547e+00
## 3938  0.87644985 -1.214636e-01
## 3939  1.55633030 -1.154867e+00
## 3940  0.93541992  2.054696e+00
## 3941  1.16871589 -2.074295e+00
## 3942  1.22263809 -2.822923e+00
## 3943  0.72996978  5.328648e-01
## 3944  0.62362392 -1.628595e+00
## 3945  0.15489505 -2.851826e+00
## 3946  1.41955214  1.710605e+00
## 3947  0.11944775  2.828000e+00
## 3948  1.49363013  7.441971e-01
## 3949  0.37539064  2.622797e+00
## 3950  1.53644551  2.470885e-01
## 3951  0.59661597  6.376354e-01
## 3952  0.53208867 -5.965938e-01
## 3953  0.99550323  1.377653e+00
```

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## 3954  0.83264005 -1.394323e+00
## 3955  1.25218029 -2.602924e+00
## 3956  1.44116223 -1.035541e+00
## 3957  1.02449464  2.139162e+00
## 3958  1.22862369  2.245258e+00
## 3959  1.30461306 -2.342815e+00
## 3960  1.14781167  2.318839e+00
## 3961  0.75017296 -7.381076e-02
## 3962  0.87522783 -1.656035e+00
## 3963  1.01115020 -1.019559e+00
## 3964  1.28962447  2.506043e+00
## 3965  1.37243276 -2.587794e+00
## 3966  1.04991963 -2.677987e+00
## 3967  0.48048776 -1.435423e+00
## 3968  0.26882864  8.602687e-01
## 3969  0.61587191  1.769355e+00
## 3970  1.37205185  1.904784e+00
## 3971  0.27772362  1.954638e+00
## 3972  0.92673376  1.338015e+00
## 3973  1.34134951  1.722095e+00
## 3974  1.45955104  3.039947e+00
## 3975  1.01921533 -9.244742e-02
## 3976  0.91459582  1.071920e-01
## 3977  0.61810645 -1.669265e+00
## 3978  0.27394746  1.113913e-01
## 3979  1.38709485 -2.947596e+00
## 3980  1.10042792 -2.891314e+00
## 3981  1.43877050  2.174668e+00
## 3982  1.49160138 -2.371336e+00
## 3983  0.81415513 -1.352647e+00
## 3984  0.54066634 -2.377343e+00
## 3985  0.60674133  3.054609e+00
## 3986  1.21427908 -2.410692e+00
## 3987  0.52980752 -2.498465e-01
## 3988  0.98665086  1.836707e+00
## 3989  0.25988557 -2.998748e-01
## 3990  0.60122136 -1.019906e+00
## 3991  1.01988264 -2.828406e+00
## 3992  1.53085835 -1.815787e+00
## 3993  0.75672503 -1.360181e+00
## 3994  1.35955950 -1.887773e-01
## 3995  1.30588010 -1.057109e+00
## 3996  0.15238250  8.083304e-01
## 3997  0.95446520  1.476589e+00
## 3998  1.05429056  2.982052e+00
## 3999  0.81243713  1.665531e+00
## 4000  1.49380185 -2.576063e-01
## 4001  1.25412839 -2.630160e+00
## 4002  0.60890906 -1.536994e+00
## 4003  1.39717951 -3.076166e+00
## 4004  0.60025088  1.636113e+00
## 4005  1.31829368 -2.805965e+00
## 4006  1.19238473 -1.075742e-01
## 4007  1.17340090 -1.260416e+00
## 4008  0.31296893 -1.109007e-01
## 4009  0.36037934 -1.110145e+00
## 4010  0.89499601  4.182799e-01
## 4011  1.50114585  1.420179e-01
## 4012  0.61316632 -1.193314e+00
## 4013  0.88503068 -1.123559e+00
## 4014  1.41983899 -2.145828e+00
## 4015  1.55908978  1.292540e+00
## 4016  1.55572343 -8.366288e-01
## 4017  0.37635934  4.150144e-01
## 4018  0.57500086 -3.042423e+00
## 4019  0.57600656 -5.336756e-02
## 4020  1.44004293 -2.527380e+00
## 4021  1.39310053 -3.868201e-01
## 4022  1.18302690  2.589560e-01
## 4023  1.23764666 -1.536995e-01
## 4024  0.76785491  2.807603e+00
## 4025  1.26834716 -2.847099e+00
## 4026  0.94591430  3.056813e+00
## 4027  0.86002734  2.932118e+00
## 4028  0.85928103  3.046588e+00
## 4029  0.39598673  8.848572e-01
## 4030  0.55290424  2.861176e+00
## 4031  0.54589682  2.729670e+00
## 4032  1.42205928  1.253935e+00
```

```
## 4033  0.38194513  6.713089e-01
## 4034  0.98731024  1.981022e+00
## 4035  0.78410178 -2.281549e+00
## 4036  1.18118023  2.241368e+00
## 4037  0.39401305  1.340514e-01
## 4038  0.97699133  2.311653e+00
## 4039  1.13772607 -7.749493e-01
## 4040  1.51460634 -1.930668e-01
## 4041  0.82779299 -2.404278e+00
## 4042  1.22661437  1.702075e+00
## 4043  0.62613567 -3.250798e-01
## 4044  0.37061066 -1.844220e+00
## 4045  0.90759873 -1.753193e+00
## 4046  1.37164740  4.819710e-01
## 4047  0.88300570 -1.359971e+00
## 4048  0.53992852  1.193202e-01
## 4049  0.85876201 -3.328140e-01
## 4050  1.42445713  2.351333e+00
## 4051  1.19894908 -8.447378e-01
## 4052  1.14282764  1.432254e+00
## 4053  1.30059290 -1.090782e-01
## 4054  0.12990905  2.209670e+00
## 4055  1.47926269  1.236443e-01
## 4056  1.08874631  4.723502e-01
## 4057  1.16463199 -2.763134e+00
## 4058  0.34103606  2.422809e+00
## 4059  1.38181513  3.099656e+00
## 4060  0.48148572  1.788441e+00
## 4061  0.31348843 -1.266296e+00
## 4062  0.36136072  2.655549e+00
## 4063  0.39617896  2.423859e+00
## 4064  1.28838516 -2.646296e+00
## 4065  0.49031326  2.392405e+00
## 4066  0.89671409  3.018052e+00
## 4067  0.99496509 -1.683243e+00
## 4068  0.58209676  9.039164e-01
## 4069  0.67056799  1.024798e+00
## 4070  1.08143854  7.577898e-02
## 4071  0.57727329 -9.578654e-02
## 4072  0.26982231  1.032667e+00
## 4073  1.28834345 -2.957333e+00
## 4074  1.36021002  3.003358e+00
## 4075  0.65868855  1.022215e+00
## 4076  0.93942369  9.374802e-01
## 4077  0.27730173 -2.987956e+00
## 4078  1.24224909 -2.788789e+00
## 4079  1.46608603 -1.551396e+00
## 4080  0.98479627  3.050711e+00
## 4081  0.50573441 -4.133682e-01
## 4082  0.65222417 -2.910938e+00
## 4083  0.91235822  1.992705e+00
## 4084  0.35946172 -2.297751e+00
## 4085  1.11220530 -6.039778e-01
## 4086  1.17112832  8.038408e-01
## 4087  1.04188945  2.962761e+00
## 4088  0.80527858 -2.218376e+00
## 4089  0.01540922 -2.521761e+00
## 4090  1.24592228  2.295600e+00
## 4091  1.33764603 -6.021360e-01
## 4092  0.09048841 -9.600823e-01
## 4093  1.36335704 -2.212295e-01
## 4094  0.55614864  3.046241e+00
## 4095  0.91570335 -1.043156e+00
## 4096  0.94274108  1.361102e-01
## 4097  1.09268351  4.507987e-01
## 4098  1.05003033  1.396850e+00
## 4099  0.39736021 -3.051111e+00
## 4100  0.98780846 -1.925569e-01
## 4101  0.15065270  2.018759e+00
## 4102  0.81148730  2.727903e+00
## 4103  0.93927378  2.554922e+00
## 4104  0.90726219  2.994956e+00
## 4105  1.56735889  3.084520e+00
## 4106  1.03404951 -2.958588e+00
## 4107  0.25924586  9.326059e-01
## 4108  0.72558817  1.239917e-01
## 4109  0.11070784  2.194786e+00
## 4110  1.53738467 -2.208250e+00
## 4111  1.18508897  2.589477e+00
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## 4113  1.30867798 -1.229888e+00
## 4114  0.38023590 -1.423353e+00
## 4115  0.70473670 -2.021301e+00
## 4116  0.22604288  2.894709e+00
## 4117  1.11548909  2.787222e+00
## 4118  1.53100109  8.067276e-01
## 4119  0.59357521  8.564786e-01
## 4120  0.16702118  1.577290e+00
## 4121  1.53836261  2.254820e-01
## 4122  0.89760476 -1.009297e+00
## 4123  0.33904924  8.119320e-01
## 4124  0.61195551 -2.652530e+00
## 4125  1.34859927 -5.219715e-02
## 4126  0.08531835 -1.016174e+00
## 4127  0.84873948 -2.572420e-01
## 4128  0.19134966 -4.120005e-02
## 4129  0.89676384  2.172774e+00
## 4130  1.11330673 -5.945513e-01
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## 4132  1.06424642  1.989447e+00
## 4133  1.48028033 -2.348030e+00
## 4134  0.44935088 -3.079505e+00
## 4135  1.40454873 -9.484802e-01
## 4136  0.61645214  7.765165e-01
## 4137  1.43320621  1.828467e+00
## 4138  1.09765700  6.444390e-02
## 4139  1.27276785  2.702281e+00
## 4140  0.54493663 -2.800032e+00
## 4141  0.61505787 -1.485029e+00
## 4142  1.18234366  2.414514e-01
## 4143  0.23946954 -6.123880e-01
## 4144  0.77010720 -1.259929e+00
## 4145  0.47402365 -9.780135e-01
## 4146  0.76980621 -3.104857e+00
## 4147  0.50503034 -4.075351e-01
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## 4149  1.35234622  2.741951e+00
## 4150  0.81471757  1.292432e+00
## 4151  1.39090532 -1.092961e+00
## 4152  1.35489342 -1.602191e-01
## 4153  1.17890666  2.854136e+00
## 4154  0.19890235 -1.121564e+00
## 4155  1.54834580  2.208401e+00
## 4156  0.11240966  1.583387e+00
## 4157  0.48367823  2.851653e+00
## 4158  1.11730058 -2.998243e+00
## 4159  1.48536673 -2.361385e+00
## 4160  1.32011705  2.616501e+00
## 4161  0.15160107 -1.837021e+00
## 4162  0.83675142  3.142445e-01
## 4163  1.14435189  2.657128e+00
## 4164  0.56347845  2.019871e+00
## 4165  1.28872473  5.490547e-02
## 4166  1.18577893 -2.268424e+00
## 4167  0.25422111 -1.125424e+00
## 4168  0.44424857 -2.510572e+00
## 4169  0.73496486  2.667135e+00
## 4170  0.80948138  2.052188e+00
## 4171  0.99359370 -7.487593e-02
## 4172  1.31678010 -1.164829e-01
## 4173  0.49353567 -1.713075e+00
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## 4175  0.30242158 -2.943321e+00
## 4176  0.35020604  4.759552e-01
## 4177  1.43069790 -1.175351e+00
## 4178  1.39249520 -5.982468e-01
## 4179  0.83366790  1.355383e-01
## 4180  1.41813290 -1.039412e+00
## 4181  1.11213164 -2.840010e+00
## 4182  0.26924268  1.876912e+00
## 4183  0.34898952 -1.657054e+00
## 4184  0.18987929  6.478587e-01
## 4185  1.38007303 -2.866039e+00
## 4186  0.85641821  1.077917e+00
## 4187  1.33472428  3.021984e+00
## 4188  1.37533502  2.622302e+00
## 4189  1.19581762  2.164815e+00
## 4190  0.38681000 -1.773919e+00
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## 4191  1.23855945  8.337403e-02
## 4192  1.11054513  2.874996e+00
## 4193  0.19337055 -2.361305e+00
## 4194  0.94729903 -1.414585e-01
## 4195  1.03250521 -3.134659e+00
## 4196  0.80862956 -7.885482e-01
## 4197  1.02348720  1.555857e+00
## 4198  1.06747835 -1.142065e+00
## 4199  1.29304946  2.247035e+00
## 4200  0.97471959 -3.115547e+00
## 4201  1.30878377 -2.179710e+00
## 4202  1.47264210  3.860191e-01
## 4203  0.48828998  6.130492e-01
## 4204  0.49395626 -1.662202e+00
## 4205  1.34362076 -2.073860e+00
## 4206  1.01726833  3.049905e+00
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## 4208  1.17086023 -3.033819e+00
## 4209  1.37442803  1.271372e+00
## 4210  0.85253650 -7.713758e-01
## 4211  0.82668702 -2.554125e+00
## 4212  0.77809687 -2.276533e+00
## 4213  1.52712284 -9.018478e-01
## 4214  0.74134255  3.008717e+00
## 4215  0.54055470 -2.321903e+00
## 4216  0.84026846 -1.077399e+00
## 4217  0.59840921 -2.894902e+00
## 4218  0.85149340  1.331188e+00
## 4219  0.77979648  1.368127e+00
## 4220  1.31365416  2.825384e+00
## 4221  1.14760615 -1.546138e+00
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## 4224  1.13037024 -2.676022e+00
## 4225  0.72778636 -3.852143e-01
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## 4227  1.09553795 -3.073724e+00
## 4228  0.23376860  2.759955e+00
## 4229  0.26780178  8.596269e-01
## 4230  1.21688214  1.896787e+00
## 4231  1.29046711  8.790379e-01
## 4232  0.95573613  2.963700e+00
## 4233  0.75015621 -1.474888e-01
## 4234  1.26699460 -2.369022e+00
## 4235  0.29027934  2.668398e+00
## 4236  1.44509733 -7.197454e-01
## 4237  1.17974363 -2.892431e+00
## 4238  0.18734250 -2.500251e+00
## 4239  1.41651596 -6.144243e-01
## 4240  0.62086318  1.089032e+00
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## 4243  0.87182974  1.968583e+00
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## 4248  1.41919898 -2.795184e+00
## 4249  0.95430734 -3.532943e-01
## 4250  1.47898826 -6.424318e-01
## 4251  1.02172545 -1.465013e+00
## 4252  0.39241131 -6.944360e-01
## 4253  0.76162567  1.484724e+00
## 4254  0.52463452 -2.699939e+00
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## 4256  0.28689759  2.047314e+00
## 4257  0.29437231  6.695649e-01
## 4258  0.30476318  1.313014e+00
## 4259  0.63295462 -1.584960e+00
## 4260  1.53386404  2.641027e+00
## 4261  0.76285395  3.011813e+00
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## 4263  1.08778462  9.036078e-01
## 4264  0.94871638 -1.826794e+00
## 4265  0.58747873  1.615882e+00
## 4266  0.53765578 -1.396637e+00
## 4267  0.33085611  1.481314e+00
## 4268  0.58158178 -1.072434e+00
## 4269  0.95296356  2.603397e+00
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## 4271  0.66693780  6.690457e-01
## 4272  0.73768385  9.692024e-01
## 4273  0.98410957 -2.993212e+00
## 4274  0.87067192 -8.078784e-01
## 4275  0.50327371 -7.973964e-01
## 4276  1.06178796 -7.601703e-01
## 4277  1.17665639 -1.251455e-01
## 4278  0.98409624 -2.731043e+00
## 4279  1.48381157  3.033031e+00
## 4280  0.96685507  4.372953e-01
## 4281  0.30591911 -2.971936e+00
## 4282  1.35115102  3.837606e-02
## 4283  1.12076534 -1.571093e-01
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## 4285  1.35500948  8.420680e-01
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## 4287  0.07088776 -2.433259e+00
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## 4289  0.98223107 -1.344701e+00
## 4290  0.97185176  2.833148e+00
## 4291  0.95238825  6.070544e-01
## 4292  0.52057704  2.050899e+00
## 4293  0.07555898  9.643869e-01
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## 4295  1.22658431  3.029348e+00
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## 4297  0.78546483  2.259049e+00
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## 4300  0.34099508 -5.934301e-01
## 4301  1.38004430  1.589999e+00
## 4302  0.22815446 -2.030428e+00
## 4303  0.39282592 -4.347488e-01
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## 4306  0.37316801 -3.202007e-01
## 4307  0.97531116 -2.646946e+00
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## 4309  0.95707109 -1.063442e+00
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## 4311  0.51840867 -7.984380e-01
## 4312  1.01291478  1.653028e+00
## 4313  0.12240508  6.138582e-01
## 4314  0.59090912 -2.137463e+00
## 4315  1.11942994  1.334686e+00
## 4316  1.04777203  1.445580e-01
## 4317  0.32646008 -3.066421e+00
## 4318  0.74529321  9.917192e-01
## 4319  1.02327381 -1.901175e+00
## 4320  0.54209134 -2.648134e+00
## 4321  0.42360705 -2.254720e+00
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## 4323  0.58964619 -3.077671e+00
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## 4325  1.20252420 -2.775266e+00
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## 4328  1.54826043  3.014682e+00
## 4329  1.47183938  2.228184e+00
## 4330  0.95900571 -2.724461e+00
## 4331  0.17214572 -8.214797e-01
## 4332  1.18563907  2.981539e+00
## 4333  0.88461556 -1.136143e+00
## 4334  0.32221519 -3.051345e+00
## 4335  1.05707920 -1.501165e+00
## 4336  1.06073996  2.200394e+00
## 4337  1.23925883  4.478917e-01
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## 4340  0.90307946 -8.518502e-01
## 4341  0.73945586  2.749748e+00
## 4342  1.47418970 -2.148831e-01
## 4343  1.32495748  4.274171e-01
## 4344  0.47331499  1.092867e+00
## 4345  1.37007277 -3.057008e-01
## 4346  1.00393816 -8.994315e-01
## 4347  1.06797495 -3.137840e+00
## 4348  0.98682342 -2.452705e+00
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## 4350  1.44758270 -7.351911e-01
## 4351  0.56870826 -4.883359e-01
## 4352  0.43558219  2.372027e+00
## 4353  0.95753589  1.309914e+00
## 4354  1.42037855  4.283577e-01
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## 4356  0.47708294  2.883692e+00
## 4357  1.36746400  2.091271e+00
## 4358  0.23135065 -1.575038e+00
## 4359  0.60794868  1.752640e+00
## 4360  0.40180580  1.381207e+00
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## 4362  1.29823728  5.553373e-01
## 4363  0.60988103  1.435129e+00
## 4364  0.98810012  2.775970e+00
## 4365  0.46637723  1.291231e+00
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## 4368  1.47918227  3.671163e-01
## 4369  0.87926654  7.894789e-01
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## 4371  0.43019248 -2.686010e+00
## 4372  1.45240016  3.344016e-01
## 4373  0.89204364 -2.646715e+00
## 4374  0.12647805  2.945710e+00
## 4375  1.22860372  2.923632e-03
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## 4377  1.55986735  1.154765e+00
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## 4380  1.10845155 -2.469364e+00
## 4381  0.39716902  2.788830e+00
## 4382  1.14118904 -2.715082e-01
## 4383  1.28289843 -5.966174e-01
## 4384  0.34398249  2.899762e+00
## 4385  0.70052099 -1.523537e+00
## 4386  0.98298508 -2.219303e+00
## 4387  0.40564632 -1.272537e+00
## 4388  0.92816853 -2.581904e+00
## 4389  1.26888035 -2.615891e+00
## 4390  0.79457736  2.076481e+00
## 4391  1.09684164  2.294474e+00
## 4392  0.39493451  1.098618e+00
## 4393  1.15625388  1.253991e+00
## 4394  0.50052316  3.706519e-01
## 4395  1.19358371 -2.675436e+00
## 4396  1.30924085 -5.157946e-01
## 4397  0.85449287  7.198464e-01
## 4398  0.26313483  5.141155e-01
## 4399  0.43848818 -2.989320e+00
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## 4401  0.99890647  2.868402e+00
## 4402  0.54066299  2.907139e+00
## 4403  1.07483498 -2.175281e+00
## 4404  0.99616417 -1.720629e+00
## 4405  1.52108151  1.763087e+00
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## 4407  0.78142052  1.803169e+00
## 4408  0.83015809 -1.682025e+00
## 4409  1.17515659  7.244926e-01
## 4410  1.07370809  1.794457e+00
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## 4412  0.06646163  7.999804e-01
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## 4414  1.34534052  2.146144e+00
## 4415  0.22059343 -1.134114e+00
## 4416  0.94301167 -2.022489e+00
## 4417  0.23410867 -8.416997e-01
## 4418  0.69503967  2.099596e+00
## 4419  1.19580589 -1.827947e+00
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## 4421  0.93705569 -2.546160e+00
## 4422  0.89242298  1.194866e-01
## 4423  0.09801731 -2.665681e+00
## 4424  1.17403768 -2.382052e+00
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## 4426  0.43386867  1.616786e-01
## 4427  1.03561218  2.318641e+00
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## 4429  0.57207586 -1.548096e+00
## 4430  1.57068662 -2.231527e-01
## 4431  1.45990204  9.109943e-01
## 4432  0.47335929  2.119363e+00
## 4433  0.40475372  1.740123e+00
## 4434  0.77553599  1.472856e+00
## 4435  0.47585030  1.437340e+00
## 4436  1.53326360  5.861092e-01
## 4437  0.12345947 -1.245168e+00
## 4438  0.43783757 -1.598891e+00
## 4439  0.20930187  8.953125e-03
## 4440  0.42643758 -1.514004e+00
## 4441  0.53187344 -2.417070e+00
## 4442  1.41440345  2.860077e-01
## 4443  1.11653300 -4.274640e-01
## 4444  0.67652026  2.789862e+00
## 4445  1.18518349 -1.810133e+00
## 4446  1.25655788 -2.079376e+00
## 4447  1.34242558  1.377129e+00
## 4448  1.34947881  1.061822e+00
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## 4453  0.58108195 -2.940286e+00
## 4454  1.29788205 -1.400278e+00
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## 4460  0.98741009 -6.128070e-01
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## 4463  0.11674530  2.275357e+00
## 4464  0.53751754  9.485756e-01
## 4465  0.03309897  1.253430e+00
## 4466  1.45666520 -1.887933e+00
## 4467  0.50828513 -2.271711e+00
## 4468  0.38731148  2.821351e+00
## 4469  0.55122022 -2.122657e+00
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## 4471  0.38600609  2.649532e-02
## 4472  0.65170151 -5.161374e-01
## 4473  0.57031884 -2.591006e+00
## 4474  0.44073998 -6.423656e-01
## 4475  1.09153210 -3.097074e+00
## 4476  1.03088636  2.613720e+00
## 4477  1.20050709 -5.420928e-01
## 4478  1.49995588  2.209467e+00
## 4479  0.25639909  2.318783e+00
## 4480  0.93547595  2.986426e+00
## 4481  1.34587294  2.070787e+00
## 4482  1.31595708 -1.190270e-01
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## 4484  1.20311433  2.463519e+00
## 4485  0.27640901 -1.623415e+00
## 4486  0.75603566  6.665839e-01
## 4487  0.50919906  3.942072e-01
## 4488  1.39238649  1.642597e+00
## 4489  1.46301773  7.173654e-01
## 4490  0.88115546 -2.281578e+00
## 4491  1.37128086  1.244755e+00
## 4492  0.81055004 -2.950239e+00
## 4493  0.87121575  2.234744e+00
## 4494  0.55017100 -1.997972e+00
## 4495  0.74628008 -3.126651e+00
## 4496  0.48157119  3.233021e-01
## 4497  1.22747987  3.061191e+00
## 4498  1.20389923 -1.725946e+00
## 4499  1.19238906 -2.777626e+00
## 4500  1.37420898  6.443140e-01
## 4501  0.27719490  4.940698e-01
## 4502  1.27936989  1.273656e+00
## 4503  0.41427164 -1.947566e-01
## 4504  0.85045182  3.035056e+00
## 4505  0.49189648  9.040511e-01
## 4506  0.43761578 -9.182977e-01
```

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## 4507  0.76414074 -2.579732e+00
## 4508  0.56940933  1.312933e+00
## 4509  0.87478084 -2.862626e+00
## 4510  1.04133449 -2.038724e-01
## 4511  0.22907606 -2.538763e+00
## 4512  0.76285861  3.019016e+00
## 4513  0.48304641  3.424502e-01
## 4514  0.81264103  6.731498e-01
## 4515  1.49188579  2.717992e+00
## 4516  1.20136348  1.885605e+00
## 4517  1.52139362 -2.392053e+00
## 4518  0.56891121 -1.491168e+00
## 4519  0.48233923 -2.440495e+00
## 4520  1.20963955 -1.775724e+00
## 4521  1.02767730  1.582402e+00
## 4522  0.99714899 -1.944595e+00
## 4523  1.43110604  1.612987e+00
## 4524  0.64070671 -1.665352e-01
## 4525  0.43329863 -1.480090e+00
## 4526  1.35897649  7.109100e-01
## 4527  0.71686186  2.908888e+00
## 4528  0.18906053 -1.763780e+00
## 4529  0.10680027  2.443294e+00
## 4530  1.35132273  2.184467e+00
## 4531  0.68519365  2.537070e-01
## 4532  0.19589844  1.868206e+00
## 4533  0.57494257 -2.516466e+00
## 4534  1.37017589  2.313357e+00
## 4535  1.10298301  2.017871e+00
## 4536  1.21509820  1.025434e+00
## 4537  1.51871744  4.746641e-01
## 4538  0.98538761 -7.629106e-01
## 4539  1.29976714 -2.950060e+00
## 4540  1.34822165  2.887595e-01
## 4541  1.23204985  1.172543e+00
## 4542  0.80215725 -1.671297e-01
## 4543  0.57066910 -4.618527e-01
## 4544  0.64159476  4.981135e-01
## 4545  1.09873929  1.555805e+00
## 4546  0.71073371  2.032722e+00
## 4547  1.49468601 -2.544455e-01
## 4548  0.59373992  1.478514e-01
## 4549  0.49524533  2.781268e+00
## 4550  0.99438072  2.689824e+00
## 4551  1.34326478 -1.218746e+00
## 4552  0.96919281 -5.280586e-01
## 4553  0.36345966  1.844797e+00
## 4554  0.20462523  1.011361e+00
## 4555  0.90470331 -2.589957e+00
## 4556  0.49053829 -2.550253e+00
## 4557  0.73621425  2.912854e+00
## 4558  1.05133208 -2.550349e+00
## 4559  0.84821624  1.926827e+00
## 4560  0.90770884  1.712940e+00
## 4561  0.61081178  7.645156e-01
## 4562  0.33745603 -6.489758e-01
## 4563  1.14721540 -1.307664e+00
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## 4565  1.42488524  2.450753e+00
## 4566  0.39552807  5.538831e-01
## 4567  0.74309798  5.996053e-01
## 4568  0.28443160  1.125470e-01
## 4569  0.71078457  1.509218e-01
## 4570  1.34282415 -1.251963e+00
## 4571  0.92412126 -2.625555e+00
## 4572  1.21054164 -1.364926e+00
## 4573  0.71373004 -1.242892e+00
## 4574  1.16967027 -2.815821e+00
## 4575  1.46581606 -1.417058e+00
## 4576  0.81949991  3.842038e-01
## 4577  0.60322790  2.495259e+00
## 4578  1.31098177 -1.170874e+00
## 4579  1.17534063  1.970984e+00
## 4580  1.24210114 -9.645383e-01
## 4581  1.22814098  2.644405e+00
## 4582  0.82875580 -1.149786e+00
## 4583  0.75775709  2.707407e+00
## 4584  1.55812946 -1.580042e+00
## 4585  1.09808805  1.650904e+00
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## 4586  0.90737109  1.874690e+00
## 4587  0.76553865 -8.451803e-01
## 4588  1.28863862 -5.184104e-01
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## 4590  1.05955704  2.515218e+00
## 4591  0.52548088 -2.055339e+00
## 4592  1.33503094  2.076799e+00
## 4593  0.31183366  1.915032e+00
## 4594  0.70229162  1.761780e+00
## 4595  0.80090295 -1.777438e-01
## 4596  0.98832727  3.289603e-01
## 4597  0.87706586  1.843796e+00
## 4598  0.64316578 -1.874082e+00
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## 4601  0.99384992  2.894985e+00
## 4602  0.66660162  9.492714e-01
## 4603  0.94644281 -2.499612e+00
## 4604  0.95260301  1.202010e+00
## 4605  0.34282445 -1.338866e+00
## 4606  0.75798964  2.254602e+00
## 4607  1.50519277 -1.265331e+00
## 4608  1.35733918  1.526527e+00
## 4609  0.56918681  2.632498e-01
## 4610  1.48980570 -2.454262e+00
## 4611  0.87766152 -7.396880e-02
## 4612  0.99574528  7.336287e-01
## 4613  1.05280773  3.163316e-01
## 4614  0.98808019 -2.028670e+00
## 4615  1.16691439  2.722380e+00
## 4616  1.36412739  2.750564e+00
## 4617  0.64395131  1.322461e+00
## 4618  0.92970122 -4.556989e-01
## 4619  0.68610123 -2.969266e+00
## 4620  1.45552406  1.345114e-01
## 4621  1.28363617 -2.655859e+00
## 4622  0.67506108  3.073621e+00
## 4623  1.04610895  9.559459e-01
## 4624  0.90299100  2.802391e+00
## 4625  0.49321781 -2.461241e+00
## 4626  0.34435605 -2.059956e+00
## 4627  1.06256793  1.970332e+00
## 4628  1.38263980  2.374570e+00
## 4629  1.36197870  2.544573e+00
## 4630  0.31904780 -3.849268e-01
## 4631  0.25639835 -3.998163e-01
## 4632  1.06071110  2.416323e+00
## 4633  0.48396304  2.543007e+00
## 4634  0.47432768 -2.007810e-01
## 4635  1.24929703  2.613763e+00
## 4636  0.84037850 -1.599034e-01
## 4637  1.46637899  1.608481e+00
## 4638  1.25368708 -1.661988e-01
## 4639  1.56306676  1.948641e+00
## 4640  0.53265536 -8.733826e-01
## 4641  0.88335399  1.034810e-01
## 4642  0.98737205 -1.149034e-01
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## 4644  0.77175608 -1.793434e-01
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## 4646  0.68673572 -4.949853e-01
## 4647  1.44187620 -2.399001e-01
## 4648  0.48097197  2.960479e-01
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## 4650  1.29673666 -1.465479e+00
## 4651  1.22019183 -1.374218e+00
## 4652  1.18858995 -2.725470e+00
## 4653  0.29793671 -1.911020e+00
## 4654  0.47527363 -2.166022e+00
## 4655  0.55249021  2.373548e-01
## 4656  0.63587147  2.328755e+00
## 4657  1.23985705  1.632575e+00
## 4658  0.15777411  1.975841e+00
## 4659  0.64416410  8.679346e-01
## 4660  0.75950384  1.218133e+00
## 4661  1.53497648  7.936159e-01
## 4662  1.48894954  2.588902e+00
## 4663  0.87475642 -3.009964e+00
## 4664  0.10031349 -5.761727e-01
```

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## 4665  0.16711365  1.975730e+00
## 4666  0.69705830  2.367417e+00
## 4667  1.55417410 -2.966006e-01
## 4668  0.05536024 -3.037140e+00
## 4669  0.55940905 -2.477641e+00
## 4670  1.22712448  4.123075e-01
## 4671  0.75865562 -7.809843e-02
## 4672  1.34539011  2.864542e+00
## 4673  0.83134246  1.232119e+00
## 4674  0.96837719 -2.824625e+00
## 4675  1.01706299  2.458718e+00
## 4676  1.05426083 -2.610547e+00
## 4677  1.39668563 -2.378400e+00
## 4678  1.06984154 -1.025965e-01
## 4679  1.10172737  2.725902e+00
## 4680  1.45233646 -2.978304e+00
## 4681  0.78307610  2.456710e+00
## 4682  1.57068124 -9.295531e-01
## 4683  0.97331814  2.461048e+00
## 4684  1.44135409  2.508491e+00
## 4685  1.23865179  2.003048e+00
## 4686  0.10845307  2.482557e+00
## 4687  1.16286282 -1.592757e+00
## 4688  0.34129330 -2.238960e+00
## 4689  1.25573879  3.636098e-01
## 4690  1.52239915  1.711004e+00
## 4691  0.66655600  5.611985e-01
## 4692  1.30060120 -2.408888e+00
## 4693  0.60441546  2.258690e+00
## 4694  0.87296762 -2.850577e+00
## 4695  0.64830157  6.203887e-01
## 4696  0.16744164  8.011562e-01
## 4697  1.37318740  3.000816e+00
## 4698  0.97170925 -3.098338e+00
## 4699  0.12581825  7.380952e-02
## 4700  1.19003562  6.720782e-01
## 4701  0.88742622  4.730920e-01
## 4702  0.66846556 -2.200487e+00
## 4703  1.14108529  1.759337e+00
## 4704  1.11814935 -6.649443e-01
## 4705  1.49019053  2.933741e+00
## 4706  0.52776395 -2.249824e+00
## 4707  0.72578161 -1.155470e+00
## 4708  0.73925571  2.490857e+00
## 4709  0.95977629  2.470537e+00
## 4710  0.23241142 -7.808082e-01
## 4711  1.02328580  1.129434e+00
## 4712  0.59074845  2.139685e+00
## 4713  1.07773026  5.717464e-02
## 4714  0.53705576  1.407440e+00
## 4715  0.44720028 -2.692155e-01
## 4716  1.05290766  2.141855e+00
## 4717  0.71000560 -6.310060e-01
## 4718  0.07959464 -2.134935e+00
## 4719  1.01665822  1.130447e+00
## 4720  1.40603145  6.704715e-01
## 4721  0.84898474  1.847595e+00
## 4722  0.36478043 -2.224570e+00
## 4723  0.51429433 -6.033607e-01
## 4724  0.99816056 -1.897264e+00
## 4725  1.40406550  2.780667e+00
## 4726  0.43284188  2.036047e+00
## 4727  1.22005046  8.559500e-01
## 4728  1.41810878  1.371365e+00
## 4729  0.85627636 -5.890318e-01
## 4730  0.75308903  5.433813e-01
## 4731  1.45317383 -4.104444e-01
## 4732  0.91367368  2.536162e+00
## 4733  0.58511540 -2.201065e+00
## 4734  0.97312903 -2.713041e+00
## 4735  0.50168460 -1.655906e+00
## 4736  1.40010100 -1.061428e+00
## 4737  0.73296064  4.584580e-01
## 4738  0.28653844  1.532737e+00
## 4739  0.77531087  2.514009e+00
## 4740  1.18483357 -5.794438e-01
## 4741  0.37326675 -1.938402e+00
## 4742  0.59015350  3.119371e+00
## 4743  0.69686787  3.139341e+00
```

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## 4744  1.47475007 -6.235540e-01
## 4745  0.86587362 -1.398188e+00
## 4746  1.33080366 -1.791448e+00
## 4747  1.43522087  2.298509e+00
## 4748  0.62362158 -1.750750e+00
## 4749  0.72557539 -2.812731e+00
## 4750  1.11025672 -4.644655e-01
## 4751  1.09784561 -1.104002e+00
## 4752  0.40238697  1.008213e-01
## 4753  1.52445405  5.571803e-01
## 4754  0.58679080  2.325681e+00
## 4755  0.46293483 -2.862805e-01
## 4756  1.48949023  9.212571e-01
## 4757  1.36709651  6.858056e-01
## 4758  0.65650320 -3.236174e-01
## 4759  1.46323340 -2.360278e+00
## 4760  0.67003828  1.348180e+00
## 4761  0.74587055  1.549820e+00
## 4762  0.16111918  5.360905e-01
## 4763  1.32659709 -1.657530e+00
## 4764  1.24047298 -1.233450e+00
## 4765  0.85759779  1.272557e+00
## 4766  1.11879665  4.061876e-01
## 4767  1.17775536  1.806832e+00
## 4768  0.81392760 -2.331871e+00
## 4769  1.18601009 -3.085303e+00
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## 4771  1.01637743 -2.713390e+00
## 4772  0.71551524  2.742704e-01
## 4773  0.40055863  2.659771e+00
## 4774  0.12142968 -2.952350e+00
## 4775  0.27814531 -1.751136e+00
## 4776  0.54733459  3.233516e-01
## 4777  1.37440688  2.013824e-01
## 4778  0.21607011  1.894250e+00
## 4779  0.44474669  5.546760e-01
## 4780  0.74203228  2.232529e+00
## 4781  0.55585273 -2.794697e+00
## 4782  1.36283686  2.510669e+00
## 4783  0.47906559 -1.894327e+00
## 4784  0.67597449  3.830701e-01
## 4785  1.21039119  2.957854e+00
## 4786  0.35241281  2.843969e+00
## 4787  0.62255541  1.748729e+00
## 4788  1.27093338 -2.741583e+00
## 4789  1.13180442 -1.678191e-01
## 4790  0.31979643  2.143989e+00
## 4791  1.03003194  2.428022e+00
## 4792  0.38883539  8.581867e-02
## 4793  1.44905182  2.393841e+00
## 4794  0.17081224  2.475632e+00
## 4795  1.34814552 -2.566651e+00
## 4796  0.85541753  1.445635e+00
## 4797  1.41314770 -2.863970e+00
## 4798  1.33325537 -3.246312e-01
## 4799  0.29331441 -6.344253e-01
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## 4802  0.47002050 -2.997312e+00
## 4803  0.96639197 -6.887442e-01
## 4804  1.12055571 -2.668933e+00
## 4805  1.26256643 -1.166958e+00
## 4806  0.55393649 -1.824137e+00
## 4807  1.12614372  4.472442e-01
## 4808  0.54716094  1.512542e+00
## 4809  0.43964212 -2.958094e+00
## 4810  1.18737941 -2.230196e+00
## 4811  0.24339758 -3.894130e-01
## 4812  1.06261654  1.463706e-01
## 4813  0.78676852  1.078029e+00
## 4814  0.82879452 -2.921060e+00
## 4815  1.00777394 -1.984404e+00
## 4816  0.18425633 -2.902095e+00
## 4817  1.54505028 -1.152294e+00
## 4818  0.76556165  1.201061e+00
## 4819  1.11462924 -2.888548e+00
## 4820  0.30462904  2.336789e+00
## 4821  1.48728130 -5.148199e-01
## 4822  0.07259362  1.193283e-01
```

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## 4826  0.69829099  2.314435e+00
## 4827  0.45197230  2.431450e+00
## 4828  0.92679845  2.708276e+00
## 4829  0.94445021  1.137299e+00
## 4830  0.94148767 -5.871756e-01
## 4831  1.33888347  1.548469e-01
## 4832  1.54986565 -2.218200e+00
## 4833  0.77210538 -2.652091e+00
## 4834  1.20991397 -7.588699e-01
## 4835  0.07006826 -2.449245e+00
## 4836  1.29807686 -8.348580e-01
## 4837  1.38202582 -1.727218e+00
## 4838  0.82738431  1.953185e+00
## 4839  0.96058904  2.324227e+00
## 4840  0.69128018  1.045858e+00
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## 4842  0.95895208 -6.240825e-01
## 4843  0.50719519  1.425305e+00
## 4844  0.36649852 -1.953652e+00
## 4845  0.63949037 -2.392655e+00
## 4846  0.64233149 -1.332608e+00
## 4847  1.42051524 -3.028414e+00
## 4848  1.11342116 -3.448512e-02
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## 4850  0.80887617  4.560962e-01
## 4851  0.97694026  2.558399e-01
## 4852  0.49832457 -1.417366e+00
## 4853  0.72992093 -3.112174e+00
## 4854  0.97060919 -1.495008e+00
## 4855  1.28059156  2.422830e+00
## 4856  0.72813723  2.401621e+00
## 4857  0.33593644  1.928573e+00
## 4858  1.11647073 -1.359207e+00
## 4859  0.34314233 -7.245112e-01
## 4860  0.09764742 -6.123898e-03
## 4861  0.86732238  1.298159e+00
## 4862  0.59672297  9.710988e-01
## 4863  0.78368365  3.114379e+00
## 4864  1.23691324  2.848478e+00
## 4865  1.19605770  8.359217e-01
## 4866  1.27438977 -2.437593e-01
## 4867  1.04488566 -2.048375e+00
## 4868  0.53355734 -9.578229e-01
## 4869  1.05029321 -1.777117e+00
## 4870  1.26182572  9.013463e-01
## 4871  0.61799954 -1.016108e+00
## 4872  0.53191348  2.835722e+00
## 4873  0.35788240 -1.201100e+00
## 4874  0.26796098 -2.668797e+00
## 4875  0.22187123 -3.112819e+00
## 4876  0.39390405 -1.138509e-01
## 4877  1.05744004 -1.240867e+00
## 4878  1.04267296 -1.884690e-02
## 4879  0.93006213  1.350942e+00
## 4880  0.48459953  4.793514e-01
## 4881  0.25567796 -3.001755e+00
## 4882  0.88536622  9.277394e-01
## 4883  0.57988747 -2.962777e+00
## 4884  1.37966123 -1.533397e+00
## 4885  0.27654822 -3.024565e+00
## 4886  0.55532446 -5.196437e-01
## 4887  0.87021463 -3.056022e+00
## 4888  1.14913663 -1.367741e+00
## 4889  0.85951788 -1.515905e+00
## 4890  0.69920946 -2.039137e+00
## 4891  0.79773484 -1.453476e+00
## 4892  0.19744538 -2.395323e+00
## 4893  0.25509901 -3.131031e+00
## 4894  1.42571205 -2.207276e+00
## 4895  1.09298908 -6.788815e-01
## 4896  0.63931776 -1.383821e+00
## 4897  1.55625413 -2.486649e+00
## 4898  0.99845109 -3.097525e+00
## 4899  1.03836111 -2.920825e+00
## 4900  0.25652888 -2.645637e-01
## 4901  1.17848035  2.651640e+00
```

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## 4902  1.15623616  2.866501e+00
## 4903  1.34302937  3.240062e-01
## 4904  0.16439229  1.178326e-01
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## 4906  0.07203016 -1.188962e+00
## 4907  0.65958533 -3.077066e+00
## 4908  1.51802024  4.923029e-01
## 4909  1.09340842 -1.771222e+00
## 4910  0.37283980  1.177902e+00
## 4911  1.14180952 -2.061704e+00
## 4912  0.64265104  2.925302e+00
## 4913  1.21873027 -7.526187e-01
## 4914  1.41857361 -3.130119e+00
## 4915  0.09409692  2.025911e+00
## 4916  1.07012184 -1.856475e+00
## 4917  1.11708193 -4.562532e-01
## 4918  0.76816427  3.068807e+00
## 4919  1.19233967 -7.796733e-01
## 4920  0.53620522  2.177007e+00
## 4921  0.13989349  1.393183e+00
## 4922  0.36468477  1.559072e+00
## 4923  1.38491409  1.056016e-02
## 4924  0.17664670  2.028172e+00
## 4925  0.45234131  2.428283e+00
## 4926  1.19574231  2.045198e+00
## 4927  0.88511460 -2.620049e+00
## 4928  0.32781240 -4.627075e-02
## 4929  0.56937986  6.113271e-01
## 4930  1.44448134  3.078339e+00
## 4931  0.96356398 -2.271179e+00
## 4932  1.53198733  9.419273e-01
## 4933  0.34978001 -2.826917e+00
## 4934  0.30863916  3.115417e+00
## 4935  1.19904456  1.340165e+00
## 4936  0.73059086  8.707202e-01
## 4937  1.42367121  2.507319e+00
## 4938  0.40436175  2.403291e+00
## 4939  0.31770360 -2.099334e+00
## 4940  1.46709661  1.767976e+00
## 4941  0.58215951 -1.229649e-01
## 4942  0.52138934 -9.561735e-02
## 4943  1.25986468  2.659042e+00
## 4944  0.23872976  2.586712e+00
## 4945  1.15934500  5.047894e-01
## 4946  1.27965310  1.261618e+00
## 4947  0.68797893 -1.759337e+00
## 4948  0.63838994  2.250961e+00
## 4949  0.43942475  6.576799e-01
## 4950  0.89638576 -2.379167e+00
## 4951  1.43684718  2.387276e+00
## 4952  0.69935287  1.627482e+00
## 4953  0.63689755  1.730087e+00
## 4954  0.94189577  1.042175e+00
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## 4957  1.51973933  2.158376e-01
## 4958  1.08120455  2.050012e+00
## 4959  0.10618125  1.330233e+00
## 4960  1.18316496  2.383885e+00
## 4961  0.73269323  3.132416e+00
## 4962  1.35281952  2.730557e+00
## 4963  1.26701321 -7.586913e-02
## 4964  0.45015442  6.052163e-01
## 4965  0.58330924  2.166215e+00
## 4966  1.18460664  2.850338e+00
## 4967  0.56426209 -6.852584e-01
## 4968  0.98456027 -2.087405e+00
## 4969  1.50050346  2.719606e+00
## 4970  0.73607213 -4.734081e-02
## 4971  0.48870790  1.071386e+00
## 4972  1.20812983 -3.908458e-01
## 4973  0.61113503  2.512979e+00
## 4974  0.41580098  9.371177e-01
## 4975  1.06986285 -1.984290e+00
## 4976  0.81286340  9.825822e-01
## 4977  0.99453446  2.182275e+00
## 4978  1.38641473 -3.084510e+00
## 4979  1.24371747  2.502296e+00
## 4980  0.68844525  1.583767e+00
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## 4981  0.81055748  2.453396e+00
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## 4983  0.55752027 -5.455667e-01
## 4984  1.08050637 -1.895970e+00
## 4985  0.86930107  1.427065e+00
## 4986  0.67314885  7.404461e-01
## 4987  0.60894940 -2.933011e+00
## 4988  0.73728310  1.045033e+00
## 4989  1.07662309  2.620086e+00
## 4990  0.77687975  2.601613e+00
## 4991  0.36817571  1.827437e+00
## 4992  1.52063642  2.754637e+00
## 4993  1.02341742 -5.749924e-01
## 4994  0.87509018  5.000688e-01
## 4995  1.39606550  8.944597e-01
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## 4997  1.08358813  2.920831e+00
## 4998  1.06216793  5.947632e-01
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## 5001  0.84606774  4.931275e-01
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## 5003  1.44051956  3.134618e+00
## 5004  0.39487684 -1.270067e+00
## 5005  0.76487063 -1.591372e+00
## 5006  0.74992410  2.037673e+00
## 5007  1.36814730 -4.904032e-01
## 5008  0.20103893 -1.367612e+00
## 5009  0.70275553 -2.074859e+00
## 5010  1.42946197  6.718204e-01
## 5011  0.06619661 -3.003004e+00
## 5012  0.88344615 -2.597741e+00
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## 5014  1.05392312  1.440700e+00
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## 5016  1.26727029  2.305909e+00
## 5017  1.04459040  9.738852e-01
## 5018  1.31470421  1.342070e-02
## 5019  0.89541570  2.414806e+00
## 5020  0.85225060  2.128222e+00
## 5021  0.72311380  8.606690e-01
## 5022  1.35867048 -2.206915e+00
## 5023  0.74740717  3.118378e+00
## 5024  1.03282976 -1.648748e-01
## 5025  0.27402245 -1.949342e+00
## 5026  0.97859738  6.711500e-01
## 5027  1.36189047 -5.409253e-01
## 5028  1.03837809  3.105485e+00
## 5029  0.90021113  2.287241e+00
## 5030  0.58317943 -1.760483e+00
## 5031  1.47451818 -2.208930e+00
## 5032  1.26073538  5.964812e-01
## 5033  1.01895795  9.756818e-01
## 5034  1.39353938  2.373637e+00
## 5035  0.99276982  6.057207e-01
## 5036  1.21779892  2.774123e+00
## 5037  1.08196622 -7.647836e-01
## 5038  1.18650522 -2.700422e+00
## 5039  1.32147097 -2.711689e-01
## 5040  1.01176657  1.433785e+00
## 5041  0.44064106 -2.754131e+00
## 5042  1.32454180  1.990610e-03
## 5043  0.96895667  1.709527e+00
## 5044  1.10216422  1.898868e-01
## 5045  0.65209910  2.058142e+00
## 5046  1.10959507  2.201150e+00
## 5047  1.55003196 -8.400426e-02
## 5048  0.07052787  1.290810e+00
## 5049  1.06512011 -2.854903e+00
## 5050  0.85012177  1.295235e+00
## 5051  1.07590290  2.128298e+00
## 5052  0.48522710  2.018460e+00
## 5053  0.36030432  3.022904e+00
## 5054  0.81440392  2.620992e+00
## 5055  0.99522840 -3.138168e+00
## 5056  0.31145550  1.676548e+00
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## 5059  1.11789737 -4.076714e-01
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## 5060  0.65321839  6.361136e-01
## 5061  0.40262298  4.021709e-01
## 5062  0.04080802 -2.996750e+00
## 5063  0.33540323 -5.103703e-01
## 5064  0.75912574 -1.763472e+00
## 5065  1.18083582 -1.508812e+00
## 5066  0.43772731 -3.022751e+00
## 5067  0.63519057  1.295265e+00
## 5068  0.48169091 -2.757828e+00
## 5069  1.27585167  4.234106e-01
## 5070  1.33822788 -5.873172e-01
## 5071  1.35788003  2.974648e+00
## 5072  0.72334135 -2.702201e+00
## 5073  1.04075821  7.579667e-01
## 5074  1.03958007 -1.020820e+00
## 5075  1.20038477 -2.345504e+00
## 5076  0.43857187  8.921608e-02
## 5077  0.43561732 -3.526449e-01
## 5078  1.46280682 -1.168452e-01
## 5079  0.73444960  1.038678e+00
## 5080  0.52873061 -1.829285e+00
## 5081  1.17431887  1.180766e+00
## 5082  0.51416106  3.117338e-01
## 5083  0.64577859 -2.685654e+00
## 5084  0.78732894  2.643731e+00
## 5085  1.30298874 -1.893822e+00
## 5086  1.46872612  1.856619e+00
## 5087  0.40018370 -1.824043e-01
## 5088  0.92892871  1.328716e+00
## 5089  0.76812375 -1.364319e+00
## 5090  0.62708584  2.786143e+00
## 5091  0.83184078 -7.112888e-01
## 5092  1.38843009  1.267445e+00
## 5093  1.20551340 -1.299076e-01
## 5094  1.40709035 -4.064585e-01
## 5095  0.30088242 -5.490322e-01
## 5096  1.01025564  2.324318e+00
## 5097  0.25465421  1.969916e+00
## 5098  0.92472338 -1.088742e+00
## 5099  0.72681073  2.424550e-01
## 5100  0.59285680 -9.303148e-02
## 5101  0.43746245  9.568373e-01
## 5102  1.22989987  1.855619e+00
## 5103  0.71267871  5.433632e-01
## 5104  0.57265545 -3.079434e+00
## 5105  1.37436466  4.456468e-01
## 5106  1.17949627 -6.161688e-01
## 5107  1.31877022 -1.738804e-01
## 5108  1.15653856  2.732064e+00
## 5109  0.73303669 -4.267046e-01
## 5110  0.66148511  7.657477e-01
## 5111  0.32455025  7.730924e-01
## 5112  1.47515776  7.084791e-01
## 5113  0.40319554 -1.134452e+00
## 5114  1.26475540 -8.460645e-01
## 5115  0.80245393 -1.338332e-01
## 5116  1.44968858  1.834504e+00
## 5117  1.10403897  2.463987e+00
## 5118  1.42545720 -3.029814e+00
## 5119  0.67797076 -9.921953e-01
## 5120  0.17120761  2.440779e+00
## 5121  1.42424134  1.131339e-01
## 5122  0.83867883  7.304529e-01
## 5123  0.42645588 -9.867053e-01
## 5124  0.45532349  7.286266e-01
## 5125  1.09748630 -2.595711e+00
## 5126  1.31199367 -2.558243e-01
## 5127  1.09422205 -1.464053e+00
## 5128  0.58287531  3.658619e-01
## 5129  0.46911799  8.699773e-01
## 5130  0.74579222  2.895257e+00
## 5131  1.07694671 -3.088137e+00
## 5132  1.17454002 -1.825026e+00
## 5133  0.49005508  3.071236e+00
## 5134  1.01720593  3.011785e+00
## 5135  0.87975510 -2.912290e+00
## 5136  0.92155269 -2.279128e+00
## 5137  0.42212422 -2.896279e+00
## 5138  0.47788474  1.880922e+00
```

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## 5139  0.16876404 -2.556795e+00
## 5140  0.65729262 -3.680365e-01
## 5141  0.88010450  2.575943e+00
## 5142  0.62377409  6.255525e-01
## 5143  1.51950767 -2.934615e+00
## 5144  1.37788530  5.088670e-02
## 5145  0.63706710  1.508792e+00
## 5146  0.49221838 -2.053348e+00
## 5147  0.44594815 -2.660719e+00
## 5148  1.30360474 -7.632389e-01
## 5149  1.14142939  2.684199e+00
## 5150  0.64724551 -1.065497e-02
## 5151  0.62717388  1.550531e+00
## 5152  1.11605416 -2.904197e+00
## 5153  1.46771146  2.744261e+00
## 5154  0.21172291  2.238449e+00
## 5155  1.05218357  1.049975e+00
## 5156  0.83570980  2.720808e+00
## 5157  0.12353548 -1.783578e+00
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## 5163  0.25455206 -2.802169e+00
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## 5166  0.90949386 -2.912787e+00
## 5167  0.89727022 -2.191586e+00
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## 5169  0.65168675 -1.704359e+00
## 5170  0.55319599 -9.433135e-01
## 5171  0.59820252 -2.425332e+00
## 5172  0.98478054  7.919052e-01
## 5173  1.55244915  1.569851e+00
## 5174  0.48568898  1.273139e+00
## 5175  0.38412677  2.099824e+00
## 5176  0.47765035  2.112980e+00
## 5177  0.93114877 -1.549899e+00
## 5178  0.73436275 -1.705823e+00
## 5179  0.78824006 -9.327220e-01
## 5180  1.03155676  1.905006e-01
## 5181  0.82232060 -1.415555e-01
## 5182  0.71471543  2.711668e+00
## 5183  0.86312932  2.711400e+00
## 5184  0.97060072  3.072979e+00
## 5185  0.79862154  1.927092e+00
## 5186  0.03244108 -2.673405e+00
## 5187  0.81362180  3.135133e+00
## 5188  1.32943035  1.892301e+00
## 5189  1.42874652 -2.970942e+00
## 5190  0.21084754  5.027653e-01
## 5191  0.62554506  2.619873e+00
## 5192  0.74408711 -2.207478e+00
## 5193  1.15319624  2.944098e+00
## 5194  1.18571297  9.380248e-01
## 5195  0.90924999  1.051472e+00
## 5196  1.23878146 -1.259042e+00
## 5197  0.55608380  9.829901e-01
## 5198  0.73177033  2.022957e-01
## 5199  1.17625858  3.136364e+00
## 5200  0.42035618  1.254010e+00
## 5201  0.38476638 -1.217021e+00
## 5202  0.25591160  1.868030e+00
## 5203  0.21871488 -7.826905e-01
## 5204  0.46096439 -2.757698e+00
## 5205  0.47290480 -1.868470e+00
## 5206  0.79396270 -2.378456e+00
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## 5209  0.71204474 -1.913039e+00
## 5210  1.49797705  2.358377e+00
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## 5212  0.42767969 -2.719005e+00
## 5213  0.63214934  1.767814e+00
## 5214  0.86553726  1.487264e+00
## 5215  1.15322476  1.880282e-01
## 5216  0.61105395 -2.083049e-01
## 5217  1.29890073 -2.761709e+00
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## 5220  0.94009797 -2.402931e+00
## 5221  0.85050674  1.277736e+00
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## 5223  1.49123759 -1.859810e+00
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## 5225  0.96050616  6.260194e-02
## 5226  1.56786795 -5.166440e-01
## 5227  0.06608350  9.304977e-01
## 5228  1.10722568 -2.606001e+00
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## 5230  0.71170455  2.348467e+00
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## 5232  0.80209108 -2.779901e+00
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## 5245  1.56926161 -2.064559e+00
## 5246  0.43475742  2.486799e+00
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## 5249  0.73275223  1.180321e+00
## 5250  0.55661977 -3.022322e+00
## 5251  1.33556544 -8.867075e-01
## 5252  0.35547205  9.492726e-01
## 5253  1.46202667  1.100436e+00
## 5254  0.33745493  2.555090e+00
## 5255  1.25923127  3.016068e+00
## 5256  0.61722306 -1.472515e+00
## 5257  0.98842816  4.159487e-01
## 5258  1.09062274 -2.553428e+00
## 5259  1.25331995 -8.359788e-01
## 5260  1.38601451 -9.584372e-01
## 5261  1.12313706 -2.065767e+00
## 5262  1.28312402  4.519626e-01
## 5263  0.95910409  1.209880e-01
## 5264  0.39766969 -2.262428e+00
## 5265  1.56084998 -4.087871e-01
## 5266  1.32799756  1.389210e+00
## 5267  0.26480861 -2.246351e+00
## 5268  1.07283607 -9.108823e-01
## 5269  0.70370292  3.499736e-02
## 5270  1.30175991  1.435593e+00
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## 5272  0.48795400 -1.433769e+00
## 5273  1.07005810  2.986032e+00
## 5274  1.42909598 -2.174806e+00
## 5275  0.57949996  2.642973e+00
## 5276  0.83991007  1.494535e+00
## 5277  0.91771225 -2.888005e-01
## 5278  0.31736037  1.512395e+00
## 5279  0.24952320 -3.739916e-01
## 5280  1.20348041  1.565822e+00
## 5281  0.43329876 -2.716789e-01
## 5282  1.14743814  2.783315e+00
## 5283  0.72332263  9.305528e-01
## 5284  0.69927499  9.875807e-01
## 5285  1.14240555  1.686678e-02
## 5286  0.74710842 -5.217842e-01
## 5287  1.30378261 -2.695921e+00
## 5288  0.27808231  6.617053e-01
## 5289  0.81683170 -1.978988e-02
## 5290  0.91352897 -3.018152e+00
## 5291  0.68073665  6.015599e-02
## 5292  0.82161354  1.483152e+00
## 5293  1.05489916  4.381857e-01
## 5294  0.82030468 -6.572280e-01
## 5295  0.63207321 -1.229516e+00
## 5296  0.94952244  1.921425e+00
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## 5298  0.47095895 -2.631194e+00
## 5299  0.56648661  1.280215e+00
## 5300  0.10557344 -1.614924e+00
## 5301  1.04841562  3.014269e+00
## 5302  1.19776970 -2.834122e+00
## 5303  0.99384758  2.111588e+00
## 5304  0.41644322 -1.349188e+00
## 5305  0.97749385 -1.613634e+00
## 5306  0.75502177 -1.019316e+00
## 5307  0.23624862  2.107149e+00
## 5308  0.27263049  5.371934e-01
## 5309  1.23531104  1.235449e+00
## 5310  1.16385064  2.615604e+00
## 5311  0.95365805 -2.167504e+00
## 5312  0.61596062  2.869809e+00
## 5313  1.34926391  2.926276e+00
## 5314  0.30798802 -2.570687e+00
## 5315  1.00331480 -1.173318e-01
## 5316  1.01429442 -1.505304e+00
## 5317  0.38980190  3.079152e+00
## 5318  0.18550106 -2.641218e-01
## 5319  1.26991440  7.659752e-02
## 5320  1.33467225  8.572565e-01
## 5321  1.41267513  2.050504e+00
## 5322  1.50968541  1.807623e+00
## 5323  0.39791210  7.778339e-02
## 5324  1.49843844 -8.669581e-01
## 5325  0.64806451 -2.742762e+00
## 5326  1.52029051  1.979416e+00
## 5327  0.45078141 -5.648154e-01
## 5328  0.47393576 -2.456993e+00
## 5329  0.45862276 -7.711975e-01
## 5330  1.50907529 -4.880481e-01
## 5331  0.30322124 -2.170605e+00
## 5332  0.49156252  9.800233e-01
## 5333  0.80211029  2.925576e+00
## 5334  1.55657197 -2.507916e+00
## 5335  1.56724765  9.141775e-01
## 5336  1.43093840 -2.671231e+00
## 5337  0.26758180  2.351868e+00
## 5338  1.19084185  2.691513e+00
## 5339  0.19426901 -2.419721e+00
## 5340  1.37809479  2.063984e+00
## 5341  0.41908447  6.385831e-01
## 5342  1.28826718 -1.782264e+00
## 5343  1.47265299 -5.369037e-01
## 5344  1.09115903 -1.761593e+00
## 5345  1.37712970 -1.592617e+00
## 5346  0.72171953 -7.135246e-01
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## 5352  0.84533988 -2.473818e+00
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## 5354  0.93777406 -2.869965e+00
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## 5357  1.08319993  1.434351e+00
## 5358  1.15065355 -2.151943e+00
## 5359  1.39489287 -7.210061e-01
## 5360  1.33155567 -1.646841e+00
## 5361  1.31604762 -2.338641e+00
## 5362  1.29904441  2.343204e-02
## 5363  1.03724278  4.071587e-01
## 5364  1.10208975 -4.302063e-01
## 5365  1.54799653 -2.078517e+00
## 5366  0.75646270  7.678702e-01
## 5367  1.47293155  3.077382e+00
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## 5369  1.50153791  7.062431e-01
## 5370  1.31184514 -2.226296e+00
## 5371  0.63577579 -2.766920e+00
## 5372  0.89463477 -2.212874e+00
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## 5374  1.10068573  2.455416e+00
## 5375  1.24955306  6.859176e-01
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## 5377  0.65745200 -9.049954e-01
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## 5380  0.19598757  2.339213e+00
## 5381  0.92825625  2.114193e+00
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## 5384  0.27032052 -2.545834e-01
## 5385  0.71134910  2.956291e+00
## 5386  0.19299015 -2.248860e+00
## 5387  0.74151810 -9.648890e-01
## 5388  1.03724231  2.810529e+00
## 5389  1.35782576  1.716160e+00
## 5390  0.24713862  2.913443e+00
## 5391  1.54337452 -1.454612e-01
## 5392  0.40432880 -2.433958e+00
## 5393  1.50828210  2.845480e+00
## 5394  1.54888744 -2.746850e+00
## 5395  0.86065084  2.432244e+00
## 5396  0.61469125  1.371817e+00
## 5397  1.47262525  2.453568e+00
## 5398  1.20155929  8.898521e-01
## 5399  0.32451362  6.228524e-01
## 5400  0.36429079  7.671152e-01
## 5401  1.33473023  6.825426e-01
## 5402  0.23783286  9.349398e-01
## 5403  0.23075262  2.967442e+00
## 5404  0.34477255  1.413956e+00
## 5405  0.62925610 -7.797145e-01
## 5406  1.34688991 -2.620632e+00
## 5407  0.91572341 -1.353639e+00
## 5408  0.95627799 -1.773168e-01
## 5409  0.94960599 -1.159737e+00
## 5410  1.56100330  3.098350e+00
## 5411  1.34060256  2.131952e+00
## 5412  0.91930189  1.503289e+00
## 5413  0.31271239  2.793021e+00
## 5414  1.38936695 -2.364293e+00
## 5415  0.74667447 -1.276829e+00
## 5416  0.62786119  1.994105e-01
## 5417  1.46037725 -2.881393e+00
## 5418  1.06043166  2.724099e+00
## 5419  1.45301759  7.045579e-01
## 5420  0.95212119 -2.303827e+00
## 5421  0.63005059  1.358519e+00
## 5422  1.55515715 -2.410118e+00
## 5423  0.51126918  2.206057e+00
## 5424  1.30809945 -2.522459e+00
## 5425  1.32984641 -1.717457e+00
## 5426  0.64682615  3.091905e+00
## 5427  1.32450174 -3.137240e+00
## 5428  0.96894317  9.836097e-01
## 5429  0.64717694  2.359391e+00
## 5430  0.71721153 -2.632190e+00
## 5431  1.43074189 -8.739572e-01
## 5432  0.75660109  6.272415e-01
## 5433  1.25358020  3.519257e-01
## 5434  1.19534319 -3.710839e-01
## 5435  0.78253519  2.160560e+00
## 5436  0.97525256  3.057394e+00
## 5437  1.11984618 -3.565815e-01
## 5438  0.69415118  2.085402e+00
## 5439  1.51648200 -1.334569e+00
## 5440  1.51085505  3.080897e+00
## 5441  1.44594028  1.924046e+00
## 5442  0.54809769  1.292113e+00
## 5443  1.56069168 -2.428329e-01
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## 5445  0.23098200 -1.910145e+00
## 5446  1.19497730  2.710945e-01
## 5447  1.51146429  1.660267e-01
## 5448  0.76414017  6.323796e-02
## 5449  0.30414375 -3.473946e-01
## 5450  1.33246431 -5.984598e-01
## 5451  0.60341980  1.626785e+00
## 5452  1.02926956  1.869432e+00
## 5453  1.40814308 -1.773826e+00
## 5454  1.31896435  1.953166e+00
```

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## 5455  1.54040276  2.163296e+00
## 5456  0.27817403  1.316683e+00
## 5457  0.59225886 -2.155546e+00
## 5458  0.26722331  1.849618e-01
## 5459  0.89458884 -2.879695e+00
## 5460  1.07730864  8.626280e-01
## 5461  1.01848026 -1.090973e+00
## 5462  0.49950431 -3.568223e-01
## 5463  1.31228830 -2.471365e+00
## 5464  0.71387095  4.346442e-01
## 5465  1.15677329  1.059378e+00
## 5466  0.40160107  1.626506e+00
## 5467  0.97310935 -4.888485e-01
## 5468  1.15710368 -1.257950e+00
## 5469  1.42395924 -1.427871e+00
## 5470  0.81190440  3.370419e-01
## 5471  0.57831445  1.266539e+00
## 5472  0.83172666  1.914740e-01
## 5473  0.67969806 -2.218024e+00
## 5474  1.27217075  7.883429e-01
## 5475  0.59877924 -4.915699e-01
## 5476  1.31005334 -5.720181e-02
## 5477  0.92927547 -2.546524e+00
## 5478  0.37422032 -1.239794e+00
## 5479  1.52512609 -1.214470e+00
## 5480  0.39402337 -5.287003e-01
## 5481  1.50636084  2.358402e+00
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## 5483  0.50599582 -8.466939e-01
## 5484  0.78395352  5.718080e-01
## 5485  1.25124224 -3.025977e+00
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## 5487  0.99443797 -2.807256e+00
## 5488  1.14451973 -1.006703e+00
## 5489  1.22654373 -2.423065e-01
## 5490  1.35447573  1.703323e+00
## 5491  0.64496864 -2.569851e+00
## 5492  1.27588687 -1.188231e+00
## 5493  0.52914862 -2.572827e+00
## 5494  0.53925282 -2.162195e+00
## 5495  0.71254537 -4.364463e-01
## 5496  0.98530214 -6.050595e-01
## 5497  1.22258801  2.371110e+00
## 5498  0.08984601 -2.788886e+00
## 5499  0.93602698 -1.918952e+00
## 5500  1.47622567 -1.111384e+00
## 5501  0.74500060 -3.860003e-01
## 5502  0.08436118 -2.699011e+00
## 5503  0.68997605  2.725224e+00
## 5504  0.02864375 -1.990030e+00
## 5505  0.76605391 -1.985709e+00
## 5506  0.20990637  1.530086e+00
## 5507  1.00142158 -1.444951e+00
## 5508  1.40213261 -6.551938e-01
## 5509  1.48844084 -1.665560e+00
## 5510  1.31523801 -1.983503e+00
## 5511  1.23301860  1.094039e+00
## 5512  1.48442615  5.479905e-01
## 5513  0.50139162 -2.090726e+00
## 5514  0.78080211 -2.974489e+00
## 5515  0.65821809  2.882896e+00
## 5516  0.87303456 -2.023437e+00
## 5517  1.50394294  2.843329e+00
## 5518  0.44923765  2.192506e+00
## 5519  0.28192779  1.750113e+00
## 5520  0.88773972  9.106028e-01
## 5521  1.48093391 -1.085658e+00
## 5522  0.14964503 -2.872132e+00
## 5523  0.92851356  2.455315e+00
## 5524  1.29262547  5.757287e-01
## 5525  1.15649151  1.813744e+00
## 5526  0.88495611  3.814421e-01
## 5527  1.10268326  1.325190e+00
## 5528  0.70187449 -5.743844e-01
## 5529  1.18821866 -7.450016e-01
## 5530  1.51970105  2.676161e+00
## 5531  0.87806703 -1.484973e+00
## 5532  1.21813056 -2.144239e-01
## 5533  1.38742467  3.526053e-01
```

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## 5535  0.88250271 -1.707180e+00
## 5536  0.38879915 -1.546375e+00
## 5537  0.79836361 -2.164919e+00
## 5538  0.41620307  6.034917e-02
## 5539  1.16328388  2.943145e-01
## 5540  1.10945805 -1.682721e+00
## 5541  0.58380162 -1.327783e+00
## 5542  0.49276303 -2.214968e+00
## 5543  0.79799595  4.799800e-01
## 5544  1.44307416 -7.168424e-01
## 5545  1.31617770 -1.073626e+00
## 5546  0.55097584  4.279467e-01
## 5547  0.26406963 -3.913264e-01
## 5548  1.35537600 -3.151295e-01
## 5549  0.76878839 -2.207804e+00
## 5550  1.54166795 -2.729502e+00
## 5551  1.55571267 -1.390118e+00
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## 5553  0.69244512  7.621452e-01
## 5554  1.23295574 -7.661103e-01
## 5555  0.54648445 -8.861841e-01
## 5556  0.64642162  2.478530e+00
## 5557  1.33099272 -8.570540e-01
## 5558  0.91746640  2.852114e+00
## 5559  0.96838528  2.966436e+00
## 5560  1.08262321 -2.687382e+00
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## 5564  0.46334700  1.466771e+00
## 5565  0.48789297 -1.776776e+00
## 5566  1.02633640 -2.923874e+00
## 5567  1.08933318 -2.008955e+00
## 5568  1.53583913 -2.803416e+00
## 5569  1.17613291 -1.673865e+00
## 5570  0.63684578  2.490862e-01
## 5571  1.07967991 -8.396573e-01
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## 5574  0.85383035 -2.953495e+00
## 5575  0.62745981  2.492339e+00
## 5576  0.76539190  1.414959e+00
## 5577  0.24738412  1.576083e+00
## 5578  1.36475835 -3.427276e-01
## 5579  1.39108606  3.041716e+00
## 5580  0.99546680 -2.749912e+00
## 5581  0.81471925  2.402383e+00
## 5582  0.38320278 -1.404146e+00
## 5583  1.25309368  5.364370e-01
## 5584  0.32364956 -9.818252e-02
## 5585  0.54186618  1.631856e+00
## 5586  0.74072922  2.021943e-01
## 5587  0.46443683 -2.422743e+00
## 5588  1.35517141  7.647104e-03
## 5589  0.86706377 -2.134426e+00
## 5590  1.20422101  2.234222e+00
## 5591  0.25061576  2.117453e+00
## 5592  0.80628739 -1.234128e+00
## 5593  1.32339567  1.512869e+00
## 5594  0.85290820  2.027992e+00
## 5595  0.39538806  3.439978e-01
## 5596  1.22658072 -2.745085e+00
## 5597  1.45694984  6.395636e-01
## 5598  0.21107098  2.973144e+00
## 5599  1.39603467 -2.118348e+00
## 5600  1.19561534  8.158536e-01
## 5601  1.03334933 -1.512685e+00
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## 5603  0.80979085 -2.457668e+00
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## 5605  0.52719271  2.161625e+00
## 5606  0.74101846 -4.179655e-01
## 5607  0.84480577  5.656448e-01
## 5608  1.06412629 -1.426894e+00
## 5609  1.55517174 -2.919321e+00
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## 5611  0.07051936  2.031753e+00
## 5612  1.53300314 -9.114216e-01
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## 5614  0.98228766 -1.971889e+00
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## 5616  1.51518689 -2.369774e+00
## 5617  0.95863847 -2.480425e+00
## 5618  0.57887322 -2.768406e+00
## 5619  1.03682895  1.785568e+00
## 5620  1.34231802  3.770054e-01
## 5621  0.10000995  7.068120e-01
## 5622  0.81621184  1.096128e+00
## 5623  0.80940960 -3.265037e-01
## 5624  0.87388991  2.252610e+00
## 5625  1.28686579  1.082303e+00
## 5626  0.28825264 -2.968940e+00
## 5627  1.56483919  1.253136e+00
## 5628  1.11945948  1.316657e-03
## 5629  0.60743971 -3.832131e-01
## 5630  1.15933687  2.096734e+00
## 5631  1.08193939  1.261195e-01
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## 5634  0.79975907  1.160442e+00
## 5635  0.98729814  1.505458e+00
## 5636  1.17052801 -2.148588e-01
## 5637  0.45534587 -2.825863e+00
## 5638  0.88109399  2.734947e+00
## 5639  0.83759850 -2.682964e-01
## 5640  0.40560456 -1.456716e+00
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## 5645  1.42796228 -2.316431e-01
## 5646  0.21744274  1.995218e+00
## 5647  1.45069290  2.936636e+00
## 5648  0.93544858  2.296994e+00
## 5649  1.44909544  2.184908e+00
## 5650  0.81264555 -3.096618e+00
## 5651  0.79719478  1.395907e-01
## 5652  1.17152629 -1.643901e+00
## 5653  1.07003280  1.198154e+00
## 5654  1.00552454  1.215522e+00
## 5655  0.95194630  3.427677e-01
## 5656  0.45114332  1.042141e-01
## 5657  0.33818203 -6.616400e-01
## 5658  0.53986084 -7.858073e-01
## 5659  0.05954520 -1.021405e+00
## 5660  0.95387530 -3.714807e-01
## 5661  1.32619741  7.588074e-01
## 5662  0.05233620 -2.753088e+00
## 5663  0.89271748  2.303441e+00
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## 5665  0.36663237  8.030719e-01
## 5666  0.38473712  3.516565e-01
## 5667  1.48702516 -1.193813e+00
## 5668  1.52227193  6.828020e-01
## 5669  0.29977246  2.167789e+00
## 5670  0.64672620  1.598932e+00
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## 5672  1.31245614  6.461132e-01
## 5673  1.50878315  5.411515e-01
## 5674  0.48392815 -2.730352e+00
## 5675  0.84742754 -9.435428e-01
## 5676  0.59799796  1.216073e+00
## 5677  1.47775421  1.220686e+00
## 5678  0.21238387  8.997718e-01
## 5679  1.52358112  8.411969e-01
## 5680  0.62147356  1.720091e+00
## 5681  0.19723193 -2.976080e+00
## 5682  0.11352052  1.316941e+00
## 5683  0.61589395 -1.499292e+00
## 5684  1.14646001 -2.496957e+00
## 5685  1.34257175  1.472878e+00
## 5686  1.40312397 -2.400633e+00
## 5687  0.64565829  2.388144e+00
## 5688  1.52153848  8.746807e-01
## 5689  1.53866974 -2.692375e+00
## 5690  1.41006075 -2.011251e-02
## 5691  0.96854403 -6.207807e-01
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## 5695  0.79848973  2.828976e+00
## 5696  0.50555637  1.272226e+00
## 5697  1.15756283  2.818450e+00
## 5698  1.35310320 -1.639630e+00
## 5699  1.20696619 -1.745670e+00
## 5700  1.32062059  5.524073e-01
## 5701  1.42110742  1.847994e+00
## 5702  1.13671628 -2.713179e+00
## 5703  1.12692479 -7.549561e-01
## 5704  0.43461766  5.875648e-01
## 5705  0.83917745  3.017850e+00
## 5706  1.28546289 -2.111803e+00
## 5707  0.78004167 -2.790989e+00
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## 5712  0.12028357  1.060926e+00
## 5713  0.54754811 -2.263625e+00
## 5714  0.90090250  1.435369e+00
## 5715  1.37148662  4.659586e-01
## 5716  0.53509687 -1.589600e+00
## 5717  1.54154084 -2.937868e+00
## 5718  1.19081805 -1.615151e+00
## 5719  1.22417173 -2.217716e+00
## 5720  1.56793674  1.159802e+00
## 5721  0.09839383  2.513127e+00
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## 5724  0.54646827 -2.050798e+00
## 5725  1.56980329  5.168583e-01
## 5726  0.76309830  1.966824e+00
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## 5728  0.63783191 -7.620520e-01
## 5729  0.48750003 -3.260712e-01
## 5730  0.46238897 -2.645292e+00
## 5731  1.43715232 -9.578622e-01
## 5732  0.21336395 -2.290459e+00
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## 5739  1.33326611  2.730118e+00
## 5740  0.67876573  1.027833e-01
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## 5765  1.34815181  2.664583e+00
## 5766  0.97015675  3.991845e-01
## 5767  1.24225112  1.604140e+00
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## 5769  0.94095349 -2.912419e+00
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## 5777  0.20840740 -9.469455e-01
## 5778  0.31891468 -4.802422e-01
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## 5780  0.53155438  2.017833e+00
## 5781  0.52465701 -1.374452e+00
## 5782  0.31615634  2.301402e+00
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## 5785  0.76888706 -2.210269e+00
## 5786  1.09181380 -2.350113e+00
## 5787  0.87548646 -1.963088e+00
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## 5789  0.59050206 -2.662531e+00
## 5790  1.41267615 -5.281825e-01
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## 5796  0.71494319  2.780581e+00
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## 5809  1.17250624 -2.706709e+00
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## 5811  0.23447930 -3.039222e+00
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## 5821  1.35316598 -2.501695e+00
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## 5832  0.48916399  2.574507e+00
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## 5836  1.19331514 -7.770391e-01
## 5837  1.20570526  1.497311e-01
## 5838  1.16349542 -2.960203e+00
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## 5843  0.61182774 -2.109935e+00
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## 5845  0.18889316 -2.817376e+00
## 5846  0.32055470 -5.688082e-01
## 5847  1.35707083 -2.891010e+00
## 5848  0.14230590  1.939979e+00
## 5849  1.42260721  1.690845e+00
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## 5851  0.29296007 -1.526277e+00
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## 5854  1.51612469  2.246371e+00
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## 5857  0.54678459 -1.721208e+00
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## 5861  1.47672400 -6.373439e-01
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## 5864  1.42786191  1.339548e+00
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## 5866  1.07440031 -2.110010e+00
## 5867  0.55501768 -2.549180e+00
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## 5874  0.70220207 -2.569781e+00
## 5875  0.56209753  1.650015e+00
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## 5877  1.37318420 -1.244783e+00
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## 5885  1.46544025 -2.591952e+00
## 5886  0.77036266 -1.899855e+00
## 5887  0.68698407  8.142719e-01
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## 5889  0.58804793 -2.525116e+00
## 5890  0.26957713  1.558208e-01
## 5891  1.23464616 -2.331791e+00
## 5892  0.17024865 -2.418587e+00
## 5893  0.37565005 -2.279645e+00
## 5894  0.37432479 -2.547722e+00
## 5895  0.80871452 -1.692417e+00
## 5896  0.28083259 -3.033876e+00
## 5897  0.93430647  2.897673e+00
## 5898  0.36280688 -2.956670e+00
## 5899  0.46232301 -2.740440e+00
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## 5901  1.43746500 -5.796727e-01
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## 5903  0.36832820 -9.893144e-02
## 5904  0.75077517  2.866777e+00
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## 5909  0.45505710  1.300013e+00
## 5910  1.25491392 -2.441434e-01
## 5911  0.71271934  2.607405e+00
## 5912  0.34244833  1.958251e+00
## 5913  1.45220103  2.212046e+00
## 5914  0.80356904 -8.612348e-01
## 5915  0.62345960  1.814164e+00
## 5916  0.87587801  3.016063e+00
## 5917  0.69923953  2.988491e+00
## 5918  1.39086025 -2.279507e+00
## 5919  1.01860069  2.687459e+00
## 5920  1.12002109  2.057341e+00
## 5921  0.80492337  2.174179e-01
## 5922  1.08388446  2.273801e+00
## 5923  1.07239785 -1.379184e-01
## 5924  0.96030123  1.093717e+00
## 5925  0.56865487 -2.995641e+00
## 5926  0.94931773 -2.878994e+00
## 5927  0.85796446 -1.425879e+00
## 5928  1.41278794 -1.564479e+00
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## 5930  1.29886059 -4.794888e-02
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## 5932  0.38109288  1.715250e+00
## 5933  0.63968296  3.101334e+00
## 5934  0.60829846 -2.175643e+00
## 5935  0.67145108 -3.103480e+00
## 5936  1.13623790  3.800074e-02
## 5937  0.35992731  1.073166e+00
## 5938  1.04893646 -1.473016e+00
## 5939  1.05065581 -1.047912e+00
## 5940  1.03238910 -8.171334e-01
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## 5943  1.00656472  1.246931e+00
## 5944  0.41071900  2.004604e+00
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## 5946  1.19559886  2.869852e+00
## 5947  0.73348756  2.253057e+00
## 5948  0.94728408  2.420570e+00
## 5949  1.49669460  3.484279e-01
## 5950  0.52247966  3.490069e-01
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## 5963  0.80066235 -2.151886e+00
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## 5965  0.30305743 -1.414388e+00
## 5966  1.47393833 -2.965045e+00
## 5967  1.24765420  1.146521e+00
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## 5969  1.29948965  2.974493e+00
## 5970  0.75935490 -8.710289e-02
## 5971  1.17986744  1.343995e+00
## 5972  1.23099992  2.708027e+00
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## 5975  1.46279566  1.004415e+00
## 5976  1.21084731 -1.270433e+00
## 5977  0.32289342 -1.319764e+00
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## 5979  0.88870744  2.287091e+00
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## 5981  1.48606952  2.119210e-01
## 5982  1.26598707  1.560801e+00
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## 5984  1.34046946 -9.700254e-01
## 5985  1.23127057  1.382292e-01
## 5986  1.55983974 -8.024934e-01
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## 5988  0.41319055 -6.917548e-01
## 5989  0.67018875 -1.062274e+00
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## 5994  0.46136922  1.182181e+00
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## 5997  0.49614519  3.998157e-01
## 5998  0.72068263  3.090219e+00
## 5999  0.99131283  2.326466e+00
## 6000  0.86881936  2.875463e+00
## 6001  0.74782005  2.978386e+00
## 6002  0.75451782  3.111065e+00
## 6003  1.45170998 -1.872563e-01
## 6004  0.10928371  2.331584e+00
## 6005  0.48933827  2.806346e+00
## 6006  1.19218263 -2.906502e+00
## 6007  0.86487255  1.776788e+00
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## 6012  1.02178275  2.923726e-01
## 6013  1.24039847 -1.862145e+00
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## 6016  1.07969431 -2.842916e+00
## 6017  0.62283187  2.909569e+00
## 6018  0.93959702 -1.778778e+00
## 6019  0.44485896 -3.066681e+00
## 6020  0.93622359 -2.030450e+00
## 6021  1.48580390 -2.513239e+00
## 6022  1.21663714 -2.215632e+00
## 6023  1.32688946  1.607980e+00
## 6024  0.59426682 -2.794151e+00
## 6025  1.46244932 -3.625348e-01
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## 6051  0.51561825 -3.077666e+00
## 6052  1.56356393  1.518214e+00
## 6053  0.91750525 -1.215468e+00
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## 6055  1.42401952 -2.404425e+00
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## 6057  0.64302837  1.748627e+00
## 6058  0.70915101  3.044660e+00
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## 6060  1.11067260 -2.063468e+00
## 6061  1.28039348 -1.486010e+00
## 6062  0.57198800  1.820532e+00
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## 6065  1.35048516 -1.153183e+00
## 6066  1.28270470  2.127963e+00
## 6067  0.17519773 -6.411946e-01
## 6068  1.46571347  2.383267e+00
## 6069  0.24746552 -4.660965e-01
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## 6071  1.42927452 -1.952406e+00
## 6072  1.50085841 -2.967640e+00
## 6073  0.67162948  2.994417e+00
## 6074  1.23463266 -2.282977e+00
## 6075  0.70970651 -1.310623e-02
## 6076  0.61899196 -1.830805e-01
## 6077  1.52212946  8.616048e-02
## 6078  1.40369238  1.002659e+00
## 6079  0.52848374 -2.540522e+00
## 6080  0.58877697 -2.382203e+00
## 6081  0.64772484  2.466873e+00
## 6082  0.67050984  2.710732e+00
## 6083  0.72272874  6.580956e-01
## 6084  0.72192594  1.092044e+00
## 6085  0.87811426 -5.626811e-01
## 6086  1.46603739 -2.936407e+00
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## 6090  1.33870152 -6.801629e-01
## 6091  0.87950097  4.441783e-01
## 6092  1.46255342  1.044449e+00
## 6093  1.37332218  1.141743e+00
## 6094  0.78704303 -2.766018e+00
## 6095  1.27835248  1.853126e-01
## 6096  1.54621585  4.042128e-01
## 6097  0.83878855  1.429622e+00
## 6098  0.65640168  2.985761e+00
## 6099  1.29335083 -3.043125e+00
## 6100  1.48992674  2.971399e+00
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## 6108  1.21396232 -2.968292e+00
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## 6110  0.24133567 -1.926255e+00
## 6111  1.19314751 -1.934471e+00
## 6112  1.53337942 -2.708719e+00
## 6113  0.50996041 -2.152164e+00
## 6114  0.52091645 -2.992903e+00
## 6115  1.45617631  1.952139e+00
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## 6117  0.81177240  2.713836e+00
## 6118  0.67243600  2.327713e+00
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## 6121  1.32730090 -8.724480e-01
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## 6129  0.56558647  1.336122e+00
## 6130  1.37554284  7.469689e-01
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## 6133  0.21380022 -4.700480e-01
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## 6135  0.99967497 -1.949660e+00
## 6136  1.36911456 -3.507452e-01
## 6137  0.97584421 -9.611899e-01
## 6138  0.14395628 -2.952894e+00
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## 6145  0.77955277 -1.216527e+00
## 6146  0.76724413 -1.123072e+00
## 6147  1.53732124  2.319297e+00
## 6148  0.40474818 -3.057850e+00
## 6149  1.41845487  2.601392e+00
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## 6151  1.31693300  2.380931e+00
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## 6163  0.15991460  3.470842e-01
## 6164  1.28126949  7.682027e-01
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## 6213  1.06538573 -7.550173e-01
## 6214  0.69992618  2.858558e+00
## 6215  0.46891826 -1.080819e+00
## 6216  1.45932051 -3.099738e+00
## 6217  0.06503537  2.461199e+00
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## 6219  0.81665351 -1.650878e-02
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## 6225  0.29300270  1.718827e+00
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## 6312  0.66239666 -9.652918e-01
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## 6317  0.80801856  1.702674e+00
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## 6319  0.98844573 -2.780473e-01
## 6320  0.87269774 -2.633566e+00
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## 6322  1.36730708 -5.611366e-01
## 6323  0.88362869  2.146169e+00
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## 6372  1.29224107 -2.693938e+00
## 6373  0.75076491  2.565546e+00
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## 6376  0.79812170 -2.294513e+00
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## 6390  1.29792623 -2.370148e+00
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## 6396  0.40577620 -2.420646e+00
## 6397  1.52861891 -2.489233e-01
## 6398  0.59597385  1.220692e+00
## 6399  0.84889152 -6.688167e-01
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## 6401  0.55688617 -1.790039e+00
## 6402  0.60528440 -2.280866e+00
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## 6409  1.00895595 -5.250305e-01
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## 6411  0.99491184  4.817122e-01
## 6412  0.75124688 -2.270539e-01
## 6413  0.22194494  7.298437e-01
## 6414  0.90279388  1.030869e+00
## 6415  0.89525943 -2.846527e+00
## 6416  0.48299467  1.962686e+00
## 6417  1.34705715 -3.752585e-02
## 6418  1.49081602  1.422027e+00
## 6419  0.33179600 -1.963847e+00
## 6420  0.83871099  1.178916e+00
## 6421  0.61963378  2.392911e+00
## 6422  0.61240542  1.320309e+00
## 6423  1.53421793 -1.125797e+00
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## 6425  1.04897210  1.060790e+00
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## 6427  0.85950755 -3.137447e+00
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## 6463  1.37635189 -1.607489e+00
## 6464  0.46038668  1.348183e+00
## 6465  0.76149496 -2.385220e+00
## 6466  0.65552840 -1.321973e+00
## 6467  0.24224668 -1.978331e+00
## 6468  0.60322943  5.008206e-01
## 6469  1.24718924 -6.919232e-01
## 6470  1.29496638 -5.810310e-01
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## 6474  1.54630594 -1.356549e-01
## 6475  0.50241752  3.961851e-01
## 6476  1.15462970  1.097966e-02
## 6477  0.78357307 -1.012309e+00
## 6478  0.80498567 -5.744276e-01
## 6479  0.28077574  2.396575e+00
## 6480  1.47686303  6.791729e-01
## 6481  0.42950431  1.708378e+00
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## 6487  1.45429584  2.935440e+00
## 6488  0.97450875 -1.564366e+00
## 6489  0.36141045 -5.789285e-01
## 6490  1.17295729  2.306628e+00
## 6491  0.67226271  3.138790e+00
## 6492  0.42949151 -6.910861e-01
## 6493  1.25651563 -2.851995e+00
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## 6495  1.28588453 -1.015406e-01
## 6496  1.54147525  1.331774e+00
## 6497  1.33494673  2.858043e+00
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## 6499  1.52132369  2.546471e+00
## 6500  1.52054968  2.329697e+00
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## 6503  0.70121957  1.544513e+00
## 6504  0.25688930 -8.536482e-01
## 6505  0.62381337 -1.500242e+00
## 6506  0.25702169  2.659650e+00
## 6507  0.86753973  3.046951e+00
## 6508  0.99228933  1.865280e-01
## 6509  1.16490784 -1.771584e+00
## 6510  0.73720558  2.243625e+00
## 6511  0.58541318  2.981448e+00
## 6512  1.42692707 -3.892761e-01
## 6513  1.49873601 -1.535536e+00
## 6514  0.86431384  2.713953e+00
## 6515  1.15826507  1.214521e-01
## 6516  0.90664811 -2.253314e+00
## 6517  0.27226619 -2.029170e-01
## 6518  0.82855979  4.092598e-01
## 6519  1.06724360  3.058391e+00
## 6520  1.30851157 -5.953339e-02
## 6521  1.36890482  1.086191e+00
## 6522  1.11338676 -2.757802e+00
## 6523  0.70000516 -2.303710e+00
## 6524  1.27673545  3.461264e-01
## 6525  1.32136508  1.958207e+00
## 6526  0.50518873  1.045911e+00
## 6527  1.29202306 -1.461545e+00
## 6528  1.06321895  6.512998e-01
## 6529  0.56136157 -2.527044e+00
## 6530  0.97410631  1.657847e+00
## 6531  1.32394474 -3.047206e+00
## 6532  0.55271437  2.125597e+00
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## 6535  0.61423157  2.598223e+00
## 6536  1.30002468  1.718050e+00
## 6537  0.59984768  1.750907e+00
## 6538  1.26083662 -2.268031e-03
## 6539  1.43956940 -2.744475e+00
## 6540  0.47280551 -1.722450e+00
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## 6542  0.14819095 -1.323584e-01
## 6543  1.45009608 -3.017787e+00
## 6544  0.60942762  2.173560e+00
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## 6546  0.51250966 -2.993653e+00
## 6547  1.55210900 -2.554202e-01
## 6548  1.41737484  2.848320e+00
## 6549  0.54190853  5.580989e-01
## 6550  1.49455811  7.763388e-01
## 6551  1.18446852  6.037723e-01
## 6552  1.26849946 -4.651427e-01
## 6553  1.24492389  1.806040e+00
## 6554  0.49494980 -3.107156e+00
## 6555  0.96472561 -1.021604e+00
## 6556  1.35719676 -2.775866e+00
## 6557  0.39575363  3.062617e+00
## 6558  1.11801514  5.041348e-01
## 6559  0.81289014 -8.680931e-02
## 6560  0.96479699 -2.293629e+00
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## 6567  0.26777881  2.298113e-01
## 6568  0.92303452 -1.462148e+00
## 6569  1.34747866 -2.555450e+00
## 6570  1.57007138 -3.041228e-01
## 6571  0.94165813 -2.377607e-01
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## 6573  0.23253136 -2.808628e+00
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## 6581  1.01184281 -2.396716e+00
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## 6583  0.63453599  1.617406e+00
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## 6585  0.93356832 -2.125178e+00
## 6586  0.96502084 -2.061648e+00
## 6587  0.69988903 -1.166230e+00
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## 6595  0.62009972 -1.297630e+00
## 6596  0.23005624 -1.832260e+00
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## 6601  1.15128746 -3.716205e-01
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## 6622  1.55044254  2.843743e+00
## 6623  0.84577737  2.018843e+00
## 6624  1.04435050  2.554744e+00
## 6625  0.86834746  2.624726e+00
## 6626  0.76904142  2.855690e+00
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## 6629  0.81753097 -2.179319e+00
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## 6632  1.07505408 -2.127231e+00
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## 6634  1.32242271  2.078960e-02
## 6635  1.11764402  2.598466e+00
## 6636  1.06847653  2.926082e+00
## 6637  0.86066247 -2.904090e-01
## 6638  0.80175825  4.654434e-01
## 6639  1.34906907 -2.955289e+00
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## 6650  0.92501410 -2.375638e+00
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## 6680  0.95661013 -2.693787e+00
## 6681  0.25705101 -1.206736e+00
## 6682  0.62517267 -2.609348e+00
## 6683  1.06571119  2.982257e+00
## 6684  1.15566398 -3.053286e+00
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## 6686  1.38417615 -7.845754e-02
## 6687  0.99054594 -1.932667e-01
## 6688  0.86036086  7.765717e-01
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## 6695  0.10940509 -1.544915e+00
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## 6704  1.05012309  2.345734e+00
## 6705  1.47260391  3.076129e+00
## 6706  1.38855423 -1.208835e+00
## 6707  0.85068981 -2.265103e+00
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## 6709  0.87917639  3.035616e+00
## 6710  0.37163735  3.084639e+00
## 6711  0.96803369  8.867354e-01
## 6712  0.18973657  2.266260e+00
## 6713  0.12614939  2.305136e+00
## 6714  0.37157093  1.789332e+00
## 6715  0.47438265  2.408164e-01
## 6716  1.35657924  1.660980e+00
## 6717  1.34909214 -2.422318e+00
## 6718  0.75966907 -7.789509e-02
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## 6720  1.39032334 -7.108405e-01
## 6721  1.08204820  5.023817e-01
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## 6724  0.42283004 -1.666527e+00
## 6725  1.27468889  5.650348e-01
## 6726  0.88932449  3.082252e+00
## 6727  0.82399730  3.025269e+00
## 6728  0.73588656  8.730659e-01
## 6729  0.86581886  2.735108e+00
## 6730  0.13781940 -1.820217e+00
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## 6735  1.36726628  2.016162e+00
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## 6766  0.27568521  2.036653e+00
## 6767  1.23218597 -3.649718e-01
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## 6769  0.23506752 -9.696477e-01
## 6770  1.11628307  1.628299e+00
## 6771  1.52146804 -4.848517e-01
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## 6787  0.11490664  1.070740e+00
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## 6789  0.83817810 -1.520580e+00
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## 6793  0.69813922  6.982961e-01
## 6794  1.41456413 -2.640413e+00
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## 6797  0.37715289  1.915082e+00
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## 6807  0.73312514 -8.860852e-01
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## 6812  1.37820529 -2.036260e+00
## 6813  0.75217542 -3.080156e+00
## 6814  0.14538956 -2.678993e+00
## 6815  1.17381419  2.453951e+00
## 6816  1.29079960 -2.327476e+00
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## 6831  0.88740220 -2.363611e-01
## 6832  1.30350958 -2.857481e+00
## 6833  0.80969968 -2.145239e+00
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## 6865  0.71234383 -3.071574e+00
## 6866  1.52635822  5.751813e-01
## 6867  1.36559034 -1.837449e+00
## 6868  0.26682167  3.060172e+00
## 6869  0.77507065 -1.000416e+00
## 6870  0.42819740  1.299362e+00
## 6871  0.56955242 -1.596292e+00
## 6872  1.07449499  1.313149e+00
## 6873  1.53646702 -2.040266e+00
## 6874  0.96342823 -1.347503e+00
## 6875  0.32566224  2.437861e-01
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## 6881  0.58527440 -2.538242e+00
## 6882  1.56610239  2.042359e+00
## 6883  1.50013919  2.848119e+00
## 6884  0.60485994 -1.980742e+00
## 6885  0.90270485  1.472441e+00
## 6886  1.27958665  2.826409e+00
## 6887  1.18368810  2.921152e+00
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## 6889  1.25702227 -4.048136e-02
## 6890  1.19346628 -2.344754e-01
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## 6894  0.72696471  1.079941e+00
## 6895  1.52941053 -2.915027e+00
## 6896  0.37730804  1.423373e+00
## 6897  1.40799385  9.328461e-01
## 6898  0.27699165 -1.462181e+00
## 6899  0.54031743 -7.628594e-01
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## 6902  0.78925999 -1.717375e+00
## 6903  0.66805531  1.536488e+00
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## 6907  0.95411860  2.074026e+00
## 6908  1.14696481 -1.945353e-01
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## 6911  0.63094849 -1.027279e+00
## 6912  1.27327636 -3.665072e-01
## 6913  1.53927015  7.725396e-01
## 6914  0.87899216 -2.578771e+00
## 6915  0.89309332 -3.448684e-01
## 6916  1.09825293 -1.072383e-01
## 6917  0.69605757  2.769193e+00
## 6918  1.22757514  6.021614e-01
## 6919  1.55863342  6.736790e-01
## 6920  1.30891253  6.853564e-01
## 6921  0.27710928  2.198634e+00
## 6922  0.87323401 -1.963526e+00
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## 6924  1.16604258 -3.073216e+00
## 6925  1.01547884 -2.837440e+00
## 6926  1.36070037  1.404831e-01
## 6927  0.32929449 -2.769915e+00
## 6928  1.51101284 -4.342397e-01
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## 6930  0.79675930 -1.275519e+00
## 6931  1.45852354 -3.062519e+00
## 6932  0.40882589 -2.965783e+00
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## 6939  0.93271778 -1.972588e+00
## 6940  1.25346837  1.107597e+00
## 6941  1.33066358 -1.050162e+00
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## 6943  0.95817526 -1.972089e+00
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## 6945  0.36704851 -6.319377e-01
## 6946  1.03269614  7.539809e-01
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## 6949  1.39478025 -3.011338e+00
## 6950  1.13843756 -9.895045e-02
## 6951  1.37263716 -5.507860e-01
## 6952  0.58169044 -2.161234e+00
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## 6954  1.44048504 -2.419760e-01
## 6955  0.42277237  2.666392e-01
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## 6963  1.15284524  2.733674e+00
## 6964  0.25908976  1.056747e+00
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## 6966  1.07698545 -1.908934e-01
## 6967  0.17030706 -1.763960e+00
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## 6973  1.04824220  6.882570e-01
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## 6975  1.31853246  3.231245e-01
## 6976  1.15811826 -2.732217e+00
## 6977  1.16944921 -2.351909e+00
## 6978  0.54652732  2.012540e+00
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## 6982  1.26819269 -3.031158e+00
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## 6999  0.94602275 -1.346384e+00
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## 7027  1.37589298  2.425287e+00
## 7028  1.13421237 -1.292328e+00
## 7029  0.89820208  1.649554e+00
## 7030  1.57078722 -2.654097e+00
## 7031  1.49067504  1.635057e+00
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## 7033  1.35578221  2.882675e+00
## 7034  0.43024677 -2.763614e+00
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## 7080  0.77004985 -1.905613e+00
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## 7085  0.42629744 -3.059580e+00
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## 7088  0.53568267 -1.794605e+00
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## 7109  0.48258710 -1.638238e+00
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## 7111  1.47502389 -1.725910e-01
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## 7113  0.55156912 -1.288384e+00
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## 7118  0.22995128 -6.746537e-01
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## 7153  0.60582725 -1.542942e-01
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## 7202  0.30164197 -1.012407e+00
## 7203  1.24056903 -1.988439e+00
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## 7205  1.17180369 -1.466346e-01
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## 7209  0.22636116  1.780269e+00
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## 7211  0.41113479 -1.185584e+00
## 7212  0.52950576 -8.093638e-01
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## 7214  1.08753054  9.349696e-01
## 7215  1.45592645 -3.123315e+00
## 7216  0.93067354 -1.232026e+00
## 7217  0.95360980 -3.006741e-01
## 7218  0.78259547  3.044163e+00
## 7219  0.35526245 -2.958157e+00
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## 7227  1.36384521  3.065722e+00
## 7228  0.23280485 -2.852961e+00
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## 7256  1.15902914 -2.226677e+00
## 7257  1.15391215 -2.234890e+00
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## 7260  0.88737842  1.012795e+00
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## 7265  0.94877484 -4.990828e-01
## 7266  0.60418661 -2.610582e+00
## 7267  0.84809809 -2.982241e+00
## 7268  0.14851395 -2.072329e+00
## 7269  1.08833447  1.844999e+00
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## 7271  0.52853871  1.385024e+00
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## 7273  0.67670250  2.003968e+00
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## 7276  0.34228383  1.259132e+00
## 7277  1.50063941 -2.400001e+00
## 7278  0.88018128  1.080787e+00
## 7279  1.13591738  6.385149e-01
## 7280  1.13194512  6.056112e-01
## 7281  1.47175494  2.788440e+00
## 7282  0.33581290 -2.305817e+00
## 7283  1.01776746 -1.027511e-02
## 7284  0.88925186 -2.781803e+00
## 7285  1.14597981 -9.586605e-01
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## 7287  1.46306665 -1.865078e+00
## 7288  0.68634508 -3.599565e-01
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## 7290  0.63508815  1.632226e+00
## 7291  0.95944869 -2.113311e+00
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## 7295  0.54784578 -2.459370e-01
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## 7301  0.54113534  1.340036e+00
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## 7303  0.52883245 -1.125313e+00
## 7304  0.55269671  2.942599e+00
## 7305  0.96601756 -2.512346e+00
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## 7307  0.24072752  5.370991e-01
## 7308  0.75339137  8.007853e-01
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## 7310  0.43322451 -2.629269e+00
## 7311  1.54661321  2.960270e+00
## 7312  1.08450087  2.056831e+00
## 7313  0.91167337 -2.616468e+00
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## 7315  1.20194789  3.690391e-01
## 7316  0.53077350  6.887876e-01
## 7317  0.51483909 -2.070571e+00
## 7318  0.27108386 -1.538422e+00
## 7319  0.64651241  2.808614e-01
## 7320  1.37704932 -2.246883e-01
## 7321  1.41652746  1.770582e+00
## 7322  1.56713547 -1.054802e+00
## 7323  1.52969432 -4.189765e-01
## 7324  1.46639093  1.670459e+00
## 7325  1.05376784 -6.574868e-01
## 7326  1.02032170 -1.144253e+00
## 7327  0.77747043 -5.648030e-01
## 7328  1.42833933 -1.628564e+00
## 7329  0.91337742  3.720216e-02
## 7330  0.62304738 -1.009707e+00
## 7331  0.79524960  2.630736e+00
## 7332  0.84535431 -3.014929e-01
## 7333  1.31943038 -2.845065e+00
## 7334  1.11285008  3.013458e+00
## 7335  1.35056120  2.688957e+00
## 7336  0.51311318 -2.117038e+00
## 7337  1.43776184 -1.850792e+00
## 7338  1.54953888 -1.569816e+00
## 7339  1.26099402  3.046644e+00
## 7340  1.35184644 -6.101108e-02
## 7341  1.50840124  3.486012e-01
## 7342  0.26414005  7.060534e-01
## 7343  1.25738644  3.034938e+00
## 7344  1.53508849  1.719871e+00
## 7345  0.94243582 -9.309419e-01
## 7346  1.46465146 -1.321423e-01
## 7347  0.97809685  1.529073e+00
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## 7349  0.27563239  2.006390e+00
## 7350  1.55143543 -1.687244e+00
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## 7354  0.08753021 -2.624699e+00
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## 7356  1.41922922  2.371476e-01
## 7357  0.05208822 -1.889586e-02
## 7358  1.31132712 -5.032007e-01
## 7359  0.73701835  9.686512e-01
## 7360  0.54202674  1.550711e+00
## 7361  1.30748205  1.653910e+00
## 7362  1.21528416  2.630275e+00
## 7363  1.23389945 -1.371692e+00
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## 7370  0.37320111 -1.710601e+00
## 7371  0.25266189  2.201702e+00
## 7372  0.16991170 -2.296327e+00
## 7373  1.18770105  2.921444e+00
## 7374  0.17505476  1.370974e+00
## 7375  0.25963573 -5.977749e-01
## 7376  0.96695729 -9.904083e-01
## 7377  0.46712960 -2.847515e+00
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## 7379  1.04999941 -1.266944e+00
## 7380  1.36821536 -2.855938e+00
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## 7383  1.09000936  1.746514e+00
## 7384  0.84902316  2.804426e+00
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## 7401  0.40893216  1.798603e+00
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## 7406  0.34549663 -2.943136e+00
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## 7411  1.19883058 -1.394684e+00
## 7412  1.42943446 -4.215998e-01
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## 7415  0.51856782  2.360357e-01
## 7416  1.52775698 -1.720763e+00
## 7417  0.82183905 -1.540615e+00
## 7418  1.43616711 -1.690928e+00
## 7419  0.52574365  2.118136e+00
## 7420  1.52100252  1.249132e+00
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## 7423  1.18321269  2.777671e+00
## 7424  1.51194289  7.277774e-01
## 7425  0.79000442  9.123807e-01
## 7426  0.93232670 -1.361964e-01
## 7427  1.56942621 -2.301718e+00
## 7428  0.89846412  1.779019e+00
## 7429  1.17278010  1.073693e+00
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## 7430  1.43344533 -9.594739e-01
## 7431  0.18116039 -1.116018e+00
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## 7433  0.78600058  2.556714e+00
## 7434  0.87030875 -8.461200e-03
## 7435  1.32536820  2.514523e+00
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## 7437  0.57265101  1.699691e+00
## 7438  0.61065319 -3.864295e-01
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## 7440  1.45781125 -8.987558e-02
## 7441  0.62415249  2.305022e+00
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## 7444  1.37350804 -2.317398e+00
## 7445  0.77560832 -2.524471e+00
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## 7462  1.14578377 -3.138925e+00
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## 7465  0.80623807 -1.464914e+00
## 7466  1.54295979  2.566171e+00
## 7467  1.36745503 -4.488720e-01
## 7468  0.76152850  6.214534e-01
## 7469  0.71062073  7.121459e-01
## 7470  0.23995754 -3.554043e-01
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## 7476  0.48194786  2.290206e+00
## 7477  1.25824877  2.724349e+00
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## 7479  0.36114879 -2.820784e+00
## 7480  0.79376552 -1.590712e+00
## 7481  0.83633015 -2.377824e+00
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## 7483  1.52099516  2.807696e-01
## 7484  0.99643902  1.172228e+00
## 7485  0.69286557 -7.081344e-01
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## 7487  0.45703402 -2.128612e+00
## 7488  0.66205160  2.417223e+00
## 7489  0.52167643  1.069137e+00
## 7490  0.54219817 -1.440484e+00
## 7491  0.78447613  1.306356e+00
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## 7503  1.19805573 -1.710650e+00
## 7504  0.35587559  2.695402e+00
## 7505  0.90829935 -1.290026e-01
## 7506  0.53190791  3.100551e+00
## 7507  0.90969794 -8.315371e-01
## 7508  1.46343740 -1.298220e-01
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## 7513  0.90580744  1.333481e+00
## 7514  1.47865251  8.885150e-01
## 7515  0.08050730 -8.150097e-01
## 7516  0.31520504 -2.240676e+00
## 7517  0.83267060 -3.097925e+00
## 7518  0.73879147 -8.877901e-01
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## 7521  1.19544586  1.717199e+00
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## 7525  1.50334457 -3.070839e+00
## 7526  0.55092670 -3.052878e+00
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## 7530  1.26625125  1.577441e+00
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## 7532  0.55345331  7.418665e-01
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## 7535  1.30280518  2.740146e+00
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## 7543  0.27274575  2.045293e+00
## 7544  1.12786207  1.262386e+00
## 7545  0.59433218  2.200778e+00
## 7546  0.35330251  3.061865e+00
## 7547  1.07767854 -1.602089e+00
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## 7551  0.75502835  2.374772e+00
## 7552  0.82795201  4.539894e-01
## 7553  1.47942327  2.549793e+00
## 7554  0.93795395 -1.312247e+00
## 7555  0.07458186 -1.913165e-01
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## 7557  1.30233720 -2.836513e+00
## 7558  0.27990369  3.310880e-03
## 7559  1.34548594 -8.789755e-01
## 7560  0.83023459  1.852486e+00
## 7561  1.32340004 -6.435892e-01
## 7562  0.17862608  1.279197e+00
## 7563  0.47073885 -1.861908e+00
## 7564  0.60073666  1.021141e+00
## 7565  1.24729867  2.766129e+00
## 7566  1.01073404 -1.420078e+00
## 7567  0.90955147 -2.786791e+00
## 7568  1.51098407 -9.377781e-01
## 7569  0.53708811 -4.479970e-01
## 7570  0.34196083 -8.702652e-02
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## 7579  0.66970208 -8.636785e-01
## 7580  0.52049108  1.534360e+00
## 7581  0.29301458  2.181993e+00
## 7582  1.30962441  4.479446e-01
## 7583  0.76195924 -2.672593e+00
## 7584  0.97432483  2.724745e+00
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## 7587  1.47569564 -2.308225e+00
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## 7595  1.47410951 -1.579771e+00
## 7596  0.64740182 -1.673876e+00
## 7597  0.83637371  3.088158e+00
## 7598  1.25160934  2.936539e-01
## 7599  1.37287388 -6.920557e-02
## 7600  0.99347273 -2.835844e+00
## 7601  0.93914319  7.810607e-01
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## 7603  0.71507187  2.594477e+00
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## 7609  1.22341054 -4.048343e-01
## 7610  0.44242180  2.516185e+00
## 7611  0.96136296  5.710499e-01
## 7612  0.51770282 -2.976852e+00
## 7613  0.41360082  4.031292e-01
## 7614  1.01519259  9.155497e-01
## 7615  0.49518962 -2.930375e+00
## 7616  1.07450413 -2.970911e+00
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## 7620  0.15067757 -2.981040e+00
## 7621  0.23620611  1.139380e+00
## 7622  0.83574650  6.204570e-01
## 7623  0.56499238  9.618654e-01
## 7624  1.41029797  9.492547e-01
## 7625  1.25432370 -1.061935e+00
## 7626  1.42318352  3.669053e-01
## 7627  0.13179779 -2.412590e+00
## 7628  0.88775537  3.912951e-01
## 7629  1.10917792  2.568173e+00
## 7630  1.33808608 -3.022556e+00
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## 7634  1.50994944  2.677698e-02
## 7635  1.33595174  2.175038e+00
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## 7637  1.32289437  2.278788e+00
## 7638  1.24087522  2.899683e+00
## 7639  1.31335773  2.887052e+00
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## 7655  1.54641566  2.555593e-01
## 7656  0.93905556  3.667334e-01
## 7657  0.97005879 -1.389631e+00
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## 7660  1.01915356  3.097823e+00
## 7661  0.23179662 -9.121554e-01
## 7662  1.36657132 -2.718034e+00
## 7663  0.95242750  8.166329e-01
## 7664  1.18932223  1.140524e+00
## 7665  1.00885941  2.033889e+00
## 7666  1.08724726  1.325662e+00
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## 7669  0.26239818  1.951669e+00
## 7670  0.79043667  8.036207e-01
## 7671  1.32411196  2.937550e+00
## 7672  0.54435801  2.153722e-01
## 7673  0.12055401  2.900875e+00
## 7674  1.41451390  2.512005e+00
## 7675  1.48917445  1.260603e+00
## 7676  0.36385251 -3.052116e+00
## 7677  0.59628350  1.526659e+00
## 7678  0.70631279  2.209953e+00
## 7679  1.09600725 -3.030771e+00
## 7680  0.34049206  1.785968e-01
## 7681  1.14021508 -2.628468e+00
## 7682  0.89628586 -6.184642e-01
## 7683  1.25622231 -9.376854e-01
## 7684  0.91332605  2.785362e+00
## 7685  0.92262553  2.645772e+00
## 7686  0.84096562  2.884421e+00
## 7687  0.94969659 -9.924694e-01
## 7688  0.58267463  2.773423e+00
## 7689  0.46368941  2.355852e+00
## 7690  1.19875002 -2.675160e+00
## 7691  0.71607669  8.311943e-02
## 7692  0.75194784  2.932779e+00
## 7693  1.09304172 -1.816826e+00
## 7694  0.38336537  2.926617e+00
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## 7696  1.51540371  1.916018e+00
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## 7699  0.42189579 -1.095619e+00
## 7700  1.19233804  9.528020e-01
## 7701  1.01569206 -8.787037e-01
## 7702  0.95244238  4.528517e-01
## 7703  0.87418649 -5.209261e-01
## 7704  1.40915247 -3.394486e-01
## 7705  1.24230995 -3.099925e+00
## 7706  0.84796843 -1.853319e+00
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## 7708  0.34340801 -1.943400e+00
## 7709  0.52885883 -4.979707e-01
## 7710  0.55119063 -2.844151e+00
## 7711  0.26125069  2.444490e+00
## 7712  0.38354253  2.077620e+00
## 7713  1.03784493 -3.092919e+00
## 7714  0.51894607 -2.638349e+00
## 7715  0.92392156  5.014974e-01
## 7716  0.95768301 -3.127880e+00
## 7717  0.38891684  1.334700e+00
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## 7719  1.53565090 -3.074891e+00
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## 7721  0.84470075 -2.394314e+00
## 7722  1.05700177  1.931681e-01
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## 7725  0.67287819  2.525799e+00
## 7726  1.08019253 -2.564370e+00
## 7727  0.10841711  2.347208e+00
## 7728  0.46134907  7.652464e-02
## 7729  1.14067610 -3.040313e+00
## 7730  1.56708918 -3.017172e+00
## 7731  0.41260921  2.755592e+00
## 7732  1.49184098 -2.907718e+00
## 7733  1.23019220 -2.039870e+00
## 7734  1.47854492 -1.557201e+00
## 7735  0.53627690  2.401425e+00
## 7736  0.70198280  2.709153e+00
## 7737  0.54505548  1.749573e+00
## 7738  0.75756625  8.196104e-02
## 7739  0.78066593  2.354365e+00
## 7740  0.62053552 -2.162963e+00
## 7741  1.24529830 -1.768935e+00
## 7742  1.08279096 -1.974012e+00
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## 7744  1.34922863  2.368756e+00
## 7745  1.54015262  2.362031e-01
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## 7747  1.26765932 -6.378655e-01
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## 7750  0.89350562 -2.640113e-01
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## 7752  1.34721719  2.988254e+00
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## 7754  0.94161458 -1.161807e+00
## 7755  0.45815045  5.805684e-01
## 7756  0.18199921 -1.536436e+00
## 7757  0.48941386 -1.547945e+00
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## 7759  0.94414914 -2.826479e+00
## 7760  0.54059034 -6.221644e-01
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## 7762  0.96539930 -1.551181e+00
## 7763  1.01275030 -2.325662e-01
## 7764  1.55658351  1.193053e+00
## 7765  0.84937535 -4.178347e-01
## 7766  0.36141732  2.356657e+00
## 7767  1.51906124  8.851021e-01
## 7768  0.84872214 -5.807659e-02
## 7769  1.25222199 -7.880091e-02
## 7770  0.36637784  1.959650e+00
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## 7789  1.53341711  2.616249e+00
## 7790  0.58906355  1.885099e+00
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## 7794  0.98470060  1.435038e+00
## 7795  0.50131264  2.709504e+00
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## 7807  0.23734406 -2.642496e+00
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## 7815  0.59490958  2.470511e+00
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## 7819  1.37675032 -2.532027e+00
## 7820  1.03644651  2.772995e+00
## 7821  0.98829677 -2.851091e+00
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## 7823  1.48589057 -2.956503e+00
## 7824  0.28347865  2.148327e+00
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## 7870  0.09252840  1.706022e-01
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## 7879  0.78857055 -2.480446e+00
## 7880  0.48085449  3.085993e+00
## 7881  0.58684455 -3.136525e+00
## 7882  0.40999990 -1.766948e+00
## 7883  0.75176235 -2.847187e+00
## 7884  1.33089525 -1.872075e+00
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## 7886  1.10106169  5.360597e-02
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## 7890  0.73967631 -2.076286e+00
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## 7895  0.80892641  9.050582e-01
## 7896  1.35802130 -1.338631e+00
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## 7899  0.65077810  2.816690e+00
## 7900  1.49535199  3.031337e+00
## 7901  0.32631588  1.141493e+00
## 7902  0.31357903  4.765032e-03
## 7903  0.74966768  2.497851e+00
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## 7908  0.93327359 -2.419652e+00
## 7909  0.26465573 -2.543191e+00
## 7910  0.69844799 -2.232043e-01
## 7911  0.93288229  5.886625e-01
## 7912  1.18374113  1.738745e+00
## 7913  0.11862919  1.615022e+00
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## 7915  0.22323999 -1.048103e+00
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## 7926  1.43671224 -2.958479e+00
## 7927  0.29288431  1.415169e+00
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## 7936  0.22305077 -1.760386e+00
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## 7938  0.77017159 -3.421191e-02
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## 7940  0.40349601 -1.447298e+00
## 7941  0.89067406 -2.141250e+00
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## 7944  0.51510025  1.236323e+00
## 7945  1.28428099  2.486532e+00
## 7946  0.82269392  1.937193e+00
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## 7948  0.40328183 -5.528509e-01
## 7949  0.59301380 -2.488519e+00
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## 7953  1.04647175  8.516675e-01
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## 7960  0.97744779 -2.680702e+00
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## 7962  1.56879518  2.577293e+00
## 7963  0.97028679  3.061395e+00
## 7964  0.61685331 -1.640189e+00
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## 7966  0.73069736 -1.717190e+00
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## 7970  0.46214145 -3.010059e+00
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## 7976  0.44598409 -2.008315e+00
## 7977  0.69684383 -1.070390e+00
## 7978  1.55569003  2.199296e+00
## 7979  1.25347751 -2.687924e+00
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## 7981  0.23623868  1.916085e+00
## 7982  0.99617831 -1.441644e+00
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## 7987  1.39399080 -1.811751e+00
## 7988  0.79592701 -2.506099e+00
## 7989  1.56160558  1.854870e+00
## 7990  0.90821964 -2.243658e+00
## 7991  1.44641600  3.748982e-01
## 7992  0.81597659 -1.548268e+00
## 7993  0.55035113 -2.924935e+00
## 7994  0.93070666  1.308097e+00
## 7995  0.47270410  1.807580e+00
## 7996  0.97072522  2.833786e+00
## 7997  0.87130867  1.922977e+00
## 7998  1.41828618 -2.413959e+00
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## 8004  1.30021202 -8.666677e-01
## 8005  0.26488298  2.587319e+00
## 8006  1.48101450 -8.147115e-01
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## 8008  0.34667125 -2.827345e+00
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## 8017  1.34941884 -3.132101e+00
## 8018  1.19249250 -4.299044e-01
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## 8022  0.95292974  2.818860e+00
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## 8025  1.48213861 -2.980468e+00
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## 8027  1.52035731  1.366275e+00
## 8028  0.65845308  2.112935e+00
## 8029  1.18626819  1.107426e-01
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## 8031  1.44987880 -2.731903e+00
## 8032  1.11712287 -1.177493e+00
## 8033  1.31422121 -1.122812e+00
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## 8035  1.43596895  2.881779e+00
## 8036  0.47321468  2.712520e+00
## 8037  1.24765638  2.748611e+00
## 8038  0.76390793 -1.560520e+00
## 8039  0.39510156  1.497733e+00
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## 8042  1.40612703  3.089999e+00
## 8043  1.45039542 -1.645222e+00
## 8044  0.54236925 -2.604853e+00
## 8045  0.85981213  2.485922e+00
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## 8050  1.30083270 -3.071097e+00
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## 8055  0.13324909 -2.055469e+00
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## 8057  0.63216095 -2.847346e+00
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## 8066  1.24263709 -2.633210e+00
## 8067  1.40069044  2.918555e+00
## 8068  0.13256045  1.579591e+00
## 8069  0.53498743 -1.859171e-01
## 8070  0.81893615  1.032865e-01
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## 8072  0.57678379  1.351175e-01
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## 8075  1.36100098 -2.645722e+00
## 8076  0.90343407 -2.347737e+00
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## 8082  1.56583799  7.595008e-01
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## 8086  0.97919222  2.152668e+00
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## 8097  0.36453945  9.573913e-01
## 8098  1.47827937 -3.125726e+00
## 8099  0.65116473 -2.816308e+00
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## 8108  1.23002154  3.020316e+00
## 8109  0.34733708 -1.000090e+00
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## 8112  0.21441487 -2.479803e+00
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## 8122  1.23580889  2.432235e+00
## 8123  0.30180125 -2.039519e+00
## 8124  1.32137038 -2.989438e+00
## 8125  1.29683027 -1.614925e+00
## 8126  0.89018941  3.200063e-01
## 8127  0.41474570  2.697989e+00
## 8128  0.79776759  4.089921e-01
## 8129  0.97128896 -1.509106e-01
## 8130  0.69451477 -1.547912e+00
## 8131  0.47060283  8.884471e-01
## 8132  0.57327990 -5.208265e-01
## 8133  1.50113418  2.361619e+00
## 8134  0.83252670 -2.337541e+00
## 8135  0.48566008 -2.591432e+00
## 8136  1.49275051  1.697908e+00
## 8137  0.05677728 -4.847632e-01
## 8138  1.12586881 -3.517245e-01
## 8139  0.18541552  2.522415e+00
## 8140  1.40226045  1.907212e+00
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## 8142  0.65252866  1.068115e+00
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## 8144  0.52712203  2.915840e+00
## 8145  1.44542339 -2.116086e+00
## 8146  0.57562137  1.958308e+00
## 8147  1.21395524 -9.379383e-01
## 8148  1.31945763 -7.997911e-01
## 8149  0.60810057 -1.395539e+00
## 8150  0.16392009 -8.307207e-01
## 8151  1.54093644 -1.028649e-01
## 8152  0.87489640 -1.691099e+00
## 8153  0.70767495  9.668564e-01
## 8154  0.63663717  3.090684e+00
## 8155  0.42690731  1.870530e+00
## 8156  1.31248456 -1.920576e+00
## 8157  1.27415555 -1.323825e-02
## 8158  1.48342385 -2.733722e+00
## 8159  0.98194179 -1.826725e+00
## 8160  0.72004663  2.077551e-01
## 8161  0.92906619  2.720138e-01
## 8162  0.95015815 -1.955747e-02
## 8163  0.98189621 -2.753978e+00
## 8164  0.55813546  5.659272e-01
## 8165  1.20090444  2.393156e+00
## 8166  1.05545276 -1.267588e+00
## 8167  0.86938304 -7.925071e-01
## 8168  1.45926651  2.193595e+00
## 8169  1.05788525  5.394618e-01
## 8170  0.23630685  1.287060e+00
## 8171  0.59235543 -5.708137e-01
## 8172  0.80911821  1.091101e+00
## 8173  0.92318693  2.960414e+00
## 8174  0.87595384  2.346614e+00
## 8175  1.16979074 -1.762654e+00
## 8176  0.75877885  1.478128e-01
## 8177  1.52575991  1.545803e+00
## 8178  0.62676666  4.470344e-01
## 8179  0.37050897  1.240799e+00
## 8180  0.39023912 -2.582516e+00
## 8181  0.63949676 -1.408170e-01
## 8182  0.99386917  3.101462e+00
## 8183  0.62840173 -4.382726e-01
## 8184  0.80785592  3.796914e-01
## 8185  1.43022371 -1.818944e+00
## 8186  0.15798579  1.176745e+00
## 8187  1.03023831  2.338075e+00
## 8188  0.72633821 -2.813512e-02
## 8189  0.64142588 -8.974635e-01
## 8190  1.27585289 -1.375365e+00
## 8191  0.58027324  2.187927e+00
## 8192  0.23290816  2.012267e+00
## 8193  0.31294638  6.164606e-02
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## 8195  1.09052029 -5.747755e-01
## 8196  1.56879503  2.183997e+00
## 8197  0.46850854  7.106764e-01
## 8198  0.57287879  2.087034e-01
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## 8208  1.37209305 -5.641783e-01
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## 8210  0.61894303 -2.099314e+00
## 8211  1.49288446 -1.757733e+00
## 8212  0.79495732  2.883912e+00
## 8213  0.24030729 -1.193251e-02
## 8214  1.37850318  2.530827e+00
## 8215  1.52917856 -2.856353e+00
## 8216  0.44375220  5.955696e-01
## 8217  1.47454215 -4.142104e-01
## 8218  1.38245777  1.180482e+00
## 8219  1.28236954 -1.397294e+00
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## 8221  0.87454294 -2.121082e+00
## 8222  1.00411781 -3.726119e-01
## 8223  0.56214697  1.358269e+00
## 8224  0.67054004 -1.287462e+00
## 8225  1.40675821  1.030347e+00
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## 8227  1.10932910 -2.233301e+00
## 8228  0.52419820  3.090395e+00
## 8229  0.32110960 -8.753836e-01
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## 8243  1.09378564  2.802320e+00
## 8244  0.94074030  2.332473e+00
## 8245  0.90710222 -6.712807e-01
## 8246  1.01475535 -2.948129e+00
## 8247  0.48179845  2.095264e+00
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## 8250  0.71364038  2.096441e+00
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## 8252  0.49493157 -1.344711e+00
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## 8254  0.82698570  1.590488e+00
## 8255  0.55569230 -1.094724e+00
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## 8258  0.68840790 -1.681025e-01
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## 8260  0.78814658 -2.200641e+00
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## 8263  1.39047734 -1.107808e+00
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## 8267  0.63419450 -2.866756e+00
## 8268  1.02299325 -1.066270e+00
## 8269  1.06317147  3.007544e+00
## 8270  1.29220065 -1.220185e+00
## 8271  0.19028017 -1.153410e+00
## 8272  1.38273365 -7.146992e-01
## 8273  1.33282643 -3.253633e-01
## 8274  1.24318416 -1.303033e+00
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## 8276  0.71251450 -1.492340e+00
## 8277  0.08920035  3.086214e+00
## 8278  1.46568728 -1.137940e+00
## 8279  1.42902148  1.679265e+00
## 8280  0.45819872  1.564411e+00
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## 8285  0.28621064 -1.532893e+00
## 8286  0.60535969  3.085935e+00
## 8287  1.08913523  2.938780e+00
## 8288  0.78392614  1.502904e+00
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## 8292  1.32643191  2.558354e-01
## 8293  0.41055917 -2.374329e+00
## 8294  0.96588532  1.605539e+00
## 8295  1.43221974 -1.574420e+00
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## 8297  1.10651673  5.979240e-02
## 8298  0.96684618  2.168599e+00
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## 8299  0.85673622 -3.472131e-01
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## 8301  1.53023492 -3.083618e+00
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## 8307  0.11390153 -2.279169e+00
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## 8309  1.28807038 -2.969526e-02
## 8310  0.89465060 -1.495836e+00
## 8311  1.45059738  1.419306e-01
## 8312  0.28146343  1.776143e+00
## 8313  1.32804128 -2.564003e+00
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## 8316  0.68894644 -7.606835e-01
## 8317  1.17336870  3.033802e+00
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## 8319  1.24192473 -9.041617e-03
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## 8322  1.55849150 -2.765688e+00
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## 8330  0.73294353  1.346699e+00
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## 8335  0.94379544  2.956305e+00
## 8336  1.29036899  2.233410e+00
## 8337  1.31860976 -2.870024e+00
## 8338  0.32933257  1.417117e+00
## 8339  1.34413571  2.996402e-01
## 8340  0.29494430 -8.166660e-01
## 8341  0.68015278 -2.259736e+00
## 8342  0.52984596  2.600809e+00
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## 8344  1.30292118  4.298971e-01
## 8345  1.35388035  1.306407e+00
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## 8347  1.37414046 -2.543454e+00
## 8348  1.27846656  1.749868e+00
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## 8350  1.35135359  3.176093e-01
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## 8352  0.54531549 -2.815406e+00
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## 8356  0.58368472  1.011988e+00
## 8357  0.82747573 -3.141475e-01
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## 8360  0.91470643 -5.389103e-01
## 8361  0.28715342 -5.321998e-01
## 8362  0.72339015  1.792786e-01
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## 8364  0.12147592 -3.068307e+00
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## 8366  1.51917069  4.342662e-01
## 8367  1.57007791 -2.574553e+00
## 8368  0.47008844 -2.071124e+00
## 8369  0.56548087  5.603201e-01
## 8370  0.88224581  1.959691e+00
## 8371  0.90565233  1.292365e-01
## 8372  0.98746292 -1.764935e+00
## 8373  0.69991726  1.825906e+00
## 8374  1.33494104 -5.617323e-01
## 8375  1.37256116 -9.650457e-01
## 8376  0.69542447 -2.881342e+00
## 8377  0.75388922  2.472037e+00
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## 8385  1.56926279  1.036944e+00
## 8386  0.45938256 -4.355605e-01
## 8387  0.94037393 -9.476536e-01
## 8388  0.72626394 -6.990182e-02
## 8389  0.59022408 -2.949832e+00
## 8390  1.03239138 -1.749746e+00
## 8391  1.24267215  3.024389e+00
## 8392  0.93427287  2.096808e+00
## 8393  1.18940346  1.769057e+00
## 8394  1.24143612  1.383723e+00
## 8395  0.57433371  4.112485e-01
## 8396  1.37977032  2.230019e+00
## 8397  0.51422321 -2.010558e+00
## 8398  0.96734156  2.472947e+00
## 8399  0.23647247  3.377620e-01
## 8400  1.17460299 -1.171951e+00
## 8401  0.98496630  2.945802e+00
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## 8403  0.94740446  1.605249e-01
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## 8406  0.75769311  2.221762e+00
## 8407  1.06006567  1.603069e-01
## 8408  1.25862459  1.503054e+00
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## 8411  1.14597781  2.455139e+00
## 8412  0.93047767 -2.980513e+00
## 8413  1.35693777  6.351992e-01
## 8414  0.13134981 -1.913735e+00
## 8415  1.35638417  1.878261e+00
## 8416  0.99056975  2.785487e+00
## 8417  0.90682983 -3.132496e+00
## 8418  0.71531611 -2.896104e+00
## 8419  1.22532072 -2.138161e+00
## 8420  1.36625417  2.486095e+00
## 8421  0.21642488 -2.895471e+00
## 8422  1.19781952  1.039599e+00
## 8423  1.30043302 -2.870691e+00
## 8424  1.05444434 -1.984916e+00
## 8425  0.19715629 -2.627505e+00
## 8426  1.35422093 -6.557462e-01
## 8427  1.30682022  2.829748e+00
## 8428  1.03834698  2.816150e+00
## 8429  0.85114871  2.438091e-01
## 8430  1.55076183 -7.289485e-01
## 8431  1.53482453 -1.255139e+00
## 8432  1.29656045 -2.687334e+00
## 8433  1.52137691  1.981608e+00
## 8434  0.59972452  2.940903e+00
## 8435  0.78617135 -2.742430e+00
## 8436  1.27667362 -3.089154e+00
## 8437  1.56093087 -7.221047e-01
## 8438  0.21308363 -2.619368e+00
## 8439  0.66346043 -1.438359e+00
## 8440  1.05709094  2.572545e+00
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## 8442  1.05051696 -3.141301e+00
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## 8444  0.96547174  2.393938e+00
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## 8449  0.39196089  1.081773e+00
## 8450  1.54265725  2.201150e+00
## 8451  0.78526399 -4.179521e-01
## 8452  1.04267937 -1.573545e+00
## 8453  1.28361250  2.125404e+00
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## 8456  1.54830952 -1.582300e+00
```

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## 8460  0.82009190 -2.067571e+00
## 8461  0.86904227 -2.887606e+00
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## 8465  0.24131864  2.564372e+00
## 8466  0.71191989  1.916367e-01
## 8467  0.95795266  2.304056e+00
## 8468  1.06051220 -9.389137e-01
## 8469  1.33568376  3.096862e+00
## 8470  0.80765990 -1.770290e+00
## 8471  0.67947957  1.055741e+00
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## 8475  0.61519733 -1.856433e+00
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## 8477  1.40272195 -1.502609e+00
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## 8479  0.50390773  6.972732e-02
## 8480  1.03497192  2.577692e-01
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## 8489  0.80221825  8.759071e-01
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## 8491  0.71466689 -3.023188e+00
## 8492  0.54442063  2.270288e+00
## 8493  0.93722547  7.888563e-01
## 8494  1.35100649 -2.359290e+00
## 8495  0.82396173 -2.613379e-01
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## 8497  0.81940886  1.980235e-02
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## 8499  0.80971113 -2.261518e+00
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## 8505  0.63843216  8.782189e-01
## 8506  1.15538599  6.643592e-01
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## 8508  0.71669608  2.528932e+00
## 8509  0.37624190 -1.114749e+00
## 8510  1.20788263 -3.915323e-01
## 8511  0.81599054 -2.940939e+00
## 8512  0.38548563 -2.577180e-01
## 8513  1.04140053 -2.071813e+00
## 8514  0.96551719 -3.115860e+00
## 8515  1.38724707  2.023127e+00
## 8516  0.49074329  2.008825e-01
## 8517  1.20594024 -2.933931e+00
## 8518  0.48290411 -1.858552e+00
## 8519  1.23899383  9.259255e-02
## 8520  1.29719429  1.911649e+00
## 8521  0.65489889  4.642256e-02
## 8522  1.01540885 -2.743052e+00
## 8523  0.88801540  9.992739e-02
## 8524  0.43320218 -2.069148e+00
## 8525  1.18385397 -4.494443e-01
## 8526  1.28062887  2.391152e-01
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## 8530  0.85205724  1.375445e-01
## 8531  0.48931618  1.369932e+00
## 8532  0.93955531  5.649094e-01
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## 8535  0.60564991  6.336045e-01
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## 8541  0.64667780  1.012976e+00
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## 8543  0.47837570  7.625234e-01
## 8544  0.78030470  2.030388e+00
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## 8547  0.47912162  2.971581e+00
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## 8614  1.31628217  2.196449e-01
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## 8693  0.83356851 -2.208211e+00
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## 8694  1.14115024 -2.993926e+00
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## 8733  0.52018957 -5.083594e-01
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## 8851  0.23083953 -1.767674e+00
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## 8887  0.41848009 -1.308074e+00
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## 8898  1.35938904 -1.584382e+00
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## 8912  1.38054422 -1.781367e+00
## 8913  0.99536467  4.165837e-01
## 8914  1.43222913  1.163984e-01
## 8915  0.91222672  2.674733e+00
## 8916  1.26753961  2.679575e+00
## 8917  0.61853395 -1.967527e+00
## 8918  0.46576345 -4.341321e-01
## 8919  0.42204371  6.331673e-01
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## 8921  0.91270187  4.229338e-01
## 8922  0.81347432  1.093377e+00
## 8923  1.15125194 -3.006153e+00
## 8924  1.13379329 -2.995901e+00
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## 8926  1.26976704  2.666930e+00
## 8927  1.25530966  3.053685e+00
## 8928  0.53598847  2.573855e+00
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## 8936  0.80997573  2.424415e+00
## 8937  1.32911290 -3.124839e+00
## 8938  0.93661888 -9.656668e-01
## 8939  0.30944406 -1.198493e+00
## 8940  0.41615959 -3.068516e+00
## 8941  1.37058933 -1.519693e+00
## 8942  0.18817065  1.418936e+00
## 8943  0.86787505 -2.531097e+00
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## 8945  0.96280160 -2.024751e+00
## 8946  1.42658659 -1.595005e+00
## 8947  0.55039636 -1.419851e+00
## 8948  0.20514669 -3.051094e+00
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## 8950  0.44244803  6.341691e-01
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## 8953  0.98814089  1.491482e+00
## 8954  0.42172602 -2.055680e+00
## 8955  0.17330458 -4.363613e-01
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## 8963  0.36624205  1.037842e+00
## 8964  0.23529136 -1.813801e+00
## 8965  1.49540079 -2.403309e+00
## 8966  0.22021312 -6.762932e-01
## 8967  0.38106124  1.188590e+00
## 8968  0.80208020 -1.535703e+00
## 8969  0.42348340 -4.223347e-01
## 8970  1.33320953  1.536730e+00
## 8971  0.41375481  6.755428e-04
## 8972  0.74988220 -2.039636e+00
## 8973  1.28134025 -1.765958e+00
## 8974  0.83309737  9.531098e-01
## 8975  0.70998793 -2.177422e+00
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## 8978  1.28867840  3.241818e-01
## 8979  0.63595267 -1.937307e+00
## 8980  1.47237521  2.484966e+00
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## 8988  0.88079158  2.138555e+00
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## 8992  1.41778726 -1.734164e+00
## 8993  1.25194304 -9.477838e-01
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## 8999  1.47387973 -1.506041e-01
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## 9001  0.89710827 -8.590723e-01
## 9002  0.17805982 -2.436770e+00
## 9003  1.31066488 -7.181166e-01
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## 9006  1.26920215 -1.142289e+00
## 9007  1.12278192  2.335141e+00
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## 9018  1.31461984 -2.624714e+00
## 9019  0.89508435 -2.144733e+00
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## 9027  0.14741329 -1.078939e+00
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## 9033  1.26553212 -1.924517e+00
## 9034  0.45383088 -2.976210e+00
## 9035  0.48004346  1.876500e+00
## 9036  1.03087678  3.759261e-01
## 9037  0.43290208  1.414662e+00
## 9038  1.48785774 -3.018689e+00
## 9039  0.79477665 -6.997294e-01
## 9040  0.43695845  2.733597e+00
## 9041  0.57953624 -2.816393e+00
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## 9044  0.24778426  1.644348e+00
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## 9051  0.92363048  2.318874e+00
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## 9053  1.52280134 -1.888078e-01
## 9054  1.41723022  2.502092e+00
## 9055  0.53810509  2.850381e+00
## 9056  0.55711162 -1.394618e+00
## 9057  0.28195136 -1.600252e+00
## 9058  0.92061458  1.190362e+00
## 9059  1.41521732  3.089824e+00
## 9060  0.30049165 -2.498463e+00
## 9061  0.95878588  2.520501e+00
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## 9065  0.50978741 -2.332278e+00
## 9066  0.96803148 -2.137883e+00
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## 9068  1.11443199 -2.189821e-01
## 9069  0.53330507  5.454710e-01
## 9070  0.43720008 -1.171063e+00
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## 9072  1.09747523 -2.388491e+00
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## 9079  0.77869186 -2.284079e+00
## 9080  1.52072185  2.037410e+00
## 9081  1.49926627 -1.747777e+00
## 9082  0.51701781  9.929534e-01
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## 9084  0.67199438  2.784285e+00
## 9085  1.03033444  2.030788e+00
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## 9087  1.15167200  2.341230e+00
## 9088  1.22314183  4.197279e-02
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## 9090  1.35790247 -4.322846e-01
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## 9094  0.65215579 -2.817117e+00
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## 9096  0.60995411 -1.912841e+00
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## 9099  1.35651558  6.486920e-01
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## 9112  0.95456981 -3.057847e+00
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## 9116  1.34435316  1.090889e+00
## 9117  1.31329011 -2.156780e+00
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## 9119  1.51812777  2.453632e+00
## 9120  0.93956476 -2.487340e+00
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## 9125  0.83968225 -2.249161e+00
## 9126  1.14708878 -1.846661e+00
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## 9128  0.10682506 -6.564837e-02
## 9129  0.72810322 -8.373237e-01
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## 9133  1.54372488  1.615654e+00
## 9134  0.49823214 -2.759767e+00
## 9135  0.04904587 -1.698932e-01
## 9136  0.05330320  2.202334e+00
## 9137  0.90403808 -2.820248e+00
## 9138  1.16974236  2.362208e+00
## 9139  1.46378764 -1.469115e+00
## 9140  1.20682302  2.998098e-01
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## 9213  0.40102039 -3.004489e+00
## 9214  0.69238440  2.190754e+00
## 9215  0.81634635 -2.711135e+00
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## 9220  0.64463037 -1.018233e+00
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## 9228  0.60378076  2.190556e+00
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## 9307  0.91241572  5.369782e-01
## 9308  0.94065748 -2.151793e+00
## 9309  1.56890033  1.118125e-01
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## 9311  0.30061705 -1.534079e+00
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## 9313  1.27943669 -2.917188e+00
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## 9315  0.59277291 -8.894295e-01
## 9316  0.70898107 -1.159329e+00
## 9317  0.71562204  2.847954e-02
## 9318  0.73876551  8.806501e-01
## 9319  0.39871490  1.865354e+00
## 9320  1.05696719 -1.864158e+00
## 9321  1.10357756  3.086933e+00
## 9322  1.08851304  2.022477e+00
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## 9325  1.48725650 -1.909542e+00
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## 9345  1.53348749 -3.097165e-01
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## 9347  0.78243525 -2.048600e+00
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## 9365  1.49381466  1.709029e+00
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## 9367  0.34064607  1.870601e-01
## 9368  1.32719418 -2.415741e+00
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## 9397  1.03590545  5.538078e-01
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## 9399  1.36491525  1.138509e+00
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## 9402  0.81578997 -8.382852e-02
## 9403  0.33558200 -1.833630e+00
## 9404  0.87622584 -2.095362e-01
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## 9426  1.37742041 -9.576771e-01
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## 9480  0.31951613 -1.921546e+00
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## 9517  1.43679661 -3.112827e+00
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## 9524  1.38776359 -2.371765e-01
## 9525  0.65432952 -8.633624e-01
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## 9527  0.79050016 -1.637589e+00
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## 9537  0.69799786  5.506275e-01
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## 9539  0.50731788 -2.933524e+00
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## 9560  0.66492151  2.532227e+00
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## 9567  0.70719995 -2.686278e+00
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## 9580  1.11980904  1.317246e+00
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## 9631  1.15317635  2.874717e+00
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## 9635  1.43431285 -2.572189e+00
## 9636  0.68018069  9.775764e-01
## 9637  1.37792063  1.677015e+00
## 9638  0.94245093 -2.511566e+00
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## 9641  1.44060843 -3.172923e-01
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## 9651  0.66162384 -2.419015e+00
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## 9655  0.69013394 -2.420851e+00
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## 9657  0.67794075 -8.181519e-01
## 9658  0.09166360  4.022174e-01
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## 9666  0.46781533  1.127057e+00
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## 9677  1.41305206 -1.706532e+00
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## 9692  0.79216624 -2.983011e+00
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## 9701  0.54281419  3.035446e+00
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## 9703  0.21495977 -1.838049e+00
## 9704  1.11912216  2.930508e+00
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## 9707  1.26815589  2.796746e+00
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## 9709  0.22429374  6.401533e-01
## 9710  1.35132763 -7.085992e-01
## 9711  1.21952728 -1.519191e+00
## 9712  1.19289116  2.743104e+00
## 9713  0.52399096 -4.839683e-01
## 9714  0.68913261 -6.768615e-01
## 9715  1.55892039  2.616429e+00
## 9716  0.59968637 -1.342634e+00
## 9717  0.99795433 -1.079708e+00
## 9718  0.52575302 -2.827263e+00
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## 9720  1.38189079  2.679766e+00
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## 9726  0.92577937  2.909340e-01
## 9727  0.33639738  5.888505e-01
## 9728  0.76303242 -8.055189e-01
## 9729  1.38342337  1.235226e+00
## 9730  1.06515917 -8.162814e-01
## 9731  0.48523235  5.145352e-01
## 9732  0.87609169 -1.099737e+00
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## 9740  1.20358099 -2.645040e+00
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## 9743  0.70764778 -9.926602e-01
## 9744  1.31061700  3.104246e+00
## 9745  1.24675262  7.601072e-01
## 9746  1.13423069  2.101291e+00
## 9747  0.51524116  1.280310e+00
## 9748  0.20551327  2.970900e+00
## 9749  0.57378693 -1.504995e+00
## 9750  1.01245755 -5.713597e-01
## 9751  1.33459358  2.868195e+00
## 9752  0.69578659 -1.038990e+00
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## 9754  1.43527487 -9.932567e-02
## 9755  1.52272393 -1.320808e+00
## 9756  0.53406385  1.242032e-01
## 9757  1.44470977  3.625471e-01
## 9758  1.55902894 -2.421785e+00
## 9759  0.49656449  5.058156e-01
## 9760  0.62620572 -6.509099e-01
## 9761  1.25039789 -2.185916e+00
## 9762  0.55237937  1.349027e+00
## 9763  0.82628108  2.983336e+00
## 9764  1.49154210  1.486332e+00
## 9765  1.32761357  2.079114e+00
## 9766  0.74956199 -3.551040e-01
## 9767  0.92309237  3.026665e-01
## 9768  1.39268948  2.009947e+00
## 9769  1.44414708  1.215750e+00
## 9770  1.37425669  2.625902e+00
## 9771  0.39501445  1.580674e+00
## 9772  0.13836317  5.000000e-01
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## 9775  0.78336822 -1.285872e+00
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## 9780  1.04748172  2.287785e-01
## 9781  0.95207373  9.710581e-02
## 9782  1.34834814  3.844626e-01
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## 9786  0.95056633 -2.119586e+00
## 9787  0.48665506 -2.161531e+00
## 9788  0.68199087 -3.002072e+00
## 9789  0.30849391 -1.080978e+00
## 9790  0.80419889 -7.937382e-01
## 9791  1.32034245 -8.120414e-01
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## 9795  0.54804515 -2.699711e+00
## 9796  0.84141243  3.780236e-01
## 9797  1.28102923 -7.869495e-01
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## 9799  0.45806969 -2.065270e+00
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## 9801  1.06448064 -2.477316e+00
## 9802  1.29250151 -5.700808e-01
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## 9804  0.30440276 -2.567652e+00
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## 9808  0.57359865 -1.800014e+00
## 9809  0.85951409  4.506419e-01
## 9810  0.41262313  1.324070e+00
## 9811  0.44365231 -2.970101e+00
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## 9819  1.05801335 -1.762037e+00
## 9820  0.80235721  2.037040e+00
## 9821  0.13627918 -1.220787e-01
## 9822  0.15581713 -2.603312e+00
## 9823  0.96456916  1.455203e+00
## 9824  0.93729289 -8.176010e-01
## 9825  0.80762410  2.621584e+00
## 9826  0.81145835  8.296344e-01
## 9827  0.95301609 -9.541447e-01
## 9828  1.01629498 -2.099644e+00
## 9829  1.33835877 -3.175883e-01
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## 9831  0.63061255  2.812891e+00
## 9832  0.86689568 -2.299069e+00
## 9833  1.51370835 -2.867889e+00
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## 9835  0.21523930 -2.824048e+00
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## 9837  1.53095350  2.691159e+00
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## 9840  0.80234690 -8.531776e-01
## 9841  0.30867167  2.389893e-01
## 9842  1.19300329  7.083659e-01
## 9843  1.23430273 -2.490335e+00
## 9844  0.50328828 -2.195734e+00
## 9845  0.97637370 -5.425591e-01
## 9846  1.55319772 -1.526125e+00
## 9847  0.23539951  1.399343e+00
## 9848  0.86038528  1.203933e+00
## 9849  1.22349456  2.462969e+00
## 9850  1.27834564 -8.536669e-02
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## 9853  1.21814493 -8.538590e-01
## 9854  1.03207401  1.754572e+00
## 9855  0.47308401  1.141645e+00
## 9856  0.42404110 -3.770033e-01
## 9857  1.52163548 -8.416191e-01
## 9858  1.41768639 -2.047601e+00
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## 9862  0.59584530 -1.298959e+00
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## 9864  0.82301405  2.771668e+00
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## 9866  0.28597451  1.137577e+00
## 9867  0.93303703  1.448108e+00
## 9868  1.34857490  2.513077e+00
## 9869  1.45115145 -2.515470e+00
## 9870  0.54819664 -1.315960e+00
## 9871  0.32352841 -1.496899e+00
## 9872  1.09969741 -2.878404e+00
## 9873  1.25410712  3.365276e-01
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## 9875  1.30777055 -4.520984e-01
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## 9877  0.19629972 -3.451062e-01
## 9878  1.20532659 -1.674109e+00
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## 9880  0.26046605  8.930712e-01
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## 9882  0.31858247 -2.699834e+00
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## 9884  0.29777795 -2.045105e+00
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## 9892  0.98709820 -1.368870e+00
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## 9895  0.39858791 -2.141233e+00
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## 9899  1.17638421 -5.697579e-01
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## 9902  0.42459076 -1.646043e+00
## 9903  1.37546049  2.900357e-01
## 9904  1.34951231 -7.287889e-01
## 9905  0.30883626  1.505479e+00
## 9906  0.62083088  2.173194e+00
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## 9912  1.35840420  2.608224e+00
## 9913  0.20887021 -1.256183e+00
## 9914  1.09218514 -2.384806e+00
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## 9916  0.46751557  1.214181e+00
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## 9919  0.90151417 -1.546893e+00
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## 9921  0.53012233  3.098174e+00
## 9922  1.44795289  2.177399e+00
## 9923  1.39429400  2.171741e+00
## 9924  1.26799393 -1.079818e+00
## 9925  0.92512159  2.914305e+00
## 9926  1.28283651 -6.367394e-01
## 9927  0.33041474 -2.528995e+00
## 9928  1.47328217  1.553069e+00
## 9929  1.53307975  1.733877e+00
## 9930  0.90561243 -1.691553e+00
## 9931  0.87243762  2.831452e+00
## 9932  1.48454246  3.108947e-01
## 9933  0.65373572 -6.500008e-01
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## 9935  0.59769179  6.963780e-01
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## 9938  1.10366959 -1.225677e+00
## 9939  0.62180276 -1.089620e+00
## 9940  0.40411852 -1.035142e+00
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## 9945  0.52844161  7.062854e-01
## 9946  0.35376123  3.211912e-01
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## 9949  1.34970208 -3.987026e-01
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## 9952  1.20168248  2.183977e+00
## 9953  0.39814501 -2.003630e+00
## 9954  0.93069007 -2.323430e+00
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## 9956  0.69501485  2.684209e+00
## 9957  1.35878920 -2.872727e+00
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## 9962  0.86953764 -1.376114e+00
## 9963  0.78060626 -1.059089e-01
## 9964  0.39195025  2.104638e+00
## 9965  0.92646301  2.989186e+00
## 9966  0.72286153  2.187321e+00
## 9967  1.31571025 -2.567579e+00
## 9968  0.95675326 -1.459197e+00
## 9969  1.16789548  5.426203e-01
## 9970  1.27130954  2.816873e+00
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## 9972  0.23875381  3.885576e-01
## 9973  0.82865711  1.136207e+00
## 9974  0.48001113 -2.926957e+00
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## 9977  0.30503470 -2.420230e+00
## 9978  0.85077889  5.097301e-01
## 9979  1.28715155  2.951265e+00
## 9980  0.72602506  2.681038e+00
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## 9984  1.24378642 -2.497018e+00
## 9985  0.86909720 -3.110816e+00
## 9986  0.54832929 -1.513183e+00
## 9987  0.79898226  1.051092e+00
## 9988  1.10744833 -2.662584e+00
## 9989  0.59930279 -2.730206e+00
## 9990  1.15301390 -1.229102e+00
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## 9992  0.50228312  2.888063e+00
## 9993  0.58502501 -3.092518e+00
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## 9995  1.18120002  2.743834e+00
## 9996  1.40562218  1.105351e+00
## 9997  1.56466441  3.099394e+00
## 9998  0.60065020  1.881372e-01
## 9999  1.00327044  2.917462e+00
## 10000 0.67951973  2.361344e+00
## 10001 1.01720961  2.438842e+00
## 10002 0.54059117 -2.931940e+00
## 10003 0.86387659  1.583020e+00
## 10004 0.87743444 -2.051494e+00
## 10005 1.45486906  1.223634e+00
## 10006 1.11117551 -2.963030e+00
## 10007 0.41370316 -4.939727e-01
## 10008 0.55735444  1.337660e-02
## 10009 0.54745847 -1.419094e-01
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## 10011 1.13738681 -3.127469e+00
## 10012 0.53350235  1.896374e+00
## 10013 0.85152756  3.019857e+00
## 10014 0.96831138 -2.136948e+00
## 10015 1.30727919  3.816056e-02
## 10016 0.53365268 -2.081765e+00
## 10017 0.71167337 -1.412120e+00
## 10018 0.59078340 -1.172072e+00
## 10019 0.80331940 -3.560859e-01
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## 10021 1.39860861  2.774477e+00
## 10022 0.98985362  1.049078e+00
## 10023 1.46580666  2.689183e+00
## 10024 1.47690648  1.027099e+00
## 10025 0.75692973 -2.116606e+00
## 10026 1.33161624  1.640713e+00
## 10027 1.32909982 -3.131395e+00
## 10028 0.31361316 -6.546397e-01
## 10029 1.33153795 -8.710177e-01
## 10030 1.41273241 -6.288410e-01
## 10031 0.23651392 -2.777169e+00
## 10032 1.22217451 -5.645372e-01
## 10033 0.60161220  1.968691e+00
## 10034 1.10547979 -1.999076e+00
## 10035 0.38062927 -1.693527e+00
## 10036 1.01443676 -2.069554e+00
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## 10038 0.87112517  9.915262e-01
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## 10040 0.74816919  3.675744e-01
## 10041 1.26054963  2.210685e+00
## 10042 0.96429869 -2.913227e+00
## 10043 1.43210232 -2.303758e+00
## 10044 1.48786751 -1.508067e+00
## 10045 0.58749813  5.969606e-01
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## 10047 1.54891145 -2.127437e+00
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## 10049 1.56224080  2.978897e+00
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## 10051 0.86321656 -1.188512e+00
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## 10053 0.83393397  3.086546e+00
## 10054 0.24015295 -2.505203e+00
## 10055 0.76376201 -3.010708e+00
## 10056 0.79622668 -1.217054e+00
## 10057 0.86810548 -3.558561e-01
## 10058 0.95742621 -1.623763e+00
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## 10069 0.94205240 -5.833385e-01
## 10070 0.30346538 -1.935280e+00
## 10071 1.48198028 -5.288026e-01
## 10072 0.18371910 -1.369707e+00
## 10073 1.24650250  9.273139e-01
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## 10075 0.16601199 -2.940475e+00
## 10076 0.84999943 -1.038634e+00
## 10077 1.32719076 -7.992346e-01
## 10078 0.04881164 -2.016557e+00
## 10079 1.34529681  4.349273e-01
## 10080 0.96562637  2.361611e+00
## 10081 0.79477587  5.461205e-01
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## 10084 1.16868766 -7.962540e-01
## 10085 0.60964034  8.926142e-01
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## 10087 1.18882173  3.875285e-01
## 10088 1.46640176  1.662878e+00
## 10089 1.24487572 -4.692536e-01
## 10090 1.24239206  1.787617e-01
## 10091 1.10105668  3.066946e+00
## 10092 1.16063236 -3.065586e+00
## 10093 0.77309326  2.734970e+00
## 10094 0.37438144  7.689065e-01
## 10095 0.56302564  2.641736e+00
## 10096 0.60693405 -1.260137e+00
## 10097 0.68287868  9.449534e-01
## 10098 1.38485433  2.206117e-01
## 10099 0.60263075  9.438270e-01
## 10100 0.91787869  1.848495e+00
## 10101 0.48159846  6.157277e-01
## 10102 1.30803526  1.340231e+00
## 10103 0.69617600 -9.934386e-01
## 10104 1.25613498  2.037943e+00
## 10105 0.53419455  5.031210e-01
## 10106 1.35491580 -2.501852e+00
## 10107 1.01380569  7.032044e-01
## 10108 0.65212488  2.042255e+00
## 10109 0.80243023  2.772345e+00
## 10110 0.66205840  2.045741e+00
## 10111 0.60921328  1.944994e+00
## 10112 1.49085309 -1.163779e+00
## 10113 1.22596524 -1.037397e+00
## 10114 1.10791595  7.594050e-01
## 10115 0.13397198  8.824663e-02
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## 10117 1.25342922 -2.910669e+00
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## 10119 0.52231773  1.314392e+00
## 10120 0.35900996 -1.943074e+00
## 10121 0.28478494 -9.848789e-01
## 10122 0.42395723 -2.132253e+00
## 10123 0.38780109  1.322004e+00
## 10124 1.54465918 -9.763850e-01
## 10125 1.00872287 -2.782088e+00
## 10126 0.80184959  2.927894e+00
## 10127 0.51074538 -8.255021e-01
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## 10129 0.72061880  2.774620e+00
## 10130 1.33647741 -1.904098e+00
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## 10132 0.59979252 -2.992162e+00
## 10133 0.78649250 -5.675615e-02
## 10134 0.79247878  2.644458e+00
## 10135 0.94481645  1.821613e+00
## 10136 0.68391140  2.837854e+00
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## 10138 0.35173352 -7.647911e-01
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## 10142 1.50781609  1.838497e+00
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## 10146 0.72527776  2.929010e+00
## 10147 0.64144194  8.475312e-01
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## 10153 0.50697739  2.907387e+00
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## 10161 0.61225897  4.427436e-01
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## 10163 1.09687375 -1.383936e+00
## 10164 1.40779250  2.909303e-01
## 10165 1.33782179  2.437964e+00
## 10166 0.92268434  3.841287e-01
## 10167 0.41746856  2.787670e-01
## 10168 0.99061499  1.459035e+00
## 10169 1.53458536 -2.482161e+00
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## 10171 1.14922519 -2.547486e+00
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## 10173 0.70057272 -7.279020e-01
## 10174 0.41272122 -2.920143e+00
## 10175 0.90573023  1.150752e+00
## 10176 0.43316440 -2.629633e-01
## 10177 1.27094009  2.897733e-01
## 10178 0.27029210 -1.149255e+00
## 10179 0.53241016  2.728798e+00
## 10180 0.49235215  1.214450e+00
## 10181 0.21759525  1.144049e+00
## 10182 1.08581794 -1.918395e+00
## 10183 0.05090043 -7.429783e-01
## 10184 0.75141699 -1.792182e+00
## 10185 1.22841659  7.383810e-01
## 10186 1.51161269  2.500487e+00
## 10187 0.59522404  1.160794e-02
## 10188 1.03314803 -7.033694e-01
## 10189 1.34420094  3.087980e+00
## 10190 0.95745071  2.363428e+00
## 10191 1.51613116  2.488804e+00
## 10192 0.98260513  2.888219e+00
## 10193 0.56695288 -3.022349e+00
## 10194 1.40078899 -1.648703e+00
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## 10199 1.31186586  3.096358e+00
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## 10202 0.96504948  1.510679e+00
## 10203 0.18581368 -2.173341e+00
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## 10205 0.72271152  3.805672e-01
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## 10209 1.22976192  1.373353e-02
## 10210 0.50374423  2.623096e+00
## 10211 0.69611086  1.422045e+00
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## 10213 1.43712592  2.525180e-01
## 10214 0.58663490 -3.114615e+00
## 10215 1.33854991  8.275478e-02
## 10216 1.45792201  4.627709e-01
## 10217 1.14199804 -2.077800e+00
## 10218 1.31898209 -9.022617e-01
## 10219 0.70114352 -6.313201e-01
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## 10222 0.76092869 -1.949016e+00
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## 10224 0.63577249 -2.105183e+00
## 10225 0.93866518  2.447185e+00
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## 10227 1.49511410 -3.013951e+00
## 10228 0.12591869  1.120800e+00
## 10229 1.13078213  1.501168e-01
## 10230 0.91546336  2.989806e+00
## 10231 1.43584763  3.162209e-01
## 10232 0.87661314 -7.939042e-01
## 10233 1.05442976  2.320014e+00
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## 10241 1.15443059  5.639318e-03
## 10242 1.07887482  3.178511e-01
## 10243 1.22699492 -4.312436e-01
## 10244 0.42496180 -3.067417e+00
## 10245 0.52248044  2.410138e+00
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## 10250 1.33684585 -7.910405e-01
## 10251 1.50073412  1.786322e+00
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## 10262 0.54682932 -1.995765e+00
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## 10269 1.43912847  2.658949e+00
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## 10274 0.67620169  1.529303e+00
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## 10277 0.63037670 -2.530416e+00
## 10278 0.45196921  1.009838e+00
## 10279 0.99377138  1.634660e+00
## 10280 0.83756400 -2.321822e+00
## 10281 0.53631038  2.093432e+00
## 10282 0.24196843 -1.213932e+00
## 10283 0.34001056 -2.250723e+00
## 10284 1.38275647  1.047842e+00
## 10285 0.70430913 -2.083149e+00
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## 10290 0.65943167 -1.497402e-01
## 10291 0.57383026 -8.561974e-01
## 10292 0.93332671 -3.029954e+00
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## 10298 0.30499651 -1.901795e+00
## 10299 0.55267310  2.091302e+00
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## 10301 1.40845753  2.887109e+00
## 10302 0.43407722 -4.757252e-01
## 10303 1.26370049  2.702603e+00
## 10304 1.19115741 -1.532134e+00
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## 10309 0.64161958  2.631909e+00
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## 10311 0.71194390 -2.542704e+00
## 10312 1.27437828  3.130534e+00
## 10313 1.36817267  1.802475e+00
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## 10316 0.42845657  1.815905e+00
## 10317 0.50388496 -1.712316e+00
## 10318 1.01623011 -3.015879e+00
## 10319 1.57051208  2.704048e-01
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## 10321 0.96586987  1.072311e+00
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## 10323 1.23244722 -3.585993e-01
## 10324 0.81648290  3.249694e-01
## 10325 1.04407526  2.883721e+00
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## 10332 1.18332869 -5.287815e-01
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## 10367 0.54115430 -2.756312e+00
## 10368 0.47488347  2.416124e+00
## 10369 0.18699169  1.155391e+00
## 10370 1.53998980  2.516921e+00
## 10371 0.73437241  2.803160e+00
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## 10385 0.83051060  3.347923e-01
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## 10387 0.28556766 -2.055804e+00
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## 10396 0.69815837 -1.605229e+00
## 10397 0.29292797 -2.146470e+00
## 10398 0.43262551 -1.104133e+00
## 10399 1.05995866 -1.291516e+00
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## 10404 0.55264673 -1.772077e+00
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## 10406 0.91345127 -2.714213e+00
## 10407 0.39239725 -3.821770e-01
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## 10412 0.60641465 -1.190702e+00
## 10413 0.94602212 -1.385976e-01
## 10414 0.89640732 -1.723648e+00
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## 10418 1.43779828 -1.014031e+00
## 10419 1.54002232  1.536289e+00
## 10420 0.67281622  1.645740e+00
## 10421 0.61939634  1.963172e-01
## 10422 1.53173837  2.696085e+00
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## 10424 0.48695132  2.154118e+00
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## 10426 1.08367183  5.056481e-01
## 10427 1.11938864  5.487301e-01
## 10428 0.57961011 -5.605747e-01
## 10429 1.08465301 -6.134126e-01
## 10430 0.95677085  9.874089e-01
## 10431 1.24960083  1.978100e+00
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## 10432 1.41634086 -2.497931e+00
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## 10435 1.05890544 -1.949962e-01
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## 10437 1.19702311 -6.857773e-01
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## 10439 0.51051758  2.190341e+00
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## 10454 0.90476518 -2.617858e+00
## 10455 1.22048979  1.851273e+00
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## 10477 0.23914033 -2.010301e+00
## 10478 0.25404861 -2.579971e+00
## 10479 0.86034572 -2.772595e+00
## 10480 0.73115849 -1.221305e+00
## 10481 1.53531251  1.199201e+00
## 10482 0.91601374  3.053879e+00
## 10483 0.81073768 -2.721131e+00
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## 10485 1.53615141  2.056637e+00
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## 10495 1.21792333  2.833157e+00
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## 10497 0.43067993  7.396159e-01
## 10498 0.72433746 -9.502897e-01
## 10499 1.21382276 -2.765845e+00
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## 10505 1.45225842 -2.475355e+00
## 10506 1.34779528  3.073634e+00
## 10507 0.58591178 -1.865025e+00
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## 10510 1.33071612  2.729902e+00
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## 10512 1.01163940 -2.158987e+00
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## 10514 1.41096203 -2.343046e-01
## 10515 0.57795864 -2.240858e+00
## 10516 0.58014281  2.539236e+00
## 10517 0.77852989  1.513711e-01
## 10518 0.65098217  3.096419e+00
## 10519 1.02355698 -7.584836e-01
## 10520 0.14534450 -1.192495e+00
## 10521 0.94528920  1.498079e+00
## 10522 0.45869075 -6.939596e-01
## 10523 1.48960884 -2.873818e+00
## 10524 1.19425697 -2.369537e+00
## 10525 0.67255769 -2.099543e+00
## 10526 0.58686477  6.801974e-01
## 10527 1.48973086  1.878033e+00
## 10528 0.59387115 -1.178768e+00
## 10529 1.29222010  3.051668e+00
## 10530 1.52114311 -1.016478e+00
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## 10547 1.49189027 -1.627687e+00
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## 10564 1.13081589 -1.410587e+00
## 10565 0.16288760  1.847671e+00
## 10566 0.81276460 -6.876506e-01
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## 10574 0.21490627 -5.105110e-01
## 10575 1.36378521 -2.227744e+00
## 10576 0.74858167 -1.695287e+00
## 10577 1.54275624  1.229733e+00
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## 10579 1.11976256 -2.840413e+00
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## 10581 0.24782798 -1.358554e+00
## 10582 0.85105244  1.673754e+00
## 10583 0.50109530 -2.632412e-02
## 10584 1.51828330 -2.459753e-03
## 10585 0.80978169 -1.991917e+00
## 10586 0.19909784  2.921022e+00
## 10587 0.15210592  1.528899e+00
## 10588 0.77204600  1.640367e-01
## 10589 0.72764179  2.632193e+00
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## 10590 1.43440548 -2.816266e+00
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## 10593 0.22954614 -5.339321e-01
## 10594 1.13215339  7.129501e-01
## 10595 0.14597443  4.430714e-01
## 10596 0.72355617  1.133761e+00
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## 10599 0.65689094  1.137332e+00
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## 10601 0.16228639 -1.748591e+00
## 10602 1.36152583  2.657133e+00
## 10603 1.40754554 -6.204594e-01
## 10604 0.48879123  1.236851e+00
## 10605 1.53009712  2.843910e-01
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## 10607 0.64190796 -1.411075e-01
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## 10609 0.51739905 -2.487662e+00
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## 10612 1.54920555 -2.516014e+00
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## 10614 0.51211015 -2.943584e+00
## 10615 0.73358237  4.721946e-01
## 10616 0.59295423 -4.077286e-01
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## 10620 0.93480400  3.048847e+00
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## 10622 0.98565995  2.324117e+00
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## 10639 0.30904774  2.650846e+00
## 10640 0.48405875  2.593228e+00
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## 10651 0.26276580 -1.923522e+00
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## 10659 0.56294193 -2.047457e+00
## 10660 0.72890450  2.005309e+00
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## 10663 1.23394492  1.430918e-01
## 10664 1.22883251 -1.917932e-01
## 10665 0.59352788  3.519157e-01
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## 10670 0.79252206  1.053153e-01
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## 10680 1.39336967 -2.257609e+00
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## 10686 0.58693312  2.580815e+00
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## 10698 0.50407225 -3.121636e+00
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## 10704 0.88704569 -3.033966e+00
## 10705 0.87738552 -2.262609e+00
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## 10707 0.74848698  2.493397e+00
## 10708 1.06713301  2.320285e+00
## 10709 1.09898530 -3.122925e+00
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## 10711 1.03015353 -2.144535e-01
## 10712 0.40554883 -3.046235e+00
## 10713 1.14402311 -1.871812e+00
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## 10718 1.25725950  2.996208e+00
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## 10721 1.40998467 -2.731830e+00
## 10722 0.99273357 -2.477836e+00
## 10723 0.90504756 -1.950675e+00
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## 10725 1.05000873 -2.024833e-01
## 10726 0.17470224  9.253543e-01
## 10727 1.14238097 -8.102052e-01
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## 10736 0.15480856 -1.414936e+00
## 10737 1.49692423  2.831822e+00
## 10738 0.81387585  1.368922e+00
## 10739 1.17126260 -5.892553e-01
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## 10791 0.42797328 -6.331410e-01
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## 10797 1.36322148  1.188170e-02
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## 10815 0.93063448 -3.025975e+00
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## 10819 1.29665686  3.112731e+00
## 10820 0.90405218  1.316387e-01
## 10821 0.35771641  1.559675e+00
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## 10823 1.39539825 -2.960997e+00
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## 10825 1.11487679 -6.317996e-02
## 10826 0.42574849  9.453099e-01
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## 10835 0.73996440  1.072881e+00
## 10836 0.39233435  1.997380e+00
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## 10845 0.63089268 -1.076001e+00
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## 10877 0.54978801 -3.460344e-02
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## 10900 0.87916236  1.558220e+00
## 10901 0.77745162 -3.012645e+00
## 10902 0.47422435 -7.482481e-01
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## 10905 1.48743842 -1.508640e+00
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## 10906 0.13858225 -2.405498e+00
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## 10916 1.49239025  2.695372e+00
## 10917 0.82991288  3.083513e+00
## 10918 1.13623373 -3.068815e+00
## 10919 1.32748838 -6.082275e-01
## 10920 0.25301549 -9.045353e-01
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## 10922 0.77985931 -2.030220e+00
## 10923 0.18922414  1.380971e+00
## 10924 1.26243046 -1.557359e+00
## 10925 0.66143124  2.094386e-01
## 10926 1.41464070  2.755506e+00
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## 10938 0.30387224 -2.754414e-01
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## 10957 0.34061691  1.301161e+00
## 10958 0.45830191 -6.341068e-01
## 10959 0.34793481  1.182476e+00
## 10960 0.26961209 -1.193489e+00
## 10961 0.34638190 -2.919209e+00
## 10962 0.96426005 -9.798270e-01
## 10963 0.92348018  2.761248e+00
## 10964 1.50390828 -2.846011e+00
## 10965 1.25286179  2.832067e+00
## 10966 0.28908488 -8.893382e-01
## 10967 1.51998958  2.281241e+00
## 10968 0.66797826  6.016324e-01
## 10969 0.55761038 -1.209099e+00
## 10970 1.32589347  3.590995e-01
## 10971 0.37008667  2.293347e+00
## 10972 1.56972128  9.865534e-01
## 10973 0.12987284 -2.553590e-01
## 10974 0.51835151 -2.200116e-01
## 10975 0.91483042  2.929554e+00
## 10976 0.62024951  2.536975e+00
## 10977 1.31706320 -2.938999e+00
## 10978 0.80251079 -1.348406e+00
## 10979 0.31529796 -1.657542e+00
## 10980 0.90229145  3.813095e-01
## 10981 1.35050694  2.775799e+00
## 10982 1.08124030  4.411144e-02
## 10983 0.45073268 -7.589683e-01
## 10984 0.35938042 -2.451201e+00
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## 10986 1.15200125 -2.528601e+00
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## 10988 0.66205815 -2.642091e+00
## 10989 0.74802962 -2.358178e+00
## 10990 0.48191029 -2.259418e+00
## 10991 0.36565616  1.944274e+00
## 10992 0.71051150 -2.942580e+00
## 10993 0.25740473 -1.478316e+00
## 10994 0.45490864  1.615543e+00
## 10995 0.41970849 -2.347890e+00
## 10996 1.48501876 -2.674960e+00
## 10997 0.79571496 -2.535542e+00
## 10998 0.50786533  2.750985e+00
## 10999 0.93540018  6.112147e-01
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## 11001 0.94266757  2.918368e+00
## 11002 1.04060386 -2.399384e+00
## 11003 0.88369717  2.140621e+00
## 11004 0.99573580  9.123465e-01
## 11005 1.55402448 -2.342785e-01
## 11006 0.85639727  5.455122e-01
## 11007 0.54067220 -4.505653e-01
## 11008 1.00622964  1.469599e+00
## 11009 0.87631779 -1.103187e-01
## 11010 0.65205199  1.490816e+00
## 11011 1.05223507  2.237414e+00
## 11012 1.04235265  5.065908e-01
## 11013 0.68373305 -1.108192e+00
## 11014 0.27204044  1.214980e+00
## 11015 0.55370969  1.183797e+00
## 11016 0.59492119  1.409496e+00
## 11017 1.48621054  2.092743e-01
## 11018 0.83231884 -1.118715e+00
## 11019 0.56229463 -2.115791e+00
## 11020 0.26845909 -2.210521e+00
## 11021 0.45188577  7.358364e-01
## 11022 1.09522426  2.113170e+00
## 11023 0.59755841  9.693455e-02
## 11024 0.78243191 -3.653654e-01
## 11025 0.70855253  2.244573e-01
## 11026 0.55641675 -1.981322e+00
## 11027 1.38870113 -1.837191e+00
## 11028 1.29057267  2.682192e+00
## 11029 1.12059960 -6.074864e-01
## 11030 1.23167793  1.493534e-01
## 11031 0.86281273 -2.757100e+00
## 11032 0.79573085  2.146697e+00
## 11033 0.13315479  1.273015e+00
## 11034 1.35353383  2.831995e-01
## 11035 1.38289821  1.869456e+00
## 11036 0.93099107 -2.343034e+00
## 11037 0.74198358 -2.842830e+00
## 11038 1.07521883  1.898159e+00
## 11039 0.96028117  2.666703e+00
## 11040 0.77191046  2.012012e+00
## 11041 0.49882884 -2.495963e-01
## 11042 1.45179342  1.254415e+00
## 11043 0.44590500 -2.625012e+00
## 11044 1.04416726 -4.519827e-01
## 11045 0.63844129  1.949626e+00
## 11046 1.10885007  2.187844e+00
## 11047 0.73861385 -2.582325e+00
## 11048 1.06685976  1.867186e+00
## 11049 0.90112950  5.469033e-01
## 11050 1.08141311  1.780212e+00
## 11051 0.32320567 -2.219892e+00
## 11052 0.88054932  7.293227e-01
## 11053 0.79395680 -5.813329e-01
## 11054 1.35882578 -2.852777e+00
## 11055 0.59904679  2.852350e+00
## 11056 0.52771728  1.006890e+00
## 11057 1.50413405  6.471681e-02
## 11058 0.85925363  1.170391e+00
## 11059 0.94169177 -2.077294e+00
## 11060 1.38895080 -2.756955e+00
## 11061 0.90992817 -2.859780e+00
## 11062 1.21272499  3.110882e-01
## 11063 1.39110206 -2.858593e-01
```

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## 11064 0.55820900  2.301719e+00
## 11065 0.93927366  5.200499e-01
## 11066 0.93406332 -6.835878e-01
## 11067 1.00596124 -2.883247e-01
## 11068 0.55777813  2.839191e+00
## 11069 1.25446013  7.182238e-01
## 11070 1.37163903 -4.937131e-01
## 11071 0.42232418  2.374531e+00
## 11072 0.49380855 -2.044640e+00
## 11073 1.55554279 -2.682643e+00
## 11074 0.69464962 -2.994398e+00
## 11075 1.48010226 -1.830663e+00
## 11076 1.46614612  1.927886e+00
## 11077 1.14811734 -2.837223e+00
## 11078 0.56101363  3.394018e-01
## 11079 1.06445515  2.178533e-01
## 11080 0.33896822 -2.203077e+00
## 11081 1.06426491 -3.121508e+00
## 11082 1.00783677 -1.541698e-01
## 11083 0.89620850  1.948039e+00
## 11084 1.10691244  2.487095e+00
## 11085 1.27328096  1.618093e+00
## 11086 1.39587093 -1.785505e+00
## 11087 1.44068860  2.527949e+00
## 11088 1.33039336  3.021092e+00
## 11089 0.76559468 -2.897464e+00
## 11090 0.22026683  2.307493e+00
## 11091 0.27837842 -1.774721e+00
## 11092 0.49087707  1.378549e+00
## 11093 1.37088689  1.325506e+00
## 11094 0.65393318 -1.383967e+00
## 11095 0.71264693  1.243874e+00
## 11096 1.56795037 -1.090046e+00
## 11097 0.81474819 -2.106927e+00
## 11098 0.05232072  2.914407e+00
## 11099 1.36618049 -2.923026e+00
## 11100 1.40812867  2.798571e+00
## 11101 1.21046460 -2.089233e+00
## 11102 1.23478104 -2.389066e-02
## 11103 1.03185761 -4.212168e-01
## 11104 1.22515048 -2.280438e+00
## 11105 1.21531230 -2.251652e+00
## 11106 1.34321487 -8.787797e-01
## 11107 0.99936876 -6.114246e-02
## 11108 1.34197811  1.899926e+00
## 11109 1.19994513 -2.904627e+00
## 11110 1.44065714  6.333485e-01
## 11111 0.32392067  2.819553e+00
## 11112 0.83955924 -1.676067e+00
## 11113 0.80861778  3.784198e-01
## 11114 0.29108370 -2.812770e+00
## 11115 0.80290859  1.028382e+00
## 11116 0.65347981  3.726148e-01
## 11117 1.55632123 -1.710872e+00
## 11118 1.07353608 -2.654789e+00
## 11119 0.68882711 -6.386975e-01
## 11120 0.99217382  1.648871e+00
## 11121 0.77117421  3.040839e+00
## 11122 0.91309021  3.045532e+00
## 11123 1.42076513  2.086552e-01
## 11124 0.75087562 -2.617944e+00
## 11125 0.49859657  1.646926e+00
## 11126 1.04390182 -2.009973e+00
## 11127 0.51364043  2.936386e+00
## 11128 1.15212896 -2.633242e+00
## 11129 1.07325333  1.954108e+00
## 11130 0.43963542 -3.100053e+00
## 11131 0.64499161  6.299167e-01
## 11132 0.85010814  6.538234e-01
## 11133 0.80181878 -1.025586e+00
## 11134 1.14466162  6.947578e-01
## 11135 0.64488376  1.043196e+00
## 11136 1.22009353 -6.953674e-01
## 11137 0.12346718 -7.532697e-01
## 11138 0.49724608  2.326377e+00
## 11139 1.35269120 -3.070350e+00
## 11140 1.40861615  2.462980e+00
## 11141 1.24532710  8.241472e-01
## 11142 0.90284035 -2.651106e-01
```

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## 11143 1.43033983 -5.517214e-01
## 11144 0.98827225  6.049601e-01
## 11145 0.19105190 -8.624268e-01
## 11146 1.14631963 -2.300493e+00
## 11147 0.57455262  1.562126e+00
## 11148 0.99244874  1.425347e+00
## 11149 0.52020294 -2.395420e-01
## 11150 0.72333322 -7.333021e-01
## 11151 1.50084771 -7.946704e-02
## 11152 0.56094439 -2.211684e+00
## 11153 0.91834188  2.652475e+00
## 11154 0.98349896  3.748912e-01
## 11155 1.18413147  2.551943e+00
## 11156 1.14726161 -2.352363e+00
## 11157 0.87780565 -4.067388e-01
## 11158 1.06163734  3.042555e+00
## 11159 1.48495928  1.536282e+00
## 11160 1.38192099 -3.003110e+00
## 11161 0.77466399 -2.022412e+00
## 11162 0.90787823  9.812457e-01
## 11163 0.98720442  4.715224e-01
## 11164 0.72416164  1.519876e+00
## 11165 1.48436891 -1.242761e+00
## 11166 1.23143603  2.286497e+00
## 11167 1.46462726 -7.652124e-01
## 11168 0.69668363  8.940894e-02
## 11169 1.12986562  3.067446e+00
## 11170 1.11547433  2.912409e+00
## 11171 0.66532563 -2.855395e+00
## 11172 0.40659974 -1.664025e+00
## 11173 1.35483599  1.162262e-01
## 11174 0.49325848  1.541547e+00
## 11175 0.48943175  1.797842e+00
## 11176 0.49086702 -1.088140e+00
## 11177 0.55488501 -2.270175e+00
## 11178 1.05309694 -4.394854e-01
## 11179 1.40300485  1.681352e+00
## 11180 0.34064036 -2.769413e+00
## 11181 0.46767576 -6.685346e-01
## 11182 1.39483156 -1.451811e+00
## 11183 1.03391995  2.388787e+00
## 11184 0.72128335  1.567856e-01
## 11185 0.65230138  1.004984e+00
## 11186 0.67355030 -1.024202e+00
## 11187 1.40349139 -1.778277e+00
## 11188 0.85008086 -3.984426e-01
## 11189 1.49593037  1.637720e+00
## 11190 0.69095570  8.287914e-01
## 11191 0.78282719  2.666295e+00
## 11192 1.28826892 -3.055788e-01
## 11193 0.80162447 -2.303111e-01
## 11194 1.11612336 -4.068200e-01
## 11195 0.78079429 -1.692339e+00
## 11196 1.12260019 -2.270955e+00
## 11197 0.91989768 -7.822523e-01
## 11198 0.43568512 -1.714363e+00
## 11199 0.30664510  2.791461e+00
## 11200 0.81642401 -2.881572e+00
## 11201 0.58264992  3.867172e-01
## 11202 0.26782650  2.842663e+00
## 11203 0.29522619 -8.422691e-01
## 11204 1.32543368 -6.474208e-01
## 11205 0.85849316  1.508124e+00
## 11206 0.69713393 -1.506354e-01
## 11207 0.56819806  1.200955e+00
## 11208 1.10525191  3.816193e-01
## 11209 0.19234087  1.879340e+00
## 11210 0.60188677  2.201213e+00
## 11211 1.09988422  3.004048e+00
## 11212 0.73334839 -2.686144e+00
## 11213 1.49891049 -8.423205e-01
## 11214 0.54430655 -3.428645e-02
## 11215 1.56993428  2.623403e+00
## 11216 0.77254731 -1.815352e+00
## 11217 1.34178198  2.438926e+00
## 11218 1.45914262  2.867381e+00
## 11219 1.41541336 -2.231672e+00
## 11220 0.59522347  3.060146e-01
## 11221 1.28980188  5.402483e-02
```

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## 11222 0.47025663 -1.716505e+00
## 11223 1.35775525  1.483832e+00
## 11224 1.41655832  1.600611e+00
## 11225 1.26954262  2.742714e+00
## 11226 0.47846226  2.732061e+00
## 11227 1.05995135 -2.355770e+00
## 11228 1.27966235 -6.485071e-01
## 11229 0.63993252  2.737552e-01
## 11230 0.27755970 -1.269990e-01
## 11231 1.25480440 -8.092692e-01
## 11232 0.80777384  4.077688e-01
## 11233 1.39864158  2.516383e+00
## 11234 1.34361140 -2.741949e-01
## 11235 0.34221234 -1.023919e+00
## 11236 1.18148348 -2.757198e+00
## 11237 1.15386257  1.575276e+00
## 11238 0.29134808 -2.087200e+00
## 11239 0.99718109 -2.134691e+00
## 11240 0.44404130  2.054591e-01
## 11241 0.19160621 -6.445487e-01
## 11242 0.64580288 -2.027467e+00
## 11243 1.33817127 -2.774277e+00
## 11244 1.29488580  1.562796e+00
## 11245 1.28238236  3.085404e-01
## 11246 0.98145102 -2.826593e+00
## 11247 0.99021038  1.156158e+00
## 11248 1.21086547  2.400199e+00
## 11249 0.55083909 -2.069739e+00
## 11250 1.06456706 -2.277962e+00
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## 11252 0.59668745 -2.838314e+00
## 11253 0.80931937  1.192041e+00
## 11254 0.35311373 -2.786214e-02
## 11255 1.38558013 -2.357371e-01
## 11256 1.11200957  1.322864e+00
## 11257 1.30165944  3.117884e+00
## 11258 0.38113189 -3.004648e+00
## 11259 0.99888946 -6.205778e-01
## 11260 1.32858550  2.754444e+00
## 11261 1.38231826  7.228200e-01
## 11262 0.60070532  2.252601e+00
## 11263 1.45281425  1.614851e+00
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## 11265 1.24059974 -1.417225e+00
## 11266 0.48495667  2.794271e+00
## 11267 1.52248420 -1.522644e+00
## 11268 0.75752049  1.064464e+00
## 11269 0.20391139  4.862272e-01
## 11270 0.49278075  1.797144e+00
## 11271 0.63181186  1.784416e+00
## 11272 1.18031940 -2.166732e+00
## 11273 1.27775106 -4.042284e-01
## 11274 0.77053895  1.574193e+00
## 11275 1.00087303  1.351611e+00
## 11276 0.50987391  1.594238e+00
## 11277 0.86888324  1.465304e+00
## 11278 1.18055916  1.563187e-01
## 11279 0.59888581 -1.373800e+00
## 11280 1.42098666  1.464354e+00
## 11281 0.42378246  6.174408e-01
## 11282 1.16103092  1.235955e+00
## 11283 0.61272295  2.636872e-01
## 11284 0.74336213  2.405116e+00
## 11285 1.45544744  1.311735e-01
## 11286 0.50505625  2.424485e+00
## 11287 1.47514811 -5.156318e-01
## 11288 0.38019316  2.767076e+00
## 11289 0.95927210 -1.085580e-01
## 11290 1.26046184 -2.632528e+00
## 11291 0.36977690 -3.983429e-01
## 11292 1.54530987  2.033502e+00
## 11293 0.61633775  2.909650e+00
## 11294 1.40635670  2.937923e+00
## 11295 0.99081079 -2.387540e+00
## 11296 1.30038093 -9.555845e-01
## 11297 1.18994838 -4.754321e-01
## 11298 0.65771597  3.039055e+00
## 11299 1.15980369  4.102228e-01
## 11300 0.29877465 -1.789483e+00
```

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## 11301 0.55003828 -1.067814e-01
## 11302 0.74453639 -9.152426e-01
## 11303 0.99133198  3.766415e-01
## 11304 0.31209464 -2.334491e+00
## 11305 1.45411715  7.082966e-01
## 11306 0.92759480 -2.649094e+00
## 11307 1.43845087 -1.031687e-01
## 11308 0.43846068 -1.595174e+00
## 11309 0.84530867 -3.118269e+00
## 11310 0.33198402 -6.631160e-01
## 11311 0.13194012 -2.025128e+00
## 11312 1.35445144 -2.023743e-01
## 11313 1.16386541  8.056014e-02
## 11314 1.48662552  2.771741e+00
## 11315 0.34052547 -2.114979e-01
## 11316 0.90357351 -1.658190e+00
## 11317 0.23031353  1.466006e+00
## 11318 0.21273945  1.631121e+00
## 11319 1.37010968  2.889548e+00
## 11320 1.03614911  2.852733e+00
## 11321 1.09015020  2.640484e+00
## 11322 0.89972755 -2.982272e+00
## 11323 0.38753425 -2.044809e+00
## 11324 1.28726644  2.127502e-01
## 11325 1.31136255 -1.819661e+00
## 11326 0.67116256  5.946822e-01
## 11327 0.55844297 -2.870286e+00
## 11328 1.53133899 -5.497700e-02
## 11329 0.63386099 -2.438608e+00
## 11330 0.66456714 -2.013539e+00
## 11331 1.52087299 -3.137349e+00
## 11332 0.74186900  2.699527e+00
## 11333 1.41688116  2.219615e-01
## 11334 0.51034363  2.152465e+00
## 11335 1.38316239  1.743046e+00
## 11336 1.37295631 -1.551200e+00
## 11337 1.32134137 -9.688337e-01
## 11338 1.32016600  2.111635e+00
## 11339 1.09366641 -7.662216e-01
## 11340 1.25830581  3.083064e+00
## 11341 0.72944865 -1.530774e+00
## 11342 1.22704367  9.567888e-02
## 11343 0.85160077 -1.759203e+00
## 11344 1.46970230  1.414797e+00
## 11345 1.49105576 -3.287562e-01
## 11346 0.67034944 -2.146864e-01
## 11347 0.42126111 -1.944800e+00
## 11348 0.96468711  2.677397e+00
## 11349 0.64381629  2.287333e+00
## 11350 1.36077514 -3.035732e+00
## 11351 0.69701705 -3.129559e+00
## 11352 0.49339430 -4.544121e-01
## 11353 1.33476893 -2.819394e+00
## 11354 1.55517731  9.676393e-01
## 11355 0.52044022  2.061586e+00
## 11356 0.13694550  1.227402e+00
## 11357 0.60784333 -4.031463e-01
## 11358 0.68608100 -2.461846e+00
## 11359 0.63301694  4.419924e-01
## 11360 0.68934002 -1.603094e+00
## 11361 0.28208869  3.831044e-01
## 11362 1.10424006  4.006749e-01
## 11363 1.06102619  2.129904e+00
## 11364 1.26911708  2.876440e+00
## 11365 1.46636425 -1.202467e+00
## 11366 0.51614257  8.950891e-01
## 11367 0.67324944  3.050533e+00
## 11368 1.53302536 -1.561220e+00
## 11369 0.29496565  8.066559e-01
## 11370 1.29019257  6.901869e-01
## 11371 1.29826868 -5.511795e-01
## 11372 0.28622875 -4.703656e-02
## 11373 0.89961589 -1.802017e-01
## 11374 0.60799489  2.342534e+00
## 11375 1.38776058 -2.877940e+00
## 11376 0.93323465 -2.273956e+00
## 11377 0.80560206 -1.524103e+00
## 11378 0.31106117 -2.811662e+00
## 11379 1.20275633 -2.348129e-01
```

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## 11380 0.83316755  2.519547e+00
## 11381 1.04659659 -3.071742e+00
## 11382 0.96482879 -2.323672e+00
## 11383 1.15523647  7.091026e-01
## 11384 1.03962163 -1.398762e-01
## 11385 1.20004331 -2.704769e+00
## 11386 0.84773119 -5.269688e-01
## 11387 1.15469503 -1.412665e-01
## 11388 0.55294990  3.716163e-01
## 11389 0.47172272  2.512301e+00
## 11390 1.21195881 -2.233762e-01
## 11391 1.53226958  3.260974e-01
## 11392 1.27133049  9.533423e-01
## 11393 1.55043659  2.629969e+00
## 11394 1.43732438 -2.067284e+00
## 11395 0.44120784  2.573183e+00
## 11396 0.75760610  2.440616e+00
## 11397 0.35290430  2.635689e+00
## 11398 0.44630635 -1.723354e+00
## 11399 0.09584193 -2.584040e+00
## 11400 0.76989793 -2.721379e+00
## 11401 1.06696234  1.186659e+00
## 11402 1.04663529 -2.820964e+00
## 11403 1.12487749 -2.512195e+00
## 11404 0.67359506  5.658500e-01
## 11405 0.94907010 -2.931364e-01
## 11406 0.27571300 -1.315559e-01
## 11407 0.47460475  2.856844e+00
## 11408 0.49576898  3.018137e+00
## 11409 0.50170670  2.354560e+00
## 11410 0.96267923 -2.645481e+00
## 11411 0.38066792 -2.570169e+00
## 11412 0.52511769 -1.220282e+00
## 11413 1.03392786  2.708656e-01
## 11414 0.76589082 -9.096909e-01
## 11415 1.02366542 -4.933465e-01
## 11416 0.40404775 -7.593380e-01
## 11417 0.96235336 -9.855228e-01
## 11418 1.25536142 -3.063905e+00
## 11419 1.45518937  2.327496e-01
## 11420 1.21224031  2.539045e+00
## 11421 0.23292190 -2.657551e+00
## 11422 0.09454209 -2.569316e-01
## 11423 0.81497475  3.578199e-01
## 11424 0.61485897 -5.229112e-02
## 11425 1.43751204  1.573268e+00
## 11426 1.52019536  2.820786e+00
## 11427 1.20731243  5.750655e-01
## 11428 0.20106967 -2.635848e+00
## 11429 1.38063896  1.110786e+00
## 11430 0.64746373  2.492077e+00
## 11431 0.67339549  1.340707e+00
## 11432 0.29943262  2.816120e+00
## 11433 1.25474148  2.095071e+00
## 11434 0.93708666  2.336764e+00
## 11435 0.37351256  1.047674e+00
## 11436 0.65358391  6.675643e-01
## 11437 0.97326368 -3.099738e+00
## 11438 0.33081354  2.807357e+00
## 11439 0.74798619  1.923053e+00
## 11440 0.72384526  2.727865e+00
## 11441 0.36118234 -1.394141e+00
## 11442 0.98968126  1.241954e+00
## 11443 1.42724756  9.523543e-01
## 11444 0.91348688  1.269122e+00
## 11445 1.55207506 -2.757443e+00
## 11446 0.44732254 -2.533679e+00
## 11447 0.77509648 -2.453070e+00
## 11448 0.89874477  2.758163e+00
## 11449 0.53319304 -9.047205e-01
## 11450 1.08029138  4.149971e-01
## 11451 0.81870154  5.264000e-01
## 11452 0.15520908 -2.477541e+00
## 11453 1.41213770 -2.268448e+00
## 11454 0.87630712 -1.422553e+00
## 11455 1.04120872 -2.962513e+00
## 11456 0.98591137 -4.670521e-01
## 11457 0.97584692 -1.105171e+00
## 11458 1.51956994  1.116580e+00
```

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## 11459 1.07647751 -1.680976e+00
## 11460 1.45681529  7.962455e-01
## 11461 0.42414821  4.853635e-01
## 11462 1.47885052  1.770262e+00
## 11463 1.50798580 -1.515935e+00
## 11464 0.59581165  1.187683e+00
## 11465 1.21636985  2.024539e+00
## 11466 1.13191824  2.115702e+00
## 11467 1.22519859 -2.696377e+00
## 11468 0.80883880 -3.009817e+00
## 11469 1.46680912 -2.443579e+00
## 11470 0.45281283  1.347916e+00
## 11471 1.03800534  2.901381e+00
## 11472 0.90168831  2.925871e-01
## 11473 0.66659523 -3.309804e-01
## 11474 1.01574491  8.705893e-02
## 11475 1.11659713 -7.744248e-01
## 11476 0.16830734 -2.770074e+00
## 11477 0.86696136  2.876117e+00
## 11478 1.09635713 -1.762881e+00
## 11479 0.32582878 -4.171493e-01
## 11480 0.33304225 -9.225771e-01
## 11481 0.38320108 -1.722299e+00
## 11482 1.27989828 -2.989095e+00
## 11483 0.39060995 -7.861408e-01
## 11484 0.51322526 -1.978226e+00
## 11485 0.12159525 -1.630246e+00
## 11486 0.18092689  6.576244e-01
## 11487 0.22687116 -2.899015e+00
## 11488 0.27075357 -1.959803e+00
## 11489 0.51451061  6.223781e-01
## 11490 1.32587227 -2.501924e+00
## 11491 0.83317131 -2.705440e+00
## 11492 1.37942846  5.169577e-01
## 11493 1.27718698 -1.659752e+00
## 11494 0.49043776  1.920093e-02
## 11495 0.71078799 -2.835554e+00
## 11496 0.77161679  1.750342e+00
## 11497 1.21130917 -1.271531e+00
## 11498 0.86376883 -1.515968e+00
## 11499 0.75416887 -3.009310e+00
## 11500 0.95851934 -3.664134e-01
## 11501 1.18178710  2.625859e+00
## 11502 0.40188619 -2.268871e-01
## 11503 0.64289244  2.019671e+00
## 11504 1.42992578  1.101116e+00
## 11505 1.54619962  2.207357e+00
## 11506 1.45224625  2.663366e-01
## 11507 0.11790171 -3.035796e+00
## 11508 1.04164133 -2.596421e+00
## 11509 1.45694838 -2.701732e+00
## 11510 0.84360230 -1.254386e+00
## 11511 1.06718939  2.675207e+00
## 11512 1.31740008  2.668695e+00
## 11513 0.40176448  2.334257e+00
## 11514 0.24380277 -1.241466e+00
## 11515 1.25614770  2.836570e+00
## 11516 0.90952527  6.138176e-01
## 11517 1.52881096 -1.575447e+00
## 11518 1.30644646  2.394972e+00
## 11519 0.61065800 -2.901478e-01
## 11520 1.54157484 -2.592020e+00
## 11521 0.92506199  1.033949e+00
## 11522 0.45634026 -1.086729e+00
## 11523 1.37922183 -6.550704e-01
## 11524 1.26072929  1.608326e+00
## 11525 0.39713324  1.294881e+00
## 11526 0.44230065  1.904579e+00
## 11527 0.84311450  1.271422e+00
## 11528 0.99559992 -1.978796e+00
## 11529 0.63774545  8.204251e-01
## 11530 0.82453639  2.374026e+00
## 11531 1.19091382 -2.576050e-01
## 11532 1.32384361 -9.353533e-01
## 11533 0.55497598  2.165651e+00
## 11534 0.99987179 -1.892015e+00
## 11535 0.49300174  1.777422e+00
## 11536 0.97315972  2.099969e-01
## 11537 0.11218522 -1.568415e+00
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## 11538 0.86350081 -7.284017e-01
## 11539 0.52366453  8.599391e-01
## 11540 0.45349776  1.419328e-01
## 11541 0.23633334  3.837723e-01
## 11542 0.60269135 -1.524288e+00
## 11543 0.31230113  2.041932e+00
## 11544 0.12074620 -9.739644e-01
## 11545 0.48505179  2.199286e+00
## 11546 0.39403119 -1.755793e+00
## 11547 1.51330919  1.928545e-01
## 11548 1.14019871 -2.420535e+00
## 11549 0.30823803  2.583012e+00
## 11550 0.84051708 -2.396550e+00
## 11551 0.36563162 -9.380642e-01
## 11552 1.51123615  1.502814e+00
## 11553 0.74668363  1.660919e+00
## 11554 0.99472061  9.202313e-01
## 11555 1.29224629  2.808855e+00
## 11556 1.54947602  2.506560e+00
## 11557 1.02775283 -2.015512e-01
## 11558 0.37000405 -1.219114e+00
## 11559 0.27436990 -2.422908e-01
## 11560 0.44883653  1.466619e+00
## 11561 0.74712160 -1.521013e-01
## 11562 0.89228190 -1.831376e+00
## 11563 0.56009348 -2.200425e+00
## 11564 0.53130350  2.155765e+00
## 11565 0.58816546 -2.149335e+00
## 11566 1.09938154  2.613663e-01
## 11567 0.61723013  2.994932e+00
## 11568 1.45981527  1.925561e+00
## 11569 0.98952877 -7.414795e-01
## 11570 0.69922472  1.861105e+00
## 11571 0.54314015 -2.880365e+00
## 11572 1.10738862 -1.374721e+00
## 11573 1.13625259  6.552847e-01
## 11574 0.87001047 -1.137930e+00
## 11575 1.06135284 -2.069470e+00
## 11576 0.25787212 -2.092722e-01
## 11577 0.12952785 -5.979502e-01
## 11578 1.15619605 -2.471969e+00
## 11579 1.56102711 -2.674015e+00
## 11580 1.52168056 -2.903317e+00
## 11581 1.12186856 -4.383295e-01
## 11582 1.44502119 -1.900728e+00
## 11583 0.64324545  7.321322e-02
## 11584 1.53611835 -1.793167e+00
## 11585 1.10142066 -1.429085e+00
## 11586 0.52077237  2.756247e+00
## 11587 0.95505996 -1.027129e+00
## 11588 0.19425776 -1.830497e+00
## 11589 0.95843827  2.043766e-01
## 11590 1.01762211  1.576647e+00
## 11591 0.54450315 -1.013140e-01
## 11592 1.54485665 -1.199069e+00
## 11593 0.24867627 -1.401307e+00
## 11594 1.01027800  3.019045e+00
## 11595 0.93845233  2.357860e-02
## 11596 0.79514494  6.582058e-01
## 11597 1.51511633 -7.646895e-01
## 11598 0.45615911 -2.841554e+00
## 11599 1.42395306  1.418323e+00
## 11600 1.21473681  1.417488e+00
## 11601 1.02667982  1.685335e+00
## 11602 0.73127354 -1.861765e+00
## 11603 1.18188006  2.889141e+00
## 11604 0.87518279 -3.185229e-01
## 11605 1.50718669  1.063850e+00
## 11606 0.32089627 -1.357689e+00
## 11607 0.28681986 -2.382118e+00
## 11608 0.55637123 -2.959534e+00
## 11609 1.00059321 -2.701609e+00
## 11610 1.56730934 -1.565174e-01
## 11611 1.48119182  5.109036e-01
## 11612 1.47906814  2.461720e+00
## 11613 0.32852218  1.156862e+00
## 11614 0.80852910 -2.624634e+00
## 11615 1.47597491 -1.960242e-01
## 11616 1.06058431 -2.831210e+00
```

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## 11617 0.86540830 -2.734329e+00
## 11618 1.10440824 -1.643911e-01
## 11619 1.27261739  8.264112e-01
## 11620 0.61471520  7.197784e-01
## 11621 1.55174208 -2.434039e+00
## 11622 0.89896417  1.080018e+00
## 11623 1.42592390  2.968370e+00
## 11624 0.21201138  1.008096e-01
## 11625 0.79509281  7.354099e-01
## 11626 0.69252601  1.240813e-03
## 11627 0.88307918  1.579347e+00
## 11628 1.28820181  3.006737e+00
## 11629 1.42825955 -1.710717e+00
## 11630 0.51133434  1.326776e+00
## 11631 1.26353539  2.786050e+00
## 11632 1.09691384 -8.711956e-01
## 11633 1.25084387  1.523832e+00
## 11634 1.17537734  1.000005e-01
## 11635 1.37531591  2.847101e+00
## 11636 0.49256054 -7.991310e-01
## 11637 0.49843833 -4.858439e-01
## 11638 0.51166320  9.168004e-01
## 11639 0.84639436  6.290649e-01
## 11640 0.21973683  1.427102e+00
## 11641 0.55599054  2.343693e+00
## 11642 0.61171129  2.077032e+00
## 11643 0.94430395  1.881460e+00
## 11644 0.64311966  1.759331e+00
## 11645 1.52030933  3.593539e-01
## 11646 1.10344298 -3.583700e-01
## 11647 0.15948567 -1.145974e+00
## 11648 1.40702601  5.017312e-01
## 11649 0.50258261 -2.397310e+00
## 11650 1.04873230 -2.970775e+00
## 11651 0.64079474 -6.147044e-01
## 11652 0.38715401  1.307510e+00
## 11653 0.23255024  6.656639e-01
## 11654 1.32257199 -1.186894e+00
## 11655 1.52267188  2.273486e+00
## 11656 1.47329745  4.968373e-01
## 11657 1.19717663  2.461683e+00
## 11658 1.34068744  1.240594e+00
## 11659 1.18591890 -1.543302e+00
## 11660 0.48104936  8.637445e-01
## 11661 0.65570730  1.931488e+00
## 11662 1.25275599  3.040670e+00
## 11663 1.51500469  2.212959e+00
## 11664 0.61300250  3.240815e-01
## 11665 0.79290720  1.822060e+00
## 11666 0.26914858  1.577920e+00
## 11667 0.19827167 -2.754656e+00
## 11668 0.33590503 -8.355748e-01
## 11669 1.25479060  1.041488e+00
## 11670 1.55865713 -2.393460e+00
## 11671 0.55854795 -6.806226e-01
## 11672 0.87226410  1.423520e+00
## 11673 1.02070438  8.227065e-01
## 11674 0.13691920 -5.639917e-01
## 11675 0.10805906 -2.878034e+00
## 11676 1.31968034 -5.294572e-01
## 11677 0.91992010  3.025580e+00
## 11678 1.23302478 -1.584336e-01
## 11679 1.07278285  2.177237e+00
## 11680 0.77892926  1.545532e+00
## 11681 0.40928208  1.913276e-01
## 11682 0.90648487  2.999786e+00
## 11683 1.51470610  3.016516e+00
## 11684 0.39099508  2.118928e+00
## 11685 0.76395654  2.140373e+00
## 11686 0.48967588  2.796145e+00
## 11687 0.18758391 -1.030988e+00
## 11688 0.63530501 -2.500936e+00
## 11689 1.01859231  1.573068e+00
## 11690 1.46321860 -2.162773e+00
## 11691 0.91219115  1.674689e+00
## 11692 1.20413630 -2.312904e+00
## 11693 0.31776604  1.822560e+00
## 11694 1.16646051 -4.371397e-02
## 11695 0.33861340 -5.564337e-01
```

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## 11696 1.46668299 -1.405904e+00
## 11697 1.28429751 -1.221858e+00
## 11698 0.24872398 -2.826664e+00
## 11699 0.77376702  1.149756e+00
## 11700 1.49295198  2.057068e+00
## 11701 1.03576690  1.785032e+00
## 11702 1.26153628 -2.805635e+00
## 11703 0.46380596  8.110454e-01
## 11704 1.52050203  2.913302e+00
## 11705 0.31919574  3.785573e-01
## 11706 0.82037066 -8.849073e-01
## 11707 0.71113666  1.807447e+00
## 11708 0.98860561 -1.600670e+00
## 11709 0.67511042  5.370849e-01
## 11710 1.10925989 -1.212149e+00
## 11711 0.56294392  1.282971e+00
## 11712 1.45686143 -2.041657e+00
## 11713 0.98488727 -2.993400e+00
## 11714 1.29447928 -1.313264e+00
## 11715 0.13122928  1.254824e+00
## 11716 1.15823058 -4.665566e-01
## 11717 0.92571747 -2.248157e+00
## 11718 0.91049876  2.472215e-01
## 11719 1.11468121  7.002278e-01
## 11720 0.31430028  2.962344e-01
## 11721 0.94453685  1.020831e+00
## 11722 1.32575616 -6.011697e-01
## 11723 0.14851350  2.507712e-01
## 11724 1.27398843  3.010059e+00
## 11725 1.04362101 -2.750230e+00
## 11726 0.60061296 -6.792121e-01
## 11727 1.36328558 -3.688360e-01
## 11728 0.68311104  1.722592e+00
## 11729 1.43460528  2.163548e-01
## 11730 1.18327125  2.584066e+00
## 11731 1.31763512  2.053858e+00
## 11732 0.48954429  2.622336e+00
## 11733 0.78451863 -9.312303e-01
## 11734 1.20305375 -1.536144e+00
## 11735 1.34937169 -1.039711e+00
## 11736 0.83695051  1.043702e+00
## 11737 0.91046915 -1.869331e+00
## 11738 0.96429819 -1.860160e+00
## 11739 0.46749377  6.606768e-01
## 11740 1.52631039  8.532237e-01
## 11741 0.27741150 -1.577978e+00
## 11742 1.26008705  2.227591e-01
## 11743 1.20567045 -2.380530e+00
## 11744 1.56467974 -6.114561e-01
## 11745 1.48309594  2.974788e+00
## 11746 0.10164834  1.291317e+00
## 11747 0.97068085  2.148699e+00
## 11748 1.14278852  1.729999e+00
## 11749 1.39795424  2.827659e+00
## 11750 1.09166745 -1.662240e+00
## 11751 1.24414406 -2.280579e+00
## 11752 1.11585356 -5.282060e-01
## 11753 0.67890041  1.380258e+00
## 11754 1.16180189  3.081827e+00
## 11755 0.71546507 -3.133274e+00
## 11756 1.11630725 -2.770269e+00
## 11757 1.32226986 -1.121697e+00
## 11758 0.23946055  2.717335e+00
## 11759 0.50919941  1.736012e+00
## 11760 1.24278134  9.098969e-01
## 11761 1.30496999 -1.400292e-01
## 11762 0.85629266 -2.228898e+00
## 11763 1.53815987 -2.202900e+00
## 11764 0.75111342  2.140041e+00
## 11765 1.28939206 -1.018426e+00
## 11766 1.50790094  3.001017e+00
## 11767 1.53601437  8.473172e-01
## 11768 0.99716465 -2.330220e+00
## 11769 0.81813524 -2.677930e+00
## 11770 0.27411699  1.339960e+00
## 11771 0.44060308 -2.553537e+00
## 11772 0.99497562  2.838369e+00
## 11773 1.15535220 -1.582787e+00
## 11774 0.26626908 -7.926911e-01
```

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## 11775 0.86732482 -6.908482e-01
## 11776 0.70354195 -2.010985e-01
## 11777 0.10724332 -8.285518e-01
## 11778 1.00863590  9.040710e-01
## 11779 1.03672017 -3.534303e-01
## 11780 0.19945065 -8.232799e-01
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## 11782 0.63557071  1.483256e+00
## 11783 0.82958465 -1.632211e+00
## 11784 1.26953547 -2.795670e+00
## 11785 0.69315227  1.801054e+00
## 11786 1.09995922  3.117607e+00
## 11787 0.46846388  4.386920e-01
## 11788 1.24422369 -3.025769e-04
## 11789 0.87075020  2.218533e+00
## 11790 0.52674617  7.292401e-01
## 11791 0.40870676  1.314193e-01
## 11792 0.04611765  1.586916e+00
## 11793 0.68697796 -2.357342e+00
## 11794 1.45934093 -1.476039e+00
## 11795 1.55916298  1.593571e+00
## 11796 0.58213989 -6.761482e-02
## 11797 0.71723647 -7.075321e-01
## 11798 0.99174873  5.043038e-01
## 11799 0.35243704  3.102488e+00
## 11800 0.70408773  1.254312e-01
## 11801 1.04254989  3.002768e+00
## 11802 0.79407982  1.690671e+00
## 11803 0.20851214  2.094802e+00
## 11804 0.60638399  3.014000e-01
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## 11806 0.12672635 -2.588977e+00
## 11807 0.34269110  2.539050e+00
## 11808 0.53445266  1.280226e+00
## 11809 1.11854343 -2.315707e+00
## 11810 1.35756992 -2.377898e+00
## 11811 0.78477175  2.972269e+00
## 11812 0.50821643 -3.052124e+00
## 11813 1.26593951  2.318144e+00
## 11814 0.81204327 -7.792413e-01
## 11815 0.84853251 -1.655221e+00
## 11816 0.84164413 -3.816516e-02
## 11817 0.59481806 -2.294524e+00
## 11818 0.64922538  2.702143e+00
## 11819 1.08871288 -2.750509e+00
## 11820 0.95472435  2.603491e+00
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## 11822 1.04511900  2.924354e+00
## 11823 0.99943359  1.874949e+00
## 11824 0.97148490  7.433010e-01
## 11825 0.93887872 -1.381366e+00
## 11826 0.82538403 -2.436057e+00
## 11827 1.39264606  2.698705e+00
## 11828 0.21767581 -9.347488e-01
## 11829 0.50031202  5.761589e-02
## 11830 1.43219919  2.822074e+00
## 11831 0.57292120  2.591704e+00
## 11832 1.15837400 -2.283537e+00
## 11833 0.86279094  1.581312e+00
## 11834 0.88377374  1.820052e+00
## 11835 0.81239528 -3.002395e+00
## 11836 1.29977575  1.991084e+00
## 11837 0.29579182 -1.049741e+00
## 11838 0.54150782  2.538432e+00
## 11839 1.08383214 -8.698668e-01
## 11840 1.18103806  2.955516e-01
## 11841 1.20479550 -2.788163e+00
## 11842 0.17100523  1.532371e+00
## 11843 0.61859442  1.467492e+00
## 11844 0.36751687  2.570287e+00
## 11845 0.75550440 -2.254346e+00
## 11846 0.23128176 -4.771526e-01
## 11847 1.12791656  1.537683e-01
## 11848 1.52295408  2.842142e+00
## 11849 0.63867661  1.232734e+00
## 11850 0.18480732 -1.139289e+00
## 11851 1.13607869 -2.994562e+00
## 11852 0.57893488 -3.041677e+00
## 11853 0.64051138 -2.995724e+00
```

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## 11854 0.72235124  1.137480e+00
## 11855 0.73537510 -1.200973e+00
## 11856 0.44146000  2.942640e+00
## 11857 0.27528800  2.176083e+00
## 11858 1.51358738  1.296896e+00
## 11859 1.45973201  3.083378e+00
## 11860 1.22042911  1.295216e+00
## 11861 1.30555391  9.899057e-01
## 11862 1.34736247  1.784299e+00
## 11863 0.26113373 -2.417957e-02
## 11864 0.78731934  2.937049e+00
## 11865 1.09433544  1.099859e+00
## 11866 0.74840603 -3.513825e-01
## 11867 1.07171718  1.295212e+00
## 11868 1.07592258  3.365681e-01
## 11869 0.31524301 -1.029596e+00
## 11870 0.65668095  2.029126e+00
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## 11874 0.94867041 -1.894964e-01
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## 11876 1.11280021  1.387529e+00
## 11877 0.86245013 -1.478774e+00
## 11878 1.26691170 -3.023924e+00
## 11879 0.34084241 -1.961524e-01
## 11880 1.28752311 -3.020389e+00
## 11881 0.68647619 -5.392924e-01
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## 11883 1.50769338 -2.072864e+00
## 11884 0.41282876  1.147494e+00
## 11885 0.94835254 -2.557342e-01
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## 11887 1.45024219  3.113513e+00
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## 11890 0.33072195  2.497051e+00
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## 11892 0.38212302  1.354780e+00
## 11893 0.35518914 -1.269493e+00
## 11894 1.14607154  1.779915e+00
## 11895 0.21014283  2.703344e+00
## 11896 0.71531209 -1.111792e+00
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## 11898 1.28001007 -9.294848e-01
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## 11901 0.57981690 -2.287671e-01
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## 11903 0.83766307 -1.789567e+00
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## 11906 0.54756029 -1.566991e+00
## 11907 0.81519031 -1.308264e+00
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## 11918 0.89479685  1.177590e+00
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## 11920 0.11230828  2.014558e+00
## 11921 0.70995032 -1.335279e-01
## 11922 0.08234073 -1.478372e+00
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## 11924 0.89279468 -2.353131e+00
## 11925 0.21529751 -1.193395e+00
## 11926 0.76042696  3.135211e+00
## 11927 1.50549673  2.923024e+00
## 11928 0.78553581 -9.818859e-01
## 11929 0.64932338 -3.074758e+00
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## 11931 0.33407548 -2.393941e+00
## 11932 0.19672627  2.091461e+00
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## 11933 1.23031322  2.384820e+00
## 11934 0.97612707 -2.312999e+00
## 11935 1.19796167 -3.134108e+00
## 11936 1.05231737  5.836542e-01
## 11937 1.36267069  7.089922e-01
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## 11945 1.28820291  6.909676e-01
## 11946 1.53860434  3.136540e+00
## 11947 1.22796511 -2.126322e+00
## 11948 0.95370196  1.142222e+00
## 11949 1.52380925 -3.838757e-01
## 11950 0.51502144  3.094309e+00
## 11951 0.09048417  3.054938e+00
## 11952 0.62081963  2.526355e+00
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## 11958 0.92601052  3.367979e-01
## 11959 0.90393972 -2.464619e-01
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## 11961 1.31646891  1.506880e+00
## 11962 0.72082152  2.952859e+00
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## 11964 1.21351555 -9.896757e-01
## 11965 0.74118947 -1.479553e-01
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## 11971 0.57933959 -8.083880e-01
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## 11979 0.61198428 -2.214774e+00
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## 11981 1.01734285  2.581844e+00
## 11982 0.56446328 -1.292186e+00
## 11983 0.72410621  2.829648e+00
## 11984 0.66163628  1.513720e+00
## 11985 0.24964216 -1.658749e-01
## 11986 0.80733184 -8.933187e-01
## 11987 1.23378135 -9.592562e-01
## 11988 0.56702044  2.649179e+00
## 11989 0.88242549 -2.843763e+00
## 11990 0.82096884 -2.896418e+00
## 11991 0.55524249 -1.344201e+00
## 11992 1.42710971  1.488940e+00
## 11993 1.03485365  1.569115e+00
## 11994 1.02006047 -2.742640e-01
## 11995 0.46911589  2.853582e+00
## 11996 0.30155167 -5.181786e-01
## 11997 1.32932666 -6.763280e-01
## 11998 0.47802551  2.850569e+00
## 11999 0.60320586  2.990198e+00
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## 12001 0.97832834  2.139600e+00
## 12002 0.84677874  3.117689e+00
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## 12006 1.38942348  5.447018e-01
## 12007 0.67396246  6.201909e-01
## 12008 0.85507544 -2.463681e+00
## 12009 1.13596398 -2.229084e-01
## 12010 0.62428914  2.206461e+00
## 12011 0.38975552 -1.398638e+00
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## 12012 0.45989479  2.472656e+00
## 12013 0.48180578 -2.026458e+00
## 12014 0.65045710  2.500236e-01
## 12015 1.40951174  6.693631e-01
## 12016 1.55120717 -1.064235e+00
## 12017 0.34276576 -5.922119e-01
## 12018 0.58685714  2.453710e+00
## 12019 0.80782675  2.964195e+00
## 12020 0.19153324  2.905683e+00
## 12021 0.91905561 -1.909263e+00
## 12022 0.69196104 -1.169409e+00
## 12023 0.40064533  1.111340e-01
## 12024 1.13030896  2.294715e+00
## 12025 1.41696193 -2.583589e+00
## 12026 1.52429635  8.668872e-01
## 12027 0.71094841 -2.107922e+00
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## 12029 0.29267130 -1.540375e+00
## 12030 1.38619408 -1.168419e+00
## 12031 1.33222591 -4.193519e-01
## 12032 1.44351998  8.217626e-01
## 12033 0.56335424  5.748103e-01
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## 12036 0.83543266 -4.355444e-01
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## 12038 0.84587173 -2.884660e+00
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## 12041 0.13926399  1.423472e+00
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## 12043 0.41082095  9.668941e-01
## 12044 0.92498887 -2.788672e+00
## 12045 1.03333929  2.703878e+00
## 12046 0.41444734 -3.056727e+00
## 12047 0.48542669  3.174987e-01
## 12048 1.51755084 -3.732167e-01
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## 12050 0.41071952  1.364306e+00
## 12051 0.87538727  4.793081e-01
## 12052 0.96663501 -7.130145e-01
## 12053 0.55907930 -3.356538e-02
## 12054 1.21793936 -3.912295e-01
## 12055 1.25122329 -6.751207e-01
## 12056 1.13392624 -1.303062e-01
## 12057 0.30882073 -1.097127e+00
## 12058 0.98619747 -1.476528e+00
## 12059 0.92247873 -2.944332e+00
## 12060 1.18175779  4.841317e-01
## 12061 1.51060349 -6.898909e-01
## 12062 0.79881717 -1.499254e+00
## 12063 0.79197110  2.854520e+00
## 12064 1.05083524  2.627878e+00
## 12065 0.56009518  1.785303e+00
## 12066 1.15321537  1.411173e+00
## 12067 0.10236177  2.946232e+00
## 12068 0.93347142  1.766887e+00
## 12069 0.80445183 -2.698853e-02
## 12070 1.48683678  2.999887e+00
## 12071 1.39875275  1.108006e+00
## 12072 0.84740482  2.375921e+00
## 12073 1.39510318 -2.703957e+00
## 12074 0.47921577  2.720414e+00
## 12075 0.88771150  2.896156e+00
## 12076 1.34279479  2.870952e+00
## 12077 0.21489692 -1.994098e+00
## 12078 0.62088276 -1.858709e+00
## 12079 0.62271454  2.202448e-01
## 12080 1.00861461  3.004183e+00
## 12081 0.43224971 -1.189439e+00
## 12082 0.97299819 -2.157822e+00
## 12083 0.98090397  1.023885e+00
## 12084 1.11550799 -7.569919e-03
## 12085 1.03670768  2.364172e-01
## 12086 1.56161341 -9.353246e-01
## 12087 0.41064987 -3.067251e+00
## 12088 0.40674528  1.713021e+00
## 12089 0.87199170 -1.473669e-01
## 12090 0.07092053  3.005899e+00
```

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## 12091 1.12251401  2.285680e+00
## 12092 0.56481528 -1.941346e+00
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## 12112 1.54250495 -4.796937e-01
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## 12168 0.23243601  5.009090e-01
## 12169 0.93014186  2.492459e+00
```

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## 12175 0.57220035  1.668593e+00
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## 12177 1.50603154 -1.494158e+00
## 12178 1.19524522  2.787565e+00
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## 12197 0.37469632 -3.180876e-01
## 12198 0.33996770 -5.072744e-01
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## 12219 0.41696760  2.586597e+00
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## 12224 1.01665236  1.742522e+00
## 12225 1.44779342 -2.573487e+00
## 12226 0.48889769 -2.984680e+00
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## 12230 0.68951864  2.939452e+00
## 12231 0.20976084  4.099792e-01
## 12232 1.16779587 -2.111002e+00
## 12233 0.72631617 -3.006411e+00
## 12234 0.65245746 -2.811490e+00
## 12235 0.96289614 -1.754502e+00
## 12236 0.44224494  3.104871e+00
## 12237 1.55382322  1.129038e+00
## 12238 0.68881525 -1.579476e+00
## 12239 0.85649511  2.389590e+00
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## 12241 0.93213994 -2.297295e+00
## 12242 0.76762703  2.076157e+00
## 12243 1.36984074  1.941731e+00
## 12244 1.06105432 -1.480035e-01
## 12245 0.66991434 -1.305781e+00
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## 12247 0.83129142 -1.486525e-01
## 12248 0.38307434  7.781611e-01
```

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## 12250 0.93963006  7.201678e-01
## 12251 0.60353423 -2.616843e+00
## 12252 1.18466011 -1.122432e+00
## 12253 0.45826354  1.898475e+00
## 12254 0.70205803 -2.346922e+00
## 12255 1.06558903 -2.798589e+00
## 12256 1.13973166 -3.085125e+00
## 12257 0.28099065  2.910703e+00
## 12258 0.79985173 -2.443173e+00
## 12259 1.41265544 -3.041656e+00
## 12260 0.50001178 -2.175573e+00
## 12261 0.21698281  2.448983e+00
## 12262 1.06166925  1.378518e+00
## 12263 1.50877525 -2.482587e+00
## 12264 1.46210479  1.745007e+00
## 12265 1.50455384 -2.828112e+00
## 12266 1.27111382 -2.168771e+00
## 12267 0.43355471  2.368958e+00
## 12268 0.75655065  8.928957e-01
## 12269 0.88676041  2.120969e+00
## 12270 1.21276629 -2.578501e+00
## 12271 0.49091638 -1.450361e+00
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## 12275 0.23049965 -1.501307e+00
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## 12280 0.25899098 -2.708961e+00
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## 12294 0.75604116  3.033146e+00
## 12295 0.76954755  1.201107e+00
## 12296 0.69511458  2.772621e+00
## 12297 0.50786711 -2.867078e+00
## 12298 1.13143976 -2.924521e+00
## 12299 1.56411740 -8.811266e-01
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## 12301 1.44803133  1.873726e-01
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## 12303 1.23422104 -1.587638e-01
## 12304 0.90716837 -2.780433e+00
## 12305 1.36444080 -9.311499e-01
## 12306 0.79186334 -1.974725e+00
## 12307 0.78292839 -2.327757e+00
## 12308 0.59628397  1.174861e+00
## 12309 0.74353675  2.871690e+00
## 12310 1.27653586 -2.813338e+00
## 12311 1.41924232  5.414292e-01
## 12312 0.81815367  3.055428e+00
## 12313 1.00486073 -3.552634e-01
## 12314 1.02881636 -1.695539e+00
## 12315 0.90822406 -1.188575e+00
## 12316 1.26223883  7.968846e-01
## 12317 0.84246724 -1.503469e+00
## 12318 1.06773350 -8.114058e-01
## 12319 0.78855509  3.106860e-01
## 12320 0.89548985  1.923193e+00
## 12321 0.84859796 -1.608309e+00
## 12322 1.09859883  1.298679e+00
## 12323 0.51537754  8.943079e-01
## 12324 1.22179657 -6.117680e-01
## 12325 0.79468076  9.013652e-01
## 12326 0.83312319  1.270186e+00
## 12327 0.45439705 -4.952890e-01
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## 12332 0.10527684 -5.810336e-01
## 12333 1.22236152 -1.468143e+00
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## 12335 1.39817254 -1.927143e+00
## 12336 0.99534707  1.463073e+00
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## 12373 0.61103016 -2.403494e+00
## 12374 0.78829100 -1.764080e-01
## 12375 0.30982128  2.647793e+00
## 12376 0.32269237  1.331774e+00
## 12377 1.35344964 -2.432489e+00
## 12378 1.33249387  2.609437e+00
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## 12380 1.02095062  1.810505e+00
## 12381 1.13250475  2.452088e+00
## 12382 0.44633084  2.572905e+00
## 12383 0.99697379 -1.474244e+00
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## 12385 1.01182308 -2.638626e+00
## 12386 1.49800818 -1.267417e-03
## 12387 0.86697705  1.896488e+00
## 12388 0.21750318 -1.925290e+00
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## 12399 1.12617928 -2.742318e+00
## 12400 1.00260105  3.043987e+00
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## 12402 0.69129404 -2.867486e+00
## 12403 0.65107469 -2.866726e+00
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## 12405 0.66869516 -2.713157e+00
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## 12410 0.96048026  2.146383e+00
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## 12412 0.61731164 -1.202728e+00
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## 12416 0.68796244  3.131516e+00
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## 12421 0.28297584  3.138873e+00
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## 12425 1.39067340 -2.595855e+00
## 12426 0.28302535  2.154939e+00
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## 12428 1.34637588  2.548246e+00
## 12429 0.19936538  1.631071e+00
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## 12434 0.41025960 -1.198996e+00
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## 12454 0.95675415 -5.962367e-01
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## 12458 0.91582796  4.687193e-01
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## 12466 0.72787178 -2.911597e+00
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## 12468 0.91700673 -2.373912e+00
## 12469 0.27334406 -1.592978e+00
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## 12482 1.50836634 -3.125958e+00
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## 12484 0.64484086 -1.606933e+00
## 12485 0.93866275 -2.618282e+00
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## 12494 0.59794831  1.297842e+00
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## 12502 0.93624792 -2.623978e+00
## 12503 0.26983051 -2.673376e+00
## 12504 1.01807864  2.810003e+00
## 12505 1.18448614  3.001514e+00
## 12506 0.92725086 -2.748506e+00
## 12507 0.75530878  2.635228e+00
## 12508 0.16374989 -2.688178e+00
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## 12548 0.49838850  2.373774e-01
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## 12561 0.40392807  2.113961e+00
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## 12563 0.52210529 -1.456244e-01
## 12564 0.74237515  1.864709e+00
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## 12572 0.37017234  2.517401e+00
## 12573 0.66125723 -2.039579e+00
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## 12576 0.92194128  2.426876e+00
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## 12579 0.91803387 -1.259867e+00
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## 12581 0.60309182 -4.930979e-01
## 12582 0.30021983  2.091654e+00
## 12583 1.43006632 -2.928005e+00
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## 12585 0.27913814  2.284350e+00
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## 12597 0.55042424  9.010916e-01
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## 12615 0.26383258 -1.323594e+00
## 12616 0.81361313  2.663966e-01
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## 12624 0.34805093 -2.629465e+00
## 12625 0.42293358 -1.111209e+00
## 12626 0.87341183 -1.865054e+00
## 12627 1.23890811 -1.770430e+00
## 12628 1.18312154 -3.028020e+00
## 12629 1.07574037  1.109071e+00
## 12630 0.97814547 -1.197156e+00
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## 12632 1.40994009 -1.908822e-01
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## 12634 0.10649550 -3.110899e+00
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## 12636 0.73285989  8.447651e-02
## 12637 0.34236161  1.422657e+00
## 12638 0.20245096  2.143909e+00
## 12639 0.71963648  1.838695e+00
## 12640 0.29346778  1.273864e+00
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## 12643 0.96303920  2.558578e+00
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## 12647 0.68499691 -1.211219e+00
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## 12662 1.21361257 -2.305518e-01
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## 12665 1.45088719  1.986961e+00
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## 12701 0.39755840 -2.177791e+00
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## 12704 0.71162605 -1.728723e+00
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## 12710 1.54591607  2.293449e+00
## 12711 1.11181329  8.968839e-01
## 12712 0.94331889  2.936023e+00
## 12713 0.98066811  3.092380e+00
## 12714 1.24359714 -2.170171e-02
## 12715 0.85604718 -2.793979e+00
## 12716 1.24242883 -1.003472e+00
## 12717 1.29328329 -2.464710e+00
## 12718 0.20398029 -1.824729e+00
## 12719 1.49815939 -1.867297e+00
## 12720 0.58947709  2.977328e-01
## 12721 0.17152593 -2.137907e+00
## 12722 0.54418589  2.740055e+00
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## 12723 0.37633160 -3.040343e+00
## 12724 1.30622940 -1.018582e+00
## 12725 1.25240244  1.275770e+00
## 12726 1.47016565  2.787042e+00
## 12727 0.58873947  7.547822e-01
## 12728 0.40988810 -1.903703e-01
## 12729 0.61571200  2.107266e+00
## 12730 1.15699438 -2.680488e+00
## 12731 1.56583501 -2.984009e+00
## 12732 1.01884279 -1.719085e+00
## 12733 0.52296311 -2.792734e+00
## 12734 0.19857219  2.841775e+00
## 12735 0.57109965 -8.833867e-01
## 12736 0.63160702  1.117623e+00
## 12737 0.59267278 -2.152280e+00
## 12738 0.66495590  1.686021e+00
## 12739 0.53584982 -2.735280e+00
## 12740 0.63736914  1.368957e-01
## 12741 0.15248353 -6.263792e-01
## 12742 0.46048596 -2.034794e+00
## 12743 0.62385382  2.378134e+00
## 12744 0.94135771  1.057591e+00
## 12745 0.21511945  1.898176e+00
## 12746 1.20165507  4.046476e-01
## 12747 0.64051746 -6.667113e-01
## 12748 1.39277511  4.296592e-01
## 12749 0.72919229 -3.038424e+00
## 12750 0.62043945  1.109322e+00
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## 12752 0.90290362  1.001384e+00
## 12753 1.11321138  2.943465e+00
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## 12756 1.30848134 -2.698942e+00
## 12757 1.01671460 -2.754886e+00
## 12758 0.77548291 -6.604041e-01
## 12759 0.73397114 -3.529333e-01
## 12760 0.55692526  5.931110e-01
## 12761 0.36644588 -1.575390e-01
## 12762 0.85716035 -2.938402e+00
## 12763 1.53656536  3.057041e+00
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## 12765 0.64003215  2.279923e+00
## 12766 0.48029141  1.408817e+00
## 12767 0.80532866 -2.198954e-01
## 12768 1.15510557 -6.174491e-01
## 12769 1.37785145  2.404407e+00
## 12770 1.27958407 -2.449954e+00
## 12771 0.62389045 -5.183106e-01
## 12772 0.14003316 -1.542616e+00
## 12773 0.97367165 -2.536170e+00
## 12774 0.79547040  1.650047e+00
## 12775 1.06954696 -1.929422e+00
## 12776 0.74730858 -3.051875e+00
## 12777 0.95046800 -2.525704e+00
## 12778 0.48677175  1.245779e+00
## 12779 0.88931050 -4.311531e-01
## 12780 1.33274131 -1.502703e+00
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## 12782 1.04969493 -2.490795e+00
## 12783 1.43967339  2.814973e-01
## 12784 1.47084889 -2.626931e+00
## 12785 0.40111049  3.268792e-02
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## 12787 0.49814047 -5.818884e-01
## 12788 1.49179403 -1.942989e-01
## 12789 0.44779051  2.351730e+00
## 12790 0.80679153  2.325204e+00
## 12791 1.30599687 -2.772337e+00
## 12792 0.94999078 -3.108549e+00
## 12793 0.72286953  2.996783e+00
## 12794 0.29522264  4.297850e-01
## 12795 0.79886918  2.313609e-01
## 12796 1.24704707 -7.212637e-02
## 12797 0.21338288  2.644114e+00
## 12798 0.84315352 -3.462380e-01
## 12799 1.47889130 -2.052722e+00
## 12800 1.27641242  2.677809e+00
## 12801 0.58255737 -3.867640e-01
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## 12807 0.18173043 -1.712170e+00
## 12808 0.89024492  4.525524e-01
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## 12810 0.97523235  2.512546e-01
## 12811 0.30971285  1.895603e+00
## 12812 1.31491000 -1.025751e+00
## 12813 1.33449714 -1.523525e-01
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## 12815 1.28481084  1.370758e+00
## 12816 0.49135408  3.007069e+00
## 12817 1.23947137  1.068586e+00
## 12818 1.11842821 -1.156027e+00
## 12819 0.95238573  3.877774e-01
## 12820 1.10010636 -7.255583e-01
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## 12822 1.32442198  2.360998e+00
## 12823 1.11540451 -4.101809e-01
## 12824 1.12020196  5.781884e-01
## 12825 0.41478974 -1.552288e+00
## 12826 0.41309055 -3.093657e+00
## 12827 0.96468447 -2.982104e+00
## 12828 0.15359638  2.869497e+00
## 12829 0.07852066 -1.090236e+00
## 12830 0.39335636 -2.010199e+00
## 12831 0.85206978 -2.544451e+00
## 12832 1.05773319 -4.979541e-01
## 12833 1.50791171  3.053323e+00
## 12834 1.56065764 -2.952930e+00
## 12835 0.53167382 -1.970950e-01
## 12836 1.46033653  1.149430e+00
## 12837 1.08075931 -3.071081e+00
## 12838 0.75445215 -6.783767e-01
## 12839 1.11874155 -2.760566e+00
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## 12845 0.98403246 -2.589083e+00
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## 12847 0.34079226 -2.996860e+00
## 12848 0.43603087  8.207937e-01
## 12849 0.38277455 -1.327886e+00
## 12850 1.56420435 -2.929943e+00
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## 12852 1.28334842 -8.897303e-01
## 12853 1.23860919 -8.332329e-01
## 12854 0.23171853  1.439426e+00
## 12855 0.96371473  8.169336e-01
## 12856 0.23368250 -1.227636e+00
## 12857 1.47453987  2.248968e+00
## 12858 1.00488647 -1.314357e+00
## 12859 0.72293913  3.091550e+00
## 12860 1.19959118 -2.248243e+00
## 12861 0.26369955  2.737691e+00
## 12862 0.40959474 -8.290261e-01
## 12863 1.32976060 -3.758215e-01
## 12864 1.40347446 -4.842171e-01
## 12865 1.45430503  1.762342e+00
## 12866 0.77418427  6.448834e-01
## 12867 0.44130077 -7.671557e-01
## 12868 0.93111125  3.939898e-01
## 12869 0.74704442 -9.700017e-01
## 12870 1.21059973 -2.696218e+00
## 12871 0.41610774 -1.680153e+00
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## 12875 0.79026967  2.374211e+00
## 12876 0.86038642  2.944982e-01
## 12877 1.12303924  1.328933e-01
## 12878 1.49039985 -2.204398e-01
## 12879 0.56539040 -9.144567e-01
## 12880 0.64193889 -1.304827e+00
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## 12881 0.99784002 -2.383304e+00
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## 12893 0.79238039 -6.177896e-01
## 12894 0.34408432 -1.211994e+00
## 12895 1.00698398 -2.047646e+00
## 12896 0.45978080  3.037938e+00
## 12897 1.09925440  3.082245e+00
## 12898 1.43665515  2.621714e+00
## 12899 0.67849832  2.894454e+00
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## 12901 0.30174753 -2.638383e+00
## 12902 0.77647622 -1.655997e-01
## 12903 0.33185345 -8.928401e-01
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## 12910 0.49195474  1.089968e-01
## 12911 1.03198548 -1.490260e+00
## 12912 1.38092324  1.073272e-01
## 12913 1.34612299  2.906698e+00
## 12914 1.53468024 -2.834435e+00
## 12915 0.91988387 -9.321124e-01
## 12916 1.02230541 -2.607160e+00
## 12917 0.80552653  2.563065e-01
## 12918 0.45797711  9.323730e-01
## 12919 1.27150154  1.741671e+00
## 12920 0.59781082 -2.801249e+00
## 12921 1.54053479  9.861653e-01
## 12922 1.56863139 -1.699652e-01
## 12923 0.62487971  2.131241e+00
## 12924 1.13332311  2.881386e+00
## 12925 1.16284184  1.877970e-01
## 12926 1.28213474 -2.602030e+00
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## 12928 1.49172009 -2.717854e+00
## 12929 1.09991335 -1.762077e+00
## 12930 1.03521186  3.131364e+00
## 12931 1.51551420  2.639528e+00
## 12932 1.12651503  5.791003e-01
## 12933 0.96181514  1.135996e+00
## 12934 0.36783439 -1.935287e+00
## 12935 0.32147569 -2.476853e-01
## 12936 1.08807894 -1.502950e+00
## 12937 0.68448192  2.996923e+00
## 12938 0.39801338 -1.054109e-01
## 12939 1.27379739  2.724849e+00
## 12940 1.33233093  2.518693e+00
## 12941 0.55493932  2.482025e+00
## 12942 0.95787645  3.526642e-01
## 12943 1.27731258 -6.590060e-01
## 12944 0.74425400 -3.012866e+00
## 12945 0.63128907  2.415649e+00
## 12946 1.37820508  2.018351e+00
## 12947 0.13315365  8.426922e-01
## 12948 0.85801481  2.935020e+00
## 12949 1.20219272  2.345628e+00
## 12950 1.37963305 -1.503429e+00
## 12951 0.50133647 -2.634246e+00
## 12952 1.40396722  1.034512e+00
## 12953 1.04274978  1.785434e+00
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## 12955 1.37591202 -1.183231e-01
## 12956 1.25056127  2.815747e+00
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## 12958 0.71448536  1.060186e+00
## 12959 1.11722214 -2.962533e+00
```

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## 12960 0.76378799  2.168615e-01
## 12961 0.70231854 -4.393357e-01
## 12962 0.17323353  1.517504e+00
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## 12964 1.44969827 -1.282651e+00
## 12965 0.96608136 -1.153528e-01
## 12966 1.56524276  5.874302e-02
## 12967 0.95448816  1.770841e-02
## 12968 1.20059006  3.073711e+00
## 12969 1.44148601 -9.842129e-01
## 12970 1.46228290 -3.135312e+00
## 12971 1.10472391 -2.997192e+00
## 12972 0.39349304 -1.984057e+00
## 12973 1.47509254  1.264022e+00
## 12974 1.53583802  1.240259e+00
## 12975 1.22369649 -1.564767e-01
## 12976 1.21980770 -1.084496e-01
## 12977 0.77258066 -1.937323e+00
## 12978 1.42169231  6.099049e-02
## 12979 1.39478175 -2.495038e+00
## 12980 1.44822758 -3.050987e+00
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## 12988 1.44867319 -4.349412e-01
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## 12994 1.24652918  5.917983e-01
## 12995 1.24925694 -2.727431e-01
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## 12997 1.42366160 -1.228017e+00
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## 13004 1.26179881  2.067803e+00
## 13005 0.29152196 -1.962205e+00
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## 13007 0.84000207  2.110950e+00
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## 13009 1.00304010 -3.130939e+00
## 13010 0.77126373  2.616893e+00
## 13011 1.53687824 -3.025495e+00
## 13012 0.22018815 -5.988442e-01
## 13013 0.99918730 -2.575909e+00
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## 13016 0.83327220  3.268276e-01
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## 13018 0.49840816 -1.466172e+00
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## 13021 1.28180383  1.769878e+00
## 13022 0.90857234 -3.198169e-01
## 13023 1.03782478  2.696850e+00
## 13024 1.22049618 -2.844233e+00
## 13025 1.44105799  1.213178e+00
## 13026 0.20024436 -7.397146e-01
## 13027 1.05270821  9.345883e-01
## 13028 0.92846468  4.704948e-01
## 13029 0.42773859 -2.436726e-01
## 13030 1.21524203  3.123076e+00
## 13031 0.35013435 -8.757604e-01
## 13032 0.41760424 -2.229919e+00
## 13033 1.37899473  8.506851e-01
## 13034 0.63742463 -1.481027e+00
## 13035 1.14231074  1.512113e+00
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## 13037 0.98329383  7.972961e-01
## 13038 1.55185832  1.018689e+00
```

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## 13039 1.10230580 -1.411245e+00
## 13040 0.38652127  2.651077e+00
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## 13042 1.50407849  2.258953e+00
## 13043 0.56770152 -2.860590e+00
## 13044 1.01418021 -1.308041e+00
## 13045 0.55749664 -2.584609e+00
## 13046 1.06896695 -1.195693e+00
## 13047 0.14125142  1.391270e+00
## 13048 0.30487672 -2.810267e+00
## 13049 0.45419988 -2.999575e+00
## 13050 0.28335574  1.308340e+00
## 13051 1.49856089  2.800041e+00
## 13052 0.81638682  2.946356e+00
## 13053 1.14201280 -2.199611e+00
## 13054 1.52981725  2.171339e+00
## 13055 0.74558467 -2.394993e+00
## 13056 1.31736657  8.740982e-01
## 13057 1.45877069 -2.926794e+00
## 13058 0.32744098 -2.163943e+00
## 13059 0.47708870 -7.423333e-01
## 13060 1.47634689 -2.858417e+00
## 13061 0.73075482 -9.216012e-01
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## 13063 0.22344385 -7.212191e-02
## 13064 1.48934174 -1.012180e+00
## 13065 1.34572920  2.406302e+00
## 13066 0.46343672  3.096390e+00
## 13067 0.62072474  1.466566e+00
## 13068 0.56225203  1.958007e+00
## 13069 0.99382992 -3.122774e+00
## 13070 1.43278756  1.164264e+00
## 13071 0.41737152  1.559518e+00
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## 13073 0.37699024 -9.444629e-01
## 13074 1.32307256 -2.979976e+00
## 13075 1.23873508 -9.360294e-01
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## 13078 1.53366811 -2.010785e+00
## 13079 1.06799927  2.325730e+00
## 13080 1.42212548  2.290177e+00
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## 13083 0.78208629  4.515693e-01
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## 13086 1.12249227 -2.101367e+00
## 13087 1.09032391 -2.300486e+00
## 13088 0.54920119  2.662069e+00
## 13089 1.04897242 -1.911394e+00
## 13090 1.03114533 -2.174943e+00
## 13091 1.12292204 -3.974173e-02
## 13092 1.13899266 -3.089786e+00
## 13093 0.99642820 -1.428704e+00
## 13094 0.55505756  2.546002e+00
## 13095 0.51681966  7.869608e-01
## 13096 0.18590364  3.108575e+00
## 13097 0.65675422  2.802543e+00
## 13098 1.39418044  1.627906e+00
## 13099 1.01083425 -1.620736e+00
## 13100 1.02566458 -2.204083e+00
## 13101 0.52160417 -4.752806e-01
## 13102 1.08830057  1.087012e-01
## 13103 1.27572352  2.726628e+00
## 13104 0.60336120 -1.889131e+00
## 13105 1.07895486 -1.713168e+00
## 13106 1.31058480 -1.553076e+00
## 13107 0.42831728  7.204483e-01
## 13108 1.05281769 -1.107655e+00
## 13109 0.95992641 -5.838230e-01
## 13110 0.38517519 -1.541341e+00
## 13111 0.67468325 -1.449366e+00
## 13112 0.47782940  9.107197e-02
## 13113 1.42000383  2.565421e+00
## 13114 1.37074555  2.783409e+00
## 13115 0.76333331  1.873730e-01
## 13116 0.58278610 -3.030194e+00
## 13117 0.35968263 -2.945440e+00
```

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## 13118 0.96951548  1.794927e+00
## 13119 1.31769069 -2.789497e+00
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## 13121 0.29587652  4.790804e-01
## 13122 0.93209222 -2.238231e+00
## 13123 0.96335430 -1.336344e+00
## 13124 1.54942722 -2.917417e+00
## 13125 1.36732806  5.745326e-01
## 13126 1.48830381  4.960280e-01
## 13127 0.35129106 -9.683094e-01
## 13128 1.42331312  1.745389e-01
## 13129 1.03486776 -3.991990e-01
## 13130 0.56507558  2.873161e+00
## 13131 1.12769111 -2.068112e-01
## 13132 0.58448271 -8.014378e-01
## 13133 0.74140161  1.247233e+00
## 13134 1.50450747 -1.357753e-01
## 13135 0.44106257 -2.598003e+00
## 13136 1.54762818 -6.787580e-01
## 13137 0.49868833  2.810721e+00
## 13138 0.78919694 -2.696425e+00
## 13139 0.73224231  1.444470e+00
## 13140 1.43393194  1.354718e+00
## 13141 0.55614031  5.906636e-01
## 13142 0.51589684  1.213031e+00
## 13143 0.91746318  2.259859e+00
## 13144 0.90506607 -6.602089e-02
## 13145 1.12753814  2.430721e+00
## 13146 0.46534463 -8.488047e-01
## 13147 1.06806449  1.553769e+00
## 13148 1.03494562 -1.116688e+00
## 13149 0.13713639 -1.804998e+00
## 13150 0.88179454  7.497947e-02
## 13151 1.07803598  1.379115e+00
## 13152 0.98740641 -2.937331e+00
## 13153 0.81870871  1.984047e+00
## 13154 0.78172342 -5.696780e-01
## 13155 0.36446070  7.365425e-01
## 13156 0.70726595 -2.352942e+00
## 13157 0.55593035  1.728123e+00
## 13158 0.95795451 -1.612621e+00
## 13159 0.26197460 -5.479618e-01
## 13160 1.13809654  1.430729e-01
## 13161 1.51350963 -2.708657e+00
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## 13163 0.68033083 -5.774547e-01
## 13164 1.56784385 -2.152336e-01
## 13165 1.30521415 -1.664359e+00
## 13166 0.47085734 -1.465001e-01
## 13167 0.64301228 -9.512919e-01
## 13168 0.18177662 -1.265386e-01
## 13169 0.43902366  3.105526e+00
## 13170 1.13555402 -1.247851e+00
## 13171 0.74514642  1.594433e-01
## 13172 0.90515133  1.295194e-01
## 13173 1.02398218 -3.010693e-01
## 13174 1.56885472  6.657916e-01
## 13175 0.63976626  6.631859e-01
## 13176 0.26478966  1.044814e+00
## 13177 1.52319887  2.594726e-01
## 13178 0.14998197  2.524516e+00
## 13179 0.74594038 -7.415112e-01
## 13180 0.34619802  1.706741e+00
## 13181 0.69338804 -1.787176e+00
## 13182 1.18669885  1.041577e+00
## 13183 1.43288150 -2.777278e+00
## 13184 0.84787259  2.868633e+00
## 13185 1.23410012 -2.203790e+00
## 13186 0.78659379  1.115529e-01
## 13187 0.95340241 -2.945914e+00
## 13188 1.39662440  2.532197e+00
## 13189 0.35135630  2.842267e+00
## 13190 0.78021530 -1.507785e+00
## 13191 0.60120834 -1.775111e+00
## 13192 0.89475791 -2.542362e-02
## 13193 0.21931098 -3.076043e+00
## 13194 1.32517933 -1.041611e+00
## 13195 0.49760065 -9.695633e-01
## 13196 1.28351390 -1.429855e+00
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## 13197 1.08353554  5.991500e-03
## 13198 0.58397843  7.494908e-01
## 13199 0.42502972 -2.799079e+00
## 13200 0.96093357  1.328253e+00
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## 13202 0.70886686  1.343241e+00
## 13203 0.18430620 -2.689896e+00
## 13204 0.58836402  2.859214e+00
## 13205 0.48123265  2.982892e+00
## 13206 0.49068623  2.134379e+00
## 13207 0.36124488  2.730365e+00
## 13208 1.15560388 -1.609595e+00
## 13209 1.39360539 -3.132973e+00
## 13210 1.00911885  2.994565e+00
## 13211 1.52348532  2.522902e+00
## 13212 1.43788952 -2.814330e+00
## 13213 0.42493529  4.793279e-01
## 13214 1.50676129  2.018400e+00
## 13215 0.84560047  1.571596e+00
## 13216 1.07291063 -2.669623e+00
## 13217 0.85983923  2.537555e+00
## 13218 0.57258729 -1.914210e-01
## 13219 0.80208721  2.817130e+00
## 13220 1.01073686 -2.293414e+00
## 13221 0.62382936 -1.401933e+00
## 13222 1.35277507  2.553658e+00
## 13223 0.80964680 -3.699522e-01
## 13224 0.88817534 -6.321529e-01
## 13225 0.68810833 -2.836342e+00
## 13226 1.31920962 -1.001722e+00
## 13227 1.15180304 -2.422435e+00
## 13228 1.38376417 -1.326207e-01
## 13229 0.75283554 -8.307166e-01
## 13230 1.06813805  1.536399e+00
## 13231 0.85377511 -2.719445e-01
## 13232 0.96288951 -9.683066e-01
## 13233 0.33383011 -2.498865e-01
## 13234 1.24036309 -2.073218e+00
## 13235 1.48403064  8.828324e-01
## 13236 0.85175069 -1.614636e+00
## 13237 0.32404718 -2.160345e+00
## 13238 1.06354855 -5.584145e-01
## 13239 0.83515686  7.594938e-01
## 13240 0.52034385  1.802386e+00
## 13241 0.37880731 -1.161526e+00
## 13242 0.18739875  2.353261e+00
## 13243 0.95682009  1.569981e-02
## 13244 1.30660766 -7.476402e-01
## 13245 1.11939466 -2.799024e+00
## 13246 1.49591494 -6.492787e-01
## 13247 1.21839420  3.008904e+00
## 13248 0.64296513 -2.465397e+00
## 13249 1.47749915  2.562648e-01
## 13250 1.02573621 -1.293084e+00
## 13251 0.86059227 -1.276129e-01
## 13252 1.25537376 -1.858858e+00
## 13253 0.37162123  2.639487e+00
## 13254 0.50608353  2.808410e+00
## 13255 0.54723274  4.559804e-01
## 13256 0.91242211 -2.166320e+00
## 13257 1.50764692  2.380878e+00
## 13258 1.36180109  2.428224e+00
## 13259 1.53767536 -1.147467e-01
## 13260 1.16851276  1.258772e+00
## 13261 1.48079244 -2.972812e+00
## 13262 0.79454766  2.386034e+00
## 13263 1.28475568  2.765030e+00
## 13264 0.42402569  2.617812e+00
## 13265 0.17080223  2.975792e+00
## 13266 0.63570251  2.861219e+00
## 13267 0.24390170 -1.947244e+00
## 13268 0.10830960 -1.426686e+00
## 13269 0.18380343 -1.374638e+00
## 13270 1.41332885  8.378807e-01
## 13271 0.12437482  2.627842e+00
## 13272 0.32327062  3.110806e+00
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## 13275 1.35952380 -2.792095e-01
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## 13276 1.02161288 -1.371932e+00
## 13277 1.40294879 -2.497287e+00
## 13278 0.60034966  3.136868e+00
## 13279 0.31125938  1.071296e+00
## 13280 0.88486402 -1.179507e+00
## 13281 1.17061835  6.467989e-01
## 13282 1.18447349 -2.229196e-01
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## 13284 1.38194266 -1.939661e+00
## 13285 1.03928589 -2.873202e+00
## 13286 0.80817101 -6.576598e-01
## 13287 0.80050597 -1.681045e+00
## 13288 0.43218237 -2.129276e+00
## 13289 1.09543536  2.968888e+00
## 13290 0.11761664 -1.335520e-01
## 13291 1.50791349  2.295155e+00
## 13292 1.36967496  6.763446e-01
## 13293 0.40075615  2.073994e+00
## 13294 1.42576891  1.187801e+00
## 13295 1.18184942 -1.057858e+00
## 13296 0.44664416  1.355625e+00
## 13297 1.22540939 -8.884855e-01
## 13298 1.26132812 -1.204134e+00
## 13299 0.76393010 -1.425672e-01
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## 13301 1.27712850  1.904581e+00
## 13302 0.71001529  4.703023e-01
## 13303 1.17093318  2.996796e+00
## 13304 0.79437581  2.955134e+00
## 13305 0.48137950  2.086109e+00
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## 13307 0.84942537  8.585679e-02
## 13308 0.94978746  6.738518e-01
## 13309 1.45190218  1.278716e+00
## 13310 0.06541746  7.904486e-01
## 13311 1.13678942 -8.247730e-01
## 13312 0.91610289 -8.383657e-01
## 13313 1.17479601  7.044860e-01
## 13314 1.34992765  3.621433e-01
## 13315 1.39376858 -1.250929e+00
## 13316 1.34628591 -2.946533e+00
## 13317 1.21523142  1.454777e+00
## 13318 0.39033517  7.004787e-01
## 13319 0.28106100  2.315678e+00
## 13320 1.39346408  2.524610e+00
## 13321 0.25823317  5.509343e-01
## 13322 0.71774883  1.802618e+00
## 13323 0.67108041 -7.807806e-01
## 13324 0.80310075 -1.999153e+00
## 13325 0.27898604  2.405476e+00
## 13326 0.41702262  2.695919e+00
## 13327 0.67162784  2.837462e+00
## 13328 0.70456084 -8.079611e-01
## 13329 0.65159252 -2.075867e+00
## 13330 1.01696745  1.803491e+00
## 13331 0.85719111 -1.387632e+00
## 13332 1.50211562  2.449893e+00
## 13333 1.42256457 -2.720232e+00
## 13334 0.82800707  2.664819e+00
## 13335 0.60386859 -9.716934e-01
## 13336 0.32624461  3.077499e+00
## 13337 0.86931873  4.477955e-01
## 13338 0.49321101 -7.381196e-01
## 13339 0.68650877  1.380811e+00
## 13340 1.05948078 -9.321744e-01
## 13341 1.12201619 -1.190322e+00
## 13342 0.27741376 -3.287823e-01
## 13343 1.10462284  2.388997e+00
## 13344 0.33608748  1.410015e+00
## 13345 0.95511982  3.023811e+00
## 13346 0.28679278  5.837006e-01
## 13347 1.47114835  3.810718e-01
## 13348 0.67103059 -2.456690e+00
## 13349 0.35358789 -1.644845e-01
## 13350 1.30453738 -1.488632e+00
## 13351 1.43875150  1.503200e+00
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## 13353 0.62984877 -2.052676e-01
## 13354 0.50818440 -2.662473e+00
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## 13355 0.86476471 -5.964960e-01
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## 13359 1.45705406  5.266928e-02
## 13360 0.95935511  2.760135e+00
## 13361 0.56391184  2.486659e+00
## 13362 0.78681394  1.694295e-01
## 13363 1.21617381 -1.016626e+00
## 13364 0.38699958  2.528523e+00
## 13365 0.49079378  2.923030e-02
## 13366 1.42248764 -2.527562e+00
## 13367 0.65302352 -2.972448e+00
## 13368 0.73651305 -1.999788e+00
## 13369 1.03025925  4.468095e-01
## 13370 1.34156841  6.487579e-01
## 13371 1.33644773 -1.865869e+00
## 13372 0.42201980  9.004492e-01
## 13373 0.45305032 -7.824858e-02
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## 13375 1.18419043 -2.727921e+00
## 13376 0.97215672  1.959020e+00
## 13377 0.19095653 -2.995141e+00
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## 13379 1.52844726  1.858621e+00
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## 13382 0.31608656 -2.282146e-01
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## 13384 1.08697024  1.835611e+00
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## 13388 0.88035978 -9.722953e-02
## 13389 0.32460204  2.963262e+00
## 13390 1.29370699 -2.503740e+00
## 13391 0.82444233 -1.374711e+00
## 13392 0.92654922 -2.916368e+00
## 13393 0.86861009 -1.318490e+00
## 13394 0.75319887  1.217242e+00
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## 13396 0.53797629 -1.819717e+00
## 13397 0.35854265  1.793241e+00
## 13398 0.59398177 -2.778066e+00
## 13399 0.07402088 -2.014097e+00
## 13400 0.83744114  1.667315e+00
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## 13403 1.33748375  2.871044e+00
## 13404 0.93404565 -6.708013e-01
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## 13406 0.62089281  1.066481e+00
## 13407 0.45652053  3.836360e-01
## 13408 0.44985804  1.414970e-01
## 13409 1.54805302  3.751554e-01
## 13410 0.67569590  8.962361e-02
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## 13412 0.69368986 -6.630433e-01
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## 13414 1.50007018 -1.853391e+00
## 13415 0.94528361  2.916921e+00
## 13416 0.66646998 -2.263479e+00
## 13417 0.39928326  1.287703e+00
## 13418 0.84121853  1.212223e-01
## 13419 1.14297061 -2.957075e+00
## 13420 0.79524893  1.470983e+00
## 13421 0.26661994  1.094035e-01
## 13422 0.15604259 -1.101120e+00
## 13423 0.55313589 -3.115576e+00
## 13424 0.56458547 -3.573704e-01
## 13425 0.14913099  1.623471e-01
## 13426 1.38384627  1.391736e+00
## 13427 0.73730153 -2.558814e+00
## 13428 0.94828321 -1.509195e+00
## 13429 1.54062038  2.840206e+00
## 13430 1.41775369  2.987248e+00
## 13431 1.07705571  3.836131e-01
## 13432 1.47747514 -1.766634e+00
## 13433 1.02446498  5.664222e-01
```

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## 13434 0.51718504  1.262478e+00
## 13435 0.18456208 -2.753218e+00
## 13436 0.45608544 -2.854427e+00
## 13437 1.55317188 -4.906126e-01
## 13438 1.33252036  5.382982e-01
## 13439 1.36459987  3.002889e+00
## 13440 1.37421649  1.157165e-01
## 13441 0.39900391 -6.109252e-02
## 13442 0.89392445 -2.929756e-01
## 13443 1.43018550  2.580608e+00
## 13444 0.06248278  4.645749e-01
## 13445 0.44801154 -3.110808e+00
## 13446 1.36072183 -3.940816e-01
## 13447 0.75258965  3.129266e+00
## 13448 1.52864071  2.934767e+00
## 13449 1.04941393 -2.757825e+00
## 13450 0.99884828 -2.593132e+00
## 13451 0.27551813 -1.597102e+00
## 13452 0.46344140 -1.045033e+00
## 13453 0.81531051 -2.127454e+00
## 13454 0.67505507 -1.177162e+00
## 13455 1.09379611  6.572648e-01
## 13456 0.39196371  7.424004e-01
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## 13458 1.25525983 -2.297043e+00
## 13459 0.52886266  2.821237e+00
## 13460 1.24319993 -2.875918e-01
## 13461 0.33595585 -7.725454e-01
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## 13463 0.50454720 -4.839823e-01
## 13464 0.63518294  1.657202e+00
## 13465 0.79339767 -1.163176e+00
## 13466 0.40956863  3.235253e-01
## 13467 0.28346734  2.961156e+00
## 13468 1.49283935  2.719723e+00
## 13469 1.55102837 -2.726458e+00
## 13470 0.58575068  2.655106e+00
## 13471 0.68805678 -2.769602e+00
## 13472 0.47697278  2.701242e+00
## 13473 0.69242963  2.219749e+00
## 13474 1.50093027  8.160644e-01
## 13475 1.53168124  2.301446e+00
## 13476 1.16870411  4.559269e-01
## 13477 0.47680991 -6.780332e-01
## 13478 0.26958383  2.642238e+00
## 13479 1.51410383  2.746933e+00
## 13480 1.45504568 -1.340901e+00
## 13481 1.29007448 -2.889871e+00
## 13482 0.98690848  2.103982e+00
## 13483 1.40554156  2.930732e+00
## 13484 0.47221404 -3.931441e-01
## 13485 1.06790745  2.728839e+00
## 13486 1.33908272 -1.763553e+00
## 13487 1.08064026 -2.616810e+00
## 13488 0.49026965 -3.438796e-02
## 13489 0.85249998  1.350241e+00
## 13490 0.75894083  2.566130e+00
## 13491 1.01745136 -1.034252e+00
## 13492 1.42850463  3.246841e-01
## 13493 1.39016973  1.972822e+00
## 13494 0.08790712 -2.738075e+00
## 13495 1.44933072  3.100382e+00
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## 13497 0.70039453 -2.912528e+00
## 13498 0.17886471  8.227010e-01
## 13499 1.03332991  1.154898e+00
## 13500 0.57441361  6.753419e-01
## 13501 0.44227279  1.792045e+00
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## 13503 0.51699722  2.398934e+00
## 13504 0.65161359 -3.085048e+00
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## 13506 0.39561780 -4.465529e-01
## 13507 0.59760947 -6.448119e-01
## 13508 1.46580604  9.669905e-01
## 13509 0.69813607  2.417614e+00
## 13510 0.50322467 -6.936403e-01
## 13511 0.37142663  1.243021e+00
## 13512 0.40929742  6.550800e-01
```

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## 13513 0.75614766 -2.392223e+00
## 13514 1.09906929  1.962093e+00
## 13515 0.76097154 -2.651527e-01
## 13516 0.45627829 -8.461497e-01
## 13517 1.46904506 -2.666793e+00
## 13518 0.26442744 -1.325034e+00
## 13519 0.94816050  8.252572e-01
## 13520 0.79061818 -1.677084e+00
## 13521 1.07265487 -6.501922e-01
## 13522 0.94157047 -2.582034e+00
## 13523 1.29796483  2.724836e+00
## 13524 0.27504090  9.802725e-01
## 13525 0.56069979 -1.980671e+00
## 13526 0.12758240  1.348015e+00
## 13527 0.26047214  1.366496e+00
## 13528 0.52503523 -5.239213e-02
## 13529 1.12588980  1.745530e+00
## 13530 0.93277472 -2.772175e+00
## 13531 0.99241871 -2.932781e+00
## 13532 0.83460927  2.818416e+00
## 13533 1.07387820 -1.540667e+00
## 13534 1.02649782  1.505720e+00
## 13535 1.18741203  1.795255e+00
## 13536 0.69888445  1.608127e+00
## 13537 1.24158480  6.202669e-01
## 13538 0.40783831 -1.792045e+00
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## 13545 1.38557667  2.164719e+00
## 13546 1.37548652  4.263459e-01
## 13547 1.49755901 -2.953503e+00
## 13548 0.19134539  1.748237e+00
## 13549 0.65971038 -8.891252e-01
## 13550 0.79652848 -6.323797e-01
## 13551 1.06160693  7.003880e-01
## 13552 0.22728143  8.258296e-01
## 13553 0.65504377 -3.240396e-01
## 13554 1.05208532  3.728467e-01
## 13555 0.57825532 -8.148722e-01
## 13556 1.46893781  1.879031e+00
## 13557 0.16948705 -1.643320e+00
## 13558 0.99546486 -9.935253e-01
## 13559 0.58742513 -1.699900e+00
## 13560 0.40310337  2.336010e+00
## 13561 1.34882220 -2.278929e+00
## 13562 1.06361975  1.962401e+00
## 13563 0.52045478 -1.392824e+00
## 13564 1.11385923 -1.578661e+00
## 13565 0.22334558 -7.601900e-01
## 13566 0.72990176 -2.776522e-02
## 13567 1.03887282 -2.682327e+00
## 13568 0.72728626 -2.573402e+00
## 13569 0.87198459  1.594703e+00
## 13570 1.48984790 -1.571357e+00
## 13571 0.98836330  1.886469e-03
## 13572 1.37317542 -1.678108e+00
## 13573 0.84193766 -7.443980e-01
## 13574 0.77734579 -8.754950e-01
## 13575 1.20601745 -2.400915e-01
## 13576 1.09135521 -2.659493e+00
## 13577 0.76734099 -2.420163e+00
## 13578 0.78501280 -2.234138e-01
## 13579 0.26014791 -1.494444e-01
## 13580 0.87181327 -1.974596e+00
## 13581 0.88329962 -2.720011e+00
## 13582 1.39527749 -1.012848e+00
## 13583 0.40383343  2.057401e+00
## 13584 0.91384378  1.519990e-01
## 13585 1.46381526  1.189255e+00
## 13586 0.57832759 -2.699089e+00
## 13587 0.31188803  8.167354e-01
## 13588 0.73554904  1.209448e+00
## 13589 0.44494568 -2.673969e+00
## 13590 0.84972077  3.067259e+00
## 13591 1.04532029  1.701766e+00
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## 13592 0.18137755 -2.472234e+00
## 13593 1.05979346 -2.764858e+00
## 13594 0.67347218  1.926039e+00
## 13595 1.43248506 -2.655908e-01
## 13596 0.43258419  1.436214e+00
## 13597 1.32449339  1.791742e+00
## 13598 0.22420152 -3.087152e+00
## 13599 0.58295732  1.395139e+00
## 13600 0.47947913 -1.085215e+00
## 13601 1.27496853 -7.191709e-01
## 13602 1.52065768  1.016178e+00
## 13603 0.78822478  2.308354e+00
## 13604 0.46261215  2.885823e+00
## 13605 0.39969395  5.934110e-01
## 13606 0.61598348 -1.004517e+00
## 13607 1.16008759  8.112298e-01
## 13608 1.50841571  1.233300e+00
## 13609 0.92512120 -2.828576e+00
## 13610 0.47556592  7.797335e-01
## 13611 1.22582206  3.042589e+00
## 13612 0.53221559  3.122235e+00
## 13613 0.42678620 -2.502743e+00
## 13614 0.38015540 -2.150861e+00
## 13615 0.86326539 -7.576407e-01
## 13616 0.80594820 -1.831204e-02
## 13617 1.42290429  3.096815e+00
## 13618 0.71373459  1.059341e+00
## 13619 1.55892468 -1.711996e+00
## 13620 0.39476225 -2.838041e+00
## 13621 0.90558061  8.428577e-01
## 13622 0.44699092 -1.822226e-01
## 13623 0.95370756  2.549299e+00
## 13624 1.12731604  3.310020e-01
## 13625 1.48111490 -2.779156e-01
## 13626 0.61762599 -2.676569e+00
## 13627 1.36111735 -2.809176e+00
## 13628 0.83569281 -1.345007e+00
## 13629 0.75300917  3.058595e+00
## 13630 0.75020313  2.112437e+00
## 13631 0.07560917  1.080430e+00
## 13632 1.44677690  1.119927e+00
## 13633 1.13166633  3.064475e+00
## 13634 1.02931658  2.233690e+00
## 13635 1.47864510  5.685372e-01
## 13636 0.30874942 -2.936717e+00
## 13637 1.03779426  1.046112e+00
## 13638 1.03562642 -9.092946e-01
## 13639 0.35382484  2.652526e+00
## 13640 0.56688634 -1.934766e-01
## 13641 0.63669736  3.085383e-01
## 13642 0.79626650 -2.276549e+00
## 13643 1.36400945  8.138678e-02
## 13644 0.90060274  1.868438e+00
## 13645 1.37323316  2.764662e+00
## 13646 1.25329790 -7.900308e-02
## 13647 0.79456812 -2.658670e+00
## 13648 1.16569697  5.541464e-01
## 13649 0.17203467 -1.724193e-01
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## 13654 0.64184240 -2.701245e+00
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## 13656 1.38758234  2.350785e+00
## 13657 1.11825991 -3.009484e+00
## 13658 0.28952224  1.301772e+00
## 13659 0.99435819 -4.776906e-01
## 13660 1.09378807  1.543653e+00
## 13661 0.97172542  2.227828e+00
## 13662 0.89717717  9.878792e-02
## 13663 1.54288486 -8.408373e-01
## 13664 0.85617804  2.883661e+00
## 13665 0.56031937  2.546087e+00
## 13666 0.59322131 -1.854663e-01
## 13667 0.32862606 -3.600288e-01
## 13668 0.97934166  9.953555e-01
## 13669 0.26377792 -3.093764e+00
## 13670 1.49213843  2.530803e+00
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## 13671 0.66237214  1.122105e+00
## 13672 0.83778179 -1.492679e+00
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## 13674 0.85836328 -1.030901e+00
## 13675 1.04878554  2.661422e+00
## 13676 1.41781998 -2.976883e+00
## 13677 1.00594928 -2.926312e+00
## 13678 0.50267394 -2.500804e+00
## 13679 1.52197816  1.284994e+00
## 13680 0.31628149  1.469475e-01
## 13681 1.28161521 -2.796778e+00
## 13682 1.49282044  2.952861e+00
## 13683 0.99607701  1.051300e+00
## 13684 0.76966767 -1.621571e+00
## 13685 1.21813595  3.733190e-01
## 13686 0.74943296  1.708606e-03
## 13687 1.02726123  2.623772e+00
## 13688 1.21998114 -3.470137e-01
## 13689 1.36548908  2.822481e+00
## 13690 0.43034310 -2.260150e+00
## 13691 1.03460596 -2.655126e+00
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## 13697 0.88001325 -1.246072e+00
## 13698 0.51067179 -1.544195e+00
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## 13700 1.52909164  1.421003e+00
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## 13702 0.60098744 -7.431801e-01
## 13703 0.75207816 -7.559617e-01
## 13704 1.03085928 -2.030427e+00
## 13705 0.53520655  1.878887e+00
## 13706 0.58923371 -2.372926e+00
## 13707 0.55255768  2.095926e+00
## 13708 0.65099557 -9.145941e-01
## 13709 1.04402296  2.568462e+00
## 13710 1.03221159 -5.209960e-01
## 13711 0.40849042 -1.038246e+00
## 13712 0.51982394 -5.272903e-02
## 13713 1.14154274 -5.859325e-01
## 13714 0.90343978  9.107684e-02
## 13715 0.97407521  4.693784e-01
## 13716 1.30554925 -2.474846e-01
## 13717 0.77597589 -1.840958e+00
## 13718 1.01146074 -4.773437e-01
## 13719 1.14407213 -9.611961e-01
## 13720 1.19592614 -1.678997e-02
## 13721 0.22812005 -1.545296e+00
## 13722 1.35982678 -2.037748e+00
## 13723 1.09282768 -5.866481e-01
## 13724 0.05180344 -5.275274e-01
## 13725 1.18849086  7.839250e-01
## 13726 1.43140442 -1.205145e+00
## 13727 0.51395370  2.081830e+00
## 13728 0.62957802  1.270693e+00
## 13729 1.25295834  2.089585e+00
## 13730 1.53890520 -7.279902e-01
## 13731 0.26470740  3.363452e-01
## 13732 0.34292469 -1.926561e+00
## 13733 0.88310140 -1.012716e-01
## 13734 1.22151401  1.837324e+00
## 13735 0.49576744  2.736037e-01
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## 13737 0.95159667 -1.617571e+00
## 13738 1.46934317  3.100674e+00
## 13739 1.55837749 -2.240457e+00
## 13740 1.44543593 -8.541264e-01
## 13741 1.35206038 -2.744788e+00
## 13742 0.55830033  1.489574e+00
## 13743 0.90017873 -2.115518e+00
## 13744 0.78433977 -7.071890e-01
## 13745 1.51317736  2.964001e+00
## 13746 1.35294202 -2.723333e+00
## 13747 0.87254064 -1.682655e+00
## 13748 1.49075015  2.883241e+00
## 13749 0.17778712 -2.628323e+00
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## 13750 1.41957014 -2.213371e+00
## 13751 1.37827105 -1.429166e+00
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## 13753 0.65108962 -1.681233e+00
## 13754 0.69913469 -2.678451e+00
## 13755 0.80547036 -9.384664e-01
## 13756 0.57361004  3.023254e+00
## 13757 0.38686826  2.309295e+00
## 13758 1.43057149 -2.052339e+00
## 13759 1.07263011 -1.104949e+00
## 13760 0.78966349  2.211669e+00
## 13761 0.27988322  2.692694e+00
## 13762 1.32859804  1.198940e+00
## 13763 0.29609257 -1.131866e+00
## 13764 0.63089384  2.744564e+00
## 13765 0.29537139 -1.610491e+00
## 13766 0.88025678 -1.776772e-01
## 13767 1.20701690 -2.761578e+00
## 13768 0.99992714  7.675161e-01
## 13769 0.51907487 -2.606197e+00
## 13770 0.86727709  3.007270e+00
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## 13772 0.89685494  1.998212e+00
## 13773 1.07930257  1.198902e+00
## 13774 0.96118549  1.582108e+00
## 13775 1.05454530  2.481673e+00
## 13776 1.25128524  1.522287e+00
## 13777 1.11862599  9.748776e-01
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## 13779 0.34956395 -1.251174e+00
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## 13781 0.14029290 -1.130614e+00
## 13782 0.90508554  2.737907e-01
## 13783 1.03118983  1.111030e+00
## 13784 0.93160619 -2.326640e+00
## 13785 1.00007986  2.923532e+00
## 13786 1.36666084  6.309823e-01
## 13787 1.33928835 -1.456538e-01
## 13788 1.08835624 -2.767241e-01
## 13789 1.29605627  7.852809e-01
## 13790 0.81896634  2.555042e-01
## 13791 0.71165297  1.218943e+00
## 13792 0.22137158  2.872034e+00
## 13793 0.53773462  1.005575e+00
## 13794 1.17841302 -1.699818e+00
## 13795 0.59875220  1.811386e+00
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## 13798 1.41277687  1.757900e+00
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## 13806 0.30955546  5.513126e-01
## 13807 1.14134149  2.246074e+00
## 13808 0.46901955  2.384979e+00
## 13809 0.22214340  9.137783e-01
## 13810 0.94885398  9.082930e-01
## 13811 0.59866869  3.083089e+00
## 13812 0.84436144 -2.966430e+00
## 13813 1.30612452  3.787717e-01
## 13814 0.39975488  2.703436e+00
## 13815 1.57023149 -1.183157e+00
## 13816 0.40972338 -5.815421e-01
## 13817 0.53715366  2.688930e+00
## 13818 1.26970188 -1.595586e+00
## 13819 0.52017939  7.915163e-02
## 13820 1.56682399 -1.973757e+00
## 13821 0.58104781  2.996639e+00
## 13822 0.07240633 -2.346208e+00
## 13823 1.38476978  2.055098e+00
## 13824 0.82401469 -9.521419e-02
## 13825 0.36804766  2.460414e+00
## 13826 1.24660428 -2.028099e+00
## 13827 0.83778371  2.244705e+00
## 13828 0.43559058 -1.335021e+00
```

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## 13829 1.13677611 -4.320924e-02
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## 13832 1.38831286 -3.512919e-01
## 13833 1.54724069 -2.747584e+00
## 13834 0.82907069 -2.616980e+00
## 13835 1.10071662  3.035174e+00
## 13836 0.55954920 -1.367906e+00
## 13837 1.02613373  2.468717e+00
## 13838 1.17873471 -2.216756e+00
## 13839 0.67134864  4.730889e-02
## 13840 1.24003422  2.203415e+00
## 13841 0.55465325 -7.508113e-01
## 13842 1.17197538 -2.422555e-01
## 13843 0.56962966  9.573916e-01
## 13844 0.81573795 -2.633726e+00
## 13845 0.81813541  1.587716e+00
## 13846 0.88720239  2.134872e+00
## 13847 0.39997833  7.607002e-01
## 13848 0.71497846  6.646265e-01
## 13849 1.30653859 -2.544773e+00
## 13850 1.03925062  8.150481e-01
## 13851 1.54347815  2.485683e+00
## 13852 0.74627397 -2.734723e-01
## 13853 0.11567404 -2.419132e+00
## 13854 1.04868297  2.012403e+00
## 13855 0.56921200 -1.116826e+00
## 13856 1.43153988  2.923122e+00
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## 13863 0.85485870  2.915273e+00
## 13864 0.56262666 -4.640408e-01
## 13865 1.49110339 -1.099617e+00
## 13866 1.57007223 -1.704638e+00
## 13867 0.37912202 -2.632906e+00
## 13868 0.66919547 -1.083775e+00
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## 13870 1.02631732 -2.907238e+00
## 13871 1.20330404  2.892195e+00
## 13872 0.23908336 -2.444914e+00
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## 13874 0.58208757  2.039462e+00
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## 13877 0.19901428  3.303823e-01
## 13878 1.49141740  3.766554e-01
## 13879 0.29323822  1.441995e-01
## 13880 1.29414764 -1.119471e-01
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## 13882 0.93160904  2.757330e+00
## 13883 1.56762711 -1.073192e+00
## 13884 0.29851354 -3.075871e+00
## 13885 1.17329727  1.247211e+00
## 13886 1.23818583  2.066723e+00
## 13887 0.72501998  5.787448e-01
## 13888 0.30138589 -8.669468e-01
## 13889 1.20331557 -1.334162e+00
## 13890 0.50547884  1.785981e+00
## 13891 0.92384802 -1.888918e+00
## 13892 0.41618799  2.039447e+00
## 13893 0.24723999  1.144763e+00
## 13894 1.00927651  3.055880e+00
## 13895 1.31040226 -2.411970e-01
## 13896 0.17126045 -1.696998e+00
## 13897 0.73987599  1.988354e+00
## 13898 0.97791889 -6.259272e-01
## 13899 0.56554374 -1.114211e-01
## 13900 0.05486912 -3.093101e+00
## 13901 0.84404740 -1.386525e+00
## 13902 0.71349672  2.397278e+00
## 13903 0.95368189 -2.384227e+00
## 13904 1.14651909 -2.564978e+00
## 13905 1.41451299 -9.048671e-01
## 13906 1.51397457  2.336529e+00
## 13907 1.40911637  6.451891e-01
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## 13909 1.21346209  1.995098e+00
## 13910 1.21621408  1.891592e+00
## 13911 1.08498526 -1.377646e+00
## 13912 0.62016515 -3.137313e+00
## 13913 1.30993811 -2.817777e+00
## 13914 0.51607514 -2.652882e+00
## 13915 0.36448312 -1.941628e+00
## 13916 0.93543485  2.312264e+00
## 13917 0.25079237 -9.468896e-01
## 13918 0.30783786 -2.113578e+00
## 13919 1.44059078 -9.275177e-01
## 13920 1.01010687 -2.080616e+00
## 13921 0.47350355 -1.597271e+00
## 13922 0.70268570  2.044731e+00
## 13923 0.98072716 -7.304433e-01
## 13924 0.68965280  6.420045e-01
## 13925 1.27568589 -3.119123e+00
## 13926 1.19640321 -7.644830e-03
## 13927 0.28868676 -1.121668e+00
## 13928 1.28476978  4.441567e-01
## 13929 0.44992220 -2.970902e+00
## 13930 0.47326969 -2.092508e+00
## 13931 1.41520591 -1.819214e-01
## 13932 0.49672187 -2.730163e+00
## 13933 0.49421612  5.383812e-01
## 13934 0.23474282  2.250057e-01
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## 13936 0.55240295 -2.814824e+00
## 13937 0.59481018 -2.792630e+00
## 13938 1.35995422 -2.580732e+00
## 13939 0.74698875 -2.548646e+00
## 13940 1.50659714 -4.655994e-01
## 13941 1.36957829 -1.714518e+00
## 13942 0.92231471  2.683075e+00
## 13943 0.52129555  1.533163e+00
## 13944 1.37749093 -7.724818e-01
## 13945 0.28514718 -2.397091e+00
## 13946 0.33638377  2.374497e+00
## 13947 1.16863608 -2.602660e-01
## 13948 0.82503360 -6.363073e-01
## 13949 0.96965268  1.834182e-01
## 13950 0.65699284 -2.635002e+00
## 13951 0.87452074 -2.863022e+00
## 13952 0.78258612 -2.528257e+00
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## 13955 0.83474120  1.482965e+00
## 13956 1.21499945  1.367327e+00
## 13957 0.55283040 -4.774854e-01
## 13958 0.46068873 -1.368721e+00
## 13959 0.58722911  3.110671e+00
## 13960 1.09586064 -8.161306e-01
## 13961 1.51685152 -6.247639e-01
## 13962 0.13419343  2.754961e-02
## 13963 0.31737737 -2.177512e+00
## 13964 0.16871347  8.668490e-01
## 13965 0.76857584 -2.728099e+00
## 13966 1.38796080 -2.121506e+00
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## 13970 0.28061115 -2.491948e+00
## 13971 0.95522675  2.663841e+00
## 13972 0.63620134 -1.612001e+00
## 13973 0.88589731  1.314154e+00
## 13974 0.31404804  3.637341e-01
## 13975 1.21276338 -1.024121e+00
## 13976 1.19194879 -1.065521e+00
## 13977 0.98051822 -2.713513e+00
## 13978 1.19220348  2.671898e+00
## 13979 0.94435671  2.556119e+00
## 13980 0.72692498  8.638696e-01
## 13981 0.18371089  2.264821e+00
## 13982 1.51050590 -7.912102e-01
## 13983 1.46012531 -1.886511e+00
## 13984 0.44359381  2.152408e+00
## 13985 0.97347789  1.546317e+00
## 13986 1.24813430 -4.897653e-01
```

```
## 13987 1.14007668  1.666462e+00
## 13988 1.28674921  3.440980e-01
## 13989 1.56178070  1.510222e+00
## 13990 0.27135369  6.757528e-02
## 13991 0.77090361  1.546839e+00
## 13992 1.31932986 -3.230157e-02
## 13993 0.18783265  2.384374e+00
## 13994 1.19427977 -2.950844e-01
## 13995 1.36834213 -2.729716e+00
## 13996 0.97462377 -2.275893e+00
## 13997 0.88678375  2.397131e+00
## 13998 1.02390324 -9.751633e-01
## 13999 1.22414810 -4.537732e-01
## 14000 0.51268469  1.672618e+00
## 14001 1.55012696 -2.819534e+00
## 14002 0.34364788  2.209667e+00
## 14003 1.28985563 -2.486439e+00
## 14004 1.03748475 -1.955014e+00
## 14005 0.66889756  2.224860e+00
## 14006 0.32771222  2.790329e+00
## 14007 0.69510936  2.324967e+00
## 14008 0.41608204 -1.864773e+00
## 14009 0.90153680 -1.724676e+00
## 14010 0.09117821 -6.995778e-02
## 14011 1.54881861  1.231177e+00
## 14012 1.34462747 -1.662528e+00
## 14013 0.86659623 -2.828093e+00
## 14014 1.23147461  1.947378e+00
## 14015 1.16543510 -1.637109e+00
## 14016 1.21277022 -9.779345e-01
## 14017 0.76578831  2.082675e+00
## 14018 1.18274570 -3.135554e+00
## 14019 0.71629293 -1.866368e-01
## 14020 0.55941379  1.176680e-01
## 14021 1.29546226 -1.455421e+00
## 14022 0.76766178 -1.655033e+00
## 14023 0.59558603 -2.997963e+00
## 14024 1.08865118 -7.006853e-01
## 14025 0.47534229  1.713271e+00
## 14026 0.61828388 -3.081587e+00
## 14027 1.21375485  3.776869e-02
## 14028 0.25939758  9.890455e-01
## 14029 1.42758087  2.996900e+00
## 14030 0.95034980 -1.518036e+00
## 14031 0.22955902  2.878612e+00
## 14032 0.57685796  3.245652e-01
## 14033 0.47819911  3.005033e+00
## 14034 1.52084040 -5.753836e-01
## 14035 0.32392502 -1.594667e+00
## 14036 0.49011311 -2.320805e+00
## 14037 1.55960823  2.794743e+00
## 14038 1.56152162 -2.472104e+00
## 14039 1.48475035 -1.800232e-01
## 14040 0.73221261 -2.871995e+00
## 14041 0.27510325 -1.548215e+00
## 14042 1.13211598  3.871533e-01
## 14043 0.61029678 -2.570903e-01
## 14044 1.05792171  6.087864e-01
## 14045 1.46119150  1.058690e+00
## 14046 0.45229962 -3.127890e+00
## 14047 0.96946631 -2.096989e+00
## 14048 0.74181801  2.189537e+00
## 14049 0.90038183 -2.491612e+00
## 14050 0.82662431  1.481276e+00
## 14051 0.41818443  1.473725e+00
## 14052 1.07970795  1.490566e+00
## 14053 0.91813825 -2.362633e+00
## 14054 1.38053364  3.049813e+00
## 14055 0.70235914 -2.244141e+00
## 14056 0.91721430  8.039862e-01
## 14057 1.53341224 -2.222483e+00
## 14058 1.56211891  2.862786e+00
## 14059 0.89242161  2.681529e+00
## 14060 1.29713244 -4.672488e-01
## 14061 1.32695896  3.014771e+00
## 14062 1.38613298 -1.605037e+00
## 14063 0.54859730  2.438999e+00
## 14064 1.23823979  7.984357e-01
## 14065 1.44732663  1.862910e-01
```

```
## 14066 0.23752375 -1.965876e+00
## 14067 0.99293143  6.444745e-01
## 14068 1.56332109  7.864553e-01
## 14069 0.56232540 -7.491654e-01
## 14070 1.50805623 -4.274100e-01
## 14071 0.51507304  1.870741e-01
## 14072 0.65937297 -2.796899e+00
## 14073 0.87278477 -4.254294e-01
## 14074 1.40314232  4.571776e-01
## 14075 0.87856893 -2.346804e+00
## 14076 1.22654082 -2.834573e+00
## 14077 0.86441651 -1.953351e+00
## 14078 0.48146081 -3.071320e+00
## 14079 0.90991590 -8.032143e-01
## 14080 0.66188900 -2.442073e+00
## 14081 0.81666752 -2.545121e+00
## 14082 1.46106471  1.806343e+00
## 14083 0.76750184 -1.489424e+00
## 14084 1.37906680  1.526708e+00
## 14085 1.33098856  8.112306e-01
## 14086 1.39004496  1.421599e+00
## 14087 1.15482422  9.747456e-01
## 14088 1.14479691  3.094429e+00
## 14089 1.07835114 -7.115369e-01
## 14090 0.83029752 -2.161540e+00
## 14091 1.03664630  1.306869e+00
## 14092 1.56023418 -2.532843e+00
## 14093 1.44628203  2.395677e+00
## 14094 0.73732082  1.068166e+00
## 14095 1.32271661 -2.414424e+00
## 14096 1.47594214 -2.510062e-01
## 14097 0.67243595 -2.812993e+00
## 14098 0.88949579 -2.123678e-01
## 14099 0.98236962  1.961243e+00
## 14100 0.88470809 -2.056283e+00
## 14101 1.13873002 -1.461015e+00
## 14102 0.35433644 -8.536829e-01
## 14103 1.18714415  5.688702e-01
## 14104 1.30299589 -3.853083e-01
## 14105 0.40972952  2.157621e+00
## 14106 1.09978674 -2.389914e-01
## 14107 1.17775929  1.408101e+00
## 14108 0.09008661  1.113871e+00
## 14109 0.97036095 -1.319254e+00
## 14110 1.21420056 -2.806722e+00
## 14111 1.19542380  2.503383e+00
## 14112 0.61546800  1.382665e+00
## 14113 0.94214706  2.582461e+00
## 14114 1.10473480  2.375576e+00
## 14115 0.89584112  1.939345e+00
## 14116 0.62353845  3.114462e-02
## 14117 0.77822718  1.351183e+00
## 14118 0.96552910  2.606711e+00
## 14119 1.25026749 -1.796324e+00
## 14120 0.17644258 -1.725795e+00
## 14121 1.06473070  1.642819e+00
## 14122 1.50812971  8.122600e-01
## 14123 0.91149709 -1.795938e+00
## 14124 1.12991923 -2.003219e+00
## 14125 0.47855004 -2.638404e+00
## 14126 0.78901492  2.712399e+00
## 14127 0.21300955 -1.851992e+00
## 14128 1.23281556  3.761271e-01
## 14129 0.90466143 -2.430962e+00
## 14130 0.50867766 -2.828141e+00
## 14131 1.17446879 -1.159566e+00
## 14132 0.29502604 -8.522892e-01
## 14133 1.54126072  1.549892e+00
## 14134 0.57359165 -5.253580e-01
## 14135 0.90638825 -3.047089e+00
## 14136 0.73996075 -1.412027e+00
## 14137 1.11974873  5.283675e-02
## 14138 1.31656255 -2.466808e+00
## 14139 1.28259048  2.921709e+00
## 14140 1.04472180  2.804135e+00
## 14141 0.52216875 -1.370685e+00
## 14142 0.64634374  2.686990e+00
## 14143 1.44475337  1.269702e+00
## 14144 0.67060552  6.992464e-02
```

```
## 14145 0.56366216  4.429063e-01
## 14146 0.70175898 -2.865316e+00
## 14147 1.01281385  4.918958e-01
## 14148 1.25075027 -1.236257e+00
## 14149 0.33669494 -1.885305e+00
## 14150 0.76305612  1.730901e+00
## 14151 0.92700385  2.865432e+00
## 14152 0.59900581 -3.077594e+00
## 14153 1.42690823  1.578374e+00
## 14154 1.42998414 -1.040370e+00
## 14155 1.36149142 -3.523423e-01
## 14156 0.86574296  1.341667e-01
## 14157 0.26101121  2.714483e+00
## 14158 1.18172351  3.846202e-01
## 14159 1.30980868 -1.456201e-02
## 14160 1.22784279  6.408941e-01
## 14161 1.42301200 -2.189733e+00
## 14162 0.12802364  6.060514e-01
## 14163 0.76159001  1.905333e+00
## 14164 1.38139975  7.802012e-01
## 14165 1.03702007 -9.806471e-01
## 14166 1.42717061 -8.915889e-02
## 14167 1.15491684  2.395398e-01
## 14168 0.96153180 -1.353856e+00
## 14169 1.35227218 -3.020961e+00
## 14170 1.13364964  2.843776e-01
## 14171 1.12750320  2.275598e+00
## 14172 0.66212367  2.815746e+00
## 14173 1.40691985  2.957080e+00
## 14174 0.51282626 -2.836243e+00
## 14175 0.44030151  8.327105e-01
## 14176 0.72443122 -7.166961e-01
## 14177 0.28924469  2.947209e+00
## 14178 1.35869104  1.310677e+00
## 14179 1.24239052 -1.534482e+00
## 14180 0.68356929  2.552927e+00
## 14181 0.73075901 -9.361611e-01
## 14182 1.04468856 -1.233361e-01
## 14183 0.66186837  7.950371e-01
## 14184 0.90244597 -5.614818e-01
## 14185 1.23353293  6.441599e-02
## 14186 1.15992365  2.036779e+00
## 14187 1.36775357 -2.425123e+00
## 14188 0.50848689 -1.259074e-01
## 14189 0.10523969  1.920707e+00
## 14190 0.78264359 -3.769089e-01
## 14191 0.51441433 -3.964983e-01
## 14192 0.31083324  2.644014e+00
## 14193 1.19050088 -1.619527e+00
## 14194 0.08493811 -5.317395e-01
## 14195 0.78492782 -1.558450e+00
## 14196 0.75565897  4.040892e-02
## 14197 1.49563854 -1.966816e+00
## 14198 1.41176548 -3.780793e-01
## 14199 0.90107180  2.776688e+00
## 14200 0.73551929  2.947666e+00
## 14201 0.15756522  2.711268e+00
## 14202 1.55259861 -1.326321e+00
## 14203 1.28669213 -8.929898e-01
## 14204 0.76652614  7.188159e-01
## 14205 0.14595844 -2.576344e+00
## 14206 0.71079435 -1.066837e+00
## 14207 1.53380801 -4.808431e-02
## 14208 0.70795908  1.336516e-02
## 14209 1.11141201 -1.435504e+00
## 14210 0.73944045  1.544024e+00
## 14211 0.65822058 -3.735052e-01
## 14212 0.79489059  7.707555e-01
## 14213 1.43996377  2.263171e+00
## 14214 1.44831472 -1.766203e+00
## 14215 0.38856790 -7.922433e-01
## 14216 1.07984141 -2.793946e+00
## 14217 1.21491777  2.495643e+00
## 14218 1.04665268 -1.461017e+00
## 14219 0.87511460 -8.804229e-01
## 14220 1.41690031 -2.872303e+00
## 14221 0.68890843 -1.165462e+00
## 14222 0.45090189  2.495844e+00
## 14223 1.55933371 -2.993736e+00
```

```
## 14224 1.49256072 -1.360047e+00
## 14225 1.29537176 -1.035863e+00
## 14226 0.52132330 -6.462080e-01
## 14227 0.38109939 -2.162785e+00
## 14228 0.79340788 -5.639024e-01
## 14229 0.50299472  8.743837e-02
## 14230 1.49436206  7.189006e-01
## 14231 0.73758575  9.217175e-01
## 14232 1.56133723 -2.049171e+00
## 14233 0.39396055  2.832594e+00
## 14234 0.35052265 -1.004421e+00
## 14235 0.29940572 -6.867781e-01
## 14236 0.27202883  9.221420e-01
## 14237 0.72055873 -2.152914e+00
## 14238 0.95003813  2.702786e+00
## 14239 0.97656937 -3.014103e+00
## 14240 1.20072209 -7.907030e-01
## 14241 1.16574367  2.807383e+00
## 14242 1.51884082 -1.569691e+00
## 14243 0.40024094 -7.709632e-01
## 14244 0.99354860 -1.922755e-01
## 14245 1.07515643  1.904073e-01
## 14246 1.35949335  8.171177e-01
## 14247 0.40427271  2.004578e-02
## 14248 0.09835299  3.853569e-01
## 14249 0.63935907 -2.862697e+00
## 14250 0.86527452 -1.744455e+00
## 14251 1.29372865 -3.902689e-01
## 14252 1.24850505 -1.559015e-02
## 14253 1.14300594  8.999240e-01
## 14254 0.73353872  1.001036e+00
## 14255 0.29545630  2.203104e+00
## 14256 1.54579258  1.519311e+00
## 14257 1.22802946  2.759002e+00
## 14258 0.76070408  1.856455e+00
## 14259 0.27390315  1.948095e+00
## 14260 0.46613496 -1.354505e+00
## 14261 1.34542844 -3.195403e-01
## 14262 1.28467105  4.166253e-01
## 14263 0.14224868 -2.236266e+00
## 14264 0.12861406 -1.675613e+00
## 14265 1.47384762 -2.654634e+00
## 14266 0.33549214  1.076220e+00
## 14267 0.45415287 -6.725855e-01
## 14268 1.29322351  1.659673e+00
## 14269 1.42044032  2.573191e+00
## 14270 1.01537647 -6.193856e-02
## 14271 0.16646185 -2.290437e+00
## 14272 1.07054652 -1.868746e+00
## 14273 0.37427901 -2.538133e+00
## 14274 0.57010254 -1.194486e+00
## 14275 1.36501307 -4.014505e-01
## 14276 0.06360771 -2.578044e+00
## 14277 1.03261812  3.083559e+00
## 14278 1.05458979 -5.530478e-01
## 14279 0.92083352  2.507008e+00
## 14280 0.21496682 -2.178426e+00
## 14281 1.24659971  7.006259e-01
## 14282 1.19022789  1.662289e+00
## 14283 0.16329912  1.136385e+00
## 14284 0.31010314 -2.579702e+00
## 14285 1.02724433  1.447768e+00
##  [ reached 'max' / getOption("max.print") -- omitted 236783 rows ]
```

```
The R squared value is slightly lower compared to before the variables were removed.
```

Question 6

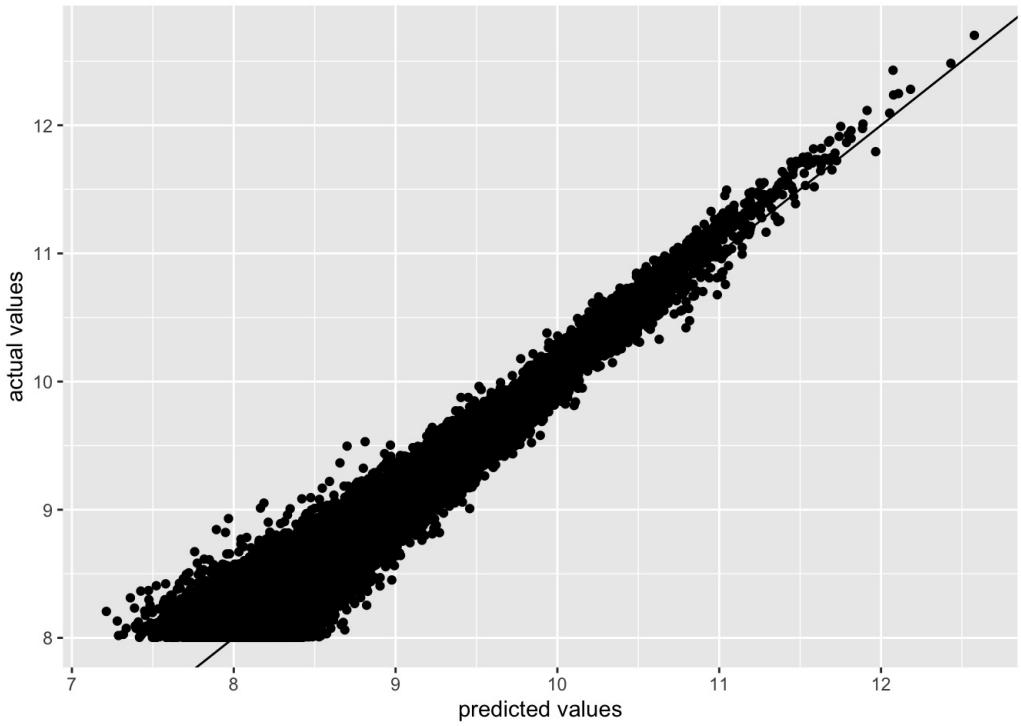
Create two diagnostic plots wherein you show the predicted mass versus the observed mass, and compute the test MSEs, for analyses with the full set of predictor variables and for the vif-reduced set of predictor variables. For the plot, make sure to make the limits the same for the x and y axes both, and make sure to draw a diagonal line. Make a mental note of how mitigating multicollinearity affected predictive ability in this particular instance.

```
predict.mass.test = predict(lm.out, newdata=pred.test)

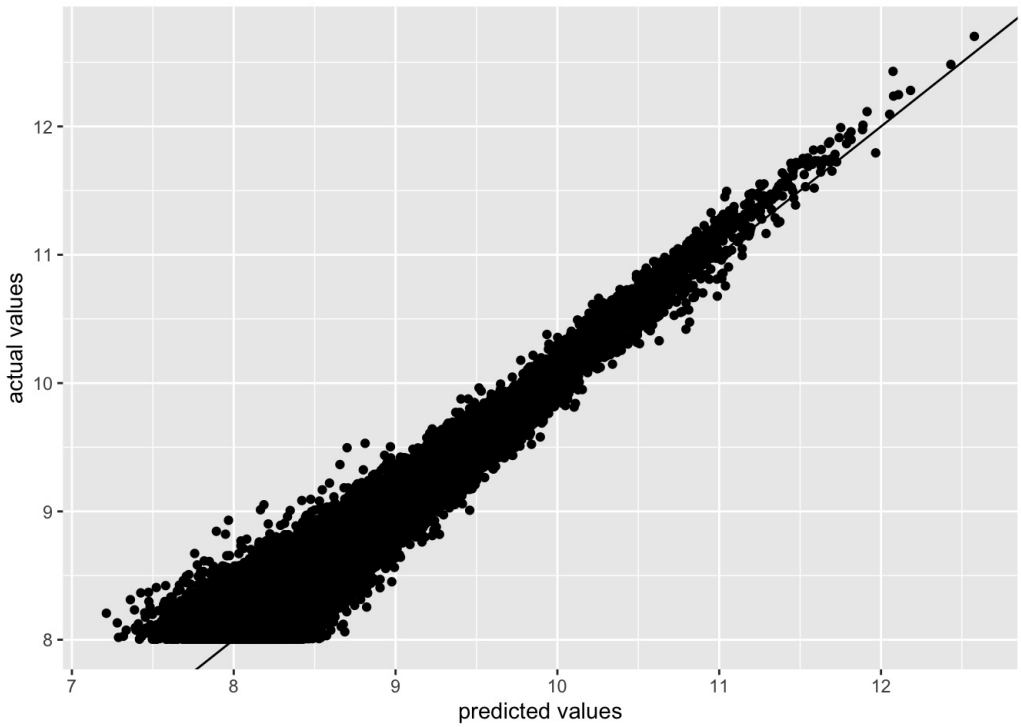

removed.lm.out = lm(mass.train~halos.rcirc+halos.vcirc+r_parent+shapesDM.q3d+shapesDM.s3d+thetaTid+phiTid,data=pred
.train)

predict.mass.test.remove = predict(removed.lm.out, newdata=pred.test)


ggplot(pred.test, aes(x=predict.mass.test, y=mass.test)) + geom_point() + geom_abline(intercept=0, slope=1) + labs(
x= 'predicted values', y= 'actual values')
```

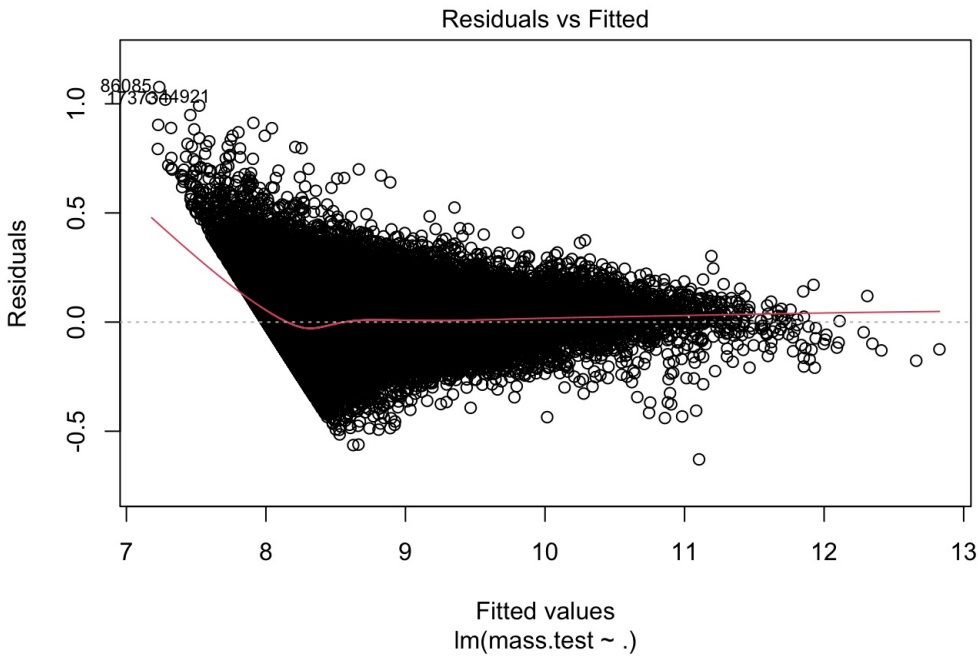


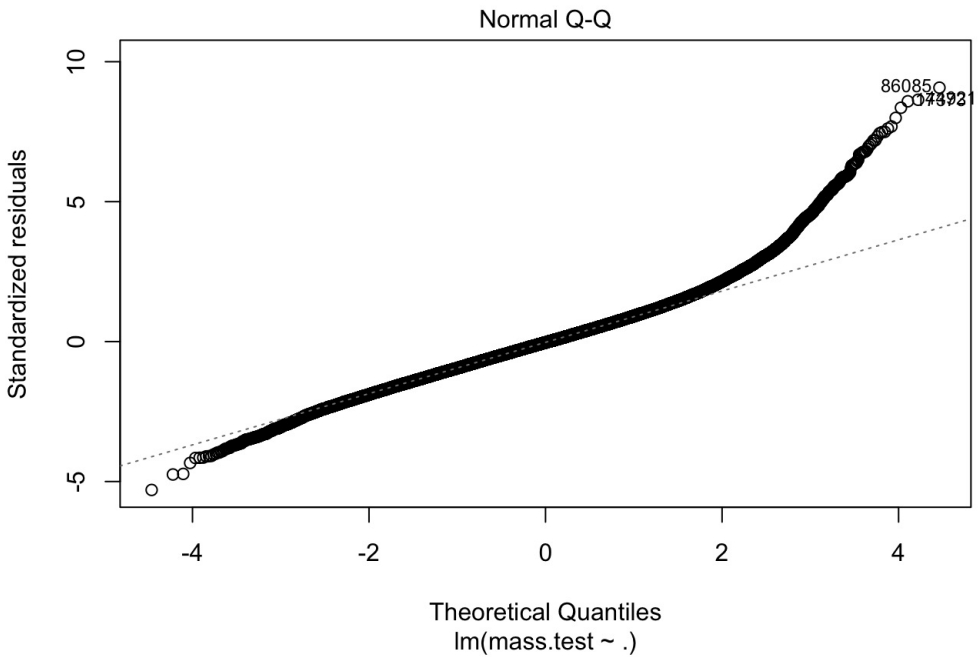

```
ggplot(pred.test, aes(x=predict.mass.test.remove, y=mass.test)) + geom_point() + geom_abline(intercept=0, slope=1)
+ labs(x= 'predicted values', y= 'actual values')
```

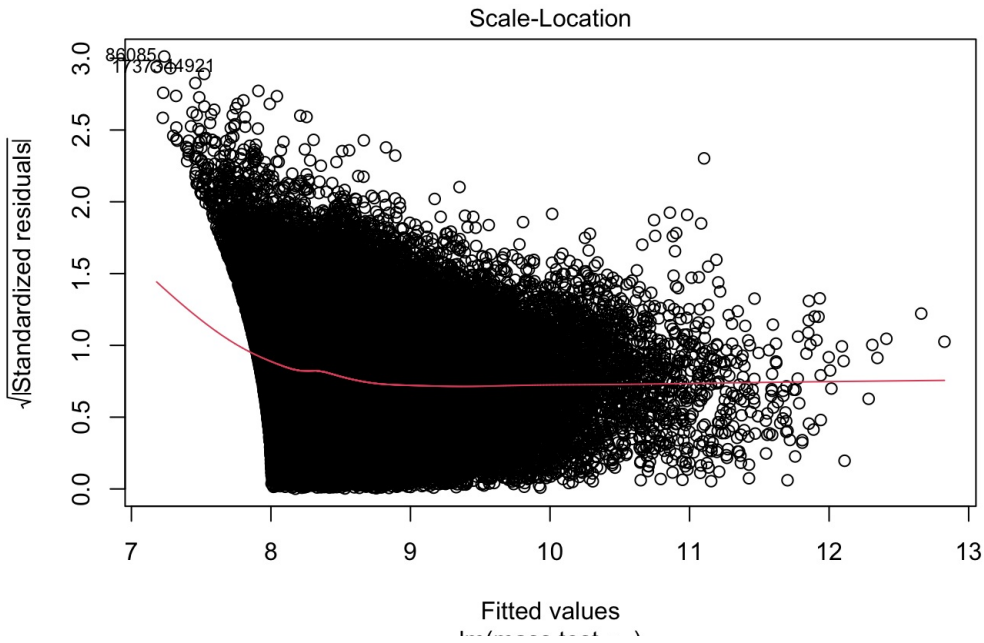



```
model = lm(mass.test~.,data=pred.test)

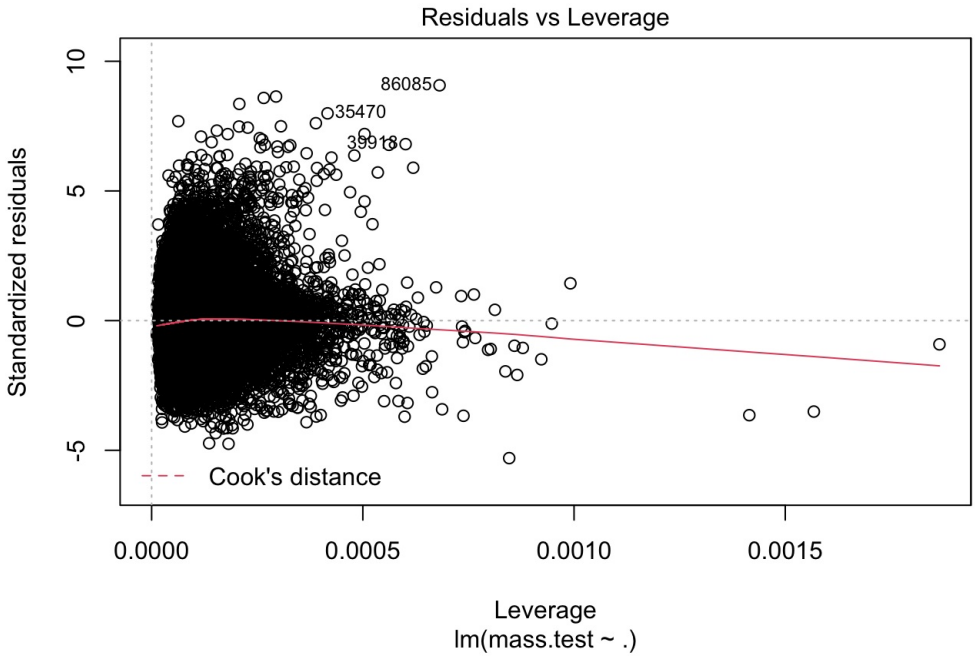
plot(model)
```


Residuals vs Fitted
Residuals
Fitted values
lm(mass.test ~ .)


Normal Q-Q
Standardized residuals
Theoretical Quantiles
lm(mass.test ~ .)


Scale-Location
√|Standardized residuals|
Fitted values

lm(mass.test ~ .)




```
sum.removed.lm.out= summary(removed.lm.out)
sum.lm.out= summary(lm.out)


mse1 = mean(sum.lm.out$residuals^2)
mse1
```

```
## [1] 0.01861157
```

```
mse2 = mean(sum.removed.lm.out$residuals^2)
mse2
```

```
## [1] 0.01861157
```

```

plot(predict(model),
pred.test$mass.test, xlab = "Predicted Values", ylab = "Observed Values") abline(a = 0,
b = 1, col = "red", lwd = 2)

#ggplot(data=pred.test,mapping=aes(x=predict(mass.test)) + geom_point()

#ggplot(data=pred.test,mapping=aes(x=mass.test)+ geom_point()

```

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